

**ENGLISH – SPANISH DICTIONARY
OF
PLANT BIOLOGY**

**ENGLISH – SPANISH
DICTIONARY
OF
PLANT BIOLOGY**

including
PLANTAE, MONERA, PROTOCTISTA, FUNGI
and
INDEX OF SPANISH EQUIVALENTS

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American Indian Museum of Plants and Healing

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Preface

The **English-Spanish Dictionary of Plant Biology** has been written to fill a need for increased communication between English and Spanish speaking people who are working in or are being affected by the many sub-fields of plant biology. Its general purpose is to aid, stimulate, and facilitate a two-way flow of information and understanding between the peoples of North, South, and Central America in an era of economic and environmental interdependence.

The specific purpose is to provide a representative selection from the huge vocabulary of plant biology for those who work in the field or in laboratories, including botanical researchers, students, agriculturists, conservationists, communicators, translators, educators, and interpreters. The extensive range of the subject has meant that the authors could not aim at completeness, nevertheless, care was taken to obtain a proportionate selection of terms from all areas of plant biology. Included are plant-related terms from the fields of botany, ecology, genetics, taxonomy, oceanology, microbiology, physiology, cytology, marine biology, forestry, silviculture, horticulture, anatomy, organology, phytopathology, agriculture, biochemistry, paleobotany, phenology, photobotany, phycology, systematics, phytology, phytogeography, phytochemistry, phytosociology, morphology, pomology, and ethnobotany.

Because of the immensity of the field of plant biology, the problem of how to present specialized professional terminology and still provide a useable bridge between language and culture, was a difficult problem to solve. We addressed this issue by a decision to be more inclusive in our choices. The range of entries and expressions, while not always strictly “scientific terms,” are frequently encountered in biological texts, professional journals, and in field activities.

We hope this book will prove useful to professionals and committed amateurs. Your suggestions, additions, or corrections will be appreciated. They may be sent email to the authors at: dmorris@jas.net

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About the Authors:

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This husband and wife field botanist team have more than 30 years of plant identification and collecting experience in the rainforests of Mexico, Belize, Guyana, Honduras, Micronesia, and Hawaii.

Their academic credentials are from six U.S. and U.K. institutions, including the University of Texas (Austin), Lamar University, Texas College, Chadron State, St. Augustine's (Kent), and Walden University. In addition, Mrs. Morris is a Maya Indian medicine woman, traditionally trained in the identification and use of medicinal plants.

Most recently, their Latin American fieldwork has been in the Yucatan region of Mexico's newest state, Quintana Roo. Project funding was provided by a U.S. government Fulbright grant, a Carlos Robles grant from the government of Mexico, state government funds from Nebraska, and corporate assistance from the Polaroid Corporation.

The authors are curators of the herbarium at the American Indian Museum of Plants and Healing, located in Jasper, Texas, U.S.A. The Museum serves as an international center for identifying, collecting, and preserving the plants and practices of indigenous peoples of North, South and Central America.

About the Book:

The **English-Spanish Dictionary of Plant Biology**, *Including Plantae, Monera, Protocista, Fungi* is designed as a tool for both professionals and students. It is the only one volume dictionary that provides a full range of plant definitions, English terms, and their Spanish equivalents, currently used academically and commercially.

Included are more than 22,000 English and Spanish plant-related terms from the fields of botany, ecology, horticulture, genetics, taxonomy, oceanology, microbiology, physiology, morphology, cytology, marine biology, forestry, silviculture, anatomy, organology, phytopathology, agriculture, biochemistry, paleobotany, phenology, photobotany, phycology, phytogeography, phytosociology, and ethnobotany.

Organization

This book is divided into two parts.

Part One is the English-**Spanish** portion of selected plant biology terms. The alphabetical arrangement contains more than twelve thousand English words, phrases, and definitions each followed by a Spanish equivalent.

Part Two is the **Spanish**-English Index. It is composed of more than ten thousand Spanish words and phrases alphabetically listed and followed by an equal or similar English term or phrase.

A **bold type** is used to identify each Spanish term. A standard non-bold type is used for the English term. Bold type is also used when a higher Latinized plant classification is referenced. These Latinized plant classification terms have not been included as selected words for translation as they are terms which, in general, do not need translation.

Definitional reference to this type of classification terminology may be found in other types of reference materials.

Italics are also used when a genus or genus-species is referred to in a definition.

In this bi-lingual dictionary, we have not attempted to resolve conflicts in use or interpretation; that is not the purpose of this volume. Instead, we have included diverse usage of terms and spellings so that a variety of users may increase their capacity to use and share information.

Royalties from this volume are dedicated to maintaining the American Indian Museum of Plants and Healing and its mission to identify, collect, and preserve the healing plants and practices of the indigenous peoples of North, South, and Central America.

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*Dedicated to those of the
past and present who struggle
to identify, preserve, and share
their understanding of the
world of plants.*

A

A. **A.** A class of flowers with fully exposed nectar.

a-. **a-**. A Greek prefix that means, "without" or "lacking", as in asepalous.

a-. **a-**. A Latin prefix that means, "away from".

A-spore. **spora A.** Alpha spore.

AB. **AB.** A class of flowers with partially concealed nectar.

ab-. **ab-**. A Latin prefix that means, "from".

abaxial. **abaxial.** Located on the side away from the axis, as the underside of a leaf; also, called the dorsal surface.

abbreviated. **abreviado.** Shorter, as an abbreviated perianth is shorter than the tube of the corolla.

aberrant. **aberrante.** Different from the usual; not a normal structure; variable.

aberration. **aberración.** Having an abnormal structure; a deviation from the normal.

abhyemial. **abiménical.** Opposite the spore-producing surface.

abiotic. **abiótica.** Non-living; without life. *See* biotic.

abjection. **abyección.** The forcible separation of a spore from its stalk by the fungus.

abjunction. **abyunción.** The separation of a spore from its stalk by means of a septum.

abnormal. **anormal.** Contrary to the usual or the natural structure.

aboospore. **aboospora.** An oospore

produced without sexual fusion.

aboriginal. **aborigen. originario.** Original in the strictest sense; growing naturally, as corn or cotton are aboriginal or indigenous to North America.

abort. **abortar.** To be arrested in growth, as thorns are sometimes aborted branches.

abortion. **abortado. aborto.** The failure of an organ or structure to develop completely or grow to maturity.

abortive. **abortivo.** An imperfectly formed or developed organ, as an abortive seed or organ; rudimentary.

abortus. **abortus.** Latin for abortion.

abrupt. **abrupto.** Terminating suddenly; blunt or cut off horizontally, as abrupt leaves; truncate.

abruptly. **abruptamente.** Ending suddenly.

abruptly pinnate. **abrupto pinnado.** Pinnate leaflet ending evenly at the tip without an odd, terminal leaflet; even pinnate.

abscise (leaves). **desprenderse (hojas).** To shed; to separate by abscission.

abscisic acid. **ácido abscisico.** A plant hormone that facilitates growth inhibition, dormancy, and leaf abscission; dormin.

abscisin. **abscisina.** *See* abscisic acid.

absciss(ion). **abscisión.** The separation or shedding of leaves or fruit from the stem or body of a plant. The normal process is controlled

by abscisic acid at the abscission zone which causes the breakdown of thin-walled cells at the base of the structure.

absciss(ion) layer. **abscisión estrato.**

A layer of parenchyma with cork on both sides which is found at the base of leaf petioles of woody dicotyledons and gymno-sperms. See separation layer.

abscission zone. **zona de abscisión.**

A layer of cells extending across the base of a petiole or peduncle, whose breakdown separates the leaf or fruit from the stem, resulting in the leaf or fruit falling to the ground.

absent. **ausente.** Without petiole or petiolule; sessile.

absolute transpiration. **transpiración**

absoluto. The rate of water loss from a plant determined experimentally.

absorb. **absorber.** To take up water and nutrients.

absorption. **absorción.** The process of taking up water, light, and nutrients.

absorption ratio. **ratio de absorción.**

The ratio of the final internal concentration of a particular ion in plant tissue (*i*) to the final external concentration which is written as *i* / *e*.

abstrict. **abstrictar.** To separate by abstriction.

abstriction. **abstrición.** In some fungi and algae, a separating of spores from spore-bearing filaments (hydra) by the formation of separating walls (septa); also, the release of a spore from its stalk, especially by constriction.

abyssal zone. **zona abisal.** The deepest region of an ocean; sunless, high-pressure, cold, and an anaerobic

habitat.

acanaceous. **aculeado.** Prickly or stinging.

acantha. **acanta.** A prickle.

acantho-. **acanto-**. A Greek prefix that means, "spiny" or "thorny".

acanthocarp. **acantocarp.** A spiny fruit.

acanthocarpous. **acantocárpico.** Having spiny fruit.

acanthocladous. **acantoclado.** Spiny-branched.

acanthoid. **acantoide.** Having or shaped like spines.

acanthophysis. **acantofisis.** A thick, sterile hair with short, pointed outgrowths on the surface.

acarodomatium. **acarodomatío.** A hollow protective structure formed by some mite-harboring plants. This is thought to be a symbiosis.

acarophily. **acarofilia.** A symbiosis between plants and mites.

acarpelous. **acarpelo.** A flower with no carpel.

acarpous. **acárpico. acarpelado. acarpo.** Producing no fruit; sterile; without carpels; no gynoecium.

acaudate. **acaudeo.** Without a tail.

acaulescence. **acaulescencia.** The condition of having no stem or appearing to be stemless; an inflorescence arising near the surface of the ground.

acaulescent. **acaulescente.** Stemless; the stem is below ground or the stem is so short that all the leaves appear to be basal.

acauline. **acaule. sin tallo.** Having no stem; stemless.

acaulis. **acaulis.** Without a visible stem; acaulescent

acaulous. **acaule. acaulescente.** Same as acaulescent.

eccentric. **acéntrico.** A chromosomal

fragment formed during cell division that lacks a centromere.

acentric chromosome. **cromosoma acéntrico**. A chromosome or chromatid lacking a centromere.

accelerator. **acelerador**. Any substance that increases the efficiency of an enzyme.

accessory. **accesorio**. A secondary or extra part or function; something additional, as an accessory bud.

accessory bud. **yema accesoria**. An extra bud, other than the axillary (primary) bud, forming in a leaf axil.

accessory cell. **célula subsidiaria**. **célula accesorio**. A cell associated with the guard cell of a stoma, but differing in structure from it and other cells of the epidermis.

accessory character. **carácter accesorio**. A characteristic of a species which is not essential to its diagnosis, but is sometime used to differentiate races.

accessory chromosome. **cromosoma accesorio**. Sex chromosome.

accessory fruit. **fruto accesorio**. A fleshy fruit growing from a succulent receptacle rather than the pistil. In strawberries (**Fragaria**), the ripe ovaries are small achenes on the surface of the receptacle.

accessory fructification. **fructificación accesorio**. An asexual reproductive structure of lower plants.

accessory multiplication. **multiplicación accesorio**. Any asexual reproductive process.

accessory organs. **órgano anexo**. The calyx and corolla.

accessory pigments. **pigmento accesorio**. Light absorbing pigments that pass the electrons they emit to primary pigments during photosyn-

thesis.

accessory spore. **espora accesoria**. An asexual spore; also, a conidium differing from the normal type for the species.

accessory tissue. **tejido accesorio**. Tissues that are part of the flower or inflorescence which contributes to the fruit as it matures.

accommodation. **acomodación**. The capacity of a plant to adapt itself to changes in the environment, providing that the changes occur gradually.

accidental species. **especies accidental**. Accidentals are a rare species in a community, present as a chance invader or as a survivor from an earlier community.

acclimate. **aclimatar**. Acclimatize.

acclimation. **aclimación**. *See* acclimatization.

acclimatization. **aclimatación**. The adaptation of a plant to changes in climate or other environmental conditions.

acclimatize. **aclimatar**. To adapt to changes in climate or other environmental conditions.

acrescent. **acrescente**. Sepals growing larger after flowering (anthesis); usually associated with aging; also, a calyx which enlarges as the fruit ripens.

accrete. **acrete**. Grown together.

acculeate. **aculeado**. Having narrow spines.

accumbent. **acumbente**. Leaves or organs lying against another surface, as accumbent cotyledons lying against the radicle along one edge. *See* incumbent.

accumulator. **acumulador**. In plant succession studies, a pioneer species whose activities enrich the abiotic

habitat with nutrients.

acellular. **acelular**. Lacking cells; non-cellular.

acentric. **acéntrico**. A piece of chromosome or chomatid without the centromere.

-aceous. – **áceo**. A suffix which means “having the appearance of” or “like”. Used to form descriptive forms (adjectives) of botanical words ending in –aceae.

acephalous. **acéfalo**. Headless or lacking a clearly defined head.

acerate. **acerato**. Stiff and needle-shaped. *See* acerose.

acerose. **aceroso**. Needle-shaped, as the leaves of a pine (**Pinus**) or spruce (**Picea**).

acervate. **acervado**. Growing in dense, compacted clusters; heaped.

acervulus. **acérvulo**. A compact mass of hyphae bearing conidiophores and conidia formed by some parasitic ascomycetes. The corresponding structure of saprophytic ascomycetes is called sporodochium.

acetabuliform. **acetabuliforme**. **acetabulado**. Shaped like a cup or a saucer; saucer-like.

acetaldehyde. **acetaldehído**. **aldehído acético**. An intermediate in the aerobic and anaerobic respiration, retarding or inhibiting germination and growth of some fungi.

acetylation. **acetilación**. The production of an acetyl radical, coenzyme A, from pyruvate during photosynthesis.

achene. **aquenio**. Any small, hard, usually one-seeded, dry fruit with a thin outer covering that does not burst open when ripe, as a sunflower (**Asteraceae**) seed.

achenecetum. **aqeneceto**. An aggregation of achenes, as in **Ranunc-**

ulaceae.

achenial. **aquénico**. Pertaining to an achene.

achenium (*pl.* achenia). **aquenodio**.

One seeded, like a fruit; an achene.

achilous. **achile**. Having rudimentary lips or no lips.

achlamydeous. **aclamídeo**. Having no floral envelope; without a perianth (no calyx or corolla).

achlorophyllous. **sin clorofila**. Without chlorophyll; describes plants that are not green.

achromatic. **acromático**. Without color.

achromatic spindle. **huso acromático**.

In cell division, a system of apparent fibers which are not stained by basic dyes. They join the poles of the nucleus and diverge toward the center of the cell.

achroos. **incoloro**. **sin color**. Colorless.

aciculum. **aciolo**. Acicula.

acicula. **ácicula**. Small, needle-shaped spines or bristles.

acicular. **acicular**. Needle-shaped; more slender than acerose; having a slender pointed shape, as some leaves.

acicular leaf. **hoja acicular**. Needle-shaped, long and slender.

aciculate. **aciculado**. Needle-shaped; also, marked with randomly arranged pin pricks. *See* acerose.

aciculiform. **aciculiforme**. Having the shape of a needle.

acid. **ácido**. A chemical substance that yields hydrogen ions when dissolved in water; serves as a proton donor, accepts electrons, and has the capacity to react with bases and some metals to form salts.

acid dye. **colorante ácido**. Dyes having an active acid radical, combining with metal and staining cytoplasm.

acid humus. **humus ácido**. A humus formed in soil lacking calcium, and

other bases.

acidity. **acidez.** The degree of acid quality, as the acidity of the soil. *See* acid soil.

acid plant. **planta ácido.** A plant having acid sap (with pH less than 7) due to the production of ammonium salts of organic acids, *e.g.* malic or oxalic acid, as in many species of **Begoniaceae** and **Oxalidaceae**.

acid rain. **lluvia ácido.** Rain that contains a high concentration of acid (5.6 pH or less) from atmospheric pollution, especially sulfur and nitrogen oxides.

acid soil. **suelo ácido.** A soil that has a pH of less than 7; often peaty.

acidophile. **acidófilo.** Of cells or cell content stained by acid dyes; also, *see* acidophilous.

acidophilous. **acidófilo.** Acid loving; describes plants that grow best in acid soil.

acies. **acies.** The edge.

aciform. **aciforme.** Shaped like a needle.

acinaceous. **acináceo.** Having numerous pips.

acinaciform. **acinaciforme.** Having the shape of a scimitar, as acinaciform leaves.

aciniform. **aciniforme.** Growing in clusters, as grapes (**Vitis**).

acinous. **acinosa.** A cluster of small berries.

acinus. **ácino.** One of the small, fleshy berries in compound fruits, such as raspberries (**Rubus**).

acme. **punto culminante.** The period of maximum vigor of an individual, race, or species.

aconitrase. **aconitrasa.** An enzyme involved in the Citric Acid Cycle (Kreb's Cycle). It dehydrates citrate forming cis-aconitrate, which is then

transformed into D-isocitrate, by the addition of a water molecule.

acorn. **bellota.** The dry, hard, one-celled, one-seeded, indehiscent fruit of an oak (**Quercus**), in a cup-like base.

acotyledon. **acotiledón.** A plant with no cotyledons, as a fern (**Filicopsida**).

acotyledonous. **acotiledóno.** Having no cotyledons or seed-leaves; with very indistinct or no seed lobes, composing a large division of the plant kingdom, including ferns, lichens and others; cryptogamous.

acquired character. **carácter adquirido.** A change in the structure or function of a plant as a result of continuous use or disuse, or altered environmental conditions (*e.g.* prostrate habit developed by individuals of normally erect populations when exposed perpetually to wind-blown conditions).

acquired variation. **variación adquirido.** A structural variation which becomes evident as the individual develops.

acramphibrya. **acramfibria.** Plants producing side as well as terminal buds or growths.

acrandrous. **acrandro.** Having antheridia at the top of the stem, as in some mosses (**Musci**).

acid. **acre.** A sharp, bitter taste, or smell.

acro-. **acro-.** A Greek prefix than means, "apical".

acroblast. **acroblasto.** The part that forms the acrosome in spermatogenesis.

acrocarpous. **acrocárpico.** Producing fruit at the top of the stem or at the end of a branch, as some mosses (**Musci**).

acrocentric. **acrocéntrico**. Having the centromere located at one end so that the chromosome has one long and one short arm.

acrocidal capsule. **cápsula acrocidal**. A capsule that dehisces through terminal slits, as in **Staphyleaceae**.

acrodrome. **acrodroma**. Having the principle veins uniting and joining at the tip of the leaf, as an acrodrome leaf.

acrodromous (veins). **acródroma (nervadura)**. Veins of a leaf which having run parallel to the edge of the leaf, fuse and terminate at the tip.

acrogen. **acrógeno**. A flowerless plant, such as a fern (**Filicopsida**) or moss (**Musci**), that grows only from the apex (tip) of the perennial stem.

acrogenic. **acrógenico**. Acrogenous.

acrogenous. **acrógeno**. Increasing in size by growth at the apex.

acrogyny. **acroginia**. Said of the gametophyte of some **Bryophyta** when growth stops on the formation of the archegonia. The apical cell usually forms the last archegonium.

acronychius. **acronicio**. Curved like a claw.

acropetal. **acropetal**. Developing upward toward the apex from the base, as the flowers in an indeterminate inflorescence; usually applied to the sequence of blooming in an inflorescence.

acropetal inflorescence. **inflorescencia acropetal**. Raceme.

acropetal movement. **movimiento acrópetal**. Movement of substances within a plant toward its root and shoot apices.

acrophytium. **acrofitio**. An alpine plant formation.

acropleurogenous. **acropleurogeno**.

Borne at the tips and along the sides.

acrosarcun. **acrosarco**. A berry produced from an ovary with an adnate calyx, as the cranberry (**Ericaceae**).

acroscopic. **acrosópico. acróscopo**. Facing the apex (tip), as acroscopic leaves.

acrosome. **acrosoma**. A small structure at the front end of a sperm cell which produces enzymes involved in the perforation of the egg cell.

acrospire. **acrospira**. The first sprout to appear in germinating grain; also, to sprout; plumule.

acrospore. **acrospora**. A spore borne at the tip of a hypha; also, a naked spore borne at the end of the mother cell, in some fungi.

acrosporous. **acrósporo**. Bearing acrospheres.

acrostichoid sorus. **soro acrosticoide**. A fern sorus consisting of several fused sori.

acrotonic. **acrotonico**. Of orchids (**Orchidaceae**) having the tip of the anther next to the rostellum.

actino-. **actino-**. A Greek prefix that means rayed or star-like.

actinocytic. **actinocítico**. A type of stomatal complex where the subsidiary cells form a circle radiating outward from the guard cells.

actinodromous. **actinodroma**. Having the main veins of a leaf radiating from the tip of the petiole.

actinomorphic. **actinomorfo**. Having a radial symmetry so that a line drawn through the middle along any plane will produce a mirror image on either side; often used to describe a regular flower.

actinomorphy. **actinomorfía**. Arrangement of parts of the flower in radial symmetry.

actinomycete. **actinomiceto**. A group

of soil-living bacteria that are structurally similar to certain fungi.

actinorrhiza. **actinorizo.** Root nodule; small, gall-like growths resulting from bacteria on the roots of some plants, especially legumes.

actinostele. **actinostela.** A protostele which is stellate in a cross-section with the protoxylem at the star tips; a primitive stele found in the early **Pteridophytes**.

action spectrum. **espectro de acción.** Relates the amount of photosynthetic activity for an equal amount of light to the wavelength of the light.

activation energy. **energía de activación.** The energy required for a system to increase the incidence of a reaction; also, the energy at which ions or molecules are no longer stable; also, enzymes are able to act in various metabolic reactions by reducing the activation energy of a reaction.

activator. **activador. agente activador.** Accelerator.

active site. **centro activo. locus activo.** The portion of the enzyme molecule that binds it to the substrate(s) to form an enzyme-substrate complex.

active transport. **transporte activo.** Within a cell, the chemical process that moves substances or particles through the membrane in a direction opposite to that of diffusion; also, the accumulation of materials in a cell against the concentration gradient *i.e.* involving the use of energy.

actium. **actio.** A rocky seashore formation.

actophilous. **actófilo. ripario.** Living on the bank of a river.

acuate. **acuado.** Sharp pointed.

aculeate. **aculeado.** Covered with prickles or needle-like outgrowths; prickly.

aculeolate. **aculeolado.** Covered with very tiny prickles.

aculeus. **aculeo.** A prickles growing from bark, as on roses (**Rosaceae**).

acumen. **ápice.** Apex or tip; also, a tapering point.

acuminate. **acuminado.** The gentle tapering of a leaf to a sharp point with concave sides forming along the tip; ending in a tapering point.

acutangular. **acutangular.** Said of a stem which has several sharp, longitudinal edges.

acute. **agudo.** The tapering of a leaf to the apex with straight sides; forming less than a right angle; less tapering than acuminate; also, characterized by a rapid onset and short duration.

acutifolius. **acutifolio. acutifoliado.** With an acute leaf.

acyclic. **aciclico.** Not cyclic; arranged in spirals rather than in circles or whorls.

ad. **ad.** A Latin prefix that means, "to," "toward" or "against".

adapt. **adaptarse.** To change in form, structure, or habits in response to altered conditions.

adaptable. **adaptable.** Able to originate an ecad.

adaptation. **adaptación.** A change in structure, form, or habits to fit or better adjust to different conditions, as environmental stress.

adaptive. **adaptivo.** Characterized by adaptation or showing evidence of adaptation.

adaptive breakthrough. **cambio adaptivo.** An evolutionary change that permits a species or population to move from one zone or taxon to

another; the most extreme example being from water to land or from land to air.

adaptive capacity. **capacidad de adaptación.** Having the ability to fit into a certain environment or condition.

adaptive character. **carácter adaptivo. carácter de adaptación.** Characters that respond to the changing environmental conditions enabling the organism to survive by an alteration of its structure and/or function.

adaptive convergence. **convergencia adaptivo.** The tendency in distantly related plants, under similar conditions, to take on comparable shape and structural characteristics.

adaptive enzyme. **enzima ap(ta)tiva. enzima inducible.** An enzyme produced, especially by bacteria in response to growing on an unusual substrate; inducible enzyme.

adaptive radiation. **radiación adaptivo.** The tendency in closely related plants to evolve into sharply different forms as a result of changed environmental conditions. Sometimes used as a synonym for cladogenesis.

adaptive value. **valor adaptativo. valor de adaptación.** See fitness.

adaxial. **adaxial.** Located on the side nearest to the axis, as the upper surface of a leaf facing the stem. See abaxial.

adcrustation. **adcrustación.** The depositing of a substance on a cell wall in contrast to being laid down between the existing molecules; referred to as encrusting.

adelphia. **adelfia.** One or more bunches or groups of stamens with combined filaments; also, describes plants

whose stamens, instead of growing singly, have one or more parcels of fused filaments.

adelphogamy. **adelfogamia.** A condition in plants in which the stamens instead of growing singly, combine by the filaments into one or more parcels; also, union between a vegetative mother cell and one of its daughter cells.

adelphous. **adelfo.** Joined in a group, as an androecium with the filaments of the stamens partly or wholly united.

aden-. **aden-.** A Greek prefix that means, "gland".

adeniform. **adeniforme.** Shaped like a gland.

adenine. **adenina.** 6-aminopurine which combines with the sugar ribose to form the nucleoside adenosine; found in beet juice and tea leaves.

adenoid. **adenoides.** Gland-like.

adenophore. **adenóforo.** A stalk supporting a gland.

adenous. **adenoso.** Having glands; gland-like.

adenophyllous. **adenófilo.** Having glandular leaves.

adenosine. **adenosina.** A nucleoside derived from the combining of adenine with a ribose sugar which gives rise to the nucleotide adenylic acid, one of the nucleic acids; adenylic acid.

adenosine diphosphate (ADP). **adenosina difosfato (ADP).** The diphosphate ester of adenosine. It is closely linked with the adenosine triphosphate in the transfer of energy through "high energy" bonds during the respiration of carbohydrates. The energy is released during the production of ester phosphates by the ADP, which acts as a phospho-

rylating agent; also, a high energy, phosphoric ester (nucleotide).

adenosine monophosphate. **adenosina monofasfato**. A nucleotide that is a monophosphate derivative of adenosine.

adenosine triphosphate (ATP). **adenosina trifosfato (ATP)**. The triphosphate ester of adenosine. Two of the phosphate 'high energy' radicals are changed to 'low energy' links during the formation of ester phosphates by the ATP; energy is thereby released during phosphorylation. ATP also acts as a phosphate donor by converting glucose to glucose-6-phosphate which is necessary for glucose to be further converted to a disaccharide or polysaccharide. ATP is the major source of metabolic high energy for biochemical reactions that is primarily stored in the terminal phosphate ester linkage (nucleotide).

adenylic acid (AMP). **ácido adenílico (AMP)**. Adenosine monophosphate. A constituent of DPN.

adermin. **adermina**. A B vitamin necessary for the growth of lactic acid bacteria, certain yeasts, and fungi; pyridoxine.

adesmy. **adesmia**. An abnormal condition in a flower, when parts that are normally united are separated.

adherent. **adherente**. The growing or sticking together of unlike parts, as the anthers to the style; not as firm or solid as adnate.

adhesion. **adhesión. adherencia**. The fusion of members of distinct whorls of a flower, as occurs when the calyx grows up with ovary wall; also, the union of dissimilar organs.

adhesive cell. **célula adhesivo**. Any cell that secretes a sticky substance

that permits haustoria or holdfasts to adhere to a surface.

adiabatic. **adiabático**. Incapable of translocation.

adnascens. **adnascens**. A Latin term that means, "growing upon something".

adnate. **adnato**. The fusion or growing together of unlike parts, as the stamens to the corolla.

adnate stipule. **estípula adnato**. Having the stipule attached to a petiole.

adnation. **adnación**. One organ attached to another by its whole length; also, the fusion of the vascular bundles of floral parts; also, sometimes used as an equivalent to adhesion; the condition of being adnate.

adnexal. **adnexal**. Connected to or adjunct to one or more other parts, as gills and tubes of **Basidiomycete**, touching but not attached to the stipe.

ADP. **ADP**. Adenosine diphosphate. addressed. **adpreso**. *See* appressed.

adsorption. **adsorción**. The process where chemical ions or molecules stick to the surface of other materials; usually related to clay or humus.

adpersed. **adperso**. Widely distributed; scattered.

adsurgent. **adsurgente**. *See* ascending.

adult. **adulto**. A fully developed individual plant, mature to the point of being capable of sexual reproduction.

aduncate. **aduncado**. Hooked.

adventitia. **adventicia**. A membrane that covers an organ but is not considered part of the organ.

adventitious. **adventicio**. Structures or organs growing in unusual positions or locations; usually indi-

cates roots or buds growing on a stem or hair where it does not usually grow.

adventitious root. **raíz adventicia**. Fibrous, aerial roots growing out from the stem.

adventive. **advenedizo**. Not native; introduced but not well established. Refers to plants moving into new areas.

adverse. **adverso**. Turned toward the stem or main axis.

adynamandry. **adinamandria**. Self-sterility.

aecidiosorus. **aecidiosoro**. See aecium.

aecidiospore. **ecidióspora**. Aeciospore.

aecidium. **ecidio**. In rusts, a cup-shaped structure that produces a chain of spores formed by the fusion of spores of opposite mating types; often occurs on the underside of the host plant leaf; also, a cup-shaped aecium with the free edge of the periderm toothed. Sometimes considered synonymous with aecium.

aeciospore. **ecióspora**. A spore formed in a aecium. See aecidiospore.

aecium. **ecidio**. A globular, cup-shaped fungus fruit body which bursts through the epidermis of the host. Typical of the rust fungi (**Urediniomycetes**).

aenius. **aenius**. **latón de color**. Brass-colored.

aequalis. **aequalis**. **igual**. Similar in size.

aequi-. **aequi-**. A Latin prefix that means, "equal".

aequi-hymeniferous. **aequihimenífero**. Having the hymenium developed equally over each gill surface.

aequilateral. **aequilátero**. In describing leaves, equal sided, as opposed to oblique.

aerate. **aírear**. To supply with oxygen.

aerate roots. **raíz aírear**. Vertical or horizontal above ground roots; knee roots; stem roots; also, roots growing in soft mud which contain aerenchyma, which stand above the surface of the ground, acting as ventilating organs.

aeration. **aeración**. The exchange of oxygen and carbon dioxide within the soil, which is necessary for the respiration of roots; also, bubbling air through water to increase the dissolved oxygen; also the process by which air in the soil is repaced by air from the atmosphere.

aerenchyma. **aerencima**. Tissue with large air spaces, commonly occurring in aquatic plants providing bouyancy for them, and in the roots of many bog plants.

aereolae. **aereolae**. Cracks in the surface of a crustaceous lichen due to growth strains which aid in aeration.

aerial. **aéreo**. Growing in the air, out of soil or water, as roots or shoots above the ground or water.

aerial bulb. **bulbo aéro**. Bulbs emerging from above ground level.

aerial mycelium. **micelio aéreo**. Part of a mycelium held aloft from the substrate.

aerial plant. **planta aéreo**. An epiphyte.

aerial root. **raíz aérea**. **raíz epígea**. A fibrous, adventitious root, often with an adhesive disk; crampon.

aerial shoots. **brote aéreo**. Shoots growing above the ground.

aerobe. **aerobio**. A plant that needs elemental oxygen for respiration.

aerobic fermentation. **fermentación aerobio**. Cellular respiration, requiring oxygen, glycolysis. the citric

acid cycle, and the respiratory chain.
aerobic. **aerobic**. Living and growing only in the presence of atmospheric oxygen.

aerobic respiration. **respiración aerobio**. Enzymatic destruction of substrate to release energy, involving elemental oxygen and evolving carbon dioxide and water.

aerobiology. **aerobiología**. The study of the biological composition of the atmosphere, such as spores, pollen, bacteria, viruses, and their effects on plants.

aerobiosis. **aerobiosis**. Living in the presence of oxygen.

aerogenic. **aerogénico**. A bacteria that produces gas during the metabolism of certain types of substrate.

aeropalynology. **aeropalinología**. The study of pollen grains and spores in the atmosphere.

aerophyte. **aerófito**. A plant receiving nourishment from the air rather than soil; epiphyte.

aerotaxis. **aerotaxis**. The movement of a motile plant or gamete in relation to the oxygen concentration in the water.

aerotolerante. **aerotolerante**. Organisms, usually bacteria, that are normally anaerobic, but can survive or tolerate the presence of air.

aerotropism. **aerotropismo**. A growth curvature in relation to the oxygen concentration.

aeruginous. **aerugino**. Bluish-green or verdigris-colored.

aestival. **estival**. Flowering or appearing in the early summer; to spend the summer in dormancy; also, used in reference to the six part division of the year: aestival, autumnal, hibernal, prevernal, serotinal, and vernal.

aestivation. **estivación**. The arrangement of sepals, petals, and other floral parts in an unopened bud; also, summer dormancy due to drought; prefloration.

aethallium. **aetelio**. The fruit body of some myxomycetes. It is sessile or slightly raised, involving nearly all of the plasmodium and consisting of a number of incompletely individualized sporangia.

affinity. **afinidad**. A structural resemblance between species, genera, or other natural characteristics that makes common ancestry presumable; likeness.

affixed. **unido**. That part or organ which is joined.

afforestation. **aforestación. plantación de bosques**. The changing of open land into forest by planting and seeding trees.

aflatoxin. **aflatoxina**. Any of a group of poisonous substances produced by molds that contaminate stored food crops.

after-ripening. **postmaduración**. Metabolic changes that must take place in a dormant seed before germination can occur.

agamandroecious. **agamandroecio**. Having male and neuter flowers in the same inflorescence.

agamete. **agámeto. agámeta**. An asexual reproductive cell.

agamic. **agámico**. Asexual generation or produced without gamete formation, as agamic plants or agamic reproduction; asexual. Produced without sexual union.

agamic generation. **generación agámico**. Formation of seed without meiosis or fertilization; agamospermy.

agamic reproduction. **reproducción**

- agámico.** Being formed asexually; agamogenetic.
- agamogenesis. **agamogenesis.** Asexual reproduction.
- agamogenetic. **agamogénético.** Reproducing or being reproduced asexually.
- agamogynocious. **agamoginoecio.** Having female and neuter flowers in the same inflorescence.
- agamohermaphrodite. **agamoherm-afrodita.** Having hermaphrodite and neuter flowers in the same inflorescence.
- agamospecies. **agamospecie.** A type of plant that produces seeds asexually, by agamospermy.
- agamospermy. **agamospermia.** Asexual reproduction in plants without meiosis or fertilization; apomixis.
- agamospore. **agamospora.** A spore produced asexually.
- agamotropic. **agamotrópica.** Said of a flower which does not shut after having opened.
- agamous. **ágamo. asexual. neutro.** Refers to species which usually produce seeds asexually; also, having no flowers or seeds.
- agar (-agar). **agar (-agar).** A carbohydrate free of nitrogen produced by various seaweeds and used as a mucilage where microorganisms are grown.
- agar gel. **gel de agar.** A gelatinous extract from certain seaweed used in making culture media for bacteria and fungi.
- agaric. **agaric.** Any fungus that has an umbrella-like shape and gill; a fungus of the genus *Agaricus* (**Agaricaceae**).
- agaricaceous. **agaricaceo.** Belonging to the gill fungi family (**Agaricaceae**), which includes most toadstools and mushrooms.
- agaricolous. **agaricole.** Living on mushrooms or toadstools.
- agent. **agente.** Any substance capable of producing a change, as phosphorus, which is an important agent in stimulating heavy, unintended growth of algae in many bodies of water.
- agglomerate. **agglomerado. agregado. conglomerado.** Crowded into a dense cluster but not fused.
- agglutinate. **aglutinado.** Stuck together.
- aggregate. **agregado.** Densely crowded together but not united, as many florets arranged in a dense mass.
- aggregate fruit. **fruto agregado.** A cluster of drupelets, making a single berry, formed from separate pistils within a single flower, such as a raspberry (**Rubus**) or blackberry (**Rubus**). Also referred to as composite fruit and compound fruit.
- aggregate ray. **radial agregado.** A group of closely placed, narrow vascular rays.
- aggregate species. **especie agregado.** A group of closely related species called by a single name.
- aggregation. **agregación.** The coming together of plants into groups.
- agrad. **agrado.** A cultivated plant.
- agrestal. **agrestal.** Growing wild in cultivated fields, as weeds.
- agrestis. **agrestis.** A Latin word that means, "growing in fields".
- agrobiology. **agrobiología. biología agrícola.** The study of plant growth in relation to soil and nutrition, especially to increased crop production.
- agroclimatology. **agroclimatología.** The study of climate and its effect on plant production.
- agronomy. **agronomía.** The study of

soil with the purpose of improving crop production; also, the science of farm management; also, the study of the cultivation of field crops.

agrostology. **agrostologia**. The branch of botany that specializes in grasses (**Poaceae**); also, the study of grasses.

agnous. **agino**. Said of an abnormal flower in which the gynecium is not developed.

A-horizon. **horizonte A**. The top layer of soil; topsoil.

aiphytium. **aifitia**. An ultimate formation.

air. **aire**. A colorless, tasteless, and invisible mixture of gases that is necessary for all life.

air bladder. **vejiga llenade aire**. A large sac of air growing on certain water plants that help hold it up when covered with water.

air chamber. **cámara aerífera**. A cavity in the upper surface of the thallus of some liverworts, opening externally by an air pore and containing chains of photosynthetic cells; also, an intercellular space in a leaf into which a stoma opens.

air layering. **acodo aéreo**. A method of vegetative propagation causing a branch or stem to form roots by making a cut half way through the branch and wrapping it in moss (**Musci**) or soil.

air plant. **planta aérea**. Epiphyte.

air pollution. **contaminación del aire. polución del atmosférica**. The contamination of the atmosphere with various pollutants, as industrial gases, auto exhaust fumes, smoke, and other human activities.

aitiogenic. **aitogénico**. Said of a reaction of a plant to external stimuli,

especially movement of some kind. aitionastic. **aitionástico**. Said of the curvature of a plant-member in response to a diffuse stimulus.

akene. **aquenio**. See achene.

akenium. **aquenio**. See achene.

akinete. **acinete**. A thick-walled, non-motile spore which contains oil and other food reserves with the spore wall indistinct from the cell wall.

ala (*pl. alae*). **ala**. A wing-like structure or part; the membranous border of some seeds; one of the two side (lateral) petals of a papilionaceous corolla, such as a sweet pea (**Lathyrus**); also, a narrow, leafy outgrowth down the stem of a decurrent leaf.

alabastrum. **alabastra**. A flower-bud.

alanine. **alanina**. An amino acid occurring combined in proteins.

alar. **alar**. Situated in the fork of a stem.

alate. **alado. alatus**. Having thin, wing-like extensions or parts; winged, as alate leaves.

albescence. **albescente**. Whitist, or turning white.

albidus. **albidus**. A Latin word that means, "whitist color".

albinism. **albinismo**. A deficiency of chromoplasts, the carotenoid-containing plastids, that provide color to mature fruit and flowers.

albino. **albino**. A plant or plant part with a pale, defective coloring, occasioned by the incapacity of the plant to process chlorophyll; also, an abnormal form lacking pigment or nearly so.

albumen. **albumen**. In some seeds, a nutritive material or tissue that occurs outside the embryo. (An old term usually replaced by endosperm).

albumin. **albúmina**. Water soluble pro-

tein of many cereal seeds and an enzyme constituent of various plant cells; soluble in water and coagulates with heat.

albuminous. **albuminoso**. Pertaining to or containing albumen. *See* albumen.

albuminous cell. **célular albuminoso**.

A densely cytoplasmic cell in the phloem of gymnosperms with extensive interconnections to sieve cells; are thought to control their metabolism. Albuminous cells are analogous to the companion cells in angiosperms but differ in that they are not usually sister cells to the associated sieve cells.

albuminoids. **albuminoides**. A general term for proteins.

album. **albura**. The white, softer part of wood (xylem), between the inner bark and the heartwood; generally considered an obsolete word for sapwood.

albus. **albus**. A Latin word that means, "white".

alcohol. **alcohol**. A hydrocarbon in which a hydrogen atom is replaced by a hydroxyl (OH) group; also, the colorless, flammable, liquid in wine, beer, whiskey, gin, and other fermented and distilled, intoxicating liquids, derived from plants.

alcohol series. **serie de soluciones alcohólicas**. The alcohols occurring in plants include the monohydric alcohols, *e.g.* ethyl alcohol; the trihydric alcohols with three OH groups, *e.g.* glycerol that occurs as oxidized derivatives and the polyhydric alcohols, *e.g.* sugars with the general formula ROH, where R is a long chain or cyclic.

alcoholic fermentation. **fermentación alcohólica**. The production of dif-

ferent alcohols during the anaerobic respiration of carbohydrates by various microorganisms, *e.g.* the production of ethyl alcohol by yeasts fermenting the sugars in malt during the brewing process.

aldehyde. **aldehído**. Oxidation products of primary alcohols that are liquid, colorless, pungent, and volatile.

aleuriospore. **aleurispora**. A single-celled, asexual fungal spore at the tip of aerial hypha; also, an asexual cell that is released when the spore-bearing hypha bursts open.

aleurone layer. **capa de aleurona. aleurónica**. A row of cells, containing aleurone, rich in protein granules, located in the endosperm of a plant embryo.

aldohexose. **aldohexosa**. An aldose with six carbon atoms.

aldol. **aldol**. The condensation product of two acetaldehyde molecules.

aldopentose. **aldopentosa**. An aldose with five carbon atoms, as ribose.

aldose. **aldosa**. A monosaccharide sugar with an aldehyde (CHO) in the first position and a HCOH group in the second position.

aldotetrose. **aldotetrosa**. An aldose with four carbon atoms.

aldotriose. **aldotriosa**. An aldose with three carbon atoms.

alepidote. **alepidota**. Smooth; without scales or scurf.

aleuriospore. **aleuriospora**. A thick-wall, terminal spore, formed from the end of a hypha from which it is separated by a cross-wall.

alga (*pl.* algae). **alga**. Any of a large group of single or multi-celled photosynthetic organisms, aquatic or sub-aquatic, that contain chlo-

- rophyll but not water; formerly classified as plants, but currently considered as monerans and protists. There is never any vascular tissue and the reproductive organs are essentially one-celled with the gametes mostly flagellates
- alga fungi. **ficomicetos**. *See* phycomycetes.
- algalin. **algalin**. *See* algin.
- algiculous. **algícolo**. Living on algae.
- algin. **algin**. A magnesium-calcium salt of alginic acid which is present in brown algae. It is used commercially in the manufacture of confectionaries and man-made fibers.
- alginic acid. **ácido alginico**. The gelatinous compound in the cell wall of brown algae (**Phaeophyta**).
- algology. **algología**. The branch of botany that pertains to algae; phycology.
- alien. **extranjero**. **exótico**. **introducido**. A plant that has been introduced by humans, and has become naturalized.
- aliform. **aliforme**. Resembling a wing in shape; wing-shaped.
- alkaline soil. **suelo alcali**. **suelo alcalino**. A soil with soluble mineral salts in amounts sufficient to reduce or prevent the growth of plants; found mostly in arid regions; also, soil with a pH factor more than 7.
- alkaloid. **alcaloide**. One of a group of nitrogen-based compounds with a heterocyclic ring, derived from plants with pharmacological significance, including alkaloids as morphine, strychnine, and cocaine. Sometimes used to include nitrogen bases that do not have a heterocyclic ring, *e.g.* caffeine.
- allagostemonous. **alagostémono**. With stamens alternatively inserted on the torus and on the petals.
- allantoid. **alantoide**. Sausage-shaped.
- allele. **alelo**. One member of a pair of genes for a given trait at a specific locus on homologous chromosomes; a shortened form of allelomorph.
- allelic exclusion. **exclusión alélica**. The principle that in an antibody-producing cell, the DNA splicing process required for the formation of an active antibody gene occurs in only one allele.
- allelism. **alelismo**. The relationship between alleles.
- allelomorph. **alelomorfo**. A term commonly shortened to allele; also, in Mendelian terms, either of a pair of contrasting characters inherited alternatively.
- allelopathy. **alelopatia**. The anti-competition effect which occurs when a plant reaches a toxic substance that inhibits the growth or germination of other organisms.
- allergen. **alergeno**. Any substance that provokes an allergic response.
- allergy. **alergia**. The altered, usually exaggerated, immune response to an allergen.
- alliaceous. **aliaceo**. With the odor of garlic or onion.
- alliance. **alianza**. A grouping used in phytosociology of closely related associations. *See* protocoooperation.
- allocarpy. **alocarpia**. Fruiting after cross-fertilization.
- allochronic speciation. **especiación alócrona**. The formation of new species during the passage of time, tending to form a gradation from one species to the next.
- allochrous. **alocro**. Changing from one color to another.
- allogamous. **alógamo**. Caused by or

pertaining to cross-fertilization.
 allogamy. **alogamia**. Cross-fertilization.

alogene. **alógeno**. See recessive allele.

allograft. **alotransplantar**. A relatively compatible tissue exchange between non-identical members of the same species; homograft.

allometry. **alometría**. The growth of one part of a plant at a different rate than the remainder.

allopatric. **alopátrico**. Two populations occurring in different, widely separate geographic areas. See sympatric and parapatric.

allopatric speciation. **especiación alopátrico**. A new species formation from an ancestral species as a result of geographical separation that produced climate changes such as glaciation, growing aridity, or chance migration across major dispersal barriers.

allopatry. **alopatría**. The occurrence of species in different geographic areas are known as allopatric species.

allophanoids. **alofanoides**. Hydrated aluminium silicates found in soils.

allopolyploid. **alopoliploide**. A apolyploid organism in which the different chromosomal sets originate from different species, *i.e.* the individual has two or more sets of chromosomes, which have different chromosome compliments; polyploid derived from hybridization between widely different species.

allosome. **alosoma**. An abnormal chromosome; also, a sex chromosome.

allosomal inheritance. **herencia alosómico**. Inheritance of characters carried on an allosome.

allosteric effect. **efecto alostérico**. The binding of a ligand to one loca-

tion on a protein molecule in a manner that affects the properties of the same molecule at another location.

allotosyndesis. **alósinde**. The pairing in a cross of two polyploids or of chromosomes derived from opposite parents; also, pairing in an allopolyploid between chromosomes derived from ultimate diploid ancestors.

allotetraploid. **alotetraploide**. An allopolyploid formed by the doubling of the chromosome number in a diploid hybrid, *i.e.* tetraploid with a diploid set of chromosomes from each parent. See amphidiploid.

allotropous flower. **flor de alotropo**. A flower with the nectar freely exposed and available to a wide variety of insects.

allotype. **alotipo**. A single specimen of the opposite sex of the specimen (holotype) on which a plant description is based.

allotypic. **alotípico**. Of or pertaining to an allotype, as an allotypic character.

alluvial soil. **tierra aluvial**. A soil derived from marine, estuarine, or river deposits. A young soil with an undeveloped profile but usually with high fertility.

alone. **solo**. See solitary.

alpestrine. **aplestrino**. Subalpine.

alpestris. **alpestris**. A Latin word that means, "growing at a high altitude but below the snow-line".

alpha amino acid. **aminoácido de alfa**. The basic building compounds of peptides and proteins.

alpha helix. **hélice alfa**. The right-handed, but sometime a left-handed spiral of a polypeptide chain, which is the secondary structure of some

protein molecules, especially the globular type.

alpha-ketoglutarate oxidase. **alfa-cetoglutarado oxidasa**. An enzyme in the Citric Acid Cycle (Kreb's Cycle) which oxidizes aketoglutarate to succinic acid, by oxidative decarboxylation.

alpha spore. **espora alfa**. A fertile spore of the imperfect state of the **Diaporthaceae**. This family of the fungi also produces beta-spores, which are generally filiform and sterile.

alpha taxonomy. **taxonomia alfa**. The stage in botanical development in which taxonomists are engaged in the exploration and description of plant species; current in most tropical and some sub-tropical regions of the world.

alpine. **alpino**. Living or growing on mountains above the timberline, but below the snow-line.

alpine zone. **zona alpino**. A region with different altitudes in temperate and tropical mountain areas that occurs above the tree-line and below the snowline but is characterized by the absence of trees.

alsad. **alsade**. A grove plant.

alsium. **alsio**. A grove formation.

alternate. **altern**. Of leaves or branches that are arranged singly on the parent axis; usually refers to one leaf per node and occurring at intervals along the stem, but not opposite each other; also, occurring between other parts such as stamens between petals; also arranged at differing levels or in spiral positions, especially used for leaves on a stem. *See* opposite.

alternate host. **huésped alternativo**. One of the two unlike hosts of a

heteroecious rust. *See* alternative host.

alternation of generations. **alternación de generación**. In the life cycle, alternational of a generation is having sexual reproduction with a generation having asexual reproduction. The sexually and asexually reproducing forms are often different, especially in plants and animals. In animals, such as hydroids, jelly fish and tapeworms, both generations are independent. The fern is a diploid sporophyte and reproduces asexually by the formation of haploid spores, following meiosis. Germination of the spores begins in the gametophyte generation, with a small prothallus, which reproduces sexually. Male and female gametes fuse, forming a zygote, that develops into a new fern. However, it must be noted that there are great differences between the various plant-like forms as to the prominence and degree of independence shown by gametophyte and sporophyte generations. Among **Algae** and **Fungi**, this may be further complicated. If the two generations look alike, the alternation is homologous, and if they do not look alike, the alternation is antithetic; heterogenesis.

alternative host. **huésped alternativa**. One of the hosts of a plant pathogen, usually referred to the wild host(s) of a disease-causing organism of a cultivated plant. *See* alternate host.

alternative inheritance. **herencia alternativa**. *See* allelomorph.

altitude. **altitud**. The height above the earth's surface, as measured from sea level.

altitudinal zone. **zona altitudinal. zona de altitud.** Usually as altitudes increase, conditions become cooler and damper, so that vegetation in the mountains show corresponding changes; in the tropics, zonal changes may extend from the rain forest on the lower slopes to alpine communities. In the higher latitudes, the elevation of the tree-line gradually declines to sea level.

alveolate. **alveolado.** Pitted, like a honeycomb with the pits separated by thin, ridged membranous partitions; honeycomb-like.

alveolus (*pl.* alveoli). **alvéolo.** A small surface pit; also, a pore of a polyporous fungus.

amber. **ámbar.** The fossilized resin of ancient trees.

ambi-. **ambi-**. A Latin prefix that means, "around" or "round about".

ambient. **ambiente.** Relating the environment or surroundings.

ambient temperature. **temperatura ambiente.** Air temperature at a given time and place, as distinguished from radiant temperature.

ambiguous. **ambiguo. ambigua.** Of uncertain origin or doubtful systematic position.

ambilinearity. **ambilinearidad.** The inheritance of cytoplasmic particles (plastogenes or plasmagens) from the male or female parent.

ambiparous bud. **bulbo ambiparo.** A bud containing both young vegetative leaves and young flowers.

am(o)eoid. **ameboide.** Like an amoeba, constantly changing shape.

ameiosis. **ameiosis.** Having one division of the nucleus instead of two at meiosis so that the chromosome number of the mother cell is not reduced.

amensalism. **amensalismo.** A type of symbiotic relationship in which an organism affects or inhibits another without being affected or inhibited in return.

ament. **amento.** A dense, often drooping flower cluster (inflorescence) consisting of small, scale-like, apetalous, unisexual flowers, growing on birches (**Betulaceae**) and willows (**Salicaceae**); catkin.

amentaceous. **amentáceo. amenti-flo-ras.** Ament-like or ament bearing; bearing catkin or catkin-like.

amentiferous. **amentífero.** Bearing catkins, as the pussy willow (**Salicaceae**).

amentiform. **amentiforme.** Resembling an ament or catkin in shape.

amentum. **amento.** A catkin.

ameristic. **amerístico.** Unable to complete development due to lack of nutrients.

amerospore. **amerospora.** A one-celled spore.

amide. **amida.** A derivative of an organic acid in which the hydroxyl group is replaced by an amino group.

amide plant. **planta amida.** A plant which accumulates amides, especially asparagine or glutamine, rather than ammonium salts.

amine. **amina.** A salt (ester) of an amino acid.

amino acid. **aminoácido. ácido aminado.** Any of a large group of organic compounds synthesized from simple inorganic compounds by autotrophic plants and many microorganisms. They are derivatives of acetic acid in which one hydrogen of the alkyl group is replaced by a nitrogen group; involved in protein synthesis.

amino acid sequence. **secuencia de aminoácidos**. The sequence of amino acid residues in a polypeptide chain; the primary structure of a protein.

amino group. **grupo amino**. The chemical part of a molecule that imparts basic properties to an amino acid.

amino sugar. **azúcar aminado**. **amino-azúcar**. A monosaccharide that has an amino group rather than one or more hydroxyl groups.

amitosis. **amitosis**. A type of cell division of the nucleus by a median constriction where the cell separates into two new cells without the appearance of the usual mitotic chromosomal configurations. The chromosomes do not become visible and it is unlikely that two identical nuclei result.

amitotic. **amitótico**. Reproducing without mitosis.

ammonia. **amoníaco**. A colorless gas composed of nitrogen and hydrogen; an intermediate in the metabolism of nitrogen.

ammonification. **amonificación**. The biochemical process of infusing ammonia in the nitrogen cycle, when nitrogen is made available to green plants from nitrogen-containing organic compounds; also, the production of ammonia in the decomposition of organic matter.

ammonium. **amonio**. An ionic form by which (a) nitrogen is absorbed by roots from the soil, or if nitrogen is absorbed as a nitrate, form which nitrate is reconstituted within the plant, and (b) nitrogen is utilized in the synthesis of an amino acid.

amphilous. **amófilo**. Living and growing well in sand; psammophil-

ous.

amorph. **amorfo**. A recessive mutant gene which has no obvious effect on the characteristics affected by the non-mutant allelomorph.

amorphous. **amorfo**. Shapeless, without any definite form.

AMP. **AMP**. Adenosine monophosphate; adenosine monophosphoric acid.

amphi-. **anfi-**. A Greek prefix that means, "double" or "on both sides of".

amphiaster. **anfiáster**. The spindle and two asters that form during the prophase of mitosis.

amphibian. **anfíbio**. A plant that grows on land or in water.

amphibiotic. **anfibiótico**. An organism that can be parasitic or symbiotic, depending on the host.

amphibious. **anfíbio**. Living both in water and on land; usually growing submerged, but can live for long periods out of water.

amphicarpic. **anfícírpico**. Same as amphicarpous.

amphicarpous. **anfícírpico**. Bearing two different kinds of fruit or bearing at two different times.

amphicarp. **anfícírpie**. A type of heterocarp where a plant produces one type of fruit above ground and a different type of fruit below ground.

amphiclinous hybrid. **híbrido anfíclino**. A family resulting from a cross with some of the progeny resembling one parent and some the other.

amphidiploid. **anfídiploide**. Forming new species through polyploid speciation; a hybrid organism with a diploid set of chromosomes donated by each parent; double diploid; allotetraploid.

amphigastria. **anfigastr(i)os**. Minute, rudimentary leaves on the under-side of the stem of some liverworts (**Hepaticae**).

amphigean. **anfiges**. Global; species found throughout the world.

amphigenous. **anfigeno**. Growing in many lateral directions, as with lichens.

amphigynous. **anfigino**. Said of the antheridium of the **Pythiaceae** which has the oogonial inept growing through it.

amphikaryon. **anficario**. A normal diploid nucleus with two haploid sets of chromosomes.

amphilepsis. **anfilepsis**. Inheritance of characteristics from both parents.

amphimixis. **anfímixis**. The fusion of two distinct cells and nuclei, as antheridium and archegonium, resulting in the formation of a new individual.

amphiphlole. **anfiflóle**. Pertaining to a stem that has the phloem on both the inner and outer surface of the xylem.

amphiploid. **anfíplorde**. Polyploid resulting from hybridization between two or more diploid species separated by barriers of hybrid sterility.

amphispor. **anfíspara**. A thick-walled uredospore produced in drought conditions by some **Uredinales** and germinating after a period of dormancy.

amphitene. **anfíteno**. The stage in meiosis when the spireme threads are paired.

amphithecium. **anfitecio**. The outer layer of cells in moss spore cases that surround the endothecium; also, the thalline margin of a lichen apothecium.

amphitrichous. **anfítrico**. Having a flagellum at each end of the cell.

amphitrophic. **anfitrófico**. An organism that can use photosynthesis in lighted conditions or can use chemosynthesis in darkened conditions.

amphitropical species. **especie anfítropical**. Species with disconnected distribution patterns; one part of the range north of the equator and the other to the south, with a sharp geographical separation.

amphitropous. **anfítropo**. Of an ovule that bends both ways on the stalk.

amphitropous ovule. **óvulo anfítropo**. A half-inverted, immature ovule attached near the middle of one side and parallel with the placenta.

amphivasal bundle. **haz anfivasal**. A vascular bundle in which the xylem surrounds the central strand of phloem.

amphora. **anfora**. A pitcher-shaped organ.

ampholyte. **anfolito**. Amphoteric electrolyte.

amphoteric electrolyte. **electrólito anfótero**. **electrolito anfótero**. A substance that can exist as positively or negatively charged ions in solution, as proteins and their derivatives.

amplectant. **amplectante**. Twining or clasping, as an amplectant tendril.

amplective. **amplectivo**. Encircling or clasping, as an amplective tendril.

amplexicaul. **amplexicaule**. Encircling, as leaves that surround and clasp or encircle the plant at the base of the stem. *See* stipule.

amplexus. **amplexo**. In veneration, the overlap of two sides of one leaf with the two sides of the leaf directly above it.

ampliate. **ampliado**. Enlarged.

ampulla. **ámpula**. A flask or bladder-shaped sac on some aquatic plants.

ampullaceous. **ampuláceo**. Swelling outward; bladder-shaped.

ampulliform. **ampuliforme**. Flask or bottle-shaped.

amygdaliform. **amigdaliforme**. Having the shape of an almond.

amygdoloid. **amigdoloide**. Almond-shaped.

amylaceous. **amilaceo**. Starchy.

amylase. **amilasa**. One of a group of enzymes that hydrolyses starch or glycogen, producing the sugars glucose, dextrin, or maltose.

amyloid. **amiloide**. Of spores turning blue with iodine solution with the presence of starch; also, starch-like.

amyopectin. **amilopectina**. A polysaccharide composed of branched chains containing a large number of glucose units linked in the 1:4 or 1:6 position.

amyloplast. **amiloplasto**. A colorless body in plant cells which form granules; plastids that are specialized for the storage of starch.

amylose. **amilosa**. A long straight-chained polysaccharide composed of about 300 glucose units linked in the 1:4 position. It is a constituent of starch and is responsible for the typical blue color of starch when treated with an iodine solution.

amylostolith. **amilostatolito**. A starch grain acting as a statolith.

anabolic. **anabólico**. Pertaining to the process where proteins are synthesized through a chemical combination of amino acids.

anabiont. **anabionte**. An organism in which anabolic processes predominate over catabolic processes, as green plants.

anabolism. **anabolismo**. The phase of

metabolism which uses energy from food and water to construct complex compounds of living tissue; constructive metabolism.

anadromic helicoid branching. **ramificación helicoidé anádromico**. A type of branching found in some fern leaves (**Filicopsida**) in which new branches arise from only one side of the main axis. This results in a helix developing. If the side bearing the branches faces away from the main axis of the leaf, the helix is anadromic.

anadromous. **anádromo**. Running up.

anaerophyte. **anaerofito**. A plant which does not require a direct supply of air.

anaerobe. **anaerobio**. A microorganism that can live where there is no atmospheric oxygen; getting oxygen by the decomposition of compounds containing it.

anaerobic. **anaerobio**. Without oxygen; living or growing where there is no atmospheric oxygen, as in swamps or peat bogs.

anaerobic respiration. **respiración anaerobio**. A process involving the decomposition of organic compounds without the intake of atmospheric oxygen, resulting in the formation of carbon dioxide and alcohol, the most common form being alcoholic fermentation; also, the enzymatic breakdown of a substrate releasing energy without using oxygen. Facultative anaerobes can use free oxygen and obligate anaerobes do not. anaerobiosis.

anaerobiosis. A process by which life is being continued or sustained without oxygen.

anagenesis. **anagénesis**. The type of evolutionary change that takes place

- within a species which results in phyletic evolution, in contrast to cladogenesis.
- anakinetic. **anacinéctica**. Leading to the restoration of energy and the formation of reactive, energy-rich substances.
- anakinetomere. **anacinétomera**. Reactive, energy-rich molecules.
- analog(ue). **análogo**. An organ analogous to another organ; also, in chemistry, a compound that closely resembles another in structure.
- analogous. **analógico**. Having a similar function, but not a similar structure or origin; in contrast to homologous.
- analogous variation. **variación analógico**. Characteristics that have similar functions but have developed independently in unrelated taxonomic groups in response to similar environments, as phyllodes (flattened petioles providing leaf functions).
- anamorphosis. **anamorfosis**. An unusual change of form in a plant; also, a gradual change in form in a group of plants over a long period of time.
- anandrous. **anandro**. Without stamens.
- anantherous. **anantero**. Without anthers.
- ananthous. **ananto**. Without flowers; flowerless.
- anaphase. **anáfase**. The third stage in mitosis or meiosis when the two sets of daughter chromosomes move to the opposite ends of the spindle; occurring after metaphase and before telophase.
- anaphysis. **anafisis**. A sterigma-like thread in the apothecium of some lichens.
- anascistic. **anascistico**. Said of tetrads that divide twice longitudinally during meiosis
- anastomose. **anastomosar**. To connect or unite by anastomosis, commonly used for the merger of two ducts, pits, or vascular bundles.
- anastomosing. **anastomosado**. After forming, veins that connect and become an interveining network, as in leaves, roots, and stems.
- anastomosis. **anastomosis**. The linking or connecting, as in woody plants; the twining of branches; also, a cross connection in a branching system, as the veins of leaves. *See* anastomosing and strangler.
- anatomy. **anotomia**. Structural details revealed in dissection; sometimes used synonymously with morphology.
- anatropous. **anátropo**. An ovule that is inverted so that the micropyle is next to the hilum, and the embryonic root is at the other end.
- ancad. **ancad**. A canyon plant.
- anceps. **anceps**. A Latin word that means, "two-edged".
- ancipital. **ancipital**. A fattened plant stem with two sharp edges, especially in grasses (**Poaceae**).
- ancipitous. **ancipito**. Two-edged.
- ancistroid. **ancistroide**. Shaped like a hook.
- andro-. **andro-**. A Greek prefix that means, "male".
- androcyte. **androcito**. A pair of androcytes are formed by the division of the androgonal mother cell and are metamorphosed into atherozoids in the antheridium of the **Bryophyta** and **Pteridophyta**; a sperm mother cell.
- androdioecious. **androdioico**. Flowers staminate on one plant, perfect on another.
- androdynamous. **androdinamo**. Hav-

ing stamens of unusual development.

androecious. **androecio**. Plants with only male flowers.

androecium (*pl.* androecial). **androceo**.

The collective name for all the stamens in a flower; the male organ of a flower; also, a group of antheridia of mosses (**Musci**).

androgenous. **andrógeno**. Bearing stamens only.

androgenesis. **androgénesis**. Development from a male cell.

androgonal cell. **célula andrógino**. The developing antheridium of the **Bryophyta** and **Pteridophyta** contains four primary androgonal cells which divide repeatedly to form the cubical androgonal cells. At their last division, they are called androcyte mother-cells. These divide diagonally to give the androcytes.

androgyne. **andrógeno**. Hermaphrodite; an androgynous plant.

androgynophore. **androgínóforo**. The supporting stalk for the androecium and gynoeceum in some flowers.

androgynous. **andrógino**. In the same spike, having staminate flowers above and pistillate flowers below, as on certain sedges (**Cyperaceae**); also, having stamens and ovaries in distinct parts of the same inflorescence.

androgyny. **androgenia**. Hermaphroditism.

andromonoecious. **andromonoico**. A single plant with both staminate and perfect flowers.

andropetalous. **andropetalario**. Having double flowers by the stamens changing into petals.

androphore. **andróforo**. A single stalk supporting a group of stamens above the point of attachment of the peri-

anth; a column of united stamens, as in **Malvaceae**.

androsporangium. **androsporangio**. A sporangium producing androspore.

androspore. **andróspara**. A special form of zoospore produced by the **Oedogoniales** which germinates to form the dwarf male filament.

androtomous. **andrótomo**. Having the filaments of the stamens divided.

anemo-. **anemo-**. A Greek prefix that means, "wind".

anemochoric. **anemocoro**. Dispersed by wind.

anemochorous. **anemocoria**. Plants whose fruits and seeds are wind-dispersed, especially plants that retain their seeds or fruit throughout the winter, ready for dispersal in the spring.

anemochory. **anemocoria**. The dispersal of pollen by the wind; wind dispersal.

anemophile. **anemófilo**. A plant that produces seeds or spores that are dispersed by the wind.

anemophilous. **anemófilo**. Fertilized by wind-carried pollen, as grasses (**Poaceae**), sedges (**Cyperaceae**), and pines (**Pinaceae**); wind-pollinated; also, wind-loving.

anemophily. **anemofilia**. The pollination of plants by the wind.

anemochory. **anemocoria**. Wind dispersal.

anemosis. **anemoe**. A crack in young trees resulting from the force of intense winds.

anemotropism. **anemotropismo**. The active response of a plant to air currents.

aneuploid. **aneuploide**. Having a number of chromosomes that are not a multiple of the haploid number

for the species.

aneuploidy. **aneuploidia**. A loss or increase of chromosome from its basic number.

aneurine. **aneurina**. The vitamin thiamine which promotes root, fungus, and bacteria growth.

anfractuosus. **anfractuosus**. A Latin word that means, "sinuous".

angiocarp. **angiocarpo**. Any fruit that grows enclosed in an external covering.

angiocarpous. **angiocarpo**. Of a fungus fruit body which is closed during maturation.

angiocarpy. **angiocarpia**. A type of fungal fruit development where the spore-bearing tissue is enclosed for part of the period.

angiosperm. **angiosperma**. A plant producing flowers and bearing seeds (ovules) enclosed in an ovary (fruit), as grasses (**Poaceae**), and strawberries (**Rosaceae**); one of two groups, angiosperm and gymnosperm, that make up the seed-bearing classification spermatophytes.

angle. **angulo**. The region between two rays (sides) having a common end point (vertex).

anguilluliform. **anguilluliforme**. Worm-like in form.

angular. **angular**. Having angles or being irregularly shaped.

angular divergence. **divergencia anguloso**. The angle between the lines of insertion of two adjacent leaves.

angulate. **angulado**. *See* angular.

angustate. **angusto**. Narrowing rapidly in width, as with some leaves.

angusti-. **angusti-**. A Latin prefix that means, "narrow".

angustifoliate. **angustifolio**. Narrow-leaved.

anhydride. **anhídrido**. Any oxide that

unites with water to form an acid or base.

anion. **anion**. **anión**. An ion that carries a negative electrical charge. anion exchange capacity.

capacidad de cambio anion. *See* exchange capacity.

aniso-. **aniso-**. A Greek prefix that means, "unequal" or "unlike".

anisocarpic. **anisocarpico**. With fewer carpels than other floral parts.

anisocotylous. **anisocótilo**. Having cotyledons of unequal size in the seedling.

anisocytic. **anisocítico**. A type of stomatal complex in which there are three subsidiary cells of unequal sizes.

anisogamete. **anisogameto**. Either of the pair of conjugating gametes that differ from one or the other in form or size.

anisogamous. **anisogamo**. Characterized by anisogamy.

anisogamy. **anisogamia**. The union of motile gametes of unequal size, as with some algae; heterogamy.

anisogenomatic. **anisogenomatico**. Having a chromosome complement of unlike sets of chromosomes.

anisogeny. **anisogenie**. Having different inheritance in reciprocal crosses.

anisomerous. **anisomero**. Having asymmetrical floral parts; also, having an unequal number of parts in each whorl.

anisomery. **anisomeria**. Of flowers having different numbers of flowers in successive whorls.

anisometric. **ansometrico**. Having non-symmetrical parts or unequal measurements.

anisopetalous. **anisopétalo**. Having unequal petals.

anisophyllous. **anisofilo**. Having un-

- equal leaves; producing large and small leaves on the same plant.
- anisophylly. **anisofilia**. Difference in form between upper and lower leaves of a horizontal shoot, or between upper and lower surfaces of such leaves, frequently as a result of external forces, as gravity and light; heterophylly.
- anisoplanogametes. **anisoplanogametos**. Flagellate gametes of different sizes.
- anisepalous. **anisosépalo**. Having unequal sepals.
- anisostemonous. **anisostémono**. Having stamens not equal in number to the petals or the sepals.
- anisotropic. **anisotropico**. Responding differently or unequally to environmental conditions; also, crystalline.
- anisotropy. **anisotropia**. The condition or state of being anisotropic.
- annexed. **anexo. adnato**. Adnate.
- annotinal. **anotinal**. Yearly.
- annotinous. **anotino**. One year old, as annotinous branches; also, yearly, or in yearly growths.
- annotinus. **anotinus**. A Latin word that means, "applied to the branches of the previous year's growth".
- annual. **anual**. A plant that completes the life cycle in one year and then dies; of one year's growth duration from seed to seed production.
- annual ring. **anillo annual**. The secondary xylem produced during a single growing season; any of the rings of heart wood (xylem) that are seen when a tree trunk is cut across; also, referred to as growth rings.
- annular. **anular**. With ring-like markings or with rings; also, forming a circle; ring-like.
- annulate. **anular**. Marked by or made up of ringed segments; also, having a membranous ring on the stipe (of Agarics); annular.
- annulus. **anillo**. A ring of specialized cells along one side of a fern (**Filicopsida**), moss (**Musci**), or some mushroom sporangium that assist in the spore dispersal; ring-like markings.
- anode. **ánodo**. A positive electrode to which anions are attracted.
- anomaly. **anomalía**. Deviation from the norm or type.
- anomocytic. **anomocítico**. A type of stomatal complex in which there are no obvious subsidiary cells.
- antagonism. **antagonismo**. Growth inhibition of one organism by another; also, the ability of one toxic xalt to reduce or remove the toxic effect of another.
- antagonist symbiosis. **simbiosis antagonista**. The parasitism of one organism on another, especially of one lichen on another.
- ante-. **ante-**. A Latin prefix that means, "before" or "in front of".
- antecedent genom(e). **genoma antecedente**. The genom when it plays it the principle role in determining inheritance.
- antepetalous. **antepétalo**. Located directly in front of the petals.
- anterior. **anterior**. Located on the front side away from the axis; *Compare* posterior.
- antesepalous. **antesépalo**. Located in front of or opposite the sepals; also, in the blossom, the part next to the bract, *i.e.* external; while the posterior side is that next to the axis of inflorescence.
- anthcyanin. **antocianina**. A group of pigments in the cell sap of plants,

which produce the deep red, blue lavender, and purple colors of petals and fruits.

anthela. **antela**. A form of cymose inflorescence with the lateral branches growing beyond the axis; an open panicle cyme.

anther. **antera**. The male reproductive organ that encloses and contains the pollen grain; pollen-bearing portion of a stamen; in flowers, the terminal part of the male organ (stamen), usually a double-celled sac, located at the end of a thread-like stem (filament).

antheridial cell. **célula anteridial**. A cell that develops into an atheridium in bryophytes and pteridophytes.

antheridial chamber. **cámara de anteridial**. The cavity in a thallus containing an antheridium.

antherid(i)ophore. **antherid(i)óforo**. A gametophore that bears only an antheridium.

antherid(ium). **anterido. anteridio**. An organ that produces male sex cells in algae, fungi, mosses (**Musci**), and ferns (**Filicopsida**); the multi-cellular male sex structure of plants other than seed plants.

antheriferous. **anterífero**. Anther bearing.

antheriform. **anteriforme**. Having the appearance of an anther.

antheroid. **anteroide**. Having the appearance of an anther.

antherozoid. **anterozoide**. Male sexual cell from the antheridium; spermatozoid.

anthesis. **antesís**. The period when the flower is fully open; also, the opening of the flower bud; also, the duration of the flower's life from the opening of the bud to the setting of the fruit.

antho-. **anto-**. A Greek prefix that means, "flower".

anthocarp. **antocarpo**. A multiple fruit, as a pineapple (**Bromel-iaceae**), formed from the ovaries of several blossoms.

anthocyan(in). **antocia(ni)na. antoc-íano**. Nitrogenous, water-soluble pigments that are involved in the red to blue flowers and the autumnal color of leaves in temperate climates. Anthocyanins are red if the sap is acidic and blue if it is slightly alkaline.

anthoid. **antoide**. Flower-like.

antholeucin(e). **antoleucina**. The white pigment in flowers.

antholite. **antolita**. A fossil plant or a fossil that resembles a flower.

antholysis. **antolisis**. A retrograde transformation of a flower in which parts that are normal combined become separate.

anthophore. **antóforo**. An elongated stalk supporting the corolla, stamens, and pistil above the receptacle and calyx; a stipe between the calyx and corolla.

anthophorous. **antóforo**. Flower-bearing.

anthotaxy. **antotaxia**. The arrangement of the flowers on the axis of the inflorescence.

anthoxanthin(e). **antoxantina**. A glycoside that gives the yellow colors to cell-sap.

anthraciny. **antracinia**. The breakdown of organic material by fungi followed by its further digestion in the alimentary tracts of insects and worms, providing dark colors to soil.

anthracnose. **antracnosa**. A general term for any of the plant diseases that produce dark spots or sunken

formations on leaves, fruit, and other parts.

anthropo-. **antropo-**. A Greek prefix that means, "man" or "human".

anthropochory. **antropocoria**. Dispersal by man.

anthropogenic climax. **climax de antropogénico**. A climax in the vegetation occurring under the influence of human intervention.

anthrophophyte. **antropófite**. A plant introduced by human cultivation.

anti-. **anti-**. A Latin and Greek prefix that means, "against".

antibiosis. **antibiosis**. An association between organisms that may be harmful to one of them but is important to the structure and composition of many plant communities. *See* allelopathy.

antibiotic. **antibiótico**. A substance produced or derived from an organism, such as fungus, bacteria, or plant that destroys and/or weakens other organisms.

anticlinal. **anticlinal**. Sloping downward; in anatomy, used to describe a wall perpendicular to the nearest important organ or duct surface; radial.

anticodon. **anticodón**. Three nucleotides in transfer RNA that bind to a corresponding codon in Messenger RNA during the synthesis of protein.

anticous. **antico**. Placed on the anterior side of an organ; also, same as anterior.

antidromy. **antidromia**. Left- and right-handed twining in the same species; also, a change in direction of ascending spirals connecting leaf attachments.

antienzyme. **antienzima**. Any substance that inhibits the function of an en-

zyme.

antigen. **antígeno**. A substance that causes a plant to produce antibodies.

antimorph. **antimorf**. Having an effect opposite to that of the normal, non mutant allelomorph.

antiparallel. **antiparalela**. Directionally opposite, as in the structure of the two strands of DNA.

antipetalous. **antipétalo**. Opposite the petals. *See* antepetalous.

antiphyte. **antífite**. A sporophyte.

antipodal cell. **célula antipodal**. In most angiosperms, any of three nuclei at the end of the embryo sac, opposite the egg apparatus.

antisepalous. **antisépalo**. Opposite the sepals. *See* antesepalous.

antithetic. **antitético**. The alternation of morphologically unlike generations, *i.e.* not homologous.

antitropic. **antitropico**. Twisting clockwise.

antitropous. **antitropo**. Orthotropous.

antrorse. **antrorso**. Bent forward or upward; often used to describe hair or prickles.

anurous. **anuro**. **acaudeo**. Tailless; acaudate.

apandrous. **apandro**. Lacking or having non-functional male organs; also, forming oospores when no antheridia are present.

apetalous. **apétalo**. Having flowers without petals; having no corolla.

apetaly. **apétalia**. The condition of having no petals, the result of perianth reduction (aphanisis).

apex. **ápice**. The tip; also, that part of a root or shoot containing the apical and primary meristems.

aphanisis. **afanisis**. Perianth reduction with flowers lacking petals and corollas.

aphaptotropism. **afaptotropismo**. Not

responding to contact stimuli.

apheliotropic. **afeliotropico**. Aphototropic.

aphlebia. **aflebia**. Aborted pinnae found in some living and fossil ferns.

aphotic. **afótico**. Capable of growth in the absence of light.

aphotic zone. **zona afótica**. In the marine ecosystem, a deep water area below the depth of light, analogous to the profundal zone in freshwater; disphotic zone.

aphotometric. **afotometrico**. Said of a leaf that does not respond to light; also, said of a motile organism that always turns the same end towards the light.

aphototactic. **afototactico**. Of a motile organism that does not move in response to light intensities.

aphototropic. **afototropico**. Growing away from the light.

aphyllopodic. **afilópodo**. The lowest leaves become reduced to scales.

aphyllous. **áfilo. sin hojas. afoliado**. Having no leaves; leafless, as cacti (**Cactaceae**).

apical. **apical**. Located at the tip or apex, as an apical cell.

apical cell. **célula apical**. The single meristematic cell at the tips of the branches of the thallus in complex algae; also, the meristematic cell at the tip of a bryophyte thallus; also, the single meristematic cell at the tips of root and shoot branches of the **Pteridophyta**.

apical dominance. **dominancia apical**. Growth restraint of the lateral buds or shoots by the apical meristem due to auxins produced by the apical bud; growth occurs primarily at the top of the plant.

apical growth. **crecimiento apical**. Growth at the tip or terminal.

apical meristem. **meristema apical**.

The formative cells at the tip of roots or shoots which differentiate by division, allowing the plant to grow in depth and height.

apical placentation. **placentación apical**. Of ovule(s) when attached at the top of the ovary.

apiculate. **apiculado**. Ending abruptly in a slender, soft point, as apiculate leaves; tipped with a soft point; pointled.

apiculus. **apículo**. A small point or tip.

apileate. **apileado**. Having no pileus.

aplanetism. **aplaneismo**. A condition where no motile stage is formed; having non-motile spores instead of gametes.

aplanogamete. **aplanógameto. aplanogámeta**. A non-motile gamete.

aplanospore. **aplanospora**. A non-motile, asexual spore borne by some algae and ferns (**Filicopsida**).

apo-. **apo-**. A Greek prefix that means, "away from", "down", or "separate". Used to indicate that certain parts exist as individuals, not fused with anything else.

apobasidium. **apobasidio**. A basidium with terminal spores which are arranged symmetrically on the basidium.

apocarp. **apocarpo**. An ovary or fruit with separate or distinct carpels.

apocarpous. **apocárpico**. A flower with separated carpels; also, when the several pistils of the same flower are separate.

apocarpy. **apocarpia**. Bearing apocarps.

apocyte. **apócito**. A multinucleate mass of protoplasm with no cell walls.

apoenzyme. **apoenzima**. The protein part of an enzyme, to which the coenzyme attaches, to form an active enzyme.

apogamety. **apogametia**. The development of an embryo from a diploid gametophyte by division of a cell other than an egg-cell, with or without pollination and (partial) fertilization; the zygote so formed being maternal in genetic constitution.

apogamic. **apogámico**. Of or pertaining to apogamy.

apogamy. **apogamia**. The production of a new plant (sporophyte), without sexual reproduction, by budding from a prothallus, as in ferns (**Filicopsida**) and some mosses (**Musci**).

apogeotropic. **apogeotrópico**. Bending or turning away from the earth, as apogeotropic leaves; negatively geotropic.

apogeny. **apogenia**. Sterility.

apogeotropism. **apogeotrópismo**. A type of tropism where shoots grow away from the pull of gravity.

apoheliotropic. **apoheliotrópico**. Negatively heliotropic.

apomict. **apomict**. An organism that reproduces by apomixis.

apomictic. **apomíctico**. Of or exhibiting apomixis.

apomixis. **apomixis**. A rare asexual reproductive process where a new plant is produced from a female cell or cells other than an egg; seed production without fertilization or meiosis; seedling characteristics are the same as those of the maternal parent; apogamy.

apomorph. **apomorf**. An evolutionary advanced character. The opposite of plesiomorph.

apopetalous. **apopétalo**. Having separate petals; choripetalous.

apophysis. **apófisis**. A natural swelling or outgrowth of an organ, as oc-

curs at the base of some mosses (**Musci**), or the part of a cone scale which is exposed, when the cone is closed; also, a swollen hypha of a fungus.

apoplast. **apoplasto**. Areas of the plant that lie outside the cell membrane, such as cell walls and dead tissues of the xylem through which water, salts, *etc.* have to pass before reaching the other tissues of the plant.

apoplastic. **apoplastico**. Of or pertaining to the movement of water in the free space of tissue, including cell walls and intercellular spaces.

aporogamy. **aporogamia**. The penetration of the ovule by the pollen tube by some other path than the micropyle.

aposepalous. **aposépalo**. Having the sepals separate from each other.

aposporic. **apospórico**. The development of gametophytes by the division of somatic cells without meiosis; a type of agamospermy where a seed is produced without fertilization.

apospory. **apospória**. A process where some ferns (**Filicopsida**) and mosses (**Musci**) have the prothallium generated from the sporangium instead of by spores; also, the formation of a diploid gametophyte by the direct (ameiotic) division of a cell of nucellus or the integument of an unfertilized ovule or, more commonly from the soral or sporangial tissue of ferns (**Filicopsida**).

apostasis. **apostase**. Internodal growth which separates whorls or other parts.

apostemonous. **apostómono**. Having separate stamens.

apothecium. **apotecio**. The cup-shaped fruiting body of various lichens and fungi to which the spore sacs (asci) are attached.

apostrophe. **apóstrofe**. The arrangement of the chloroplasts against the radial walls of the palisade layer in bright light.

apothecium. **apotecio**. The fructification of some **Ascomycetes** which is flattened or cup-shaped with the asci on the upper surface in a palisade-like layer, usually mixed with sterile hyphae. It is angiocarpic if it is closed before maturity and gynocarpic if open.

apotropous. **apotropo**. Said of an anatropous ovule with a ventral raphe.

appendage. **apéndice**. A secondary part coming from or attached to a main structure.

appendicled. **apéndiculado**. With small appendages.

appendiculate. **apendiculado**. Bearing appendages; also, having outgrowths at the throat of a corolla; of mosses, having a fringe of small pieces; of agarics, retaining veil fragments.

appendix. **apéndice**. An appendage.

applanate. **aplanado**. **plano**. Lying in a plane, as leaves on twigs giving applanate foliage; flat.

applied. **aplicada**. Lying against each other by a flat surface.

apposition. **aposición**. Growth by the addition of layers of tissue to the cell wall; intussusception.

appressed. **adpreso**. Lying flat or close to another organ, as appressed leaves on a stem.

appressorium. **apresorio**. The adhesive or attachment organ of a parasitic fungi; composed of a flattened

hypha.

approximate. **aproximado**. Close together but not joined; also, of gills of agarics, near but not touching the stipe.

apricus. **apricus**. Growing in dry and sunny places.

apterous. **áptero**. Having no wing-like extensions or parts; wingless.

aquatic. **acuático**. Living or growing in water or under extremely moist conditions, as in bogs. Applied to plants whether growing under water, or with all but the base raised out of it.

aqueous tissue. **tejido acuoso**. A tissue of enlarged cells that carry water.

aquifer. **acuifero**. A subterranean body of rock, gravel, or sand with the capacity of storing significant quantities of water, underlain by impermeable material, and through which water moves.

arabinose. **arabino**. A pentose sugar obtained from plant polysaccharides occurring in various plant gums.

arachnoid. **aracnoide**. Having cobweb-like, entangled, fine hair.

araneose. **araneo**. Arachnoid.

arboreal. **arbóreo**. Tree-like; living in trees.

arborescent. **arborescente**. Tree-like in structure or growth, as bamboo, an arborescent grass (**Bambusaceae**).

arboretum. **arboreto**. A place where trees and shrubs are grown for scientific and educational purposes.

arbuscle. **arbuscle**. A dwarf tree, or shrub-looking tree.

arbusclar. **arbusclar**. Resembling a shrub.

arbuscule. **arbuscule**. A tuft of branching fungal filament (hypha) formed by the fungi of a mycorrhizal as-

sociation, usually found in the cells near the endodermis.

archegonia. **arquegonio**. Plural of archegonium.

archaebacteria. **arqueobacteria**. A type of microorganism that is chemically and genetically different from other bacteria (**Eubacteria**) and higher living organisms; lives in a warm, oxygen-free environment by consuming carbon dioxide and hydrogen, converting them into methane; also, the taxon **Archaeobacteria**.

archegoniophore. **arquegonióforo**. An outgrowth of the prothallium of mosses (**Musci**) and ferns (**Filicopsida**), which bear archegonia.

archegonium. **arquegonio**. The flask-shaped female reproductive organ in mosses (**Musci**) and ferns (**Filicopsida**), corresponding to the pistil in flowering plants.

archespore. **arquesporo**. The cell or cells from which spores develop.

archesporial cells. **célula arquesporial**. The inner cells of the developing sporangium of a pteridophyte; most ultimately give rise to spore mother-cells.

archesporium. **arquesporio**. The cells of a sporangium which give rise to the archesporial cells; also, a single cell or group of cells which differentiates within a developing anther or ovule to spore mother cell(s).

archicarp. **arquicarp**. The cell, hypha, or coil of hyphae of **Ascomycetes** that develop in to the fruit body; the first fruit stage in some fungi.

arching. **arqueado**. Curved like a bow.

archigoniophore. **arquigonióforo**. Stalked vertical branches which bear archegonia, especially in **March-**

antiaceae.

archilichens. **arquilíquens**. Lichens with bright green gonidia.

archimycetes. **arquimícetes**. Fungi with a simple thallus and reproducing by zoospores; includes **Plasmodiophorales** and **Myxochytridiales**.

archiplasm. **arquiplasma**. In a cell, the protoplasmic substance of an aster and spindle during mitosis; sometimes spelled archoplasm.

archoplasm. **arquoplasm**. *See* archiplasm.

arcuate. **arqueado**. Curved, bent, or arched, as a bow.

ardella. **ardela**. A small spot-like apothecium.

arenaceous. **arenaceo**. Growing in sand.

arenicolous. **arenícola**. Sand-loving.

arenose. **arenoso**. Growing in sand.

areolar. **areolado**. Of or pertaining to an areola.

areolate. **areolado**. Divided into small areas, bounded by cracks, lines, or veins; characterized by having areole.

areolation. **areolación**. A net pattern formed by the boundaries of cells.

areole. **aréola**. The open spaces between the veins of a net veined leaf; also, in cacti, the bud-like projections on pads where the spines are produced; also, a small pit; also, a small space on the surface of a lichen, delimited by lines or cracks.

arescent. **arescente**. Dying.

argenteous. **argénteo**. Silvery; silver-like.

argillicolous. **argilícola**. Living on clay soil.

argillophilous. **argilófilo**. Pertaining to plants growing on clay.

argillose. **argiloso**. Growing in clay.

arginine. **arginina**. An amino acid in plant protein.

argos. **argos**. Pure white in Greek.
 argophyllous. **argófilo**. White-leaved.
 argutus. **argutus**. Acutely dentate.
 arhizous. **arizoma**. Without roots.
 arid. **árido**. A geographical area with insufficient rainfall to support trees or woody plants.
 aridity. **aridez**. Arid or dry condition.
 aridity index. **índice de aridez**. A term first used by C.W. Thornwaite to provide a quantitative criteria of moisture deficit; calculated as $100 \times$ the water deficit / potential evaporation.
 aril(lus). **arilo**. An outgrowth developing at or near the hilum or funiculus of a seed, sometimes spongy and sometimes encircling the seed; an extra covering on certain seed coats, often developing after fertilization.
 arillate. **arilado**. With an aril.
 arilliform. **ariliforme**. Aril-like.
 arillode. **arilodio**. An aril that does not emerge from the stalk; a false aril.
 arista (*pl.* aristae). **arista**. Awn or a stiff bristle; the beard-like part of grain or grasses (**Poaceae**), located at the tip.
 aristate. **aristado**. Having an arista.
 aristulate. **aristulado**. Diminutive of aristate; also, short-awned.
 arm. **brazo**. A main branch or limb of a tree.
 armature. **armadura**. Prickles, spines, or thorns that serve as a defense; also, the woody scales at the base of leaves and stems of many tree ferns (**Cyatheaceae**).
 armed. **armado**. Having prickles, spines or thorns.
 armillate. **armilado**. Edged, fringed, or frilled.

armor. **armadura**. A covering of odd-leaf bases on the stems of cycads and some ferns; armature.
 aroma. **aroma**. The fragrance of plants.
 aromatic. **aromático**. A sweet smelling or fragrant plant; having an agreeable odor.
 around. **rodear**. Encircle.
 arrange. **arreglar. disponer**. Placed in a particular order.
 arrect. **arecto**. Brought into an upright position; stiffly upright.
 arrhenokaryon. **arrenconcarion. arrenonúcleo**. A nucleus having two separate sets of haploid chromosomes.
 arrhizal. **arrizo**. Having no roots; rootless.
 arrow-shaped. **sagitado**. Sagittate.
 arthro-. **artro-**. A Greek and Latin prefix that means, "in relationship or connection to a joint".
 arthrogenous. **artrogeno**. Of bacteria where the individual develops into a spore; also, developed from pieces separated from the parent plant.
 arthrospore. **artróspora**. Various fungal or algal spores that appear as a string of beads, formed by the fragmentation of the hyphae.
 arthrosterigma. **artrosterigma**. An individual sterigma of the lichens.
 article. **artículo**. A joint of a stem or fruit which breaks at maturity.
 articulate. **articulado**. Segmented or jointed; at maturity, separating along a well defined line; also, at maturity, breaking into distinct pieces.
 articulate leaf. **hoja articulado**. A leaf that is cut off by an absciss layer.
 articulation. **articulación**. A joint or point of attachment between the parts of a plant.
 artificial classification. **clasificación**

- artificial.** A classification of plants based on prominent points of resemblance or difference rather than on genetic or bio-chemical relationships.
- artificial gene. **gen artificial.** A chemically synthesized copy of a gene made by combining nucleotide sequences.
- artificial selection. **selección artificial.** The modification of natural selection by human intervention in the process of gene selection.
- arundinaceous. **arundináceo.** Resembling a reed; reed-like.
- arvensis. **arvensis.** A Latin word that means, "of arable land".
- ascendent. **ascend(i)ente.** Growing upward. *See* ascending.
- ascending. **ascend(i)ente.** Growing obliquely upward, usually curving.
- ascending aestivation. **aestivacion ascendente.** Aestivation in which each petal overlaps the edge of the petal posterior to it.
- asci. **asci.** Elongated sacs where spores are formed in various fungi; the plural of ascus. *See* ascomycetous.
- ascidiform. **ascidiforme.** Bottle-shaped.
- ascidium. **ascidio.** The sac-shaped or pitcher-shaped part of a plant, as a leaf in the pitcher plant (**Nepenthaceae**) or bloodwort (**Rumex**); vasculum.
- ascigerous. **ascigero.** Bearing asci. The stage in the life cycle of an ascomycete when the asci are produced.
- ascigerous centrum. **centro ascigero.** The special tissue of pyrenomycete which develops into the asci and paraphyses.
- asciiform. **asciforme.** Hatchet-shaped.
- ascocarp. **ascocarpo.** A spore produced in an ascus; the mature fruit of ascomycetous fungi (**Ascomycotina**).
- ascocarpous. **ascocarpo.** Of or pertaining to an ascocarp; having an ascocarp.
- ascoconidiophore. **ascocnidióforo.** An ascus-like conidophore.
- ascoconidium. **ascoconidio.** A conidium in an ascoconidiophore.
- asogenic cell. **célula asogenico.** The cells bearing the asci in the **Laboulbeniales**; homologous with asogenous hyphae of the other **Euascomycetes**.
- asogenous. **ascogenoico.** Ascus supporting or producing.
- ascogonial. **ascogonial.** Of or pertaining to an ascogonium.
- ascogonium. **ascogonio.** The female sex organ in the gametophyte of ascomycetous fungi (**Eumycota**); also, the cell or group of cells of the **Ascomycete**, fertilized by the antheridium.
- ascolichen. **ascoliquen.** Any of the lichens that the mycobiont is an ascomycete (sac fungi).
- ascoma. **ascoma.** A sporocarp having asci.
- ascomycete. **ascomicetos.** Any of a large class of **Ascomycetes** that includes yeasts, molds, rusts, and others; sometime referred to as sac fungi.
- ascomycetous. **ascomiceto.** Of or pertaining to any of a large class (**Ascomycetes**) of fungi, including molds, yeasts, mildews, *etc.* characterized by the formation of spores in elongated sacs (asci).
- ascophore. **ascóforo.** An ascus producing hypha in an ascocarp; apothecium.
- ascorbic acid. **ácido ascórbico.** The vitamin C in fruit and vegetables; needed in aerobic respiration, replacing cytochromes as the elec-

tron carrier in some plants.

ascospore. **ascospora**. A sexually produced haploid spore that is formed within an ascus by fungi of the subdivision **Ascomycotina (Eumycota)**; release occurs with the rupture of the cleistothecium wall.

ascostome. **ascostoma**. The pore at the top of an ascus.

ascostroma. **ascostroma**. A fungal fruit body that asci develop in or within a stroma.

ascus. **asco. asca**. A very small, bag-like structure in which ascospores develop in fungi (**Eumycota**); single form of asci.

ascyphous. **ascifo**. Without a scyphus.

asepalous. **asépalo**. Without any leaf divisions (sepals) in the calyx; having no sepals.

aseptate. **aseptado**. Having no partitions or septa.

asexual. **asexual**. Reproducing without male or female gametes, as in budding; also, lacking sex organs or sex spores.

asexual generation. **generación asexual**. *See* agamic generation.

asexual reproduction. **reproducción asexual**. The type of reproduction without the process of gamete formation, consisting of vegetative reproduction, apospory, and apogamy; occurring by budding (gemination) in many liverworts (**Hepaticae**) and mosses (**Musci**).

asparagine. **asparagina**. One of the amino acids in proteins. The amide of aspartic acid occurs widely in plants.

asperate. **asperado**. Roughened with projections, points, or bristles.

aspergilliform. **aspergilliforme**. Tufted, like a brush.

asperifoliate. **asperifoliado**. Having

rough leaves.

aspermous. **aspermo**. Without seeds.

asperous. **áspero**. Harsh, rough, uneven to touch.

asperulate. **asperulado**. Finely asperate.

asporogenous. **asporógeno**. Does not produce spores.

asporous. **asporógeno**. Sporeless; having no spores.

assemblage of plants. **agrupación de plantas**. A collection of plants, characteristically associated with a particular environment, which are used as an environmental indicator in geobotanical exploration.

assimilate. **asimilar**. To change non-living, absorbed substances into living protoplasm by the process of anabolism.

assimilation. **asimilación**. The process of taking in food and water for conversion into protoplasm. *See* anabolism.

assimilation ratio. **proporción de asimilación**. The amount of photosynthesis occurring in unit mass of a leaf in an hour, and considering the weight of chlorophyll in the tissue. It is expressed as the ratio of weight of carbon dioxide (in mg) absorbed / time (in hours) / weight of chlorophyll (in mg) in the tissue.

assimilatory quotient. **cociente de asimilación**. The ratio of carbon dioxide intake to oxygen output.

assimilative. **asimilativo**. Concerned with growth before reproduction.

association. **ascociación**. A stable plant community named after the dominant plant. Related associations form alliances. *See* plant association.

associes. **ascosie**. A developing association, which is therefore unsta-

ble.

assortative breeding. **apareamiento de semejanza**. A type of sexual reproduction where the pairing of male and females is not random, but involves a tendency for males of a particular kind to breed with the females of a particular kind, or the opposite. Positive assortative mating is when the match is better than could be expected by chance.

assurgent. **ascendente**. Rising at an oblique angle, as with some stems; ascending.

astelic. **astelico**. Without a stele.

astemonous. **anantero**. Having no stem.

aster. **áster**. A genus of mostly perennial herbs, common in northern temperate areas; also, a group of cytoplasmic fibrils surrounding the centrosome immediately before and during cell division; also, the star-shaped arrangement of the chromosome during metaphase.

asteroid. **asteroide**. Star-shaped.

asterophysis. **asterófisis**. A stalked, stellate structure in the hymenium of some fungi.

astichous. **astico**. Not arranged in rows.

astomatous. **aestomatoso**. With no stomata.

astro-. **astro-**. A Greek prefix that means, "stellate" or "star-like".

astroid. **astroide**. The star-shaped figure formed by looped chromosomes collected at the equator of the spindle during cell division.

astropholate. **astrofólado**. Lacking a strophiole.

astroscleireid(e). **astroesclereida**. A star-shaped sclereid that is highly branched with several arms projecting from the central body.

asymmetric. **asimétrico**. Can not be

divided into two equal halves, as with some leaves; irregular.

asynapsis. **asinapsis**. The failure or absence of synapsis in meiosis; the failure of chromosomes to pair at pachytene or the absence of chiasmata formation.

atactostele. **atactoestela**. The stele of monocots, composed of a three dimensional network of collateral vascular bundles.

atavism. **atavismo**. In a plant, the reappearance from remote ancestry of characteristics not found in its immediate ancestors.

atelomitic. **atelomitico**. Said of a chromosome having the spindle fiber attached somewhere along its side.

ater. **ater**. A Latin word that means, "black".

atmosphere. **atmósfera**. The mass of gases (air) that surrounds the earth and held in place by the force of gravity; composed of approximately 78% nitrogen, 21% oxygen, 1% argon, with traces of carbon dioxide, water vapor, neon, helium, methane, and others.

atmospheric. **atmosférico**. Pertaining to or existing in the atmosphere.

atmospheric nitrogen. **nitrógeno atmosférica**. Nitrogen in a gaseous form which composes about 78% of the earth's atmosphere; important in the building of organic molecules. Plants obtain nitrogen from the soil as a nitrate or an ammonia.

atmospheric oxygen. **oxígeno atmosférica**. Oxygen in a gaseous form which makes up about 21% of the earth's atmosphere, however, in higher altitudes, as in mountainous areas, this may be less.

atom. **átomo**. The smallest part of a chemical element that can partici-

- pate in a chemical reaction without being permanently altered.
- atomate. **atomado**. Having a powdered surface.
- ATP. **ATP**. The abbreviation for adenosine triphosphate.
- ATPase. **ATPasa**. An enzyme that catalyzes the hydrolysis of the amino acid adenosine triphosphate.
- atratous. **atrato**. Blackening.
- atricolor. **atricolor**. Inky.
- atro-. **atro-**. A Latin prefix that means, "black".
- atrophy. **atrofía**. An arrested development of an organ; the reduction in size and utility of an organ or tissue; stunted.
- atropous. **átropo**. An ovule that is straight, not bent, such that the micropyle is directed away from the funiculus; orthotropous.
- atropurpureus. **atropurpureus**. Latin for "dark purple".
- atrovirens. **atrovirens**. Latin for "dark green".
- attach. **sujetar**. Fasten
- attached. **sujeito**. Connected or fused.
- attachment. **acoplamiento**. The point or region of connection.
- attachment constriction. **constricción acoplamiento**. Spindle attachment; centromere.
- attachment organ. **órgano acoplamiento**. An enlargement of the base of an algal thallus which attaches it to a solid object; also, a hooked hair attaching a seed to an animal, thereby aiding in dispersal.
- attenuate. **atenuado**. Gradually narrowing into a tip or base.
- attraction sphere. **esfera atractiva**. The mass of protoplasm with the striations radiating through it from the centrosome during cell division.
- attribute. **atributo**. In taxonomy, a defining character or characteristic.
- atus. **-atus**. A Latin suffix that means, "having" or "provided with".
- atypical. **atípico**. **anormal**. Unusual, or not normal.
- aulophyte. **aulófito**. A plant living non-parasitically in a cavity of another plant.
- auranticous. **aurantico**. Orange-colored.
- aureous. **aureo**. Golden.
- aureus. **aureus**. A Latin word that means, "golden".
- auricle. **aurícula**. An appendage that resembles an ear, often occurring at the base of a leaf.
- auriculate. **auriculado**. Having ears or ear-like appendages.
- australis. **australis**. Latin for "southern".
- aut-. **aut-**. A prefix that means, "self" or "individual".
- autapomorph. **autapomorf**. A character state that is unique to a particular species or lineage. *See* apomorph.
- autecious. **autecio**. *See* autoecious.
- autecology. **autecologia**. **autoecologia**. The study of an individual species or population and its relationship to its environment.
- auteform. **auteforme**. An autoecious rust having all spore stages.
- auto-. **auto-**. A prefix that means, "self", as in autogamy, self-fertilization.
- autoallogamy. **autoalogamia**. Species of flowering plants which have some members capable of self-pollination, and others capable of cross-pollination.
- autobasidiomycete. **autobasidimiceto**. A basidiomycete with a non-septate basidium.
- autobasidium. **autobasidio**. A basidium

that is septate; also, a basidium with spores at the side and asymmetrical.

autocarp. **autocarpo**. A fruit resulting from self-fertilization.

autocatalysis. **autocatálisis**. An acceleration of a catalytic process by products of reaction themselves acting as catalysts, as the breakdown of cell structure by products formed with the cell.

autochthonous. **autóctono**. Native to a particular place, as plant material in a peat bog which grew where it was found; indigenous.

autodeliquescent. **autodeliquescente**. Becoming liquid by the process of self-digestion.

autoecious. **autecio**. Going through the complete life cycle on a single host, as some parasitic fungi; autecious.

autoecology. **autoecología**. The interrelation of an organism with its environment

autogamous. **autógamo**. Of or pertaining to autogamy.

autogamy. **autogamia**. Self-fertilization; also, the fusion of sister-cells; also, the fusion of nuclei in pairs within one cell of a female organ without cell fusion having occurred.

autogenic. **autogéno**. A successional change resulting from a modification of the environment by vegetation, as providing shade.

autoicous. **autoico**. Having male and female inflorescences on the same plant, as in some mosses (**Musci**).

autolysin. **autolisina**. Any substance, especially enzymes, capable of breaking down cells of an organism's own tissue.

autolysis. **autoisis**. The destruction of cell contents by enzymes pro-

duced in the cell due to the disordered metabolism of the cell; produced by substances not normally present in the cell; self-dissolution.

automixis. **automixis**. The mingling of chromatin derived from two sex cells produced by one individual plant.

autonomism. **autonomismo**. Movement due to an internal stimulus, as protoplasmic flow in a cell.

autoparasite. **autoparasito**. A parasite living on another parasite.

autophagic vacuole. **vacuola autofágico**. A membranous fluid-filled space (vacuole), derived from within the cell that contains material to be digested.

autophagy. **autófagia**. The breaking down of parts of a cell by the cell's own lysosomes.

autophyte. **autófito**. A plant with the capacity of producing its own food from inorganic substances, as green plants.

autopolyploid. **autopoliploide**. A polyploid with chromosomes that have come from the same species and are identical; also, a polyploid derived from a single ancestral species, usually by intraspecific hybridization. Many garden flowers are autopolyploid.

autopotamous. **autopotamo**. Originating in fresh water.

autosome. **autosoma**. Any of the chromosomes in the nucleus other than a sex chromosome.

autospore. **autospora**. An aplanospore of algal cells similar in shape and size to the parent cell.

autosynopsis. **autosíndesis**. The pairing of chromosomes from the same polyploid parents or remote polyploid ancestors.

autotetraploid. **autotetraploide**. A tetraploid with four similar sets of chromosomes.

autotroph. **autótrofo**. Organisms able to manufacture their own food from inorganic materials by photosynthesis or chemosynthesis.

autotrophic. **autótrofico**. Characterizing plant or plant-like organisms which are able to manufacture their own food of inorganic materials as in photosynthesis or chemosynthesis; green plants, algae, and some bacteria containing chlorophyll are autotrophic, in contrast to heterotrophic.

autotropism. **autotropismo**. A tendency to grow in a straight line.

autumn. **otoño**. The third season of a year when divided into spring, summer, autumn (Fall), and winter; common in the northern temperate zones, beginning with the equinox on September 23rd and ending with the winter solstice, December 21st.

autumnal. **otoñal**. In the autumn (Fall); also, used in reference to the six part division of the year: autumnal, aestival, hibernal, prevernal, serotinal, and vernal.

auxanometer. **auxanómetro**. An apparatus used to measure the elongation of shoots; incorporates a lever which exaggerates the actual growth.

auxesis. **auxesis**. Cell growth by expansion rather than by division.

auxiliary cell. **célula auxiliar**. An accessory cell in the thallus of some **Floridæ** from which the gonimoblast filaments grow after the zygote nucleus has migrated into it from the carpogonium.

auxin. **auxina**. A hormone which stimu-

lates longitudinal growth in the cells of higher plants; also responsible for the bending effect in some grasses (**Poaceae**).

auxocyte. **auxocito**. A cell in which meiosis has begun.

auxospireme. **auxospirema**. The spirame formed after syndesis in meiosis.

auxospore. **auxóspora**. **auxospora**. A rejuvenescent spore produced under adverse environmental conditions by some diatoms. When produced by pennate diatoms, formation is associated with sexual reproduction by the enlargement of a zygote or parthenogenetic gamete; also, a diatomaceous reproductive cell (zygote).

auxotroph. **auxótrofo**. A microorganism that has lost the capacity to synthesize substances needed for its own nutrition.

available water. **agua asimilable**. **agua disponible**. Water in the soil that can be readily absorbed by plant roots; usually water held in the soil under a pressure of 0.3 to about 15 bars.

avascular. **avascular**. **no vascular**. A large grouping of plant or plant-like organism without a vascular system. *See* non-vascular.

avenius. **avenius**. Latin for veinless.

averse. **opuesto**. Turned back.

awl-shaped. **alesnado**. Small, narrow, triangular shaped leaves; also, sharp-pointed from a broader base.

awn. **arista**. A bristle-like organ found on many grasses (**Poaceae**).

awned. **aristado**. Having an awn or a long bristle-shaped awn.

axenic culture. **cultivo axénico**. *See* pure culture.

axeny. **axenia**. The resistance of a

plant to a pathogen, without the presence of morphological barriers; sometimes referred to as passive resistance.

axial. **axial**. A term used to describe a structure which is morphologically a shoot. *See* axile.

axial bundle. **haz axial**. One of the main bundles of a shoot or root; cauline bundle.

axial cell. **célula axial**. The central cell in the early stages of the development of the archegonium of **Bryophytes** and **Pteridophytes**. It gives rise to the lower central and cover cells.

axial gradient. **gradiente axial**. A physiological gradient along the axis of a plant. Activity is higher at one end and gradually becoming less as it passes along the axis.

axil. **axila**. The angle formed between two or more structures, as between the upper side of a leaf and the supporting stem where buds often are formed; the point of attachment of a bud or shoot other than at the apex of the stem; the angle where a small stem joins a larger one.

axile. **axial**. Positioned or attached to the central axis; also, coinciding with the longitudinal axis.

axile chloroplast. **cloroplasto axil**. A chloroplast lying along the axis of the cell.

axile placentation. **placentación axil**. **placentación axial**. Said of an ovary having the ovules attached to the tissue of the central axis.

axilla. **axila**. In or growing from an axil. *See* axil.

axillant. **axillante**. Subtending at an angle.

axillary. **axilar**. Positioned in or arising in an axis or in the upper angle between a leaf and the plant stem; used when referring to axillary buds lying between the twig and a subtending leaf.

axillary bud. **yema axilar**. Any bud on the stem other than the terminal bud at the shoot apex; lateral bud.

axis (*pl.* axes). **eje**. The main stem on which organs are formed or branches are arranged; also, the main stem and roots.

axoneme. **axonema**. The arrangement of microtubules that form the flagella structure.

axospermous. **axospermo**. Having axile placentation.

azureus. **azureus**. A Latin word that means, "sky-blue".

azgote. **acigoto**. An individual developed without fertilization from a haploid individual.

azygospore. **azigospora**. A fungal spore resembling a zygospore that develops parthenogenetically.

B

- B**. The chemical symbol for boron, a trace element, essential to plant growth.
- B. B.** A class of flowers which have their nectar fully concealed.
- B¹. B¹.** A class of flowers similar to B but having the flowers in heads.
- bacca. bacca.** An indehiscent, many berried fruit, with seeds that scatter throughout the fleshy area when ripe, as gooseberries (**Grossulariaceae**).
- baccetum. bacario.** An aggregate of berries.
- baccate. abayado.** Like a berry in pulpy texture or shape; bearing berries.
- bacci-. bacci-.** A prefix that means, "berry", as bacciform.
- bacciferous. baccífero.** Having or producing berries.
- bacciform. bacciforme.** Having the shape or form of a berry; berry-shaped.
- bacilliform. baciliforme.** Rod-shaped.
- bacillus (pl. bacilli). bacilo.** Any rod-shaped bacterium; also, a generic name.
- backcross. retrocruzamiento. cruzamiento retrógrado.** The fertilization of gametes from a hybrid by gametes from one of the parents of the hybrids.
- back mutate. mutar revertida.** To mutate back to the original form.
- bacteria. bacteria. bacterio.** Plural of bacterium. A large group of single-celled, non-chlorophyll microorganisms, without a distinct nuclear membrane; often motile but a few, such as blue-green algae, obtain food by photosynthesis, although they are no longer classified as plants.
- bacterial. bacterial. bacteriano.** Of or relating to bacteria.
- bacterial virus. virus bacterial.** See bacteriophage.
- bactericidal. bactericida.** Any agent that kills bacteria.
- bacteriochlorin. bacterioclorina.** See bacteriochlorophyll.
- bacteriochlorophyll. bacterioclorofila.** A specialized photosynthetic pigment, similar to chlorophyll, found only in anaerobic and photosynthetic bacterial systems.
- bacteriocin. bacterioncina.** A protein produced by a strain of bacteria that is deadly or inhibitory to other related strains. These proteins are coded and transferred in plasmids.
- bacteriod. bacteriode.** Irregular, enlarged forms of rod-shaped bacteria, especially of the root-nodule forming species. These are ultimately absorbed by the cells of the root-nodule.
- bacteriology. bacteriología.** A branch of biology specializing in the study of bacteria.
- bacteriophage. bacteriófago.** A category of viruses that are parasitic on certain bacteria, but not all, infecting and destroying them. Some-

times referred to as phages.

bacteriorhiza. **bacterióriza**. A symbiosis between a root and bacteria.

bacteriostatsis. **bacteriostasis**. The arrest of bacterial growth without their death.

bacteriostat. **bacteriostát**. An agent that arrests the growth or development of bacteria but does not kill them.

bacteriostatic. **bacteriostático**. Arresting the growth or development of bacteria.

bacterium. **bacteria**. **bacterio**. A single bacterial cell.

bacteroid. **bacteroide**. A bacterium with an irregular or modified form, especially one in the root nodules of nitrogen-fixing plants.

baculiform. **baculiforme**. Rod-shaped (of fungus spores).

badius. **badius**. A Latin word that means, "chestnut-colored".

baeocyte. **baeócita**. A type of reproductive cell, earlier known as an endospore, which is formed in a cyanobacterial cell.

balance of nature. **balanza de naturaleza**. A condition of equilibrium in an ecosystem which keeps the numbers relatively constant.

balanced lethal. **letal equilibrado**. A dominant or recessive gene when substituted for its normal allelomorph converts a viable to an inviable gamete or zygote; lethal gene.

balanced polymorphism. **polimorfismo equilibrado**. A form of genetic stability in a population that is maintained by natural selection because the heterozygotes for particular alleles have a higher adaptive capacity than either homozygote.

balausta. **balausta**. A dry, indehiscent,

many-seeded, many-loculed fruit with a leathery pericarp, as in the pomegranate (**Punicaceae**).

bald. **sin pelo**. **pelado**. Lacking the usual covering or awn, as bald wheat (**Poaceae**).

ballistospore. **ballistóspora**. A type of fungal spore attached asymmetrically to the sterigma which is forcefully expelled from its sporophore at maturity.

balsam. **bálsamo**. An oily or gummy, aromatic, resinous substance flowing spontaneously or by cutting from certain trees and shrubs, especially one of the genus *Abies* (**Pinaceae**).

balsamiferous. **balsamífero**. Yielding balsam.

bamboo. **bambú**. Various species of jointed, reed-like plants in the family **Bambusaceae** (bamboos), which is closely related to the grasses (**Poaceae**); sometimes considered a grass subfamily, **Bambusoidea**.

banded. **franja**. Traverse stripes of one color crossing another.

banner. **estrandarte**. The upper and often the largest petal of a papilionaceous corolla or "sweet-pea-type" flower (**Lathyrus**); standard; vexillum; vane.

bar of Sanio. **crásula**. *See* crassula.

barb. **uncinulo**. A hooked or double-hooked bristle or hair-like projection; a bristle that ends in a hook.

barbate. **barbado**. Having long trichomes, often in a tuft; bearded.

barbed. **uncinulado**. Having rigid points that are directed backwards, as in a fish hook.

barbel. **barbilla**. A very small or minute barb.

barbellate. **ancistroso**. Finely barbed with short, stiff hairs or barbs, as

barbellate stems which are longer than denticulate, but shorter than when plumose.

barbellulate. **barbelulado**. Diminutive of barbellate; having barbules.

barbule. **barbula**. The inner row of peristome teeth in the capsules of some mosses (**Musci**).

bark. **corteza**. The tough, outer layer of stems, branches, roots, main trunks of trees, and other woody plants, but not the cambium and inner wood.

barren. **estéril**. Unable to produce seeds; also, lacking pollen.

basal. **basal**. Located at or near the lower end of the stem, as leaves growing from the base of a stem.

basal analog. **análogo de base**. A DNA or RNA base that resemble the normal bases but is different so that it is incorporated into the nucleic acid molecule in place of the normal base.

basal body. **cuerpo basal**. The part of the thallus of the **Blastocladiaceae** fixed to the substrate by rhizoids at the lower end; also, a deeply staining granule at the base of a flagellum.

basal cell. **célula basal**. In angiosperm reproduction, one of the first two cells produced by the transverse division of the zygote; commonly contributes to the suspensor, not to the embryo; also, a specialized cell located in the deepest layer of the epithelium.

basal corpuscle. **corpúsculo basal**. See basal cell.

basal granule. **gránulo basal**. A tiny structure at the base of the cilia and flagella that relate to their formation; kinetosome.

basal placentation. **placentación basal**.

Having the placenta at the base of the ovary.

basal rosette. **roseta basal**. Leaves clustered at the ground level, sometimes alternate or whorled, but with short internodes.

basal stipule. **estipula basal**. Stipules attached near the base of the petiole.

base. **base**. The part of the organ nearest the point of attachment, as fruit where it unites with the peduncle or the part of the leaf next to the stem; also, a chemical substance that yields hydroxyl ions when dissolved in water, accepts protons, donates electrons, and reacts with acids to form salts. In molecular biology, any of the five nitrogenous compounds that are present in the nucleic acid of cells that combine to make the genetic code: adenine, cytosine, guanine, thymine, and uracil.

base exchange. **cambio de bases**. **intercambio de bases**. The interchange of the cations of the soil-water with those of the soil-colloid complex or root surfaces.

base exchange capacity. **capacidad de cambio base**. See exchange capacity.

basement membrane. **membrano de sótano**. A thin layer of protein and polysaccharide found at the base of epithelial tissues.

base pair. **par de bases**. In DNA, the AT and GC pairs.

base pair. **pareja de bases**. A pair of bases joined in the formation of a double-helical molecule of DNA or RNA.

base pairing. **apareamiento de bases**. **emparejamiento**. The putting together or pairing off of adenine with

thymine (or uracil), or of guanine with cytosine, in forming a nucleic acid double helix.

basi-. **basi-**. A Greek and Latin prefix that means, "the base" or "positioned at or near the base".

basic. **básico**. Having a pH of more than 7.0; also, having a large number of hydroxyl (OH).

basic dye. **colorante básico**. A stain having an organic basic radicle which is active and combines with an acidic radicle which is usually inorganic. They stain nucleoproteins.

basic type. **tipo básico**. The chromosome complement characteristic of a species and varying only in heterozygotes.

basical capsule. **cápsula basicida**. A capsule that opens or dehisces through basal slits or fissures, as in some species of birthworts (**Aristolochiaceae**).

basichromatin. **basicromatina**. A form of chromatin containing a fairly high proportion of nucleic acid that stains deeply with basic dye.

basidia. **basidios**. Plural of basidium.

basidial. **basidial**. Having basidium.

basidiocarp. **basidiocarpo**. The densely growing hyphae of the fruiting body in the basidiomycetes (**Eumycota**).

basidiogenetic. **basidiogenético**. Originating from basidia.

basidiolichene. **basidioliquen**. A tropical group of lichen which have a **Basidiomycete** as the fungal component.

basidiomycete. **basidiomiceto(e)**. Any of the fungus from the large subdivision **Basidiomycotina** that form spores on a basidium; includes smuts, rusts, mushrooms, and puffballs.

basidiomycetes. **basidiomicetes**. *See* club fungi.

basidiomycetous. **basidiomiceto**. Pertaining to basidiomycetes.

basidiophore. **basidóforo**. A fruit-body bearing mycelia.

basidiospore. **basidiospora**. **basidióspora**. One of the sexually produced spores formed on a basidium; also, the part of the fungus that bears basidia.

basidiosporous. **basidiósporo**. Pertaining to or having the characteristics of basidiospore.

basidium (*pl.* basidia). **basidio**. A reproductive cell created when the swollen terminal cell of a hypha develops filaments (sterigmata) that form spores.

basifixed. **basifijo**. Attached at the base, or lower end, as an anther is attached at its base to the apex of the filament. *Compare* versatile and dorsifixed.

basifugal. **basifugal**. Tending or leaning away from the base; acropetal.

basigamic. **basigamico**. Said of an embryo sac in which the synergid and egg nucleus lie at the base and not at the end nearest the micropyle.

basilar. **basilar**. Located at the base or pertaining to the base.

basinerved. **basinervio**. Of a leaf having the main nerves running from the base.

basipetal. **basípeto**. Developing from the apex downward, as inflorescences that bloom in succession from the top downward.

basipetal movement. **movimiento basipetal**. Movement of substances toward the base of the plant from the root and shoot apices.

basiscopic. **basiscópico**. Facing toward

the base.

basitonic. **basitonico**. Of orchids (**Orchidaceae**) where the base of the anther lies against the rostellum.

basophilous. **basófilo**. Cells that can be easily stained.

bast. **bast**. A fibrous inner bark in some species of trees or shrubs that carry fluids, especially sugars; phloem.

bast bundles. **haz bast**. In leaves with one vein and no leaf gap, peripheral strands of thick-walled cells lying parallel to the midrib, as in the **Isoetes**.

baumgrenze. **baumgrenza**. A line marking the last of the stunted trees; near the upper limits of the timberline where trees are growing uniformly erect and with forest-like density.

beach. **playa**. A zone of accumulated sand, stone, or gravel deposited above the water line at a shore.

bead collar. **moniliforme**. Having a series of alternating swellings and constrictions, as in some stems and roots; moniliform.

beak. **pico**. A sharp, projecting structure or prolonged tip in some plants; a narrow, rigid, conical tip as found in some fruits, such as the **Geranium**; also, a projection in an **Orchidaceae** flower that separates the anther from the stigma surface below it; rostellum.

beaked. **rostrado**. Ending in or having a firm tip, as some fruits; rostriform.

bean. **frijol**. Any one of the various kidney-shaped, smooth, often edible seeds of leguminous plants or herbs.

bear. **dar**. To produce, as fruit.

beard. **barba**. A tuft or group of bris-

ties; awn.

bearded. **barbado**. **ligulado**. Having long hair; also, refers to certain plants that have a small, red, hairy, tongue-like appendage inside the petals, as *Iris germanic* (**Iridaceae**); barbate.

bearer. **portador**. Any plant that produces fruit or flowers.

bearing (flowers). **florífero (flor)**. The process of producing (flowers).

bent. **torcido**. **curvado**. Curved or inclined; also, the stiff flower stalk of certain grasses (**Poaceae**); any of a number of related grasses, usually low growing and spreading.

benthic. **béntico**. Pertaining to the bottom region of an ocean, lake, or pond.

benthos. **bentos**. Organisms living on the bottom of oceans, rivers, or streams.

berry. **baya**. A fleshy fruit with a skin or rind which has developed from a single pistil and contains several or many seeds, as a tomato (**Lycopersicon**) or grape (**Vitaceae**); also, the dry seed or grains produced by wheat (**Triticum**), coffee (**Coffea**), and others.

betacyan(in). **betacina(ni)na**. A water-soluble pigment that is involved with the blue color of some plants.

beta oxidation. **oxidación beta**. The degradation of long-chain fatty acids. Two-carbon fragments are formed as a result of enzymatic attack directed against the second or beta carbon of the hydrocarbon chain. Aided by coenzyme A, the fragments enter the Krebs cycle and are processed for ATP synthesis.

bi-. **bi-**. A Latin prefix that means, "two", "twice", or "having two".

biannual. **bianual**. Occurring twice a

year, as flowering; semiannual.

biarticulate. **biarticulado**. Having two nodes or joints.

biaxial. **biaxial**. Having two axes.

biatorine. **biatoro**. Refers to a lichen apothecium which is soft, waxy, and often brightly colored.

bibacca. **bibacca**. A fused double berry, as in the **Lonicera**.

bibracteate. **bibracteado**. Bearing two bracts.

bibulous. **bibulo**. Capable of absorbing water.

bicalcarate. **bicalcarado**. Two-spurred.

bicapsular. **bicapsular**. Having two capsules; also, a capsule with two cells.

bicarpellate. **bicarpelar**. Having two carpels.

bicellular. **bicelular**. Having two cells.

bicilate. **biciliado**. Biflagellate.

bicollateral bundle. **haz bicolateral**.
A vascular bundle with phloem inside and outside the xylem.

bicolor. **bicoloro**. Having two sharply different colors.

bicolorous. **bicoloro**. With two colors.

biconcave. **bicóncavo**. Concave shaped on both sides.

biconic. **biconico**. Having the appearance of two cones placed base to base.

biconjugate. **biconjugar**. Growing in double pairs, as leaflets on the axis.

biconvex. **biconvexo**. Convex shaped on both sides.

bicornuate. **bicornuado**. Having two horn-like parts; crescent-shaped.

bicostate. **bicostillado**. Having two longitudinal ribs, as leaves.

bicrenate. **bicrenado**. Doubly crenate, as when the teeth of crenate leaves are also crenate; twice scalloped.

bicuminate. **bicuminado**. Having two diverging points.

bicuspid. **bicúspide**. Having two short horn-like points.

bicyclic. **bicíclica**. Arranged in two whorls, as bicyclic stamens.

bidentate. **bidentado**. Having two teeth or toothed.

biduous. **biduo**. Having a two-day duration, as biduous flowers.

biennial. **bienal**. A plant with a total life span of two growing seasons, usually, producing roots and foliage the first year, and flowers and fruit the second year.

bifacial. **bifacial**. Having upper and lower surfaces that are dissimilar in color or texture, as some leaves.

bifacially. **bifacialmente**. Having two unlike, opposite surfaces.

bifarious. **bifaro**. Pointing two ways or occurring in two opposite, vertical rows, as leaves growing on opposite sides of a branch.

biferous. **bífero**. Appearing or bearing twice a year, as biferous fruit or flowers.

bifid. **bífido**. Divided into two parts or lobes, most often at the tip; forked.

bifistular. **bifistuloso**. Having two channels.

biflabellate. **biflabelado**. Fan-shaped on two sides.

biflagellate. **biflagelado**. Having two flagella.

biflorous. **bifloro**. Bearing two flowers; also, bearing flowers twice a year, as autumn and spring.

bifoliate. **bifolio**. Having two leaves; also, a compound leaf with two leaflets.

bifoliolate. **bifoliolado**. Having two leaves or leaflets emerging from a common point; said of a compound leaf with two leaflets.

bifurcate. **bifurcado**. Divided into two

forks or two branches; forked.

big bang theory. **la teoría del big bang. de la gran explosión.** A theory proposing that the entire universe was created at one time.

bigeminate. **bigeminado.** Occurring in double pairs; also, a decompound leaf with a forked petiole and leaflets at the end of each segment; bijugate.

bigeneric. **bigenérico.** Having the characteristics of two genera.

biguttulate. **bigutulado.** Containing two vacuoles or two oil droplets.

bijugate. **biyugado.** With two pairs of leaflets, as certain pinnate leaves.

bilabiate. **bilabiado.** Two-lipped corolla, as with many irregular flowers or having an upper and lower lip, as flowers in the mint family (**Labiatae**).

bilabiate dehiscence. **dehiscencia bilabiado.** Opening by a transverse split across the top.

bilaciniate. **bilacinado.** Doubly fringed.

bilaminar. **bilaminar.** Having two layers.

bilateral symmetry. **simetría bilateral.** Having parts arranged in two halves, so that each half is the mirror image of the other, divisible in one plane only; irregular symmetry; zygomorphic.

bilateral. **bilateral.** Having two symmetrical sides, as leaves along a stem.

bilobate. **bilobado.** Having two lobes, as bilobate leaves.

bilobed. **bilobar.** Two-lobed.

bilocular. **bilocular.** Divided into two chambers or locules, as some ovaries; two-loculed.

bimaculate. **bimaculado.** Having two spots or blotches.

bimerous. **bimero.** Having two parts;

2-merous.

bimodal. **bimodal.** Said of a frequency distribution with two modes.

binary fission. **fisión binaria. división binaria.** A division of one cell into two similar or identical cells; a type of asexual reproduction, common in single-celled organisms; bipartition.

binate. **binado.** Consisting of two parts or growing in pairs, as binate leaves; geminate.

binomial nomenclature. **nomenclatura binomial.** The Linnaeus developed, two word, Latin based, international scientific name or naming of plants with the first indicating the genus and the second the species.

binomial. **binomial.** The two name, genus and species, comprising the scientific name of plants.

binucleate. **binucleado.** Having two nuclei.

binucleolate. **binucleolado.** Of an ascospore with two oil droplets.

bio-. **bio-.** A prefix that means, "life" or "living things", as in biology.

bioaccumulation. **bioacumulación.** The accretion of unwholesome chemicals in plants.

bioacoustics. **bioacústica.** The study of sound as it affects living things.

bioassay. **bioensayo.** A quantitative evaluation of a particular substance using a portion of or an entire organism; the evaluation of the effect of a substance on an organism under controlled conditions, e.g. bioassay of fungicides

bioblast. **bioblasto.** Chondriosome.

biocenose. **biocenoso.** A community of organisms of a particular habitat.

biochemical. **bioquímico.** Pertaining to biochemistry or a biochemical substance.

biochemistry. **bioquímica**. The science that deals with the chemical processes of living matter.

biochore. **biocora**. A biotic district or minor habitat; also, can describe a precise biological boundary between major climatic regions and their subdivisions as determined by the type of life forms.

biochrome. **biocroma**. A compound that produces color in the tissue of living organisms.

biocide. **biocida**. Any substance that is poisonous to plants and other living organisms.

bioclimate. **bioclima**. The effect of climate on living organisms.

bioclimatology. **bioclimatología**. The study of the effects of climate on organisms.

bioc(o)enosis. **bioc(o)enosis**. The interrelationship between organisms in a habitat; also, the biome, or living community; also, the association of plants and animals, especially in relation to a specific feeding area of the animals; biotic community.

biocoenosis. **biocoenosio**. A community of both animals and plants.

biocoenotic. **bioc(o)enótico**. Refers to the interrelationship of organisms within a community.

biodegradable. **biodegradable**. Capable of being decomposed, especially by bacteria.

biodiversity. **biodiversidad**. Refers to the variety of living things in the natural world, especially species, ecosystems, and their genetic compositions.

biodynamics. **biodinámica**. The branch of physiology that deals with the processes of plants and animals: opposed to biostatics.

bioecology. **bioecología**. A branch of ecology that studies the relationships of organisms, especially between plants and animals.

bioelectric. **bioeléctrico**. Pertains to the effects of electricity on plant tissue.

bioelectromagnetics. **bioelectromagnético**. The study of how organisms interact with electromagnetic (EM) fields. Electrical phenomena are found in all living organisms. Moreover, electrical currents exist in organisms that are capable of producing magnetic fields that extend outside the organism, as a consequence, they can be influenced by external magnetic and EM fields as well.

bioenergetics. **bioenergética**. The study of the flow and transformations of energy in living organisms, especially the formation of ATP in photosynthesis and other mechanisms in metabolism.

bioethics. **bioética**. The study of social or moral correctness arising from scientific explorations, especially in the various areas of biology, including medicine.

bioflavonoid. **bioflavonoide**. A derivative of a flavone compound, as vitamin P.

biogen(e). **biógeno**. Thought to be the smallest unit of protoplasm.

biogenesis. **biogénesis**. Same as biosynthesis; also, the origin of living organisms from other living organisms.

biogenic. **biogénico**. Pertaining to the formation of fossils, rocks, or other structures as a result of the activities of living organisms.

biogenetic law. **ley biogenética fundamental**. The hypothesis that an

individual, during its development, repeats the evolution of its race, but in a shortened form.

biogenous. **biogeno**. Living on another living organism. Changes in an organism's natural fields may produce physical and behavioral changes.

biogeoc(o)enosis. **biogeocenosis**. A biome and its habitat; ecotope.

biogeochemical cycle. **ciclo biogeoquímico**. A circular or cyclic movement of chemical elements from organisms to the physical environment and back again to the organisms; referred to as a nutrient cycle if the elements are necessary for life; renewal cycle.

biogeochemical exploration. **exploración biogeoquímica**. The use of indicator plant species to locate the possible presence of metal-rich deposits; geobotanical exploration.

biogeography. **biogeografía orgánica**. The study of the geographic distribution of plants and animals, especially as this applies to the rapidly changing ecological relationships between plants, animals, and humans.

biological. **biológico**. Of or pertaining to living things.

biological clock. **reloj biológico**. In plants, an innate capacity that controls the cycles or rhythms of various life functions, such as photosynthesis; possibly phytochromes figure in the time mechanism.

biological conservation. **conservación del biológico. conservación del medio ambiente**. An active, long-term management of biological resources to ensure the survival of species diversity and the continuation of genetic variations within

species; can imply the use of legally protected biospheres.

biological spectrum. **espectro biológico**. A table for a defined area, showing in percentages, the frequency of occurrence of the various plants and animals.

biologist. **biólogo**. One who is engaged in studying life and living things.

biology. **biología**. The study of life and living things, including origins, diversity, structure, functions, and distribution.

bioluminescence. **bioluminiscencia**. The property of some plants to biologically produce and emit light using the energy of ATP, as some mushrooms.

biolysis. **biólisis**. The decomposition of organic substances by living organisms.

biomass. **biomasa**. Solar energy that has been converted into chemical energy, stored in the chemical bonds of organic compounds in trees and other plants; also, the total amount of organic material produced, usually expressed as a dry weight.

biomass pyramid. **pirámide de la biomasa**. See pyramid of biomass.

biome. **bioma**. An ecosystem composed of all the plants, animals, and other organisms that make up a defined natural community in any climatic region; may be terrestrial or aquatic.

biomechanics. **biomecánica**. The study of the mechanics of living organisms, especially the effects of gravity.

biometric. **biométrica. bioestadística**. Of or pertaining to biometry.

biometry. **biometría**. The branch of biology that studies living things using quantitative measurements and statistics; sometimes referred to as

quantitative biology.

bion. **bíon**. See biont.

bionomic. **bionómico**. Relating to the environment; ecological.

biont. **bionte**. An individual plant, independent, and capable of a separate existence; bion.

biophagous. **biófago**. Subsisting on living organisms, as the white-flowered Venus flytrap (*Dianae muscipula*). biogenous.

biophilous. **biófilo**. Biogenous.

biophore. **bióforo**. A minute particle capable of growth and reproduction.

bioplasm. **bioplasma**. Protoplasm.

bioremediation. **bioremediación**. The use of microbes and plants to reduce or degrade pollutants and industrial wastes, and household garbage. See phytoremediation.

biorhythm. **biorritmo**. In plants, innate cyclic changes that occur in the life functions.

bios factor. **factor bios**. A substance essential for the growth of plants and yeasts. It is a mixture of aneurin, biotin, and other substances.

bioseries. **bioserie**. In evolution, a historical sequence formed by the changes in any one inheritable character.

biosphere. **biosfera**. A part of the Earth's environment in which there are living organisms interacting to produce a steady-state system, including the relationship between biotic and abiotic components; limited to the waters of the earth, a portion of the crust, and the lower region of the surrounding air; also, legally protected areas of the world that have been designated and set aside for biological conservation.

biostatistics. **bioestadística**. See

biometry.

biosynthesis. **biosíntesis**. The assembly of various chemical compounds, lipids, carbohydrates, proteins, and nucleic acids to make up a plant cell; also, the formation of living organisms; biogenesis.

biosystematics. **biositemática**. An experimental taxonomic classification system of species based on genetic and ecological findings.

biota. **biota**. The plant and animal life of a particular region.

biotechnology. **biotecnología**. The use of microorganisms for industrial or other human purposes, especially in reference to gene engineering.

biotic. **biótica**. Pertaining to the living part of the environment, as distinct from the non-living.

biotic adaptation. **adaptación biótica**. Changes in form or physiology, presumed to have arisen from competition with other plants.

biotic association. **asociación biótica**.

A community of plants and animals.

biotic climax. **clímax biótico**. A stable plant community arising from a succession arrested or deflected by some type of human activity, either directly or indirectly; plagio-climax.

biotic community. **comunidad biótica**. The living components of a biosphere or ecosystem, as distinct from the non-living (abiotic); biocoenosis.

biotic factor. **factor biótico**. The influence on the environment of an organism due to the presence of other organisms, as shade in an area; different from a physical, abiotic, environmental factor.

biotic potential. **potencial biótico**. Pertaining to the living part of the

environment, as distinct from the non-living.

biotin. **biotina**. Vitamin H, considered an essential growth substance for yeasts.

biotope. **biótopo**. *See* biocoenosium.

biotroph. **biotrof**. A parasitic organism that obtains nutrients from the living tissues of a host organism.

biotype. **biotipo**. **tipo biológico**. A group of organisms with the same genotype. Usually only one individual of cross-fertilized plants will retain the genotype but progeny from a self-fertilizing population with a pure genetic constitution will belong to the same biotype.

biozone. **biozona**. The total range of a species defined within time limits or periods.

bipalmate. **bipalmado**. Having a palmate arrangement on secondary petioles which are arranged palmately on the primary petiole.

biparous. **biparo**. Flower clusters with two branches or axis; dichasium.

bipartite. **bipartido**. Divided in two, almost to the base, as with some leaves.

bipartition. **bipartición**. *See* binary fission.

bipetal. **bipétalo**. Two petals.

bipetalous. **bipetalado**. Having two petals; dipetalous; two-petaled.

bipinnate. **bipinnado**. Doubly pinnate leaves; having pinnate leaflets on stems that grow opposite each other on a main stem; a pinnate leaf with pinnate leaflets.

bipinnatifid. **bipinnatifido**. Leaves that are twice divided pinnately.

bipolar. **bipolar**. At the opposite ends of a bacterial cell; also, having two sexual sorts or phases; also, of a spore germinating by two germ

tubes, one at each end.

biramous. **birramoso**. Having two branches; forked.

biramous appendage. **apéndice bifurcado**. One of the two branches of a forked branch.

birefringence. **birefringencia**. Having two or more refractive indices due to the asymmetry of the molecular structure. The study of the birefringent properties of a material helps to determine its molecular configuration at rest or under stress.

bisaccate. **bisacado**. Having two of the sepals each with a small pouch at the base; also, having two small sacs or pouches.

biscutate. **biscutado**. Resembling two buckers or shields placed side by side, as the *Dionaea muscipula* leaf.

bisected. **bisecto**. Cut or divided into two parts.

biseriate. **biseriado**. Occurring in two rows.

biserrate. **biserrado**. Doubly serrate or leaves that have notched teeth along the margins.

bisetous. **bisetáceo**. Having two bristles.

bisexual. **bisexual**. A flower with both male (stamens) and female (pistils) organs within the same envelope; a perfect flower; hermaphrodite.

bisulcate. **bisulado**. Having two grooves or channels.

bisymmetric. **bisimétrico**. Symmetric in two planes, at right-angles to each other.

biterminate. **biternado**. Doubly ternate, as when a petiole has three ternate leaflets.

bitunicate. **bitunicado**. Having two walls; also, an ascus in which the outer and inner layers of the ascus separate during ascospore

release.

biunciate. **biunciado**. Having two hooks.

biuret reaction (test). **reacción del biureto**. Protein in the presence of a strong alkaline solution and copper ions (as copper sulphate) give a pinkish-mauve color. A test for protein.

bivalve. **bivalvado**. At maturity, the splitting into two symmetrical or asymmetrical portions or valves, as seeds or fruit; also, a separable, two part seed case.

bivalent. **bivalvente**. Two homologous chromosomes associated in a parallel manner; formed during meiosis I.

biverticillate. **biverticilado**. Having branches or whorls at two levels in the same species.

bladder. **vesícula**. A thin-walled, inflated structure; an enlarged membranous pericarp (ovary); also, a modified leaf found on the bladderwort (**Lentibulariaceae**) which is used to catch small aquatic animals.

bladder-like. **vesiculado**. Having the form or appearance of a thin-walled, inflated bladder.

bladder-shaped. **vesiculiforme. vesiculoso**. Thin-walled and inflated.

blade. **lámina**. The broad, often flat portion of a grass, leaf, or petal; also, the flattened part of the thallus of the larger seaweeds; lamina.

bladeless. **sin lámina**. Without blades.

blastema. **blastema**. The initial point of growth for an organ or part; the axial part of an embryo gymnosperm or angiosperm, but not the cotyledon.

blasteniospore. **blasteniospora**. A lichen spore which is divided by a

cross-wall but connected by a tube.

blasto-. **blasto-**. A prefix from the Greek that means, "bud" or "budding".

blastochore. **blastocoro**. A plant that is dispersed by off-shoots.

blastogenesis. **blastogénesis**. Transmission of inherited characters by the germ-plasm only.

blastogenic. **blastogeno**. Belonging to the hereditary characteristics due to the make-up of the germ-plasm.

blastomycete. **blastomiceto**. Yeast-like fungi that reproduce by multiple budding cells; sources of skin and tissue eruptions in humans.

blastoparenchymatous. **blastoparenquimática**. Said of an algal thallus which consists of filaments joined at the side and not recognizable as separate filaments

blastospore. **blastospora**. A fungal spore formed by budding, *e.g.* yeasts.

bleed. **exudar savia o resina**. To lose or collect sap from a surface that has been cut or scratched, as a tree or vine.

bleeding. **lacrimación**. Exuding contents of the xylem stream (sap) through a cut or scratch due to root pressure.

blemmatogen. **blemmatogeno**. A layer of hyphae, usually with thickened walls, which covers the button of an agaric and may form the veil.

blemish. **cicatriz. imperfección**. A scar on the surface, as on a stem, indicating the previous location of a leaf.

blending inheritance. **herencia mezclada**. The inheritance of characters so that the progeny and succeeding generations are intermediate between the original parents.

blepharoplast. **blefaroplasto**. A cylin-

dricl structure composed of parallel peripheral rods connected to the axial filaments at the base of the flagellum that divides when the nucleus and cell divide.

blight. **añublo. arruinar. infestar.** A non-specific term for diseases that cause plant leaves, stems, fruits, and tissues to wither and die; many by infestation of rusts, mildew, and smuts.

blind. **ciego.** Abortive, as a blind bud.

blistered. **ampollosa.** A swelling on the surface.

bloom. **flor.** The flower.

bloom. **abrise.** The opening of a flower.

bloom. **florece.** To flower.

bloom. **pruina. vello. pelusa.** A white powdery coating that occurs on some fruits, as the plum (**Prunus**), or on some leaves or stems.

blooming. **floración.** The time of flowering.

blossom. **flor. capullo. pimpollo.** A flower.

blotched. **maculado.** Marked with an irregular spot or discoloration.

blue-green algae. **algas verdeazules.** One of the two main types of algae with the blue-green (**Cyanophyta**) composed of prokaryotic cells. The second type has three main divisions (**Phaeophyta** ((brown)), **Chlorophyta** ((green)), **Rhodophyta** ((red))) which are composed of algae with eukaryotic cells. **NOTE:** Blue-green algae is currently referred to as cyanobacteria (**Cyanobacteria**) to avoid confusion with true algae.

bluish. **azuloso.** Somewhat blue in color.

blunt. **disafilado.** The shape is not pointed; rounded at the apex with an angle greater than 90°; having

a rounded end; obtuse.

boat-shaped. **cimbiforme.** Resembling the shape of a boat. *See* cymbiform.

body cell. **célula corporal.** A cell in the pollen grain of the **Gymnosperms** which releases the male nuclei; somatic cell.

body structure. **estructura del cuerpo.** The complete material structure of a plant.

bog. **pantano.** A permanently soft, water-logged ground with a plant community of mosses (**Musci**), heaths (**Erica**), and rushes (**Juncus**).

bole. **fuste.** The trunk of a tree.

boll. **cápsula.** A rounded seed pod, especially of cotton (**Malvaceae**) and flax (**Linaceae**).

bombycine. **bombicina.** Like silk.

bond. **enlace.** A force that holds chemicals together; chemical bond.

booted. **peronado.** Having a stipe covered by a thick, felted sheath, especially at the base; peronate.

bordeaux mixture. **mezcla bordeaux.** A fungicide made of copper sulphate and quick lime.

bordered. **marginado. bordeado.** The margin of the flower or structure which has a different color than the main body; also, one color surrounded by the edging of another.

bordered pit. **punteadura areolada. poro areolado.** A thick hollow area in the wall of a tracheid where a thickened cellular growth overhangs.

boreal. **boreal.** Of the north or northern.

boreal forest. **bosque boreal. bosque septentrional.** Subarctic woodlands which are often swampy and support extensive stands of evergreen conifers. *See* also taiga and lake forest.

borne. **portado**. Past participle of "bear", as flowers borne along a stem.

boron. **boro**. A chemical element with the symbol B, which is involved in metabolism and the membrane functions; essential to plant growth.

bostryx. **bóstrix**. An inflorescence with the flowers in a cyme or flattish cluster, occurring only on one side of the axis and curving at the end; helicoid cyme.

botanical. **botánico. de botánica**. Pertaining to botany.

botanist. **botánico. fitólogo**. A scientist who studies plants.

botanize. **herborizar**. To study plants in their natural habitat; also, to collect plants for study or classification.

botany. **botánica**. The branch of biology that studies plants; the science of plants, their structure, function, growth, classification, and terms used in their description and denomination; phytoogy.

botry-. **botri-**. A Greek prefix that means, "bunch".

botryoid. **botrioide**. Like a bunch of grapes; racemose.

botuliform. **botuliforme**. Sausage-like; shaped like a sausage with rounded ends.

bouquet stage. **estado de ramillete**. When the chromosomes, during zygotene and pachytene, lie in loops with their ends near one part of the nucleus wall.

bourgeon. **bourgeone**. To bud or sprout.

bowed. **arqueado**. Having a curved shape, as a bow.

brachiate. **braquial**. Having widely spreading branches arranged alternately in pairs, each pair at right angle to the next and nearly hori-

zontal, as with maple trees (**Acer**).

brachy-. **braqui-**. A Greek prefix that means, "short".

brachyblast. **braquiblasto**. A short branch of limited growth, bearing leaves and occasionally, flowers and fruits; a spur.

brachycladous. **braquicladio**. Having very short branches.

brachyform. **braquiforme**. Of the life cycle of some autoecious rusts which lack an aecial stage.

brachymeiosis. **braquimeiosis**. A simplified form of meiosis which is completed in one cell division; also, the second reduction division in the production of ascospores.

brachysclereid. **braquiesclereida**. A sclereid that is relatively isodiametric in shape; stone cell.

brackish. **salobre**. Slightly salty water.

bract. **brácea**. Modified or small leaves that sometimes grow at the base of a flower or flower stalk, often resembling a petal; also, a small leaf-like organ surrounding the sex organs of liverworts; also, a sterile leaf subtending the sporangophore of some **Equisetinae**; also, a sterile leaf-like growth in the strobilus of the **Lycopodinae**.

bracteate. **bracteado**. With bracts or bract-bearing.

bracteody. **bracteodia**. The replacement of flower members by bracts.

bracteole. **bractéola**. Very small bracts occurring on the flower stalk above the bract and below the calyx.

bracteomania. **bractéomania**. The abnormal production of large numbers of bracts, often at the expense of normal flower production.

bracteose. **bractéoso**. Having conspicuous bracts.

bract-leaf. **brácea foliosa**. A modi-

- fied leaf growing at the base of a flower or a flower cluster.
- bract scale. **escama tectriz**. The small outer scale at the base of the large cone scale of conifers (**Coniferales**).
- bractlet. **bractéola**. *See* bracteole.
- brady-. **bradi-**. A prefix from the Greek that means, "slow".
- bradyspore. **bradispora**. A plant that releases seeds slowly.
- bradytelic. **braditélico**. Refers to a plant that releases seeds slowly.
- bramble. **zarza**. A thorny plant.
- bramble bush. **zarzamora**. A small thorny plant, as a blackberry (**Rosaceae**).
- branch. **escar ramas**. To produce branches or to spread into branches.
- branch. **rama**. A woody extension or subdivision growing out of a tree or shrub.
- branched. **ramificada**. Having branches.
- branching. **ramificación**. Dividing into branches; producing branches; ramose.
- branchlet. **ramula**. A very small branch or ramulus.
- branch out. **ramificar(se)**. To put forth or form branches or shoots.
- branch roots. **raíz de rama**. Lateral roots arising from the pericycle of a larger root.
- branch tendril. **zarcillo ramoso**. **sarmiento**. A tendril formed from a modified branch; sarmient.
- branch trace. **traza rama**. Branches of the vascular tissue running to a branch.
- breakage and reunion. **ruptura y reunión**. **ruptura-reunión**. In genetic crossing-over, the pairing of homologous chromosomes during the prophase I state of meiosis by the physical breakage and cross-wise reunion of broken chromatids.
- breaking of meres. **ruptura del estaque**. The sudden development of large amounts of blue-green algae in small bodies of fresh water.
- breast-shaped. **mamiforme**. Having the form or shape of a breast; mamiform.
- breed. **seleccionar**. **propagar**. **producir**. To produce offsprings.
- breed. **variedad**. Any of the subspecies of artificially derived interbreeding plants with common ancestors and distinguishing characteristics.
- brevi-. **brevi-**. A Latin prefix that means, "short".
- brevicidal dehiscence. **dehiscencia brevicidal**. Said of a fern sporangium when the annulus is interrupted by the stalk.
- brevicollate. **brevicolado**. Short-necked.
- bristle. **cerda**. Short, stiff, hair-like structures; seta; chaeta.
- bristly. **cerdoso**. Having short, stiff, hair-like structures.
- brittle. **quebradizo**. Crisp or easily broken.
- broad leaf forest. **bosque latifoliadas**. A type of forest that is generally evergreen (the exception occurring in the Chilean Patagonia) and requires an abundant rainfall spread throughout the year.
- broadleaf. **latihoja**. Having leaves that are wide and flat rather than needle-shaped, as a broadleaf tree; latifoliate.
- broad-leaved forest (hardwood). **árbol frondoso**. **bosque de frondosas**. A forest of angiospermous trees with broad, flat leaves, as ebony (**Ebenaceae**) and maples (**Acer-**

aceae), as opposed to the needle-shaped foliage of the softwoods, pine (**Pinaceae**) and fir (**Pinaceae**).

broad-leaved tree. **árbol frondoso**.

Angiospermous trees; any tree that is not a conifer.

broad-leaved. **latifolioso. latifolio**.

Refers to angiospermous tree; latifoliate.

brochidodromous. **broquidódroma**.

Venation in leaves where loops are formed within the blade.

bromeliad. **bromelia**. A group of plants common to the tropics, with gray, dry foliage, often growing in trees and belonging to the **Bromeliaceae** family.

bromeliiform. **bromeliiforme**. Belonging to or having the appearance of **Bromeliaceae**.

brood bud. **yema reproductora**.

A small multicellular organ serving for vegetative reproduction in some of the red algae; also, a bud of the **Bryophyta**; also, a vegetative reproductive organ of lichens. *See* soridium

brown algae. **feofitos**. A type of multicelled marine algae (**Phaeophyta**) that the green of the chlorophyll is obscured by brown pigmentation (fucoxanthin).

brown (color). **pardo (color)**. Having the color of chocolate or coffee.

Brownian movement. **movimiento de Brownian**. The passive, erratic, nondirectional motion exhibited by microscopic particles. The jostling comes from being randomly bumped by submicroscopic particles, usually water molecules, in which the visible particles are suspended.

brownish. **pardusco**. Somewhat brown.

brumalis. **brumalis**. Latin for "win-

ter".

brunneus. **brunneus**. Latin for "brown".
bryony. **brionia**. Any one of a group of woody vines belonging to the gourd family (**Cucurbitaceae**), which have large fleshy roots, five-lobed leaves, and clusters of greenish-white flowers.

bryophytes. **bríofitas**. Any of a division (**Bryophyta**) of non-flowering plants composed of mosses (**Musci**) and liverworts (**Hepaticae**).

bud. **brotar. abotonar**. The process of sprouting or budding; to bud.

bud. **yema**. An immature branch, leaf or flower, appearing as a small swelling, often enclosed by protective scales; also, an unopened flower; also, in some yeast (**Saccharomycetaceae**), new cells appearing as small bubbles from the mother yeast are referred to as buds; a meristematic shoot located at the terminal or lateral position of a shoot.

bud-bearing. **geminifloro. geminifloro**. Producing buds, especially by gemma(e); gemmiferous.

budding. **injerto de yema. gemación**. The insertion of a bud of one tree under the bark of another, for asexual propagation; a form of grafting; a type of asexual reproduction, as in yeast plants; also, asexual reproduction in which some cells differentiate and grow outward from the parent, then the bud breaks away to form a new individual; gemmation.

bud mutation. **mutación de yema. mutación de brotes**. The outgrowth of a bud from an ordinary plant, producing a sport; many new varieties in plants arise from bud mu-

tation; bud variation; sport.

bud-fission. **fisión de yema**. A type of budding in some fungi where the bud or daughter cell is separated from the parent cell by a septum.

bud scale. **pérula. escama gemaria**. Scales or modified leaves covering and protecting a bud; tegmentum; cataphyll.

bud sport. **sport mutación de yema**. A branch, flower, or fruit with a genetic constitution different from that of the parent body.

bud variation. **variación de yema**. *See* bud mutation.

buffer. **tampón**. A substance, usually a salt, in living cells that combines with and releases hydrogen ions as a function of pH; the buffering is highly important as most cells survive only within narrow pH limits. Colloids and solutes present in most soils and to a lesser extent in roots have the property of buffering the pH of a soil.

bulb. **bulbo**. A rounded, underground storage organ (bud) made of fleshy, circular layers of scale leaves and attached to a very short, conical stem, as an onion (*Allium*) or *Narcissus* bulb.

bulbel. **bulbillo**. A diminutive bulb growing from the base of a larger bulb; cormel.

bulbiferous. **bulbífero**. Producing bulbs.

bulbiform. **bulbiforme**. Having the shape of a bulb.

bulbil. **bulbilo**. A small, above ground aerial bud, growing most often in a leaf axil, or taking the place of a flower; can be separated from the parent plant for vegetative reproduction.

bulbillate. **bulbilado**. Of the stipe of some fungi when it has a small, ill-defined bulb-like structure at the base.

bulbous. **bulbosa**. Having bulbs or growing from bulbs.

bulge. **bulto**. A protrusion.

bullate. **bulado**. Blister-like projections or swellings, as between the veins of leaves.

bulliform cell. **célula buliforme**. A large epidermal cell found on the upper surface of many grasses (*Poaceae*); turgor pressure in these cells controls the lateral rolling of leaves during drought and water stress; motor cell.

bundle. **haz**. A cluster or group of fibers, as a vascular bundle; also, a group of cells for conduction and support in stems and leaves.

bundle sheath. **vaina fascicular**. The parenchyma and/or sclerenchyma cells surrounding a vascular bundle.

bur. **cipsela erizada**. A prickly, clinging, hooked, or barbed seedcase or flower of certain plants.

burdo. **burdón**. A graft hybrid thought to have been formed by the fusion of vegetative nuclei from the stock and scion.

burgundy mixture. **mezcla borgoña**. A fungicide similar to Bordeaux mixture, but sodium carbonate replaces the lime.

burgeon. **brotar**. A bud or sprout.

burr. **abrojo. cadillo. erizo**. *See* bur.

bursicule. **bursicula**. Having a sac or pouch.

bursiculate. **bursiculado**. *See* bursiform.

bursiform. **bursiforme**. Shaped like a bag, sac, or pouch.

bush. **mata**. A low, many-branched

woody plant (shrub), usually starting near the ground, growing less than 10 meters tall, and with no clear trunk; also, an uncultivated, wild area of land.

bushy. **breñoso.** Having many close twigs and branches; also, resembling a bush.

butterfly flower. **flor de mariposa.** A flower that is pollinated by butterflies.

buttress. **contrafuerte.** A structure that provides support, such as flared trunks on certain trees.

buttress root. **raíz zanco. raíz fúlcrea.**

Flattened, specialized aerial roots that arise from the trunk of certain mature tropical trees, as *Ficus*, *Tarrietia*, *Sloanea spp.* providing support; stilt root; prop root.

butyric acid. **ácido butírico.** An acid produced during the anaerobic respiration of carbohydrates that smells of rancid butter.

butrous. **butíro.** Like butter.

byssaceous. **bisáceo.** Having fine, silky threads, or filaments; cotton-like.

C

C. **C.** *See* carbon.

Ca. **Ca.** *See* calcium.

caduciflorous. **caducifloro.** The tendency of leaves to shed or fall early.

caducifolious. **caducifolio.** Deciduous leaves.

caducous. **caduco. caedizo.** Leaves, spores, or petals falling early.

caecum. **caeco.** An extension of the embryo sac into the endosperm.

caeoma. **caeoma.** An aecidium with no peridium; sometimes with paraphyses or represented by a sterile ring of hyphae.

caespitose. **caespitoso.** Matted or tufted, as hummock-forming grasses (**Poaceae**).

caeruleus. **caeruleus.** Latin for pale blue in color.

caesious. **caesio.** Having a bluish-grey, waxy bloom.

caesius. **caesius.** Latin for a lavender-blue color.

caespitose. **cespitoso.** Growing in dense clumps or tufts.

caffeine. **cafeina.** A purine in coffee beans, tea leaves, and cacao beans. An oxidation product of the methyl derivative of purine.

caffeic acid. **ácido cafeico.** A vegetable acid found in coffee tannin.

calamiferous. **calamífero.** Reedy or having reeds; hollow-stemmed.

calamiform. **calamiforme.** Reed-like or having the shape of a reed.

calamus. **calamo.** The sweet flag or sweet rush *Acorus calamus* (**Araceae**), a pungent, aromatic root

that is used medicially; also, a reed or cane.

calathide. **calatido.** The involucre of a capitulum; also, the capitulum itself.

calathidium. **calatidio.** The flower head of a composite plant.

calathiform. **calatiforme.** Concave; cup-shaped.

calcar. **calcar.** A basal spur or spur-like projection from a petal or sepal.

calcarate. **calcariforme.** Having a calcar, spur, or spur-like appendage.

calcareous. **calcáreo. calizo.** Refers to substances containing calcium carbonate.

calcariform. **calcariforme.** Having a spur or a spur-like appendage.

calceiform. **calceiforme.** Having the shape of a shoe or slipper.

calceolate. **calceiforme.** Having the shape of a shoe or slipper, as the labellum of many orchids (**Orchidaceae**); calceiform

calicole. **calcícola.** A plant that grows on calcareous soil, chalky limestone soil, or soil containing free calcium carbonate.

caliculous. **calcícolo.** Refers to plants that prefer to grow in or can only grow in a calcium-rich soil.

calcification. **calcificación.** The accumulation of calcium in soils, especially soils of cool temperate regions where leaching occurs slowly; also, the accumulation of calcium carbonate on or in a cell

wall.

calciform. **calcíforme**. Chalk-like.

calcifuge. **calcífuga**. A plant that avoids chalky limestone or calcareous soil.

calcifugous. **calcífugo**. Avoiding calcareous soils, as said of some lichens.

calciphilous. **calcífilo**. Chalk-loving.

calciphobe. **planta calcífuga**. *See* calcifuge.

calcium carbonate. **calcio carbonato**. **cáxico carbonato**. A compound of calcium occurring naturally in marble, limestone, shells, and to some extent, in plants.

caline. **calino**. A growth promoting substance. Rhizocalines promote root growth and caulocalines promote stem growth.

calli-. **calli-**. A Greek prefix that means, "beautiful".

callose. **calosa**. Hard or thick, sometimes rough; also, an insoluble carbohydrate in cupraammonia (soluble in 1% solutions of alkalis) deposited seasonally or permanently on sieve plates, causing them to stop functioning; also found in calcified walls and in the cells of some algae.

callosity. **callosidad**. A hardened or thickened area.

callus. **callo**. Hardened tissue that develops over the wound on a stem; also, in some grasses (**Poaceae**), the thick basal extension of the lemma at the point of its attachment to the rachilla; also, a mass of material formed on a cell wall around the germ tube of a parasitic fungus.

callus (orchids). **callo (orquídea)**. A prominence, varied in number, form and arrangement, on the labellum

of certain orchid flowers, as *Cyrtosylis*, *Caladenia*, *Chiloglottis*, *Glossodia*, and others.

calorie. **caloria**. A unit of heat; one calorie is the amount of heat required to raise the temperature of one gram of water one degree centigrade.

calvescent. **calvescente**. Naked or bald or becoming so.

calyc-. **calic-**. A Greek prefix that means, "a cup".

calycanthemy. **calicantemia**. A partial or complete change of sepals into petals.

calycate. **calicado**. Having a calyx.

calycifloral. **calicifloral**. *See* calyciflorate.

calyciflorate. **caliciflorado**. With the calyx bearing the petals and stamens.

calyciform. **caliciforme**. Calyx or cup-shaped.

calycine. **calicino**. **calicinar**. Resembling a calyx or calyx-like bracts.

calycle. **calículo**. A small cup-shaped structure like an outer calyx; set of leaflets or bracts looking like a calyx; an epicalyx; also, with slime molds (**Myxomycetes**), a calyx-like appendage below the sporangium.

calycoid. **calicoide**. Like a calyx.

calyculate. **caliculado**. Having bracts around the calyx or around the involucre; cup or calyx-shaped bracts.

calculus. **calículo**. Same as calycle.

calyptra. **caliptra**. A hood or cap-like structure on some flowers or fruit; may be used to describe the cap covering the spore case of some mosses (**Musci**) and liverworts (**Hepaticae**); also, the root cap on the tip of roots.

calyptate. **caliptrado**. Capped.

calyptrogen. **caliptrógeno**. The meristem of the central region of the root cap. Also *see* calyptra.

calyx (*pl.* calyces). **cáliz**. The outer covering (perianth) of a flower, made of leaf whorls or sepals and usually less delicate than the corolla; collective term for all the sepals of a flower; flower cup.

calyx lobe. **lobo cáliz**. One of the free portions of a calyx of united sepals.

calyx tube. **tubo cáliz**. The portion of a calyx where the sepals are united.

cambial meristem. **meristemo cambial**. Tissues inside the stem that divide and allow the plant to increase in girth.

cambiform cell. **célula cambiforme**.

An elongated, pointed parenchymatous cell found in the phloem.

cambium (*pl.* cambia). **cámbio. zona generatriz**. In vascular plants, one of two types of embryonic tissue that produces secondary growth; vascular cambium, a layer of dividing cells in the stems and roots that lies between the phloem and xylem by which a stem increases in girth; and cork cambium (phellogen) that gives rise to periderm which displaces epidermis as a protective secondary tissue system.

cambium initial. **inicial cámbial**. One of the permanently meristematic cells of a cambium.

camelinus. **camelinus**. A Latin word that means, "tawny".

camnium. **camnio**. A succession of plants caused by cultivation.

campaniform. **campaniforme**. Having the shape of a bell.

campanulate. **campanulado**. Bell-shaped, especially applied to a corolla.

campestris. **campestris**. A Latin term that means, "growing in fields".

camptodromous. **camptódroma**. A system of leaf venation in which the veinlets join after curving near the leaf margin.

campylodromous. **campilódroma**. Having a vein-curvature which ends at the apex of the leaf.

campylotropous. **campilótropo**. Curved oveules in which the nucleus is folded over on itself.????

canal. **canal**. A tube or duct that carries liquid or nutrients from one part of the plant to another; also, a duct containing oils or resins.

canal cell. **célula canal**. The initial cell which later divides to fill the central canal of the neck of the archegonia of **Bryophyta** and **Pteridophyta**. These cells disintegrate when the archegonium is ripe.

canaliculate. **acanalado**. Longitudinal channels or grooves.

canaliculation. **acanaliculación**. Any minutely channelled or grooved structure.

canalization. **canalización. encauzamiento**. A process involving the development of cells along particular pathways, despite disturbing environmental or genetic forces, until the cells mature and are differentiated into adult forms.

canalizing selection. **selección canalizante**. The elimination of genotypes that render developing individuals sensitive to environmental fluctuations, thereby providing standard phenotypes over the range of the environment common to that species.

cancellate. **cancelado. fenestrado**. Having a regular, net-like or spongy

structure.

candidus. **candidus**. A Latin term that means, "pure white".

cane. **caña**. A slender, jointed stem, woody but flexible, as with bamboo (**Bambusaceae**), sugar cane (**Saccharum**), or some palms (**Palmae**).

canescent. **canescente**. Gray or white in color because of a covering of fine hair; incanous.

canker. **cancro**. A general term for a disease occurring in woody plants in which bark fails to form, probably from a fungal or bacterial infection.

canopy. **dosel**. A high covering or shading, such as the top layer of a forest, where the branches spread out and the foliage sharply limits the amount of light reaching the ground; often subdivided into emergent, middle, and lower zones.

canus. **canus**. A Latin word that means, "grey-white".

cap. **caperuza. sombreroete**. The top portion of a mushroom; also, the leather-like structure where hymenium-bearing tissues occur in a fungal fruit body; pileus.

cap cell. **célula caperuza**. The cell at the apex of the fern antheridium. It is shed when the antherozoids are liberated.

capiliform. **capiliforme**. Shaped like hair.

capillaceous. **capilar**. Having long, hair-like filaments; resembling hair.

capillary. **capilar**. Hair-like.

capillary water. **agua de capilaridad. agua de capilar**. The part of soil moisture retained as film on, and within the pores of soil particles in a continuous inter-particle system, the source of most water

absorbed by a root; held in the soil against the force of gravity.

capilliform. **capiliforme**. Like a hair.

capillitium. **capilicio**. A tangle of hair-like filaments inside the spore cases of some slime molds and fungi.

capitalist. **capitalista**. A plant with stored food reserves.

capitate. **capitado**. Flowers growing in a dense, head-like cluster.

capitellate. **capitelado**. Flowers growing in small, head-like clusters.

capitellum. **capitelo**. A small head.

capitular. **capitular**. Having a capitulum or head.

capituliform. **capituliforme**. Having the shape of a dense cluster of flowers attached to a single stem.

capitulum. **capítulo**. A dense, head-like cluster of flowers attached to a single stem, as in red clover (**Trifolium**); also, a globose apical lichen apothecium.

capreolate. **capreolado**. Having tendrils.

capreolus. **capreolo**. A tendril.

caprification. **caprificación**. The formation of an inflorescence of a number of flowers on a common receptacle which grows upwards to enclose the flowers except for a small pore at the apex.

capsid. **cápsida**. A protein coat on virus.

capsomere. **capsómero**. One of the identical units making up a capsid.

capsular. **capsular**. Capsule-like.

capsulate. **cápsulado**. Enclosed in a capsule or pod, as a capsulate pod.

capsule. **cápsula**. A dry, dehiscent fruit with two or more seeds; also, the spore-bearing structure of a moss (**Musci**) or liverwort (**Hepaticae**); the gelatinous outer

surface of a cell.

carbohydrazase. **carbohidraza**. Any of a group of enzymes that speeds the hydrolysis of carbohydrazes.

carbohydrazes. **carbohidrato. hidrato de carbono**. A generic term for a large group of compounds made of carbon, hydrogen, and oxygen produced in green plants by photosynthesis.

carbon. **carbono**. A non-metallic element with the chemical symbol C, which is extracted from gaseous carbon dioxide by plants during photosynthesis.

carbon assimilation. **asimilación del carbono**. Photosynthesis.

carbon cycle. **ciclo del carbono**. The circulation of carbon in nature where plants take in carbon dioxide from the atmosphere and convert it to carbohydrazes by photosynthesis; animals consume the plants and return the carbon to the atmosphere by respiration and decay.

carbon dioxide. **dióxido de carbono**. A heavy, colorless, odorless gas consumed by plants during photosynthesis and produced during respiration.

carbon dioxide acceptor. **aceptador de carbono dióxido**. A molecule that assimilates from the atmosphere carbon dioxide into a plant.

carbon dioxide fixation. **fijación de carbono dióxido**. The first stage of light reactions in photosynthesis when carbon dioxide from the air is combined with a sugar phosphate to form an intermediate necessary in the synthesis of glucose and other carbon compounds.

carbon skeleton. **esqueleto de carbono**. The central part of any or-

ganic molecule composed only of the carbon molecule.

carbonic anhydrazase. **anhidraza carbónica**. The enzyme that catalyzes the formation of bicarbonate ions from carbon dioxide and water.

carboxydismutase. **carboxidismutasa**. An enzyme which catalyzes the combination of ribulose-diphosphate and carbon dioxide to form two molecules of phosphoglyceric acid.

carboxyl group. **grupo carboxilo. carboxílico**. An acid group attached to a molecule; COOH.

carboxylase. **carboxilasa**. An enzyme that speeds up the addition or removal of carbon dioxide into or from an organic compound.

carcerule. **carcérulo**. A fruit that splits at maturity into several one-seeded portions.

carcerulus. **carcérulo**. See carcerule.

cardinal points (temperature). **puntos cardinal (temperatura)**. The minimum point is when growth begins; the optimum is when growth is best; and the maximum is when growth stops.

carina. **carina. quilla**. A keel or ridge-shape found in certain flowers or fruits, as the pair of petals on many flowers of the pea family (**Fabaceae**).

carinate. **carinado**. Keeled with one or more longitudinal ridges, especially used when describing parts of the perianth and hypanthium.

carneus. **carneus**. Latin for "flesh-colored".

carnivore. **carnívoro**. Plants that eat insects, as the sundew (**Droseraceae**), and pitcher plants (**Nepenthaceae**).

carnivorous. **carnívoro. carnicero**.

Insect-eating.

carnivorous plants. **planta carnívora.**

Plants which are capable of catching and digesting insects or other small animals.

carnose. **carnosa.** A whitish, flesh color or texture, as carnose leaves.

carnulose. **carnuloso.** Somewhat fleshy.

carotene. **caroteno.** A yellow, orange, or red, water insoluble pigment found in carrots (**Daucus**) or other vegetables. They are the precursors of vitamin A.

carotin. **carotina.** See carotene.

carotinoid. **carotinoide.** See carotenoid.

carpel. **carpelo.** The central, ovule-bearing female organ of a flower, with a modified leaf forming one or more sections of the pistil. It bears the stigma and frequently an elongated style and encloses the ovules. Carpels may be separate or united and there may be more than one carpel per flower.

carpellary. **carpelar.** Belonging to, resembling, or containing carpels, as carpellary leaves.

carpellary scale. **escama carpelar.** Bract scale.

carpellate. **carpelar.** Having carpels, as carpellate cones; also a unisexual flower with carpels but no stamens.

carpelloid. **carpeloide.** Said of some member of a flower which is in part changed into a carpel.

carpid. **carpido.** A little carpel.

carpo-. **carpo-.** A Greek prefix that means, "fruit" or "seeds," as in carpophore.

carpogenous. **carpogeno.** Living on fruit, parasitically or saprophytically.

carpogonium. **carpogonio.** A single-celled female sex in some seaweed

(**Rhodophyceae**) or fungi; gametangium.

carpology. **carpología.** The study of the structure of seeds, seed vessels or fruit.

carpophore. **carpóforo.** The long, slender part of the floral axis which supports two hanging carpels; also the stalk of the fruiting body or sporocarp of a fungus; also, the projection between carpels of a gynoeceum formed as prolongation of a receptacle; sometimes as in *Triglochin striata*, united to form sterile carpels. See gynophore.

carpophyll. **hoja carpelar.** A carpel or modified leaf.

carpophyte. **carpófita.** A cryptogamous plant, as red algae, that on fertilization bears spores and true fruit.

carpopodium. **carpopodio.** A stipe; podogyne.

carposporangium. **carposprangio.** A sporangium in which the carpospores are formed. It is characteristic of the **Rhodophyceae.**

carpospore. **carpospora.** A red algae spore resulting from the fertilization of a carpogonium.

carposporophyte. **carposporófito.** A term used for the cystocarp of the **Rhodophyceae**, when it is considered to be an asexual spore-producing generation, parasitic on the sexual generation.

carpotrophic. **carpotrófico.** The movement of a flower stalk after fertilization into a favorable position for fruit ripening and seed dispersal.

carrier. **portador. sustancia portadora.** A catalyst which helps in the transfer of an element or group from one compound to another; also, a phenotypic, normal individual het-

- p>
erozygous for a normal allele and a mutant allele; also, a plant infected with a virus and showing no symptoms, but capable of infecting another plant, especially through an insect vector.
- carrying capacity. **capacidad de carga.** The maximum number of organisms that can live in balance with the natural food supply of a particular area.
- cartilaginous. **cartilaginoso.** Tough and firm but elastic; cartilage-like.
- caruncle. **carúncula.** A fleshy outgrowth or appendage, less tendril-like than an aril, often oily or waxy, located near the hilum of a seed, as those of *Ricinocarpus spp.* and the *Ricinus communis*. It is often brightly colored and nutritive, aiding in seed dispersal, commonly by ants.
- carunculate. **carunculado.** Pertaining to a caruncle.
- caryallagic. **cariallagico.** Of reproduction involving nuclear change.
- caryo-. **cario-.** A Greek prefix that means, "nut-like".
- caryoid. **carioide.** A small mass of protein found in some algal cells.
- caryopsis. **cariopsis. cariópdide.** A one-celled, one-seeded, dry fruit with the ovary wall fused to the seed coat, as with a grain of wheat (**Triticum**) or barley (**Hordeum**).
- Casparian strip. **banda de Caspary.** The suberize layer covering the radial and transverse walls of endodermal cells.
- cassideous. **casideo.** Helmet-shaped.
- castaneous. **castaño.** A dark, reddish-brown color.
- catabolism. **catabolismo.** The point in cellular metabolism when energy is released through the breaking down of complex food molecules into simpler one; destructive metabolism; dissimilation.
- catacorolla. **catacorola.** A second corolla formed externally to the true one; also spelled katacorolla.
- catadromous. **catadroma.** Fern venation when the first nerves in each leaf segment are on the basal side of the midrib; also spelled katadromous.
- catalase. **catalasa.** An enzyme occurring in most living cells that catalyzes the separation of hydrogen peroxide into gaseous oxygen and water.
- catalysis. **catálisis.** The action of a catalyst in a chemical reaction.
- catalyst. **catalizador.** A substance that speeds the rate of a chemical reaction without undergoing any permanent change in its own composition, as enzymes (proteins that act as catalysts).
- cataphyll. **catafilo.** A rudimentary leaf, such as a bud scale, preceding the true foliage.
- catapult mechanism. **mecanismo catapulta.** A method of seed dispersal depending on the jerking of a long stalk swaying in the wind.
- catathecium. **catatecio.** A name sometimes given to the thyriothecium of the **Trichothyiaceae**.
- catechol. **catecol.** A dihydroxyphenol.
- catenate. **catenado.** Occurring or linked in the form of a chain, *e.g.* of spores.
- catenation. **catenación.** The arrangement of chromosomes in chains or rings.
- catenuliform. **catenuliforme.** Like a chain.
- cation. **cati3n.** An ion with a positive electrical charge, the form in which mineral elements are ab-

sorbed by a plant.

cation exchange. **cambio de cationes.**

The replacement of hydrogen ions absorbed on a surface (*e.g.* a clay) by cations. Cations with the property of hydrogen ion displacement are exchangeable cations and provide the condition which mineral elements of the soil become available to plants.

cation exchange capacity. **capacidad de cambion cation.** *See* exchange capacity.

catkin. **amento.** An inflorescence, usually a drooping or pendulous spike of apetalous, unisexual flowers; ament.

catkinate. **amentáceo. amentiforme.** Pertaining to or having the form of a catkin.

catothecium. **catotecio.** A an inverted perithecium with the asci hanging from its base.

cauda. **cauda.** A tail-like appendage.

caudate. **caudado.** Having a tail or tail-like appendage.

caudex. **caúdice.** The woody base of a herbaceous, otherwise annual plant; also, a woody, trunk-like stem, especially of tree ferns (*Cyatheaceae*, *Thyrsopteridaceae*) and palms (*Palmae*).

caudicle. **caudículo.** In orchids (*Orchidaceae*), a thin, flexible stalk where much of the pollen accumulates; also, a stalk of mucilaginous threads holding the pollen mass of orchids to the rostellum.

caudiculate. **caudiculado.** Having or pertaining to a woody stem.

caul-. **caul-**. A Latin prefix than means, "stem".

caulescent. **caulescente.** Having a stem growing above ground; in the process of becoming stalked. *Compare*

acaulescent.

caulicle. **caulículo.** A small or rudimentary stem; also, the neck of the embryo that distinguishes it from the seed leaves (cotyledons).

caulicolous. **caulocole.** Having a parasitic fungus on the stem; living on herbaceous stems.

caulicule. **caulícula.** A caulicle.

cauliculus. **cauliculo.** *See* caulicle.

cauliferous. **caulífero.** *See* caulescent.

cauliflorous. **caulífero.** Flowers are produced on the stem or trunk; used especially to describe tropical trees in which flower shoots commonly emerge from the main trunk.

cauliflory. **cauliflora.** The production of flowers on leafless woody stems or main trunks, with the flowers developing from axillary buds borne on shoots and either continued from year to year or until the shoot has become a thick branch or even the main trunk, remaning dormant until the shoot has reached a considerable diameter. Common in rainforest trees and vines of the *Sapotaceae*, *Myrtaceae*, *Moraceae*, *Anacardaceae*, *Menispermaceae*, *Aristolochiaceae*, *Flacourtiaceae*; also, used to mean bearing flowers on old stems.

cauliform. **cauliforme.** Stem-like.

cauligenous. **cauligeno.** Carried on a stem.

cauline. **caulinar. caulino.** Growing on a stalk or stem, especially above ground, as cauline leaves; also, formed from the internal tissues of the stem.

cauline bundle. **haz caulinar.** A vascular bundle formed entirely from the tissue of the stem; axial bundle.

caulis. **caulis.** The main stem of her-

baceous plants.

caulocarpic. **caulocárpico**. Stems that for several years annually produce flowers and fruit.

caulocarpous. **caulocárpo**. Bearing fruit repeatedly on the same stem.

cauloid. **cauloide**. Stem-like.

caulocystidium. **caulocistidio**. A cystidium on a stipe.

caulome. **eje caulinar. caulomo**. The stem or axial portion of a plant.

cavernicolous. **cavernícola**. Living in caves.

cavitation. **cavitación**. The breaking of hydrogen bonds in water that forms a bubble in water. When this occurs within the xylem, the upper portion of the water column is not in contact with the lower portion and cannot pull it upward. This causes a loss of conduction in the tracheids and vessels and is a factor in the conversion of sapwood to heartwood.

cavity. **cavidad**. An enclosed space.

cecidium. **cecideo**. A plant gall caused by an insect or a fungus.

cecidization. **cecidización**. The formation of a plant gall.

cell. **lóculo**. In plant identification, a cell is any hollow space or cavity within a structure, as within an ovary or the hollow space in a honeycomb; also, a pollen or spore sac; locule.

cell. **célula**. The fundamental living unit of all matter; made of protoplasm and when occurring with a nucleus and an enclosing membrane, they are known as eukaryotic cells; others, without a distinct membrane-bound nucleus, are known as prokaryotic cells (bacteria and blue-green algae). The cell, an organized, self-regulating, self-reproduc-

ing structural unit, is differentiated in plants by a wall to a protoplast with a system of organelles functioning interdependently. The protoplast is enclosed from the wall by a double-layered membrane with the method of entry of a substance into the cell being an invagination process, the membrane surrounding and engulfing either a solution (pinocytosis) or finely-dispersed particle (phagocytosis) which may then be carried within vacuoles to the interior.

cell biology. **biología celular**. The biological study of cells and their functions; cytobiology.

cell cycle. **ciclo célula**. Refers to the sequence of activity that occurs between the cell formation and its division into daughter cells.

cell differentiation. **diferenciación celular**. The process where descendants of a cell produce structural and functional specialization which are continued during the life of that individual cell.

cell division. **división celular**. The dividing of a cell into two or more cells, each having its own duplicated nucleus and divided cytoplasm.

cell fusion. **fusión celular**. An experimental process of joining nuclei and cytoplasm from different somatic cells to form a single hybrid; especially used with different species.

cell growth. **crecimiento celular**. An unchangeable increase in the size of a cell either from a change in the osmotic potential within the cell, or by a reduction of the pressure exerted by the cell wall.

cell inclusion. **inclusión celular**. Any

non-living material in the cytoplasm.

cell line. **línea celular.** See cell lineage.

cell lineage. **linaje celular.** A hereditary line of cells that are related through asexual division.

cell membrane. **membrana celular.**

A sheet-like tissue that encloses and delimits the contents of a cell.

cellobiose. **celobiosa.** A reducing sugar; beta-glucose and beta-glucoside.

cell plate. **placa celular. lámina celular.** The partition that is formed between daughter cells during cytokinesis; also, the first formed wall structure in a dividing cell.

cell respiration. **respiración celular.**

The chemical process that occurs in living cells when organic compounds are broken down to release energy needed for life.

cell sap. **jugo celular. savia celular.**

Liquid in a large vacuole that is formed from water absorbed through the epidermis and moved from the roots to the leaves through the xylem.

cell theory. **teoría celular.** The theory that plant and animals are made of cells with growth and reproduction as a product of cell division.

cell tissue. **tejido celular.** A group of cells formed from the division of one or a few cells, and functioning as a whole.

cell wall. **pared celular.** A strong, sometimes rigid wall-like structure, mostly cellulose, that lies inside the capsular layer, but outside the plasma membrane of cells. The rigid outermost covering of the plant cell is metabolically inert, a secretory product of protoplasm serving, ei-

ther through turgidity of the contained protoplast or thickening of the wall itself, for mechanical support of tissue. Primary walls are largely pectic substances; those of adjacent cells may fuse to form a middle lamella, secondary development is intracellular and mainly cellulose, added by either apposition or intussusception but with small areas (pits) left unthickened, and at maturity of the wall, thickened according to its function, e.g. lignification, suberization, cutinization. Continuity of protoplasm from cell to cell is provided for by minute pores throughout the wall through which pass strands of cytoplasm (plasmodesmata).

cellular. **celular.** Composed of cells: all plant tissue is cellular; also, a plant with no spiral vessels and bearing no flowers, as lichens and mosses (**Musci**).

cellular endosperm. **endosperma celular.** In angiosperm reproduction, a type of endosperm in which cell division accompanies nuclear division and the endosperm consists of cells during its entire development.

cellular metabolism. **metabolismo celular.** See metabolism.

cellular respiration **respiración celular.** The process by which enzymes acting on carbohydrates in living cells yield energy.

cellular spore. **espora celular.** A multicellular body, released as a single unit like a spore, but each cell is capable of germinating separately.

cellulase. **cellulasa.** An enzyme that breaks down cellulose. Associated with saprophytes and parasites, and particularly important when pro-

duced by the microflora of the herbivore's large intestine.

cellulose. **celulosa**. Linked glucose molecules serving as the principal structural material of plants, such as the woody parts of trees and plants, biologically broken-down only by fungi and termites with necessary cellulose-splitting enzymes.

cementation. **cementación**. The union of fungal hyphae by means of a sticky substance.

censer mechanism. **censairo mecanismo**. A method of seed dispersal whereby the seeds are shaken out of pores in the fruit as it sways in the wind.

center of diversity. **centro de diversidad**. A geographical area where a particular taxon or species provides greater genetic variations than anywhere else, most often occurring in the tropics; genecenter.

center of origin. **centro de origen**. A geographical area where a particular taxon or species is thought to have originated; thought by some to be the same location as the center of diversity.

centonate. **centonado**. Having different colors which produces a patchwork appearance.

central. **central**. In the middle or middle plane of a structure.

central body. **corpúsculo central**. The colorless inner portion of the protoplast of the **Myxophyceae**. It contains nucleic acid and may function as a nucleus.

central bud. **yema central**. The middle or central flower bud.

central cell. **celular central**. A binucleate cell in the center of an embryo sac containing the two hap-

loid polar nuclei; also, the cell in the center of developing archegonium of the **Bryophyta** and **Pteridophyta**. It divides to form the primary canal-cell and primary ventral cell; also, the cell at the base of the archegonium in the **Gymnospermae** containing the egg and ventral canal-cell; polar cell.

central cylinder meristem. **meristemo cilindro central**. The part of a root apical meristem that gives rise to the stele.

central placentation. **placentación centro**. Ovules and seeds on a central axis in a single celled pistil or fruit.

centric fusion. **fusión céntrica**. The whole-arm fusion of chromosomes by the union of two accentric chromosomes to form one metacentric chromosome.

centric oosphere. **oosfera céntrica**. An oosphere of a fungus which has one or more layers of oil droplets surrounding the central protoplasm.

centrifugal. **centrífugo**. Developing from the center or apex outward or downward, as a centrifugal plant; also, when developing, turning from the center toward the side of the fruit, as a radicle.

centrifugal inflorescence. **inflorescencia centrífugo**. A flower cluster that develops and opens from the center outward.

centrifugal thickening. **engrosamiento centrífugo**. The disposition of material on the outside of the cell wall. This only occurs if the cell is free from its neighbors, e.g. the markings on pollen grains.

centrifugal xylem. **xilema centrífugo**. A xylem in which differentiation occurs away from the center of a

stem or root.

centriole. **centríolo**. Small bodies, often in pairs, located in the cytoplasm near the nucleus, and involved in the formation of the spindle.

centripetal. **centrípeta**. Towards the center.

centripetal inflorescence. **inflorescencia centrípeta**. A flower cluster that develops and opens from the outer edge toward the center. *See* raceme.

centripetal thickening. **engrosamiento centrípeta**. The deposition of wall material on the inner side of a cell wall.

centripetal xylem. **xilema centrípeta**. A xylem in which differentiation occurs from the center of the stem or root.

centrodesmus. **centrodesma**. Attraction spindle.

centromere. **centrómero**. The point of attachment of the spindle fiber to the two halves of a chromosome (chromatids).

centrosome. **centrosoma**. In a few lower plants, the part of a cytoplasm that organizes the assembly and disassembly of microtubules and which contains the centriole.

cepaceous. **cepáceo**. Smelling or tasting of onions.

cephal-. **cefal-**. A Greek prefix than means, "head".

cephalin. **cefalina**. A group of compounds derived from phosphorus which are an important component of membranes.

cephalium. **cefalio**. The reproductive portion of certain cacti (**Cactaceae**) in which the growth that occurs after sexual maturity is sharply different from juvenile

growth.

cephalobranchial. **cefalobranquial**. Used to describe a chromosome which has a small rounded projection at one end.

cephalodium. **cefalodeo**. An area in a lichen thallus where blue-green algae carry out nitrogen fixation.

cephaloid. **cefaloide**. Resembling or shaped like a head.

ceraceous. **cerífero**. Waxy; wax-like in texture or color.

ceranoid. **ceranoide**. Having horn-like branches.

cerat-. **cerat-**. A Greek prefix than means, "horn".

cereals. **cereales**. Members of the grass family **Poaceae** whose grain is used for human consumption. *e.g.* wheat, barley, and oats.

cereal plants. **plantas de cereal**. Any of a group of edible grasses (**Poaceae**).

cerebriform. **cerebriforme**. Having a convoluted appearance; resembling a brain.

ceriferous. **cerífero**. Wax-producing.

cernuous. **inclinado**. Hanging downward; drooping.

ceruus. **ceruus**. Latin for "hanging", "drooping", or "nodding".

cespitose. **cespitoso**. Growing in dense clumps or tufts; caespitose.

certation. **certación**. Competition between pollen grains placed at the same time on the same stigma. They have different genetic constitutions giving unequal chances of bringing about fertilization.

chaeta. **queta**. Bristle; seta.

chaetiferous. **quetífera**. Having stiff hairs.

chaetoplankton. **quetoplancton**. Small aquatic organism whose power to float is aided by small spiny

outgrowths.

chaff. **bráctea involucral**. Small, dry, scale-like bracts, as found on the heads of some **Asteraceae**.

chaffy. **paleáceo**. Having brown to grey scales; chaff-like.

chaetobasidium. **caistobasidio**. A club-shaped basidium with the nuclear spindles across it at the same level.

chalaza (*pl.* chalazas). **cálaza**. The basal part of an ovule or seed which serves as a point of attachment and where the outer coverings join with each other and the nucleus.

chalazogamy. **calazogamia**. The process in which a pollen grows into the ovule through the chalaza.

chalk gland. **glándula caliza**. A secretory organ occurring on some leaves around which calcium carbonate is deposited.

chalky. **gredso**. A soil with a high concentration of calcium carbonate or limestone.

chamae-. **camé-**. A Greek prefix than means, "ground".

chamaephyte. **caméfito**. A plant in which the perennating bud or shoot apices are produced very close to the ground; also, one of Raunkiaer's life-form classifications.

chamber. **cámara**. An enclosed space in an organ; cavity.

chambered. **dividido en cámaras**. Said of an ovary divided by incomplete partitions extending inwards from the walls.

channelled. **acanalado**. Having deep, longitudinal grooves.

chaparral. **chaparral**. In the United States and the Mediterranean region, a type of vegetation that consists of dense stands of thorny or roughly branched evergreen shrubs

and deciduous trees.

character. **carácter**. A distinctive or well-defined feature in the structure or function of a plant or plant species; also, genetically, any feature that is transferred from parent to offspring.

character-gradient. **gradiente de caracteres**. *See* cline.

characteristic. **característico**. *See* character.

charophytes. **charófita**. A group of plants generally classified as algae that resemble bryophytes because of the structure of the male gametes and a sterile envelope enclosing the sex organs.

chartaceous. **cartáceo**. Paper or tissue-like texture, usually devoid of green.

chasmocleistogamic. **casmocleistogámico**. Producing chasmogamous and cleistogamous flowers.

chasmogamic. **casmógamico**. Said of a flower that opens before pollination.

chasmogamous. **casmógama**. Flowers that open the perianth before fertilization resulting most often in cross-pollination. *Compare* cleistogamous.

chasmogamy. **casmogamia**. The opening of the perianth for the purpose of fertilization. Opposite of cleistogamy.

chasmophyte. **casmófito**. A plant growing among rocks, having taken root in the debris of the crevices, as a fern.

cheilocystidium. **ceilocistidio**. A cystidium at the edge of the pileus surface.

chela. **quela**. Having a claw or pincer.

chelate. **quelado**. An organic compound

which forms in solution a strong affinity for mineral ions (chelation) which prevents precipitation of the ion even under conditions of high alkalinity, *e.g.* chelates E.D.T.A. (ethylene diamine tetra acetic acid) and H.E.E.D.D.T.A. (hydroxyethyl-ethylene diamine triacetic acid) have a strong affinity for iron in solution and may be used as a foliar spray in correcting the iron deficiency in chlorosis.

chelation. **quelación.** An ion bound at two or more points to a ligand, forming an equilibrium reaction between a metallic ion and an organic molecule.

cheliform. **queliforme.** A chemical ring structure formed from the reaction of a metal ion with two or more groups on a ligand; also, pincer-like.

chemical. **químico.** Pertaining to, made by, or used in chemistry.

chemical bond. **enlace químico.** A union between the electron structures of two or more atoms or ions.

chemical control. **control químico.** A means of regulating the life processes by transmitting messages chemically, mainly through hormones.

chemical element. **elemento químico.** *See* element.

chemical oxygen demand (COD). **demanda química de oxígeno (DQO).** A chemical rather than a biological method of measuring water or effluent quality; uses potassium dichromate as the oxidizing agent with oxidation occurring in two hours.

chemical reaction. **reacción química.** A change involving the rearrangement of atoms and molecules of

one or more substances, resulting in the formation of one or more additional substances which may have different properties.

chemiluminescence. **quimiluminiscencia.** The emission of light during a chemical reaction without a rise in temperature.

chemiluminescent. **quimiluminiscente.** Producing light or light produced by chemiluminescence.

chemistry. **química.** The study of the properties, composition, structure, and interactions of energy and matter.

chemoautotroph. **quimioautótrofo.** An organism that uses carbon dioxide as its main or sole source of carbon.

chemoautotrophic. **quimioautotrófico.** An organism that does not obtain energy from sunlight or organic molecules but from the oxidation of nitrogen, sulfur, iron, or gaseous hydrogen.

chemoheterotroph. **quimioheterótrofo.** An organism that obtains carbon mainly or solely from organic compounds.

chemolithotroph. **quimiolitótrofo.** An organism that obtains energy from the oxidation of inorganic compounds or elements, as bacteria from the gram-negative family **Nitrobacteraceae.**

chemolithotrophic. **quimiolitotrófico.** Deriving energy from inorganic chemicals and carbon from carbon dioxide.

chemonasty. **quimionastia.** The change in the position or form of a plant organ in relation to a diffuse chemical stimulus.

chemoorganotroph. **quimioorganótrofo.** An organism that obtains energy

- from metabolism of organic compounds.
- chemosmosis. **quimioósmosis. quimio-osmosis.** A chemical reaction occurring through semi-permeable membranes.
- chemosynthesis. **quimosintesis.** The formation of carbohydrates from carbon dioxide and water with energy from a chemical reaction rather than from light, as in photosynthesis.
- chemotaxis. **quimiotaxis.** The movement of plant or plant parts toward or away from a chemical substance.
- chemotaxonomy. **quimiotaxonomia.** The classification of plants by their chemical composition.
- chemotroph. **quimiótrofo.** An organism that obtains its energy from chemical reactions.
- chemotropism. **quimiotropismo.** The tendency of plants or plant parts to move or bend in response to chemical stimuli.
- chiasma (*pl.* chiasmata). **quiasma.** The point where paired homologous chromosomes remain in contact as they begin to separate during the first prophase of meiosis, forming a cross shape.
- chiasma interference. **interferencia quiasmática.** A non-random frequency of more than one chiasma occurring in a bivalent segment during meiosis; if higher than anticipated, it becomes a negative chiasma interference, if lower, it is considered a positive chiasma interference.
- chiasmata. **quiasmata.** The points where the homologous chromosomes remain attached during the later stages of prophase of meiosis; plural of chiasma.
- chilling-sensitive plant. **planta sensitiva al frío.** A plant that is badly injured or killed by temperatures below freezing (32° Fahrenheit).
- chimera (*pl.* chimeras). **quimera.** A plant with two or more tissues of different genetic composition, arising from mutation or grafting.
- chimney. **chimenea.** An upgrowth of epidermal cells above a stoma, forming a long pore.
- chimonophilous. **quimonófilo.** Growing chiefly during the winter.
- chin. **mentón.** An axial protuberance which grows in a way that makes the sepals appear to arise from the labellum, as in some orchids (**Orchidaceae**).
- chiropterophilous. **quiropterófilo.** Pollinated by bats.
- chitin. **quitina.** A polysaccharide made up of N-acetyl-2-glucose amine units (carbohydrate derivative) found in the walls of many fungi.
- chlamydo-. **clamido-.** A Greek prefix that means, "wearing a cloak".
- chlamydeous. **periantado. clamideo.** Having a floral envelope (perianth).
- chlamydocyst. **clamidóciste.** A two-walled resting zoosporangium in a hypha of the **Blastocladiaceae**.
- chlamydospore. **clamidóspora.** A thick walled asexual spore which serves to survive adverse conditions. It is intercalary or terminal and non-deciduous, consisting of one or more cells; also, a dark fungal resting spore formed from a cell in a vegetative hypha, such as smuts.
- chledium. **cledio.** A formation on waste ground.
- chloranthy. **clorantia.** The reversion of floral leaves to green leaves.
- chlrenchyma. **clorénquima.** Plant tissue that contains chlorophyll.

chlorine. **cloro**. An element with the chemical symbol of Cl, which is needed for normal plant growth by its contribution to the control of turgor and involvement in the light reaction of photosynthesis.

chloro-. **cloro-**. A Greek prefix that means, "natural green", as in chloranth.

chlorophyll. **clorofila**. A green pigment in plants that absorbs the sun's energy during the chemical process of photosynthesis; composed of a complex ring system with in which is a single atom of magnesium. Chemically there are two forms: the more abundant chlorophyll a, and chlorophyll b which has the methyl group of chlorophyll a replaced by an aldehyde group. It is localized in granules of disc-shaped cell-inclusions, chloroplasts, in photosynthetic tissue.

chlorophyllase. **clorófilase**. An enzyme occurring in association with chlorophyll and able to hydrolyse the phytol group in the chlorophyll and thereby decompose it.

chlorophylligen. **clorofilógeno**. A hypothetical precursor of chlorophyll formed in darkness but changed to chlorophyll in light.

chlorophyllous. **clorófilo**. Having or pertaining to chlorophyll.

chloroplast. **cloroplasto**. An envelope (plastids) containing chlorophyll in the cells of green plants and microorganisms. It is composed of green pigmented particles, grana, dispersed in a colorless stroma and enclosed by a membrane system. In addition to the chlorophylls and their associated yellow carotenoid pigment, grana contain proteins, lipids, and inorganic elements, to-

gether with many enzyme systems, in all forming and operating the process of photosynthesis.

chlorosis. **clorosis**. An abnormal or diseased condition identified by a pale green or yellow leaf color indicating a reduction in the production of chlorophyll; often resulting from an iron or magnesium deficiency in the soil or from inadequate light; yellowing.

chlorostolith. **cloróstatolito**. A chloroplast containing starch, and acting as a statolith.

cholesterol. **colesterol**. A steroid found in some plants in low concentrations.

choline. **colina**. Ethanol trimethylammonium hydroxide. It is found in many seeds, and with fatty acids, glycerol, and phosphoric acid yields lecithins from which it is liberated by hydrolysis.

chomophyte. **comófito**. A plant growing on rocky, detritus-laden ledges.

chondriocent. **condrioconto**. A mitochondrion which has the form of a rod or thread.

chondriolysis. **condriolisis**. The dissolution of the mitochondria.

chondriomite. **condriomita**. A chondrisome having the form of a chain of granules.

chondriosome. **condriosoma**. *See* mitochondrion.

chondroid. **condroide**. Said of the medulla of a lichen when it is hard and tough, consisting of thick-walled hyphae in very firm association.

chori-. **cori-**. A prefix than means, "separate", as in choriopetalous.

choriopetalous. **coriopétalo**. Poly-petalous.

choripetalous. **coripétalo**. Having unconnected or separate petals; apopetalous.

chorisepalous. **corisépalo**. Polysepalous.

chorisis. **corisis**. The splitting into two or more lobes; often applied to abnormalities.

C horizon. **horizonte C**. The material from which a soil is derived.

chroma. **croma**. One of the three measures of color (hue, chroma, and value) with chroma indicating the degree of strength of red, yellow, green, blue, and purple.

chromasic. **cromasico**. An increase in the chromatin.

chromatic adaptation. **adaptación cromático**. A variation in the coloration in relation to the amount of light reaching a plant.

chromatid. **cromatido**. **cromátida**. **cromatidio**. One of two daughter strands of a chromosome that has divided during interphase; two chromatids joined in the region of the centromere make a chromosome.

chromatidia. **cromatidios**. Pieces of chromatin not aggregated into a nucleus, but lying free in the cytoplasm.

chromatid interference. **interferencia cromatídica**. A non-random involvement of non-sister chromatids resulting in a deviation from the anticipated ratios.

chromatin. **cromatina**. A substance of DNA and proteins in the nucleus of a cell that condenses to form chromosomes during mitosis. It is made up of two proteins (one of which is histone) DNA and RNA.

chromatolysis. **cromatólisis**. The break-up and eradication of chromatin in the cell nucleus.

chromatophore. **cromatóforo**. A specialized enzyme, pigment-containing cell of prokaryotes, important in photosynthesis; chromoplast. *See* xanthophore.

chromatophoric. **cromatóforico**. Pertaining to or having chromatophore.

chromatoplasm. **cromatoplasma**. The outer region of the cytoplasm of the **Myxophyceae**. It contains the cell pigment.

chromidium (*pl.* chromidia). **cromidio**. An algal cell in the thallus of a lichen.

chromiole. **cromiolo**. One of the deeply staining granules of which chromatin is composed.

chromo-. **cromo-**. A prefix that means, "colored", as in chromoplast.

chromocenter. **cromocentro**. Any accumulation of chromatin in the nuclear reticulum, staining more darkly than the rest of the chromatin network in the resting cell.

chromochondria. **cromocondria**. Mitochondria concerned with pigment formation.

chromogen. **cromogeno**. A pigment producing organism.

chromogenic. **cromogenico**. Color-producing.

chromomere. **cromómero**. A bead-like structure in a chromosome during prophase of meiosis and mitosis when uncoiled.

chromonema (*pl.* chromonemata). **cromonema**. The longitudinal strands making up a chromatid which have an inner core of DNA with an outer protein sheath.

chromoparous. **cromoparo**. Said of colorless bacteria which secrete a colorless material.

chromophorous. **cromóforo**. Of bacteria having coloring pigment as

part of their make-up.

chromoplast. **cromoplasto**. A red or yellow substance in the cytoplasm that influences the color of flowers or fruits and serves as an attraction to pollinators and fruit-dispersing animals; a specialized plastid.

chromosomal. **cromosómico**. **cromosomal**. Of or pertaining to chromosomes.

chromosomal chim(a)era. **quimera cromosomal**. A chimera in which the nuclei do not all contain the same number of chromosomes.

chromosome. **cromosoma**. Thread-like bodies in the nucleus of eukaryotic cells that are derived from parents and carry the genes that determine heredity.

chromosome arm. **brazo cromosómico**. One of the two parts of a chromosome to which the spindle fiber is attached along the side.

chromosome complement. **complemento cromosómico**. The set of chromosomes characteristic of a cell of a species.

chromosome cycle. **ciclo cromosómico**. The complete changes in the chromosomes during the life-cycle.

chromosome map. **mapa cromosómico**. A map of the relative locations (loci) of genes along the length of a chromosome.

chromosome matrix. **matriz cromosómico**. A sheath of weakly staining material around the more stainable substance of a chromosome.

chromosome number. **número cromosómico**. Under normal conditions, the number of chromosomes present in the cell nuclei of a species; usually constant for each species.

chromosome polymorphism. **polimorf-**

ismo cromosómico. In an interbreeding population, the presence of one or more chromosomes in two or more alternative structural forms.

chromosome set. **dotación cromosómico**. The complete haploid set of chromosomes characteristic of a species.

chromosome substitution. **sustitución cromosómico**. A switch of one or more chromosomes for others from another strain of the same or related species which will permit hybridization.

chromosome theory of inheritance. **teoría cromosómica de la herencia**. A 1902 clarification put forward by W.S. Sutton that Mendel's laws of inheritance may be understood by assuming that genes are located in specific sites on chromosomes.

chronispore. **cronispora**. A resting spore.

chronospecies. **cronospecie**. See evolutionary species.

chrysochrome. **crisocromo**. The golden brown pigment of the **Chryso-phyceae**.

chrysogonidium. **crisogonidio**. A yellow algal cell in a lichen.

chylocauly. **quilocaulia**. Having a succulent stem.

chylophyllly. **quilófilia**. Having succulent leaves.

cicatrix. **cicatriz**. A scar on a plant, especially where a leaf or branch has fallen; also, the scar where a seed was attached to a seed pod or capsule.

cilia. **cilia**. Hair-like growths extending from certain cells, often producing a fringe on the underside or margin of some leaves; plural of cilium.

ciliate. **ciliado**. Having a hair-like

- (cilium) growth around the leaf margin.
- ciliatulate. **ciliatulado**. Having widely separated cilia.
- ciliolate. **cilolado**. Having a diminutive hair-like growth around the leaf margin.
- cilium. **cilio**. A hair-like growth along the margin or underside of a leaf or flower; singular of cilia.
- cininnate. **cininado**. Curled or rolled around.
- cincinnus. **cincino**. A type of dense flower cluster (cyme) with alternate branching that displays short pedicels on the developed side.
- cinereous. **cinéreo**. Gray or grayish color from a covering of short hairs.
- cinerus. **cinerus**. Latin for "ash-grey".
- cingulate. **cingulado**. Edged all around.
- circadian rhythm. **ritmo circadiano**.
diurno circadiano. A physiological activity occurring in an organism in a 24 hour pattern which is governed by a "biological clock" within the organism.
- circadian. **circadiano**. Reoccurring in a 24 hour pattern or cycle.
- circinate. **circinado**. Rolled or coiled downward from the tip to the base, as with young fern (**Filicopsida**) leaves; rolled in a lengthwise manner, as an arrangement of bud scales or young leaves in a bud; coiled like a watch spring.
- circle. **circulo**. Round in shape.
- circular. **circular**. Around or having the shape of a circle.
- circulation. **circulación**. The movement of materials within plant cells or throughout the multicellular plant system.
- circum-. **circun-**. A prefix than means, "all around".
- circumbasal. **circunbasal**. Around the base.
- circumcaulous. **circuncaulo**. Circling around the stem.
- circumference. **circunferencia**. The distance around a circle or circular object, especially used in the growth measurements of tree trunks.
- circumferential. **circunferencial**. Surrounding a rounded structure.
- circumnutate. **circumnudado**. The tendency of growing plant parts to bend or move in a circular pattern.
- circumnutation. **circumnutación**. The upward spiral movement of a shoot apex as its grows.
- circumscissile. **circuncisil**. A seed dehiscing or opening along a traverse circular line, leaving a top and a bottom.
- cirrate. **cirado**. Rolled around or becoming so, as wavy hair.
- cirrhous. **cirriforme**. With tendrils (cirri).
- cirrus (*pl. cirri*). **cirro**. A tendril.
- cisternae. **cisternae**. Large, flattened, membranaceous sacs in cell organelles, as the Golgi body and in the endoplasmic reticulum.
- cis-trans test. **prueba cis-trans**. Test to find whether two mutant sites of a gene are on the same cistron; complementation test.
- cistron. **cistrón**. The smallest unit of genetic material that produces a phenotypic effect, with each controlling the structure of a protein; also, a section of the DNA molecule involving the formation of one polypeptide chain.
- citric acid cycle. **ciclo del ácido cítrico**. See tricarboxylic acid cycle; Krebs cycle.
- citriform. **citriforme**. Lemon-shaped.
- Cl. **Cl**. See chlorine.
- clade. **clado**. In cladistics, a lineage

branch that has occurred from splitting in an earlier lineage thereby creating two new taxa, each a clade or branch in the phylogenetic diagram.

cladistic. **cladístico**. Pertaining to the classification of plants based on assumed lines of ancestral or evolutionary relationships; phylogenetic classification.

cladocarpous. **cladocarpo**. Having fruit at the end of a lateral branch.

cladode. **cladodio**. A branch or a portion of a flattened, leaf-like stem that functions as a leaf, as *Opuntia spp.*; cladophyll.

cladodromous. **cladódromo**. Having a branch or part of a stem that functions as a leaf.

cladogenesis. **cladogénesis**. The branching of a taxon; based on a view that each new taxon comes from the splitting of a lineage, resulting in two, equal, sister taxa, taxonomically separated from the parent or ancestral taxon. *See* note in adaptive radiation.

cladogenous. **cladogeno**. Producing flowers at the end of the branch.

cladogram. **cladograma**. A diagram that depicts the branching sequences in a system of developmental evolution.

cladophyll. **cladofilo**. A stem or branch that looks like a leaf; phylloclade.

cladosiphonic. **cladosifónico**. A siphonostele having branch gaps but no leaf gaps.

clambering. **semitrepador**. A climbing plant with only a weak tendency to climb.

clamp-connection. **unión fibular**. In some fungi, a bulge or loop-like connection along a wall (septum) of the mycelium formed during cell

division.

clan. **clan. estirpe**. A small group of individuals covering a small area and derived from the same parent either by vegetative propagation or from seed.

clasped. **abrazado**. Generally refers to a leaf that has partially or completely encircled the stem.

clasping. **amplexicaule**. A leaf base that surrounds the stem.

class. **clase**. A group of related plants, taxonomically ranked below a phylum and above an order.

classification. **clasificación**. An arrangement of plants into groups on the basis of evolutionary or structural relationships (in descending order), as kingdom, phylum, class, order, family, genus, species, subspecies or variety.

clathrate. **clatrado**. Net-like or divided like latticework, as clathrate foliage; clathroid.

clathriform. **clatriforme**. Having the shape of a lattice; reticulated.

clathroid. **clatroide**. *See* clathrate.

clava. **clava**. The club-like fruit body of some fungi.

clavate. **clavado**. Thickened toward the end, like a club; club-shaped.

claviform. **claviforme**. Club-shaped; a leaf shape that widens toward the apex.

clavulate. **clavulado**. Slightly club-like.

claw. **uña**. The narrowed basal part of some petals or sepals with the wider part being the blade.

clay. **arcilla**. A stiff, sticky, fine-grained soil, mostly composed of aluminum silicate.

clayey. **arcilloso**. A stiff, sticky texture. *See* clay.

clearing. **claro**. An open space in a

forest.

clearing agent. **agente aclarante.**

aclarador. A reagent used in microscopy for treating sections to make them capable of examination by transmitted light.

cleft. **hendido.** Having deeply cut or divided lobes, as a leaf divided to the midrib or further.

cleistocarp. **cleistocarp.** An ascocarp with the asci completely enclosed.

cleistogamous. **cleistógama.** Having small, closed, bud-like flowers that are self-fertilizing in addition to regular flowers, as violets (**Violaceae**). *Compare* chasmogamous.

cleistogamy. **cleistogamia.** The self-fertilization of certain closed flowers, borne often close to or within the soil surface, as some members of the **Violaceae** and **Poaceae**.

cleistogene. **cleistogen.** A plant that produces cleistogamous flowers.

cleistothecium. **cleistotecio.** *See* cleistocarp.

climacteric. **climacterico.** The phase of increased respiration when fruit ripens, immediately before senescence.

climate. **clima.** A general description of the average temperature and rainfall conditions of a region over the course of twelve months.

climatic climax. **clímax climático.** A plant community that is in equilibrium with a region's climate.

climatic community. **comunidad climático.** A plant community that is determined and maintained by the prevailing climatic conditions.

climatic factor. **factor climático.** An environmental condition such as the amount of rainfall, sunshine, *etc.* that plays a controlling part

in determining the type of vegetation of an area.

climax. **clímax.** The stable vegetation of an area under the prevailing environmental conditions.

climax community. **comunidad climax. comunidad climácico. comunidad final.** The final stage of plant succession when vegetation attains a state of equilibrium with the environment; also, the plant association that is permanently established in an area.

climax dominant. **clímax dominante.** Any species that dominates a climax community.

climax ecosystem. **sistema ecológico climax.** The last stage in ecological succession when populations of all organisms are in balance with each other and with existing abiotic factors.

climax species. **especie climax.** Any plant species that is a characteristic member of a climax community.

climax theory. **teoría climax.** A theory, first proposed by F.E. Clements in 1904 (monoclimax) and restructured by A.G. Tansely in 1916 (polyclimax), of the successional development of a vegetation community reaching optimum sustainable level when in equilibrium with its environment. The monoclimax model views the development of vegetation having an end point controlled by climate. Polyclimax, the alternative, views reaching equilibrium as being influenced by climate and other factors, such as fire and soil. However, the major difference between the two models is the time scale for reaching the climax community. The monoclimax approach uses a series of

- sub-climax stages and terminology.
- climax vegetation. **vegetación climax.** **vegetación climática.** A model that holds that vegetation which begins on bare soil, will in time, pass through a succession of stages involving simpler plants being replaced by more complex ones, ultimately reaching a climax or equilibrium with the climate and other factors.
- climbing. **trepador. voluble.** Growing upward by twining or clinging to something.
- clinandrium. **clinandrio.** In some orchids (**Orchidaceae**), a cavity at the top of the column where the anther is concealed.
- clinanthium. **clinanto.** The flower receptacle of a composite plant.
- cline. **clina.** A gradual, continuous change in particular inherited characteristics across populations in adjacent geographic areas; character-gradient.
- clinostat. **clinóstato.** A rotating disk to which a plant can be attached so that it can receive an equal amount of a stimulus on all sides. Rotating in a horizontal plane, a clinostat is used to study phototropic responses and vertically to study geotropism.
- clonal. **clonal.** Of or like a clone, as clonal propagation.
- clone. **clono. clon.** A group of genetically identical plants or cells originating from a single parent by vegetative reproduction; also, if a section of DNA is taken into the chromosome of a bacterium, phage, or plasmid vector and duplicated, each copy is a DNA clone; the entire vegetatively produced descendants from a single original seedling. The individual of a clonal line is a ramet.
- closed (vascular) bundle. **haz cerrado.** A vascular bundle that does not have a cambium and therefore cannot increase in diameter by normal secondary thickening.
- closed canopy. **dosel cerrado.** A forest condition of overlapping tree crowns forming an almost continuous layer of foliage.
- closed community. **comunidad cerrado.** A plant community which completely covers the ground it occupies which as a consequence prevents the introduction of other species.
- closed population. **población cerrado.** A plant population with little or no gene flow, often because of geographical barriers.
- closing layer. **acodo oclusiva.** A layer of closely packed cells over a lenticel preventing diffusion of water vapor and gases.
- closing membrane. **membrana oclusiva. membrana obturante.** The thin wall between adjacent pits in vessels or tracheids.
- closterospore. **closterospora.** A multinucleate phragmospore.
- closteroviruses. **closteroviruses.** A group of RNA-containing viruses carried by aphids that infect a wide range of plants, causing considerable economic loss.
- cloud forest. **bosque de neblina.** A dense, moist, tropical montane forest, usually more than a thousand meters above sea-level and in clouds most of the day.
- club fungi. **basidiomicetes.** Fungi of the **Clavariaceae** and **Clavulinaceae** families that have club-shaped fruit bodies.
- club-shaped. **claviforme.** See cla-

vate.

clump. **grupo**. Grouped together in a cluster.

cluster. **ramillete**. A general term for closely gathered together inflorescence of small flowers.

clustered. **agregado**, **agrupado**. Growing together in a bunch or bunches.

clypeate. **clipeado**. Shaped like a shield; round.

clypeiform. **clipeiforme**. Having the shape of a round shield; clypeate.

co-. **co-**. A Latin prefix that means, "together".

coacervate. **coacervado**. Massed or heaped together.

coaction. **coacción**. Reciprocal effects of plants and animals, ranging from symbiosis with its mutual aid, to death which can occur with the absence of one from the other.

coadaptation. **coa(da)ptación**. The development of advantageous genetic traits, so that mutual relationships will continue to increase the effectiveness of the relationship, as often found in flower-pollinator relationships.

coadnate. **coadnato**. Joined.

coadunate. **coadunato**. Connate.

coagulation. **coagulación**. The solidifying or setting of protein by heat or poisons. This change is irreversible.

coalesce. **fusionarse**. To grow together, fuse, or merge.

coalescent. **coalescente**. Growing together to form a single unit.

coarctate. **coarctado**. Crowded together.

cocaine. **cocaína**. An alkaloid derived from the leaves of *Erthroxylum coca*.

coccineus. **coccineus**. Latin for "scarlet" in color.

coccoid. **coccoide**. Being unicellular and motionless when vegetative, but releasing motile spores.

coccus (*pl. cocci*). **coco**. A berry-like seed; a single seed in a compound carpel (schizocarp) which separate at maturity, characteristic fruit of the **Rutaceae**; also, bacteria with oval shapes; a mericarp.

cochlea. **cóclea**. A tightly coiled legume.

cochlear. **coclear**. Spoon-shaped.

cochleate. **cochleado**. Having a spiral shape; coiled like a snail's shell.

COD. **DQO**. *See* chemical oxygen demand.

codominant. **codominante**. One of two or more species of the most common or important species in a plant community; also, a heterozygote that shows the phenotypic effects of both alleles at a gene location.

codon. **codón**. During protein synthesis, a sequence of three nucleotides of mRNA that code a specific amino acid for placement in a polypeptide chain.

coefficient of coincidence. **coeficiente de coincidencia**. The value of the observed number of cross-overs (double recombinants) divided by the expected number.

coefficient of inbreeding. **coeficiente de endogamia**. The probability that two allelic genes forming a zygote are both descended from a gene in an ancestor common to both parents; also, the proportion of loci at which an individual is homozygous.

celo-. **celo-**. A Greek prefix than means, "hollow".

coelomycetes. **celomicetos**. A group of Fungi Imperfecti which form their spores in a cavity of the substrate.

coelospermous. **celospermo**. Bearing boat-shaped, hollow seeds.

coeno-. **ceño-**. A prefix that means, "living together", *e.g.* multinucleate.

coenobium. **cenobio**. A colony of algae composed of a definite number of cells in a specific arrangement, behaving as an individual organism.

coenocentrum. **cenocentro**. A small deeply staining body at the center of the multinucleate oosphere of the **Peronosporales** to which the egg nucleus goes.

coenocyte. **cenocito**. A mass of cytoplasm with numerous nuclei enclosed in a single cell wall, which occurs in some green algae and many fungi.

coenocyst. **cenocisto**. A multinucleate aplanospore.

coenogametangium. **cenogametangio**. A gametangium in which a coenogamete is formed.

coenogamete. **cenogameto**. A multinucleate gamete produced by the **Mucorales**, and on fusion give rise to a coenozygote.

coenosorus. **cenosoro**. Multiple spore cases.

coenospecies. **cenospecie**. A species that is incapable of genetic recombination with other similar species.

coenzyme. **coenzima**. An organic substance that attaches to the apoenzyme to form an active enzyme which is important in the metabolism of organic acids in plants.

coenzyme 1. **coenzima 1**. Diphosphopyridine nucleotide.

coenzyme 2. **coenzima 2**. Phopyridine nucleotide. These are dinucleotides containing adenine and nicotamide, acting as hydrogen carriers when substances are oxidized by dehydro-

genases.

coenzyme A. **coenzima A**. A coenzyme necessary for the oxidative decarboxylation of pyruvate.

coetaneous. **coetáneo**. Leaves and flowers developing at the same time, as with some willows (**Salix**).

coevolution. **coevolución**. The evolution of two species at the same time making their survival and reproduction mutually beneficial.

cofactor. **cofactor**. A non-protein substance needed by enzymes for functioning; if they are metallic ions or organic molecules, they are referred to as coenzymes.

cohere. **coherirse**. To stick together.

coherent. **coherente**. United but only slightly, so that the joined organs appear free when viewed superficially.

cohesion. **cohesión**. The hereditary attraction or sticking together of two similar parts, as water molecules cohere to each other or in the development of flowers with whorls uniting laterally.

cohesion mechanism. **cohesión mecanismo**. Any mechanism that depends on the cohesive properties of water, *e.g.* the dehiscence of a sporangium which bursts open when the stains set up by the drying out of one part overcome the water's cohesive properties.

cohesion-tension theory. **teoría de la tensión-cohesión**. A theory that explains the rise of water in plants through a combination of cohesion of water molecules in capillaries and tension on the water columns brought about by transpiration.

cohort. **cohorte**. A group of related families, *i.e.* an Order.

coiled. **enrollado**. Gathered in a cir-

- cular form around something, as a vine coiled around a tree.
- colchicine. **colquicina. colchicina.** An alkaloid from the corm of the autumn crocus *Colchicum autumnale*. It causes abnormal division of nuclei, resulting in an increase of the chromosome number from a polyploid.
- cold treatment. **tratamiento (por el) frío.** Treatment of a plant with low temperatures in the initial stages of seedling development, inducing a rapid development towards a physiologically older condition and resulting in a shortening of the interval between sowing and flowering; vernalization.
- coleogen. **coleógeno.** The layer of meristematic cells from which the endodermis is derived.
- coleoptile. **coleóptilo.** The first seedling leaf which becomes a short-term protective sheath at the tip of grasses (**Poaceae**) and other similar monocotyledons. It appears above the ground first as a sheath around the plumule and contains little chlorophyll.
- coleorhiza. **coleórizo.** A sheath enclosing the rudimentary root in the embryo of grasses (**Poaceae**) that is penetrated by the root at germination.
- colinearity. **colinearidad.** Correspondence between the nucleotides in a portion of DNA and the amino acids in the polypeptide, specified by the cistron.
- collabent. **colabente.** Collapsing inward.
- collar. **cuello.** The point of union of the root and stem; an area on the outside of a grass leaf (**Poaceae**) where the blade and sheath join.
- collateral. **colateral.** Lying side-by-side; also, individuals in a family but not related by direct descent.
- collateral bud. **yema colateral.** An accessory bud lying beside the axillary bud.
- collecting cell. **célula colector.** A thin-walled cell in the mesophyll of a leaf below the palisade layer, and in contact with it. The collecting cell transports elaborated food materials from the palisade.
- collective fruit. **fruto colectiva.** Multiple fruit; also, a single fruit from several flowers.
- collenchyma. **colénquima.** Living plant tissue with long, thick cell walls just below the epidermis, occurring most often at the corners of angular stems.
- collet. **collete.** Collar.
- colliculose. **coliculoso.** Having rounded swellings.
- collinus. **collinus.** Latin for "living on low hills".
- colloid. **coloide.** Solid particles suspended in a liquid.
- colonial. **colonial.** A multi-celled organism that produces a colony of cells, especially when referring to colonial algae or plants connected to each other by underground organs.
- colonist. **colonista.** A weed on cultivated land.
- colonization. **colonización.** The pioneer or initial establishment of vegetation on a previously unvegetated area, as lichens on a rock.
- colonize. **colonizar.** To establish a community of vegetation.
- colony. **colonia.** A group of plants or organisms of the same species growing together; also, microorganisms growing together so that the

population as whole has color and texture.

colophony. **colofonia**. Rosin. Same as resin.

color. **color**. The quality of a substance in relation to the reflected light, usually measured by standardized measures of hue, chroma, and value.

colorless. **incoloro**. Transparent; without color.

columella. **columela**. The central column in a capsule with the seeds fixed around it; the central axis of a fruit; the central axis of sterile tissue on which sporangia are borne in some fungi and gymnosperms, as *Diselma* (**Cupressaceae**).

columelliform. **columelliforme**. Having the shape or form of a small column.

column. **columna**. The united stamens and styles when they form a solid, central body, as in the **Orchidaceae**; the structure formed by the union of stamens in some of the **Malvaceae**.

columnar. **columnar**. Having a column-like structure.

com-. **com-**. A Latin prefix that means, "together".

coma. **coma**. A tuft of hairs at the end of a seed; a bunch of branches; a terminal cluster of bracts on a flowering stem, as on pineapples (**Ananas**).

comate. **comado**. Comose.

comate disseminule. **disenínulo comado**. A seed or fruit with fine long hairs which aid in wind dispersal.

comb. **cresta**. See crest.

comb-like. **pectinado**. Pinnatifid with closely set segments; pectinate.

commensal. **comensal**. Characterized

by commensalism.

commensals. **comensals**. Two organisms living in association with each other, not parasites or symbionts, but mutually benefiting from the association.

commensalism. **comensalismo**. An interaction between two species in which one population is benefited but the other is not affected; also, a relationship between two organisms in which one lives in or on another, but not as a parasite, thereby leaving the host unaffected.

commisural. **comisura**. The line of junction where one carpel joins another, as in the **Umbelliferae**; a bridge between two parts or two organs; the joint between the lid and the mouth of a moss sporangium; the line where the antical and postical lobes of the leaf of a liverwort join; a general term for any seam or joint.

common bundle. **haz común**. A vascular bundle running through the stem and leaf.

common name. **nombre vulgar**. A regional name for a plant in the language of the area, rather than the Latin scientific name.

common receptacle. **receptáculo común**. The part of the stem from which all the flowers on a head arise.

community. **colonia**. The biotic component of an ecosystem; also, a general term for any population of different organisms living in a particular environment (regionally referred to as biomes); also, a distinct unit of vegetation composed of two or more species.

community ecology. **ecología comunitaria**. A type of ecological study focused on the living constituents

of a community; providing quantitative descriptions and analysis of the patterns, particularly those relating to interactions.

comose. **comoso**. Having a tuft of hairs (coma).

comose disseminule. **disemínulo comoso**. A seed or fruit with long fine hairs which aid in wind-dispersal.

compaginate. **compaginado**. Joined tightly together.

companion cell. **célula acompañante. célula anexa**. In angiosperm phloem, a specialized cell derived from the same parent cell as the closely associated sieve-tube element, directly adjacent to it.

compartmentalization. **compartiment-a(liza)ción**. Division of labor in living cells; as enzymes which are related to a particular function are usually separated from other cell contents by a membrane.

compatible. **compatible**. Capable of cross-fertilization.

compensation. **compensación**. The increased size or functioning of one part to make up for the loss or weakness of another part.

compensation level. **profundidad de compensación**. In aquatic ecosystems, the depth at which light penetration is reduced to the level of producing only enough oxygen by photosynthesis to equal consumption by respiration.

compensation period. **período de compensación**. The time required for a green plant to be in light to make-up the carbohydrate lost during respiration in the dark.

compensation point. **punto de compensación**. In a living plant, when the uptake of carbon dioxide equals

the release of carbon dioxide; the point at which photosynthesis equals respiration.

compensation tongue. **lengua de compensación**. A strand of vascular tissue passing from one vascular ring to another, as in the siphonosteles of some ferns.

competition. **competencia**. The fourth of six stages in plant succession in which an interaction occurs between individuals of the same species, or between different species populations that affects one or more species adversely either through replacement or modification; also, demand for the same resources by two or more species. *See sere*.

competitive exclusion principle. **principio de la exclusión competitiva**. A concept experimentally demonstrated in 1934 by G.F. Gause that two or more species with identical patterns of resource-needs cannot coexist in a stable environment; results in one species becoming better adapted and eliminating (out-competing) the other; Gause principle.

competitive inhibition. **inhibición competitiva**. The reversible repression of enzyme activity by an inhibitor molecule.

compital. **compital**. Intersecting at different points, as the sori of ferns (**Filicopsida**), which occurs at the junction of two veins; also, leaf veins crossing at various angles.

complanate. **complanado. comprimido**. Even surface; flattened.

complementary cell. **célular complementario**. One of the lenticel tissue cells.

complementary community. **comunidad complementario**. A group

of two or more species, occupying the same area, but not competing with each other, as they may vegetate at different times or have their roots at different levels.

complementary chromatic adaptation.

adaptación cromático complementario. A concept applied to the **Myxophyceae** and **Rhodophyceae**, that the color of the light-absorbing pigment is complementary to the color of the light in which the plant is living, *e.g.* plants growing in blue light are red, and those in red light are green.

complementary factor. **factor complementario.** A factor in inheritance, which, with other similar factors, leads to the appearance of some character in the progeny.

complementary gene. **gen complementario.** Mutant alleles at different locations (loci) which balance one another to give a wild-type phenotype.

complementary society. **sociedad complementario.** A community of two or more species, occupying the same area, but not competing with each other, *e.g.* they may vegetate at different times, or have their roots at different levels.

complementary tissue. **tejido complementario.** Loose, thin-walled cells in the cavity of a lenticel, which allows the diffusion of gases.

complementation test. **prueba de complementación.** *See* cis-trans test.

complete flower. **flora completa.** A complete flower is one having calyx, corolla, stamens, and pistils.

complete penetrance. **penetración completa.** A condition when specified genotype always manifests itself

at the phenotypic level. This occurs when both a recessive gene in the homozygous state and a dominant gene produces a phenotypic effect.

complex character. **cárácter complejo.**

A difference in phenotype determined by more than one gene, and therefore not transmitted to the offspring as a unit.

complex gradient. **gradiente complejo.**

A gradient of environmental conditions that are linked, as rainfall, wind speed, and temperature found along a line at a particular elevation.

complex tissue. **tejido complejo.** A tissue composed of cells of more than one type.

complicate. **conduplicado.** Folded together; folded lengthwise as complicate leaves.

Compositae. **compuestas.** A taxonomic grouping now referred to as **Asteraceae** with the characters of the daisy, aster, and dandelion. The flowers are individually small, but are clustered into heads (capitula, *See* capitulum) resembling flowers; the florets are seated on receptacles of varied form and the heads are surrounded by an involucre or bracts resembling a calyx.

composite. **compuesto.** Having the characters associated with **Asteraceae** flowers or plants.

composite fruit. **fruto compuesto.** *See* aggregate fruit.

compost. **abono orgánico. abono vegetal. compost.** Organic materials such as litter, vegetable waste, or manure, which may be broken down in soil to form humus.

compound. **compuesto.** With two or more similar parts combined into

one organ; as a compound flower head from the **Order of Asteraceae (Compositae)**; also, in chemistry, a substance formed by a chemical combination of two or more elements in definite proportions by weight.

compound fruit. **fruto compuesta.** See aggregate fruit.

compound head. **cabezuela compuesta.** A receptacle made up of many single-flowered heads, each with its own involucre

compound leaf. **hoja compuesta.** A leaf composed of several independent blades, called leaflets, variously arranged on a single petiole. These may be palmate (leaflets spreading fan-wise) or pinnate (leaflets arranged feather-fashion). When pinnate, the leaflets are in opposite pairs along an axis (rachis) and may terminate with a single leaflet (imparipinnate) or when the terminal leaflet is absent, the leaf is even, or abruptly pinnate. Pinnate leaves may again be divided (bipinnate) with the secondary leaflets (pinnules) arranged on a minor axis or rachilla, the primary leaflets being pinnae (single pinna). From the rachilla, a further axis may also arise, the leaf then being tripinnate.

compound oosphere. **oosfera compuesta.** A multinucleate body in an oogonium probably composed of a number of female gametes which have not become individuals.

compound ovary. **ovario compuesta.** An ovary of two or more carpels.

compound pistil. **pistilo compuesto.** With two or more united carpels.

compound pyrenoid. **pirenoide compuesto.** A pyrenoid of two closely

associated portions.

compound umbel. **umbela compuesto.**

A raceme composed of a large number of heads rising very close together at the end of a main branch. Each bears a number of flower stalks similarly arranged, and each of these bear one flower. Commonly, the whole umbel is flat headed.

compressed. **comprimido.** Flattened along its length, as a compressed seed; complanate.

concatenate. **concatenado.** In chains. concave. **cóncavo.** Hollow or curved inward, like a saucer.

concentric bundle. **haz concentrico.** A vascular bundle in which one tissue surrounds another.

conceptacle. **conceptáculo.** A flask-shaped or urceolate cavity where gametes are formed, as in some brown algae (**Phaeophyta**).

conchate. **conchado.** Like a scallop shell.

concinnus. **concinnus.** Latin for "neat".

concolor. **concolor.** Latin meaning, "of uniform color".

concolorous. **concoloro.** The same color, as a leaf with both surfaces of the same color intensity.

concordance. **concordancia.** Similarity in a twin pair, with both members expressing a specific trait.

concrecence. **concrecencia.** Two organs that when immature are separate, but become fused as they mature. They may form a single structure but function separately, e.g. fused petals and stamens.

concrecent. **concrecente.** Two or more individual parts that have grown together.

concrete. **concrecent.** Growing together to form a single structure; also, adhering closely to anything.

condensation. **condensación.** Crowded vertically, due to the absence or suppression of internodes.

condensed. **condensado.** Said of an inflorescence in which the flowers are crowded together, and are near or quite sessile.

condiosporangium. **condioesporangio.** A structure that produces condiospores.

condiospore. **condióspora.** An asexual spore produced singly or in chains.

conductive tissue. **tejido conductor.** A tissue system composed mostly of phloem and xylem which plants use for the conduction of water, mineral salts, and foods, as well as for strength and support; vascular.

conduplicate. **conduplicado.** Folded in half, lengthwise; also, said of a cotyledon which is folded longitudinally about the radicle; vernation.

cone. **estróbilo. cono.** The fruit of several evergreen trees, including pine (**Pinus**), fir (**Pseudotsuga**), cedar (**Cedrus**), and spruce (**Picea**), that are composed of a woody axis with leaf-like scales containing ovules or pollen; strobilus.

cone-like. **estrobiliforme.** Resembling the shape of a cone.

confertus. **confertus.** A Latin term meaning, "crowded".

confervoid. **confervoide.** Composed of threads.

configuration. **configuración.** Refers to surface patterns on plant parts or organs exclusive of venation and epidermal outgrowths.

confined aquifer. **acuífero limitado.** An aquifer between two layers of relatively impermeable materials, such as rock, shale, or clay.

confluent. **confluente.** Flowing together so that one part blends into another.

congeneric. **congénere.** Similar or same in origin; of the same genus.

congenital. **congénito.** Grown to.

congested. **congestado.** Dense or crowded very closely together.

conglobate. **conglobado.** Of the bases of stipes, when they are massed into a fleshy ball.

conglomerate. **aglomerado. conglomerado.** Densely clustered.

conglutinate. **conglutinado.** Stuck together in a sticky mass.

congregate. **congregado.** Collected into a dense group.

congression. **congresión.** The movement of chromosomes on to the metaphase plate, especially at the first meiotic division.

conic. **cónico.** Cone-shaped.

conical. **cónico.** See conic.

conidiophore. **conidióforo.** A specialized filament (hyphae) in some fungi that bear one celled, asexual spore (conidium).

conidiosporangium. **conidiosporangio.** A sporangium which will under certain conditions germinate directly.

conidium (*pl.* conidia). **conideo.** Single-celled, asexual spore formed in the pycnidium of certain fungi.

conifer. **conífera.** A gymnosperm, characterized by the production of non-motile microspores and a typical structure that is frequently a tall, monoecious tree with simple, needle-shaped or scale-like leaves, bearing small male cones and ovulate cones which become woody; also, any of a large group of cone-bearing, gymnosperm trees and shrubs, generally evergreen, from

the **Order of Coniferales**.

conifer forest. **bosque de coníferas**.

bosque aciculifolio. A large tree population composed primarily of needle-leaved, softwood trees (**Coniferae**).

coniferous. **conífero**. Refers to cone-bearing plant communities.

conjugate. **conjugado**. Growing in pairs, as leaflets in a compound leaf.

conjugate division. **división conjugado**. Division of a pair of associated nuclei at the same time, as in the **Basidiomycetes**.

conjugate nuclei. **núclei conjugado**. Two nuclei in one cell, which undergo division.

conjugation. **conjugación**. In certain algae and fungi, the process between two one-celled organisms uniting for the transfer of nuclear material; also, the lateral association of chromosomes in the early prophase of meiosis.

conjugation protein. **proteína conjugada**. **heteroproteido**. A protein with a non-protein component that may be a metal ion or an organic substance.

conjugation tube. **tubo conjugación**. In some algae and fungi, a tube that bridges between two, one-celled organisms transferring material in the process of conjugation.

conjunctive parenchyma. **parénquima conjunctivo**. Parenchyma formed between specialized tissue, *i.e.* between vascular strands.

connate. **conato**. Applied to similar organs that have fused, such as leaves, petals, or anthers. *Compare* adnate.

connation. **conación**. The union of similar parts, as the connation of petal margins to form a gamo-

petalous corolla; also, the union of bases of opposite sessile leaves to form connate leaves, as the *Eucalyptus perfoliata*.

connate-perfoliate. **conato perfoliado**.

Two leaves joined at the base and around the stem forming a broad base through which the stem passes, as with opposite sessile leaves.

connective. **conectivo**. The type of tissue on the stamen that joins the two halves of an anther sac; also, disjunctor (fungi).

connivent. **conivente**. Gradually converging or coming very close together but not actually joining or fusing, as with some petals or stamens.

consanguineous. **consanguinea**. A relationship through a common ancestor.

conservation. **conservación**. The management and/or protection of natural resources, such as plant or animal species.

conservation of nature. **conservación de la naturaleza**. The maintenance and protection of environmental quality and resources, including physical, biological, and cultural considerations. It implies a usage of resources within social and economic constraints, producing goods and services for human consumption without destruction of the natural ecosystem diversity. This is sometimes contrasted with preservationist views that promote the protection of species and landscapes without reference to human requirements.

conservationist. **defensor de la naturaleza**. **protección de la naturaleza**. A person who is engaged in the conservation of nature.

consimilar. **comparecido.** Having a common resemblance.

consociation. **consociación.** A community with a single, dominant species; sometimes, used to indicate that there are several dominants in an association.

consortism. **consortismo.** The mutual relationship, as between the fungus and alga in a lichen thallus.

conspecific. **conspecifico. congénere.** Belonging to or of the same species.

constant species. **especie constante.** In phytosociology, a species common in a particular association or community, but not confined to that community, as are the faithful species.

constellate. **constelado.** To cluster.

constipate. **constipado.** Crowded together.

constitutive enzyme. **enzima constitutiva.** An enzyme that is always produced even if there is not a suitable substrate; produced at a constant rate.

constricted. **constricto.** Irregularly small in some places, as with a constricted pod which is narrowed at regular intervals between seeds; narrowed suddenly at one or more points along the length.

constriction. **constricción.** A narrowing; also, part of a metaphase chromosome which is in a fixed position and not twisted into a spiral.

constructive metabolism. **metabolismo constructivo. metabolismo asimilador.** The phase of metabolism which uses energy from food and water to construct complex compounds of living tissue; anabolism.

consumer. **consumidor.** An organism that consumes other organisms, as

carnivorous plants; also, any heterotrophic organism that feeds on living or dead organic material. *See* microconsumer.

contabescent. **contabescente.** Abortion of pollen and stamens.

contact inhibition. **inhibición de contacto.** Cell division cessation when the surface of one cell comes into contact with the surface of another cell.

contact point. **punto de contacto.** Where chromosomes first come together in pairing at zygotene.

contaminant. **contaminante. producto sustancia contaminadora.** A substance which creates an impure condition, usually natural, such as pollen or volcanic ash. *See* pollutant.

contaminated. **contaminarse.** Bearing or mixed with a pathogen, *e.g.* fungus spores on seeds; also, bacterial or fungus cultures containing contaminants.

conterminous. **contermino.** The marginal ray cells when they form an uninterupting row.

context. **contexto.** The type of tissue that makes-up a fungal fruit body.

contiguous. **contiguo.** Near or touching each other but not fused.

contingent. **contingente.** Touching.

continuous. **continuo.** Having an uninterupted contour; without a septa; also, having a smooth surface.

continuous variation. **variación continua.** Small changes of parental character occurring in the same species.

continuum. **continuo.** A concept that holds vegetation to be continuously variable, as it shows gradual change in response to environmental fluctuations, therefore it cannot be clas-

sified into discrete entities. Ordination methods are used to analyze this type of change data.

contorted. **contorsionado.** Twisted or bent into itself; also, twisted together, as sepals and petals that overlap in the bud.

contorted aestivation. **estivación contorsionado.** The arrangement of the perianth in the bud, when all the perianth segments overlap by either their right-hand or left-hand edges; convolute aestivation.

contortoduplicate. **contorsionduplicado.** Twisted and folded.

contractile root. **raíz contráctil.** A fleshy root which becomes transversely corrugated as it ages, resulting in the plant being pulled deeper into the ground.

controlled pollination. **polinización regulada.** In plant hybridization, the technique of wrapping pistillate flowers in bags to protect them from unwanted pollen and at the appropriate time, unwrapping and dusting them with the desired pollen.

convergence. **convergencia.** A product of natural selection where morphologically dissimilar and distantly related species become similar to each other.

convergent evolution. **evolución convergente.** The appearance of similar characteristics in plants not closely related to each other, as cacti growing in the southwestern United States being similar to certain **Euphorbia** species growing in Africa.

convergent improvement. **mejora convergente.** The simultaneous improvement of two inbred strains by back crossing their hybrids to

each strain in separate lines, and selecting for the desired features of each strain in that line of which it is not the recurrent parent.

convex. **convexo.** A surface that curves outward, as the outside of a circle; rounded.

convolute. **convoluto.** Rolled up lengthwise so that one half is covered by the other, as a convolute leaf or, as the overlapping petals of a flower.

convolute aestivation. **convoluto estivación.** See contorted aestivation.

copal. **copal.** A hard resin from the *Protium copal* (**Burseraceae**) tree that is used by Maya Indians for incense.

copper. **cobre.** An element with the chemical symbol of Cu which is required by plants in small amounts. Deficiency can be seen in chlorosis or in dark green leaves; in wood plants, bark may show blisters; shrubs may become excessively bushy. Copper in plants is bound to proteins and is involved in the molecular oxygen reactions during oxidation-reduction.

coprophilous. **coprófilo.** Plants that grow best in dung; dung-loving.

copse. **matorral.** A thicket of bushes or small trees.

copulation. **copulación. cópula.** The fusion of gametes.

copulation tube. **tubo de copulación.** Conjugation tube.

coral. **coral.** A stony substance, mostly calcium carbonate, made of the skeletons of polyps.

coral-like. **coraloide.** See coralloid. coralline. **coralino.** Pertaining to or like a coral.

coralloid. **coraloide.** Many branched,

as a coral; also, coral-like, especially brain coral.

coral reef. **arrecife de coral. arrecife de coralino.** A rock-like structure in shallow tropical sea water made from plants and animals encrusted with calcium carbonate.

cordate. **acorazonado.** Heart-shaped; often used to describe a leaf.

cordifolius. **cordifolius.** Latin for "having heart-shaped leaves".

cordiform. **cordiforme.** Having the shape of a heart, as an ovate leaf with a pointed tip and a heart-shaped base. *See* cordate.

core. **corazón.** The hard, inner part of a fruit containing seeds, as the core of an apple (**Malus**); also, the plant material that forms the inner part of a periclinal chimaera; centrum.

coremiform. **coremiforme.** Forming a tight bundle of elongated elements.

coremium. **coremio.** A shelf-like bunch of conidiophores bearing conidia which form a head; also, a rope-like strand of hyphae.

corepressor. **co-represor. correpresor.** A substance that inhibits production of an enzyme.

coriaccellate. **coriacelado.** Slightly leathery in texture.

coriaceous. **coriáceo.** Having a rough, leather-like texture.

corium. **corion.** A layer of tissue below the epidermis; dermis.

cork. **corcho. súber.** The outer, suberous bark of any tree; specifically, the **Quercus suber** that grows in Spain and Portugal; also, the secondary tissue produced by cork cambium; the outer part of the periderm.

cork cambium. **cámbium suberígeno.** The secondary cambium giving rise

to cork tissue; phellogen.

corky. **corchoso. suberoso.** Cork-like; suberose.

corm. **cormo.** A thickened, bulb-like, fleshy, underground stem covered with paper-like scales. *Compare* bulb.

cormel. **cormillo.** A small corm growing at the base of a larger corm.

cormophyte. **cormófito.** A plant with a stem, root, and leaf.

corm(us). **cormo.** A plant body developing a definite shoot system.

corn. **maiz (Zea). choclo.** Maize or corn in the Americas, but in the United Kingdom wheat (**Triticum**) and sometimes barley (**Hordeum**) or oats (**Avena**).

corneous. **córneo.** Horny in texture.

corniculate. **corniculado.** Having pointed, horn-like projections.

corniform. **corniforme.** Having the shape of a horn; horn-like.

corolla. **corola.** The petals or outer envelope of a flower; collective name for petals; the inner series of the perianth. When the petals are separated from each other to the bases, the corolla is termed choripetalous or polypetalous; when the petal margins connate, gamopetalous or sympetalous, the corolla forming a tube with each ununited part of the petal is termed lobe or tooth which may expand radially to form a limb. *Compare* calyx.

corollaceous. **coroláceo.** Having a corolla or pertaining to a corolla.

corollate. **corolado.** Having or like a corolla.

corollet. **corolete.** One of the small flowers that compose a compound flower.

corolliferous. **corolífero.** Bearing co-

rolla.

corolliform. **coroliforme**. Having the shape of a corolla.

corolline. **corolino**. Pertaining to a corolla.

corona. **corona**. The petal-like or crown-like appendage between the petals and stamens, as in a daffodil (**Narcissus**) or milkweed (**Asclepias**); also, the appendage at the top of some seeds which enables them to disperse; also, a five-celled cap of small cells on the oogonium of the **Charales**.

coronate. **coronado**. Having an appendage that resembles a crown.

coroniform. **coroniforme**. Having the shape of a crown; crown-like.

coronule. **coronula**. The little crown of a seed.

corpuscle. **corpúsculo**. Any small cell inclusion.

correlation. **correlación**. When a plant utilizes nutrients and hormones, a mutual relationship or correlation occurs between organs, functions, and characteristics.

corrugated. **ondulado**. **corrugado**. Wrinkled or folded into alternating, parallel ridges; having a wrinkled or rigid surface.

corrugation. **ondulación**. **arruga**. A wrinkle or ridge.

cortex. **corteza**. **córtex**. The bark of a tree; root and stem tissue of higher plants between the epidermis and the stele; also, an outer layer of cells in some algae, fungi, and lichens; also, the rind in some fruits; also, a continuous column of tissue of the stem and root, the primarily protective layer, bounded on the inner periphery by the vascular system and on the outer, by the epidermis.

cortical. **cortical**. Pertaining to the cortex; also, relating to or living on the bark.

cortical bundle. **haz cortical**. A vascular bundle in the cortex.

corticate. **corticado**. Having a cortex; also, covered with an unbroken sheath of interwoven hyphae.

corticolous. **corticicola**. Growing on or in a tree bark.

cortin(a). **cortina**. In some umbrella-shaped fungus (agarics), a mesh of web-like fibers extending from the edge of the pileus to the stipe in the fruit body.

corymb. **corimbo**. A flat-topped or rounded inflorescence with the outer flowers on the longer stalks opening first, as with cherry blossoms (**Prunus**).

corymbiform. **corimbiforme**. Having the appearance of corymbs.

corymbose. **corimboso**. Growing in corymbs.

coscinocystidium. **coscinocistidio**. A cystidium which clearly projects.

coscinoid. **coscinoide**. A pitted conducting element in *Linderomyces*.

cosmopolitan. **cosmopolita**. Refers to the world-wide or pandemic distribution of plant species of which there are very few that occur on all six continents.

costa. **costa**. The midrib of a leaf or frond; also, the midrib of the thallus of a liverwort; also, a rib or valve of a diatom.

costal. **costal**. Near or pertaining to the midrib of a leaf.

costapalmate. **costapalmado**. The branching main ribs of a palmate leaf.

costate. **nervado**. Ribbed longitudinally or having the appearance of being ribbed.

costule. **costilla**. Pertaining to the leaf ribs or veins.

cottony. **gospino**. Cotton-like; fluffy with soft long hairs.

cotyledon. **cotiledón**. A seed leaf on a plant embryo; the first or one of the first leaves growing out of a seed having the function of nourishing the young plant by storing and absorbing nutrients from the endosperm. Of a species, the number of cotyledons developed is normally fixed, one in most monocots, two in most dicots, and from two to fifteen in gymnosperms.

cotyliform. **cotiliforme**. Shaped like a cup; cup or disk-like.

coupling. **acoplamiento**. The presence of two given genes in the same chromosomes in a double heterozygote.

coupling phase. **fase de acoplamiento**. **fase de atracción**. The condition in linked inheritance by which hybrid heterozygous for two pairs of factors receive the two dominant factors from one parent and the two recessive factors from the other parent.

covalent bond. **covalente enlace**. In chemistry, a bond in which a pair or pairs of electrons is shared between two atoms.

cover. **cubre**. When describing plant communities, cover is a proportional (percentage) visual measure of the ground occupied by individuals of the species being studied; also, a ground crop such as rye (**Secale**), vetch (**Vicia**), or red clover (**Trifolium**), grown to protect soil from erosion.

cover cell. **célula tectriz**. One of four cells closing the neck of the archegonium of the **Bryophyta** and

Pteridophyta.

crampon. **crampón**. An aerial root which provides support, as in ivy (**Araliaceae**); aerial root.

craspedodromous. **craspedódromo**. A venation system where the leaf veins run to and meet the leaf margin.

crassi-. **crasi-**. A Latin prefix that means, "thick" or "short".

crassula (*pl.* crassulae). **crásula**. A dark pattern between the circular bordered pits of gymnosperms; a horizontal rod or band of thickening consisting of pectic materials or cellulose, occurring between pits in the walls of tracheids and vessels; bar of Sanio.

crassus. **crassus**. Latin for "thick". crateriform. **crateriforme**. Shaped like a bowl; bowl-like.

creationism. **creacionismo**. A belief that the origin of life and its diversity is a result of acts of God with each species created separately. It implicitly rejects evolution.

creeper. **planta rastrera**. A plant producing roots at the nodes and growing along the ground or just below the surface.

creeping. **reptante**. **rastrero**. Of a stem growing along the ground or just below the surface and rooting at the nodes.

cremocarp. **cremocarpio**. **diachenium**. A dry fruit formed from two one-seeded carpels that remain separate and form indehiscent mericarps; characteristic of the **Umbelliferae** (carrot family); also, a fruit splitting into two or more one-seeded sections.

crenate. **crenado**. A leaf margin with rounded or scalloped teeth that point forward.

crenium. **crenio**. A spring (upsurging

water) formation.

crenulate. **crenulado**. Having very small, minute notches or scalloped teeth along the margin of the leaf.

crepuscular. **crepuscular**. Becoming active in the twilight or before sunrise.

crescentric. **crescentrico**. Same as crescent-shaped.

crescent-shaped. **lunular**. **media luna**. Shaped like the moon in its first and last quarter; a shape with one concave and one convex edge.

crest. **cresta**. An elevated ridge on the surface of some structures; a horn-like projection from the hood of the corona in some milkweeds (**Asclepias**).

crested. **crestado**. Having a ridge (crest) on the surface.

cribriform. **cribriforme**. With a sieve-like structure.

crinite. **crinito**. Having tufts of long hairs.

crinitus. **crinitus**. Latin for "having soft hairs".

crispate. **crespo**. Having a wavy or curved shape, as with some leaves or hairs.

criss-cross inheritance. **herencia cruzada**. The transmission of a gene from father to daughter or mother to son.

crista(e). **crestas mitocondriales**. The internal projection or one of the folds of the inner mitochondrial membrane; also, a ridge-like membrane running the length of some bacterial cells.

cristatus. **cristatus**. Latin for "crested".

cristate. **crestado**. **cristato**. Having a crest or tuft, as some anthers.

cross. **cruzar**. **criza**. **cruce**. Cross breeding of different varieties or species to produce a new descend-

ant; also, the act or product of a cross fertilization, *i.e.* the fusion of gametes contributed by different individuals; interbreeding

cross breed. **cruce**. **criza**. To breed hybrid forms by mixing varieties, as a loganberry (**Rosaceae**) is a cross between a raspberry (**Rosaceae**) and a blackberry (**Rosaceae**), but is different from either of their lineage.

cross breed. **cruzar**. Produced from cross breeding.

cross breeding. **cruzamiento**. The breeding of genetically unrelated individuals, as the transfer of pollen from one individual to the stigma of another of a different genotype.

cross fertilization. **fertilización cruzada**. The fertilization of the ovum of one individual flower by the pollen of another; allogamy.

cross fertilize. **fecundar mediante**. **fecundación cruzada**. To undergo or facilitate cross fertilization.

crossing over. **sobrecruzamiento**. **entrecruzamiento**. During prophase I of meiosis, a mutual exchange of portions of chromatids between homologous chromosomes by breakage-reunion; formation of a chiasma.

crossover. **sobrecruzamiento**. Chromosomes that have exchange parts that have undergone crossing over. The changed segments are recognized by the genes that mark them; recombinant. *See* crossing over.

crossover unit. **unidad de crossing-over**. **unidad de sobrecruzamiento**. A 1% frequency of interchange between a pair of linked genes.

crossover value. **proporción de crossing-over**. **tasa de crossing-over**.

- porcentaje crossing-over.** The percentage of gametes that show crossing-over of a particular gene.
- cross pollinate. **polinizar cruada.** To undergo or to facilitate cross pollination.
- cross-pollination. **polinización cruzada.** The transfer of pollen from the anther of one flower to the stigma of another, achieved mostly by wind and insect activity.
- cross-shaped. **cruciforme.** Having the shape or form of a cross.
- crowded. **agregado. agrupado. denso.** Being very close together.
- crown. **copa.** The upper part of a plant, especially a tree, including the leaves and branches; also, an inner appendage to a petal or the throat of a corona; also, the part of the seed plant where the root joins the stem.
- crown. **copado.** Having a terminal outgrowth, as a group of hairs; also, having an appendage on the upper surface of a leaf or flower petal.
- crown graft. **injertar corona.** A graft inserted at the crown of the root of the stock.
- crozier. **crosier.** The spirally coiled "fiddlehead" of a young fern (**Filicopsida**); also, a hook-shaped hypha tip that comes before the development of an ascus in sac fungi.
- cruciate. **cruciado.** Having petals arranged in the shape of a cross.
- cruciform. **cruciforme.** Having the shape of a cross; cross-like.
- cruciform division. **división cruciforme.** Promitosis.
- crude fiber. **fibra bruta. fibra cruda.** The residues in the soil formed from the woody parts of plants.
- cruentus. **cruentus.** A Latin term for "blood-colored".
- crustaceous. **crustáceo.** Dry and brittle; having a brittle thallus, as some lichens.
- crustose. **crustoso.** Lichens and algae growing like a crust by sticking fast to rock, bark, or soil and detachable only in small pieces.
- crymium. **crimio.** A polar, barren formation.
- cryobiology. **criobiología.** The study of the effects of low temperatures on living things.
- cryophil. **criófilo.** See psychrophile.
- cryophyte. **criófito.** An organism that grows best in low temperature.
- cryoplankton. **crióplancton.** Algae which live on the surface of snow and ice in polar regions and on high mountains.
- crypto-. **criptó-** A Greek prefix than means, "hidden".
- cryptobiosis. **criptóbiosis.** Dormancy, especially in relationship to microbial spores that may not show no life for many years.
- cryptogam(ous). **criptógamo.** A class of plants that do not produce seeds, but grow from spores, including mosses (**Musci**), algae, ferns (**Filicopsida**), and lichens. Opposite of phanerogam.
- cryptomere. **criptómero.** A genetic factor which is not seen.
- cryptomerism. **criptomerismo.** A failure of characters to show in the progeny, which nevertheless contain the corresponding hereditary factor.
- cryptophyte. **criptófito.** A corm or bulb producing plant whose dormant buds are beneath the soil or under water; also, a small group of algae (**Cryptophyceae**); also, one of Raunkiaer's life-form categories in

which the perennating bud occurs below the water or ground.

cryptoplasm. **criptóplasma**. That part of the cytoplasm that appears to lack granules.

cryptostoma. **criptóstoma**. A flask-shaped cavity in the thallus of some of the larger brown algae. It contains mucilage-secreting hairs.

crystalloid. **cristaloide**. A crystal of protein found extensively in the cells of seeds and other storage organs.

cteno-. **cteno-**. A Greek prefix that means, "comb"

ctenoid. **ctenoide**. Comb-like.

Cu. **Cu**. The chemical symbol for copper.

cubical. **cúbico**. Describes a solid shape with the widest axis at midpoint, parallel margins, and as wide as it is long.

cucullate. **cuculado**. Having the shape of a hood, wide at the top and drawn to a point below; hooded.

cuculliform. **cuculado**. **cuculiforme**. Formed like or resembling a hood, wide at the top and narrowing at the bottom, as a conical roll of paper.

cucurbitaceous. **cucurbitáceo**. Gourd-like.

culm. **caña**. The jointed stem of a grass, solid only at the nodes; the solid, usually three-sided stem of a sedge; also, the stem of any monocotyledon; haulm.

culmicole. **canaóla**. Growing on a grass stem.

cultigen. **cultigeno**. A cultivated plant, such as corn (*Zea*), where the wild counterpart is not known.

cultivar. **cultivar**. A derived plant variety, produced from selective breeding, as distinguished from a

natural variety. It is classified in a subdivision of a species because of its distinct morphological character and is given a Latin name according to the rules to the International Code of Botanical Nomenclature.

cultriform. **cultriforme**. Shaped like a knife.

culture. **cultivo**. The growth of organisms, especially microorganisms under clearly defined conditions, which are usually artificial. Such methods may be used experimentally, *e.g.* with fungi or bacteria, or horticulturally, *e.g.* with tomatoes, orchids, and roses.

cumulate. **cumulado**. Heaped in a mass.

cuneate. **cuneado**. Shaped like a wedge; wedge-like; triangular and tapering to a point; sphenoid.

cuneiform. **cuneado**. **cuneiforme**. Having the shape of a wedge; wedge-like; broad and truncate at the top and tapering down to the base; wedge-shaped.

cup. **copa floral**. **cáliz**. A hollow floral receptacle; also, an apothecium.

cupreous. **cobre**. Copper colored.

cup-shaped. **cupuliforme**. Having the shaped of a cup; cyathiform.

cupulate. **cupulado**. **acopado**. **cupuliforme**. Cup-shaped.

cupule. **cúpula**. A cup-shaped or indented structure that surrounds a fruit, like an acorn cap (involucre).

cupuliform. **cupuliforme**. Resembling a cup; a cupule bearing plant.

curtain. **cortina**. Cortin.

curvature. **curvatura**. A change in the direction of growth of part of a plant due to one side growing faster than the other.

curved. **curvado**. Having a part-

circle shape.

cushion. **almohadón**. The central portion of the prothallus of a fern which bears rhizoids and sex organs.

cushion(y) plants. **plantas pulviniformes**. **plantas pulvinadas**. **plantas en almohadilla**. A subcategory of Raunkiaer's life forms; describes plants that have small, hairy, or thick leaves on short stems and growing close to the ground, as an adaptation to cold, dry, or windy conditions.

cuspid. **cúspide**. A short, sharp point at the apex of a leaf or other structure.

cuspidate. **cúspidado**. Terminating in a sharp point or tip, as a cuspidate leaf.

cuticle. **cutícula**. The thin, waxy coating (mainly fatty acids) on the epidermis of some leaves and stems, usually absent in roots and broken in aerial parts only by the stomata and lenticels, which provides protection and reduces water loss.

cuticular. **cuticular**. Pertaining to a cuticle, as cuticular transpiration.

cuticular diffusion. **difusión cuticular**. The passage of gases through the cuticle of a plant.

cuticular transpiration. **transpiración cuticular**. The loss of water vapor from a plant through the cuticle.

cutin. **cutina**. A lipid layer found in the outer walls of epidermal cells; a waxy, waterproof substance, the major ingredient of the plant cuticle.

cutinization. **cutinización**. The modification of a cell wall, making it waterproof through the presence of cutin; the formation of a cuticle.

cutting. **esqueje**. **estaca**. A method of vegetative propagation where

pieces of stems or roots are planted and developed into new plants; portions of stems, with two or three nodes, used for propagation by the production of adventitious roots; also, any part from a plant used for grafting or propagation, as a leaf cutting.

cyaneus. **cyaneus**. Latin for "bright blue".

cyano-. **ciano-**. A Greek prefix that means, "dark blue".

cyanobacteria. **cianobacteria**. A large group of bacteria which possess chlorophyll and carry out photosynthesis; formerly regarded as algae (**Cyanophyta**), and commonly referred to as blue-green algae. Their classification still remains somewhat confused, although cyanobacteria is now grouped into five sections.

cyanoplast. **cianoplasto**. A small pigmented granule in the cytoplasm of the cells of the **Myxophyceae**.

cyath-. **ciat-**. A Latin and Greek prefix that means, "cup-like".

cyathiform. **ciatiforme**. In the shape of a narrow, conical cup; cup-like.

cyathium. **ciatio**. The inflorescence in the genus **Euphorbia** that consists of unisexual flowers in a cup-like involucre with a single pistil and male flowers with a single stamen.

cyathus. **cestilla de propágulos**. **copa propagulifera**. See gemma cup.

cycad. **cicad**. Any member of the primitive, palm-like family **Cycad-aceae** with fern-like leaves growing in clusters at the top of the stem.

cycle. **ciclo**. Any period of time or complete process of growth or action that repeats itself in the same order, as the seasons of spring,

summer, autumn and winter; also, a closed circle or whorl of leaves.

cyclic. **cíclico**. Pertaining to or coming in cycles; also, having the parts arranged in the form of a whorl.

cyclic photophosphorylation. **fotofosforilación cíclica**. The formation of ATPase by the activation of Photo System I, but a failure to activate Photo System II with the result that NADP is not reduced.

cyclo-. **ciclo-**. A Greek prefix that means, "a circle" or "circular".

cyclosporous. **ciclosporo**. Having the embryo coiled around the endosperm.

cyclosis. **ciclosis**. The streaming or spontaneous movement of the cytoplasm and some organelles within the cell, as in living vacuolate cells.

cylinder. **cilindro**. A solid or hollow shape, wrap-around parallelogram, somewhat elongated and sausage-like.

cylindric. **cilíndrico**. Having the shape of a cylinder; cylinder-like.

cylindrical. **cilíndrico**. Having the shape of a cylinder.

cymbiform. **cimbiforme**. Having the shape of a boat; boat-like.

cyme. **cima**. A determinate inflorescence in which the central or top flower of each group is the oldest; a loosely used term for complex flower clusters that are more or less rounded or flat-topped.

cymose. **cimoso**. Having the shape of a cyme; with flowers in a cyme; also, a determinate inflorescence with termination of the floral stem with a flower, e.g. flowers forming a dichasium or dichasium modified to a single lateral, flower-terminated branch which gives rise to another single branch and (a)

either repeats the unilateral branch order, as in a helicoid cyme or (b) repeats the branch order as an alternating series, as in a scorpioid cyme or cincinnus.

cymule. **cimula**. A small cyme; also, a small section of a compound cyme.

cynarrhodion. **cinorrodon**. A fruit with a deeply concave or urn-shaped receptacle, enclosed by the calyx and bearing many achene on its inner surface, as in the rose (**Rosa**).

cypress knee. **rodilla ciprés**. A vertical, aerating upgrowth from the roots of the swamp cypress.

cyphella. **cifela**. Small circular depressions, which are aerating organs, in the under surface of some foliose lichens.

cypsela. **cipsela**. A seed pod (achene) with two spore-bearing carpels and a calyx directly attached to it, as in sunflowers (**Asteraceae**); also, a one-seeded fruit formed from a syncarpous, inferior ovary.

cyst. **quiste**. **ciste**. In green algae, a spore in dormancy that later germinates, producing a new plant; a tiny oil sac in the rind of some fruits; also, in seaweeds (**Phaeo-phyta**, **Rhodophyta**, **Chlorophyta**), the surrounding envelope of spores; the seed cells of some non-flowering plants; a thick-walled resting spore, or sporangium.

cysteine. **cisteina**. A crystalline, sulphur-containing amino acid that occurs in many proteins.

cystidium. **cistidio**. A sterile cell in the hymenium of some basidiomycetes.

cystine. **cistina**. An amino acid formed by the polymerization of two cysteine molecules.

cystocarp. **cistocarpo**. A small sac

- or pericarp that contain the reproductive spores of red algae; sporocarp.
- cystogenous. **cistógeno**. Producing a cyst.
- cystolith. **cistolito**. Tiny crystalline outgrowths of calcium carbonate found in the cells of plants.
- cystosorus. **cistosoro**. A group of united cysts found in the **Chytridiales** (microscopic fungi).
- cystospore. **cistosporo**. An encysted zoospore formed in the **Chytridiales**.
- cyto-. **cito-**. A prefix that means "a cell" or "cells", as in cytochrome.
- cytobiology. **citobiología**. *See* cell biology.
- cytochemistry. **citoquímica**. A branch of biochemistry exploring the chemical composition and activity of cells.
- cytochrome. **citócroma**. **citócromo**. A group of pigments (cytochrome a, b, and c) that are haemochromogens which act as oxygen carriers and are involved in cellular respiration and electron transfers in the oxidation process; compounds containing iron, ring groups, and proteins that are involved in electron transfers during photosynthesis and aerobic respiration.
- cytode. **citodo**. A mass of cytoplasm not containing a nucleus.
- cytodiaeresis. **citodiéresis**. Mitosis.
- cytogamy. **citogamia**. The union of cells.
- cytogenesis. **citogénesis**. The formation and differentiation of cells.
- cytogenetics. **citogenética**. An academic discipline which combines the fields of cytology and genetics; usually involves microscopic studies of chromosomes; also, the relationship between the appearance of chromosomes and the genotype/phenotype of the individual.
- cytogenous. **citógeno**. Cell forming or producing.
- cytokinesis. **citocinesis**. **citoquinesis**. The division of a cell into two or more cells, usually by the formation of walls; cytoplasmic division.
- cytokinin. **citoquinina**. A plant hormone, originally found in young corn (**Poaceae**); zeatin.
- cytological. **citológico**. Of or pertaining to cytology.
- cytology. **citología**. An academic discipline that involves the study of the structure, function, and life history of the cell.
- cytolymph. **citolinf**. Cell-sap.
- cytolysin. **citolisina**. Any substance causing the breakdown of cells.
- cytolysis. **citólisis**. A process by which the cell ruptures, allowing the protoplasm to be dispersed.
- cytome. **citoma**. The whole of the chondrisomes present in a cell.
- cytomicrosome. **citomicrosoma**. Mitochondria.
- cytomorphosis. **citomorfosis**. The changes that take place in a cell from its formation to death; or the changes that take place in a successive generation of cells derived from one individual.
- cytopathogenic. **citopatógeno**. Pertaining to the destruction of cells by a pathogenic agent, such as a virus.
- cytopharynx. **citofaringe**. The narrow neck in the opening of the gullet of the **Euglenophyta**.
- cytoplasm(a). **citoplasma**. The jelly-like substance of a cell that envelops the nucleus; also, the matrix of a cell, bounded by an outer

membrane, forming a complex system of diffusion barriers that control the movement of substance dispersed within.

cytoplasm(at)ic. **citoplasmático. citoplásmico.** Of or pertaining to the cytoplasm.

(cyto)plasmic inheritance. **herencia (cito)plásmica.** The inheritance of genetic units through the cytoplasm instead of through nuclear chromosomes.

cytoplasmic matrix. **citoplasma fundamental matriz. citoplasmática.** *See* hyaloplasm.

cytosine. **citosina.** A nitrogen base found in DNA and RNA. *See* base.

cytoskeleton. **citoesqueleto.** In the cytoplasm of a eukaryotic cell, an internal framework of microtubules, microfilaments, and other fine strands on which organelles and

other structures are anchored or organized.

cytosome. **citosoma.** The body of a cell, not including the nucleus; also, the cytoplasm of a cell; also, the area on the surface of the cell of the **Euglenophyta** through which the food particles are ingested. It is usually in the form of a gullet.

cytotaxonomy. **citotaxonomía.** The classification of cells based on their structure, especially chromosomes; also, the classification of plants based on a study of their cell- structure.

cytotropism. **citotropismo.** The movement or bending of cell masses toward or away from each other; the reaction of response to the stimulus of mutual attraction or repulsion between two cells.

D

dacryoid. **dacrioide**. Tear or pear-shaped.

dactyloid. **dactiloide**. Finger-like.

daedaleous. **daedaleo**. Having an irregularly wrinkled or plaited surface.

dam(m)ar resin. **resina damar**. A resin from various pine trees (**Pinaceae**) used in the manufacture of varnishes.

damping-off. **secadera de las plántulas. pudrición de las plántulas. meurte súbita**. A disease causing abrupt death of apparently healthy seedlings, in which the stem decays at ground level and the seedlings collapse; caused by soil-inhabiting fungi (as *Rhizoctonia* and *Pythium spp*) virulent to plant growth under conditions of high humidity and temperature.

dark. **oscuro**. Refers to dark color.

dark reaction. **reacción "oscura"**. Any of the chemical reactions in photosynthesis that are not dependent on light and are controlled by enzymes; occurs in the stroma of chloroplasts. The dark reaction takes place during the photosynthetic process, when oxygen is evolved from a complex peroxide (formed from water). Carbon dioxide is fixed to form sugars by combining with hydrogen. This is a complex reaction that involves the reduction and subsequent oxidation of a hydrogen-carrier and takes place in the stroma of the chloroplast.

dark seed. **semilla oscuro**. A seed

which will germinate only if kept in the dark when other conditions would normally favor germination.

darnel. **cizaña**. Any grass (**Poaceae**) of the genus *Lolium*, but most often *Lolium temulenum*.

dasy-. **dasi-**. A Greek prefix that means, "shaggy" or "hairy".

dasyphyllous. **dasífilo**. Having leaves with a thick coat of cottony hairs; also, having thick or crowded leaves.

dauermodification. **modificación duradera**. A lasting inheritable change, possibly cytoplasmic, which is produced by some treatment.

daughter. **hija**. Belonging to or pertaining to the first generation of offsprings or resulting from a primary division or segmentation.

daughter cell. **célula hija**. Two identical cells occurring with the completion of a cell wall in the prophase of mitosis.

daughter chromosome. **cromosoma hijo**. The product of each chromosome dividing lengthwise.

daughter nucleus. **núcleo hijo**. In mitosis, when a cell divides, two daughter nuclei are formed, each identical, with each getting one chromatid from each chromosome.

day-length. **duración del día**. Number of hours of daylight in each 24 hour period. Plants are often classified in two groups according to their response to day length: short-day plants, which flower only when exposed to short daily amounts of

light, as orchids (**Orchidaceae**) and long-day plants which flower only with long daily amounts of light, as red clover (**Trifolium**); photoperiod.

day-neutral plants. **plantas de día-neutro**. Those capable of flowering under either long or short day lengths, irrespective of the light period being short or long, as dandelions (**Taraxacum**).

day position. **posición de día**. The pitch or posture adopted by leaves during the day, if they alter their position when there is a decrease in light intensity.

day sleep. **sueño del día**. The folding of leaflets of a compound leaf in bright light, bringing the stomatal surfaces together, effecting a protection against water-loss.

de-. **de-**. A Latin prefix that means, "downward" or "away from".

dealbate. **dealbado**. Whitened, usually by a covering of hairs.

deamination. **desaminación**. The removal of an amino group from an organic compound.

deassimilation. **deasimilación**. The utilization of food by a plant.

death. **muerte**. The permanent ending of living functions.

deca-. **deca-**. A Greek prefix that means, "ten", as in decandrous, with ten stamens.

decamerous. **decámero**. Having parts in tens, as with flowers; having ten stamens; having ten parts in each whorl; sometimes written 10-merous.

decandrous. **decandro**. Refers to flowers in the class **Decandria**, which have ten stamens; having ten stamens.

decaploid. **decaploide**. Having ten

times the haploid number of chromosomes.

decarboxylase. **descarboxilasa**. An enzyme that makes possible the removal of a molecule of carbon dioxide from an organic compound.

decarboxylation. **descarboxilación**. The removal of one or more carboxyl groups.

decay. **descomposición**. See decomposition.

decem-. **decem-**. A Latin prefix than means, "ten".

deciduous. **deciduo**. **caducifolio**. The seasonal falling off or shedding of parts, such as leaves; generally refers to trees or shrubs that lose their leaves every fall, as distinguished from evergreens, which retain them or constantly replenish their foliage throughout the year. Also applies to bark which periodically shed, contrasting with persistent barks.

deciduous leaves. **de hoja caduca**. **de hojas caedizas**. Leaves on specific types of trees, as maples (**Acer**) or elms (**Ulmus**), that are periodically or annually shed by season; the opposite of evergreen.

deciduous forest. **selva baja caducifolia**. **bosque caducifolio**. An area of trees mostly composed of species that shed their leaves periodically.

deciduous seasonal forest. **bosque caducifolio estacional**. Two types of broad-leaved forests grow in the middle latitudes; one, the deciduous summer forest (most common in the northern hemisphere and absent in the southern hemisphere) is composed of broad-leaved trees that shed their leaves in the winter season; the second is composed

of broad-leaved and evergreen trees.
deciduous summer forest. **bosque caducifolio de verano**. One of the two types of broad-leaved forests occurring in the middle latitudes. See deciduous seasonal forest.

decipiens. **decipiens**. Latin for "deceiving".

declinate. **declinado**. Curved or bent downward, as the stamens of flowers.

declined. **declinado**. Same as declinate.

declivate. **declivado**. Sloping.

decolorate. **decolorado**. Without color.

decompose. **descomponerse**. To decay or rot; also, to degrade into simpler compounds.

decomposer. **descomponedor, degradador**. A varied group of heterotrophic bacteria and fungi which obtain organic nutrients by breaking down the remains or products of other organisms; aids in the cycling of simple compounds back to autotrophs.

decomposition. **descomposición**. Degradation into simpler compounds; rotting or decaying.

decompound. **decompuesto**. Made up of a number of parts that are already compounded, as with decompound leaves.

deconjugation. **deconjugación**. The separation of chromosomes before the end of prophase of meiosis.

decorticate. **decorticado**. Having no outer covering; stripped, peeled, or husked; devoid of bark.

decumbent. **decumbente**. Trailing or lying on the ground with the tip of the stem turned upward.

decurrent. **decurrente**. Extending down beyond the stem from the point of insertion; a decurrent leaf having its base extending down-

ward along the stem; also, of the gills of an agaric when they run some distance down the stipe.

decurved. **decurvado**. Bent or curving over backward and down, as decurved bracts; upcurved; recurvate.

decussate. **decusado**. Arranged in pairs along a stem with each pair at a right angle to the pair above or below, as decussate leaves and branches.

dedifferentiation. **dediferenciación**. The reduction of the cells of a differentiated tissue to a common undifferentiated form.

dediploidization. **dediploidización**. The production of haploid cells (or hyphae) from a dikaryotic diploid cell (or mycelium).

dedoublement. **dedoblemente**. Branching.

deep (color). **intenso**. Vivid, dense, and opaque in color.

deficiency. **deficiencia**. The loss of a terminal acentric segment of a chromosome; also, sometimes used to include deletion.

deficiency disease. **enfermedad por carencia, enfermedad carencial**. An abnormality caused by the absence of an essential chemical element.

definite. **definida**. Always having the same number in a given species; also, of a stem, ending in a flower which stops growth; of a stem when the bud grows rapidly to its full length and then stops; said of an inflorescence when all its stems end in flowers, *i.e.* cymose.

definite inflorescence. **inflorescencia definida**. An inflorescence with all its branches ending in flowers, *i.e.* a cymose.

definite variation. **variación definida.**

A change taking place in a definite direction in the history of a race.

deflexed. **deflexo.** Bent sharply outwards and downwards.

deflorate. **deflorado.** In flowers, having cast its pollen; also, in plants, having shed its flowers.

deflowering. **desfloración.** The premature fall or loss of flowers.

defoliant. **defoliante, defoliador.** Without leaves.

defoliate. **defoliar.** To cause leaves to fall from a tree, especially prematurely.

defoliation. **defoliación.** A shedding or loss of leaves, either as a seasonal normality or as a consequence of severe insect attack or physiological disturbance.

deforestation. **desmonte, de(s)forestación.** Removing stands of trees or a forest.

deformation. **deformación, malformación.** An abnormal growth or development.

degenerate. **degenerar.** To evolve by losing an organ, function, or some other highly developed characteristic; also, coding for the same amino acid, as other condons.

degenerate code. **código degenerado.** A term given to the genetic code because a particular amino acid may be encoded by more than one condon.

degeneration. **degeneración.** The change from a complex to a simpler form during evolution; also, the loss of morphological or physiological features by a fungus or bacterium kept in culture.

degradation. **degradación, desdoblamiento.** The process of decompos-

ing or being decomposed.

degrade. **desdoblar(se), degradar, demoler.** To decompose into simpler, less complex compounds; to degenerate.

dehisce. **dehisce.** To burst open, discharging seeds, usually along a definite line.

dehiscence. **dehiscencia.** At maturity, the bursting open of seedpods, anthers, or other organs along definite lines or sutures to release seeds, pollen, or other substances.

dehiscense papilla. **papila dehiscencia.** A small rounded projection on the surface of a zoosporangium of the **Blastocladiaceae**, later becoming a dehiscence pore.

dehiscent. **dehiscente.** Mature fruit that splits open along definite lines to release the seed or spore. When a multicarpelled fruit splits along lines midway to the carpel walls, it is referred to as loculicidally dehiscent; when along lines concurrent with the carpel walls, it is septicidally dehiscent. Other fruits and buds may split in a transverse circular line to cut off a segment (circumscissile dehiscence) or split to form pores (poricidal dehiscence).

dehydrase. **dehidrasa.** An enzyme that catalyses the removal of water, *i.e.* condensation.

dehydrogenase. **de(s)hidrogenasa, de(s)hidrasa.** An enzyme that speeds the removal and transfer of hydrogen from a substrate.

dehydrogenate. **de(s)hidrogenar.** To remove hydrogen from a compound; oxidize.

dehydrogenation. **de(s)hidrogenación.** The removal of hydrogen from a compound.

delayed development. **retraso del desarrollo.** A trait that is not expressed at birth, but does show up later.

delayed inheritance. **retraso del herencia.** When each successive generation has the genotype of the female parent for a particular character.

deletion. **delección.** The loss of a segment of a chromosome set, varying from a single nucleotide to several genes; if occurring at the end, the deletion is referred to as terminal and if occurring elsewhere, intercalary.

deletion mutant. **mutante delección.** A mutation where the base pair undergoes deletion and shifts the sequence out of phase by one pair.

delignification. **delignificación.** The destruction of lignin in wood by a fungus.

deliquescent. **delicuescente.** To divide into many smaller divisions, as in branching or venation; or, as with some fungi, portions melt away in the process of growth.

deltate. **deltado.** A triangular shaped plane with three equal sides.

deltoid. **deltoide.** A triangular shaped solid with three equal sides.

dematoid. **dematoide.** Black and web-like; having a covering of dark interwoven hyphae; also, said of sooty molds that are dark and moniloid.

deme. **demo.** A sub-population of a species with very limited genetic exchange, if any, with other demes although adjacent to one another.

demersus. **demersus.** Latin for "sub-aquatic".

demicyclic. **demicíclico.** Of *Uredinales* which have a life cycle in which no uredospores are produced.

denaturation. **desnaturalización.** Changes in the activity of proteins or nucleic acids brought about by changes in structure other than the breaking of the primary bonds between amino acids or nucleotides; usually occurs from changes in pH, temperature, or abuse of the molecules.

denature. **desnaturalizar.** To change the structure and properties of a substance, such as a protein, by using heat, pressure, or chemicals.

dendriform. **dendriforme.** Like a branching tree in form.

dendritic. **dendrítico.** Having a branching pattern.

dendro-. **dendro-.** A prefix that means, "tree", as in dendroid, tree-like.

dendrochronology. **dendrocronología.** The study of growth or annual rings of trees to determine dates and environmental conditions of the past; tree-ring dating.

dendroecology. **dendroecología.** A specialized area of dendrochronology which focuses on the relationships between the patterns of dated tree-ring series and all the ecological factors that may effect those patterns, including climate, predation, and competition.

dendrograph. **dendrógrafo.** An instrument that provides a continuous record of the circumference of a tree stem, sometimes called girthing.

dendroid. **dendroide.** Resembling a tree or small shrub; also, tall with an erect main stem or freely branching.

dendrology. **dendrología.** The scientific study of trees.

dendrometer. **dendrometro.** An instrument used in measuring a tree's

height and diameter.

-dendron. **-dendro**. A Greek suffix that means, "tree" or "tree-like", as a rhododendron.

dendrophysis. **dendrófisis**. A paraphysis-like structure bearing simple or branched spines.

denigrate. **denigrado**. Blackened.

denitrification. **desnitrificación**. The process of converting nitrates or nitrites present in water and soils into gaseous or atmospheric nitrogen or nitrogen oxide by soil bacteria; also, a process used in the treatment of sewage effluents.

denitrifying bacteria. **bacterias de(s)nitrificantes**. A group of soil bacteria which break down nitrites and nitrates anaerobically to produce nitrogen.

denizen. **morador**. A species of plant which can maintain itself in the wild, but was probably introduced by man.

dens. **dens**. Latin for "tooth".

density dependent. **dependiente de la densidad**. The regulation of size by mechanisms controlled by the size of the population, whose effectiveness increases as the size of the population increases.

density independent. **independiente de la densidad**. Population density of an organism increases exponentially but stops abruptly with seasonal changes.

density measure. **medida de densidad**. An estimate of the number of a particular plant species, using the ratio of individuals per unit area.

dent. **abolladura**. Toothed or notched.

dentate. **dentado**. Having the leaf margin toothed or serrated, as a dentate leaf; having tooth-like projections.

dentation. **dentación**. Of a leaf margin with a small, blunt, or pointed outgrowth; also, a collective term for the thickening of the wall projecting into the lumina of ray tracheids in the wood of pines (**Pinus**).

denticidal capsule. **cápsula denticida**. A type of fruit that opens at the top, apically, leaving a ring of teeth, as in **Plantago**.

denticulate. **denticulado**. Having a leaf margin with small teeth, as a denticulate leaf.

dentiform. **dentiforme**. Having the shape of a tooth or teeth.

denudate. **denudado**. Stripped bare, as denudate trees; also, hairless by loss of scales.

deoperculate. **deoperculado**. Lacking an operculum; also, having an operculum that does not break away spontaneously from the spore case.

deoxyribonucleic acid (DNA), **ácido desoxirribonucleico (ADN)**. A substance in the chromatin of all plants and many viruses, that is the genetic material passed from generation to generation, replicating and controlling through messenger RNA, the inheritable characteristics. Structurally, it is a double-stranded nucleic acid, helically coiled with hydrogen bonds between the strands, that can be unzipped, which exposes the DNA's chemical messages to protein synthesis or DNA replication.

deoxyribose. **desoxirribosa**. A five-carbon (pentose) sugar found only in DNA.

depauperate. **depauperado**. Diminutive; also, looking starved and underdeveloped.

dependent. **dependiente**. Hanging

- down.
- depilation. **depilación.** The natural loss of hair as a plant matures.
- deplanate. **deplanado.** Flattened.
- deplasmolysis. **deplasmósis.** Water entering into a plant cell, causing the cell membrane to return to the cell wall.
- depressed. **deprimado.** Flattened vertically, as from above; sunken to become concave.
- dermal. **dermal.** Pertaining to the epidermis or other superficial layer.
- derivative hybrid. **híbrido doble. híbrido derivado.** A hybrid derived by crossing one hybrid with another or with one of its parents.
- dermatocystidium. **dermatócistidio.** A cystidium on the cuticle or pellicle.
- dermatogen. **dermatógeno.** A layer of cells that develops into the epidermis; the external layer of a stem or root apex, one cell thick, that gives rise to the epidermis; protoderm.
- dermatocalyptrogen. **dermatocaliptrógeno.** A meristematic layer in the apex of the root of many dicotyledon, giving rise to the root-cap and dermatogen.
- desmosome. **dermatosoma.** One of the small pieces into which a cell wall can be resolved by prolonged treatment with dilute hydrochloric acid, followed by heat at 50–60° C.
- dermis. **dermis.** The layer of tissue beneath the epidermis; corium.
- desalinization. **desalinización. desalación del agua.** The removal of salts from saline soil or water via distillation or microfiltration.
- descending. **descendente.** Directed or growing downward, as descending leaves.
- descending aestivation. **estivación descendente.** Aestivation in which each segment overlaps the one anterior to it.
- descent. **ascendencia.** Ancestry or lineage.
- desert. **desierto.** A dry region, usually sandy or rocky with limited tree vegetation; most often located about 30° north and south of the equator; also, a vegetation form characterized by sparse coverage of annual herbs, low succulent shrubs, larger xerophytic shrubs, and hummock-forming grasses (**Poaceae**).
- desert biome. **bioma del desierto.** A warm, arid region with rainfall of less than 250 mm a year; populated by organisms adapted to drought and heat, as water storing cacti and a high percentage of annual species.
- desertification. **desertificación. desertización.** A trend in which fragile, semi-arid, ecosystems lose productivity because of a loss of plant cover resulting in soil erosion, salinization, or water logging; often associated with misuse of humans, as occurs with overcultivation or overgrazing.
- desiccation. **desicación.** The process of drying; drying up.
- desmolase. **desmolasa.** Enzymes breaking or forming a C–C link without hydrolysis, *e.g.* carboxylase catalyses the change of pyruvic acid to acetaldehyde and carbon dioxide.
- desmosome. **desmosoma.** An adhesive part of an epithelial cell that adheres to adjoining cells.
- destarch. **dealmidón.** The process of

- reducing the starch content of a green plant. This is brought about by keeping the plant in the dark, thereby stopping photosynthesis; any starch present will either be used or translocated.
- desthiobiotin. **destiobiotina**. A substance which may replace biotin (vitamin H) in the growth yeasts, but in some cases may inhibit the effect of biotin.
- destructive metabolism. **metabolismo destructivo**. The point in cellular metabolism when energy is released through the breaking down of complex food molecules; catabolism; dissimulation.
- desynapsis. **desinapsis**. The abnormally early breaking of synapsis in meiosis.
- detachable. **desprendible**. Capable of being separated or disjoined.
- determinant. **determinante**. With a well-marked edge; of an inflorescence that ends in a flower; a gene; also, a hereditary factor corresponding to the function of a gene.
- determinate. **determinado**. Clearly marked; also, flowers that bloom from terminal buds, which stops the growth and further lengthening of the main stem, allowing most of the fruit to ripen about the same time; also, a flower at the end of the primary axis and of each secondary axis. A plant with a determinate growth has a genetically limited size and cannot grow indefinitely.
- determination. **determinación**. A taxonomic action of establishing a plant's position, rank, characteristic, name, or relationship to a taxon.
- detersile. **detersil**. Said of fine hairs which can be easily removed, leaving the surface bare.
- detritus. **detrito. detritus**. Dead organic matter, such as fallen leaves, branches, or other plant and animal wastes that occur in ecosystems.
- deut(o)ero. **deutero**. A prefix that means second or secondary; also spelled deuto, deuter and deut.
- deuteroconidium. **deuteroconidio**. A spore-like cell of dermatophytes produced by the division of a hemisphere (protoconidium).
- deutrogamy. **deutrogamia**. Any process which replaces normal fertilization.
- deuteromycetes. **deuteromicetos**. Fungi Imperfecti.
- deuteroplasm. **deuteroplasma**. Metaplasm.
- development. **desarrollo**. Changes in the form of a plant resulting from growth and differentiation of its cells into tissues and organs; the succession of stages in the life of the plant, as distinct from simple growth.
- developmental biology. **biología del desarrollo**. Changes in the form of a plant resulting from growth and differentiation of its cells into tissues and organs.
- deviation. **desviación**. The departure of a quantity from its normal or expected value.
- dew. **rocío**. Moisture from an atmospheric condition producing wetness, especially in the early morning.
- dewy. **róridulado**. A leaf surface covered with waxy platelets, giving the appearance of dew; roridulate.
- dextran(e). **dextrana**. A polysaccharide that serves as a storage compound in bacteria and yeasts.

dextrinase. **dextrinasa**. A plant enzyme which hydrolyses dextrin.

dextrins. **dextrinas**. A series of polysaccharides intermediate in structure between glucose and starch with 5–10 glucose units in straight chains. Formed during starch hydrolysis.

dextrorse. **dextrorso**. Twining or spiraling upward from left to right, as a climbing plant stem or a chain of spores; opposite of sinistrorse.

di-. **di-**. A Greek prefix that means, “two” or “twice”; also, a Latin prefix that means, “apart from”.

dia-. **dia-**. A Greek and Latin prefix that means, “transverse” or “through”.

diachene. **diaquenio**. *See* diachenium.

diachenium. **diaquenio**. Two or more indehiscent, one-seeded carpels, adhering around a distinct and separable axis, as that of parsley and other **Umbelliferae**; cremocarp.

diad. **diada**. *See* dyad.

diadelphous. **diadelfo**. Stamens fused into two bundles or sets by their filaments; also, in a group with one free stamen.

diadromous. **diadromo**. Venation resembling the ribs of a fan.

diageotropic. **diageotropico**. A tendency to grow horizontally to the ground, as branches or roots.

diageotropism. **diageotropismo**. Exhibiting diageotropic growth.

diagnosis. **diagnóstico**. A statement of the determining characteristics of a genus, species, and other groups, as used in taxonomy; also, the identification of a pest or disease.

diagonal. **diagonal**. Said of any part of a flower situated in a position other than median or lateral.

diakinesis. **diacinesis**. **diaquinesis**.

The final stage in the prophase of meiosis when all the chiasmata reach the ends of the tetrads and the homologues can separate during anaphase; chromosomes are tightly coiled and have formed the compact tetrad which are spread out in the nucleus, and the nucleolus disappears. The five stages of prophase in meiosis are: leptotene, zygotene, pachytene, diplotene, and diakinesis.

diallelic. **dialélico**. A polyploid individual with more than two sets of chromosomes that have two different alleles at a particular gene locus.

dialycarpous. **dialicarp**. A flower or fruit with separate carpels; apocarpous.

dialypetalous. **dialipétalo**. A corolla of many separate petals; polypetalous.

dialysepalous. **dialisépalo**. Having separate sepals that make up a calyx; polysepalous.

dialysis. **díálisis**. The separation of colloids or large molecules from dissolved substances of ions or small molecules, using a partially permeable membrane that permits the passage of the former but not the latter (*e.g.* cellophane, collodian, parchment). This is then placed in water, and the smaller particles diffuse out into it.

dialystelic. **dialistelico**. Having several separate stele.

diamines. **diaminas**. Compounds containing two amine groups.

diandrous. **diandro**. Having two stamens, as diandrous flowers or diandrous plants.

diaphanous. **hialino**. **translúcido**.

Translucent or to show through.

diaphototropism. **diafototropismo**. The tropic response of a plant organ that grows at right angles to the light.

diaphragm. **diafragma**. A transverse plate of cells across a stem, usually at the nodes; also, a cross partition in the air chambers of hydrophytes, usually perforated.

diaphysis. **diáfisis**. An abnormal height increase in the center of the flower or flower cluster.

diaschistic. **diasquistico**. Said of tetrads which divide once transversely and once longitudinally in meiosis.

diaspore. **díaspora**. A spore, seed, or other structure that provides dispersal; a propagule; disseminule.

diastase. **diastasa**. Any of a group of enzymes occurring in plants that aid in the process of converting starch into sugar; amylase.

diaster. **diaster**. In cell division, when the daughter chromosomes are situated in two groups near the poles of the spindle, ready to form the daughter nuclei; daughter star.

diastole. **diástole**. The growth and expansion of a nucleus from the end of one mitosis to the beginning of the next.

diatoms. **diatomeas**. Any of the microscopic aquatic algae (**Bacillariophyceae**) that have hard shells; made mostly of silica.

diatropism. **diatropismo**. The tendency of some organs to take a position cross-wise to the direction of the stimulus.

diazotroph. **diazotrof**. An organism which can utilize atmospheric nitrogen (fixation).

dicarpellary. **dicarpelar**. Having two carpels.

dicaryon. **dicario(n)**. **dicarionte**. Dikaryon.

dicentric. **dicéntrico**. Of a chromosome or chromatid with two centromeres.

dicha-. **dica-**. A Greek prefix that means, "in two."

dichasium. **dicasio**. **cima bípara**. A cyme where the main axis produces two branches below the terminal flower, and each of those produce another pair and so on; simple cyme.

dichlamydeous. **diclamídeo**. A flower with both a calyx and a corolla.

dichogamous. **dicógamo**. In hermaphrodite flowers, stamens, and pistils mature at separate times, preventing self-fertilization.

dichogamy. **dicogamia**. Maturation of male or female flowers at different times, ensuring cross pollination; common to maples (**Aceraceae**) and walnuts (**Juglandaceae**).

dichophysis. **dicófisis**. In the **Thelephoraceae**, a sterile structure in the hymenium or trama having successively dichotomous branching, thick walls, narrow lumen, and subulate apices.

dichopodium. **dicopodio**. A sympodial branch system composed of successive parts of a dichotomizing branch system, of which only one part assists in forming the axis.

dichotomous. **dicotómo**. **dicotómico**. A system of forked branching by the repeated subdivision of an apical meristem into two branches of the same size. This is a primitive form of branching.

dichotomous ramification. **ramificación dicotómico**. Branching or forking by repeated division into two part that are nearly equal, as

with surface patterns of visible leaf veins.

diclinous. **diclino**. Having stamens and pistils in separate flowers in the same plant (monoecious) or on separate plants of the same species (dioecious); also, having only stamens or only pistils; unisexual.

dicot. **dicot**. Any plant with two seed leaves in the embryo; dicotyledon.

dicotyledon. **dicotiledón**. Having two seed leaves (cotyledons) in the embryo.

Dicotyledoneae. **dicotiledóneas**. One of the two major divisions in the **Angiospermae** (flowering plants) with the embryo characteristically having two cotyledons. *Also see* Monocotyledoneae.

dicotyledonous. **dicotiledóneo**. **dicotiledónico**. Pertaining to dicotyledons.

dictyosome. **dictiosoma**. Cytoplasmic particles composed of several layers of lamellae surrounded by small vesicles; involved in preparing material for transport out of the cell, usually by adding sugars on to proteins; a subunit of the Golgi apparatus; Golgi body.

dictyosporangium. **dictiosporangio**. A septate sporangium; also, a sporangium found in some oomycetes in which the spores encyst in the sporangium, then emit their contents separately, leaving a network of empty spore walls.

dictyospore. **dictiospora**. A multicellular spore divided by transverse and longitudinal walls.

dictyostele. **dictiostela**. A hollow tube (siphonostele) whose vascular tissue is broken into a number of longitudinal strands or vascular bundles as in some ferns (**Filicop-sida**).

dicyclic. **dicíclico**. Having two whorls. didymous. **didimo**. Growing in pairs; also, of a fruit composed of two similar parts, slightly attached along the edge.

didymospore. **didímospora**. A spore with two cells.

didynamous. **didínamo**. Having four stamens arranged in two pairs of unequal length.

differential affinity. **afinidad diferencial**. The failure of two chromosome to pair at meiosis in the presence of a third, although they pair in its absence.

differential host. **huésped diferencial**. A particular species or plant variety whose reaction is used to determine physiological races of parasites.

differential permeability. **permeabilidad diferencial**. The capacity of a membrane to pass selectively certain molecules more freely than others, as small molecules passing while stopping the passage of larger ones.

differential reproduction. **reproducción diferencial**. The predilection of bearers of adaptive traits to reproduce more successfully than bearers of less adaptive traits resulting in an increasingly greater proportion of the reproductive base for each new generation.

differential segment. **segmento diferencial**. A block of genes in respect of which two pairing chromosomes differ, in a permanent hybrid, in contrast to a *pairing segment* when they pair and crossover, and are therefore homologous.

differentiation (of cells). **diferenciación**. The process by which cells, tissues, and organs become altered

or modified to provide specialized functions; also, the change from homogeneous tissue to heterogeneous tissues, as from meristem to primary tissues.

difformed. **diforme**. Of unusual or irregular shape.

diffract. **difráctea**. Said of a surface divided into areolae; also, cracked into small areas.

diffuse. **difuso**. Widely spread or scattered, as a prostrate stem that branches freely and loosely over a large area; also, said of parenchymatous cells scattered through the xylem.

diffuse growth. **crecimiento difuso**. The growth of an algal thallus by the division of any of its cells.

diffuse nucleus. **núcleo difuso**. The chromatidia sometimes present in non-nucleated cells.

diffuse-porous. **poros difusos. poros dispersos**. When the vessels are scattered evenly throughout the xylem or when there is little difference in the size of the vessels formed in different seasons, In some trees, the conducting vessels or pores are arranged uniformly throughout the year's growth, so as to make the annual rings almost indistinguishable; common in maple (**Acer**), birch (**Betula**) and some other diffuse-porous trees.

diffuse stimulus. **estímulo difuso**. A stimulus not coming from any fixed position.

diffuse tissue. **tejido difuso**. A tissue of single or small groups of cells distributed throughout a distinct tissue.

diffusion. **difusión**. The relocation of particles from a region of high concentration to a region of low

concentration through the random energetic movements of individual molecules.

diffusion carrier. **portador de difusión**. A substance to which a dissolved particle becomes attached on one side of a membrane, moving with the dissolved particle through the membrane, and then depositing it on the other side.

diffusion coefficient. **coeficiente de difusión**. A law of diffusion, sometimes referred to as Fick's Law. $dm = -D \cdot A \cdot (dc/dx) \cdot dt$, where, dm = the amount of substance diffusing in the time dt , dc/cx = the concentration gradient, A = the area of cross-section through which diffusion occurs, D = diffusion coefficient.

diffusion pressure deficit (DPD). **déficit de la presión de difusión (DPD)**. The net tendency of water to diffuse into a cell expressed as the difference between the osmotic concentration and the turgor pressure of the cell.

digenic. **digenico**. Of hereditary difference determined by two genes.

digest. **digerir**. To change nutrients chemically into matter that can be assimilated, stored, or oxidized for plant growth or maintenance.

digestion. **digestión**. The process by which macromolecules of insoluble nutrients are broken down into micromolecules of soluble compounds.

digestive cell. **célula digestiva**. One of the cells in the cortex of a root in which the hyphae of an endotrophic fungus are killed and digested.

digestive gland. **glándula digestiva**. A glandular hair characteristic of

carnivorous plants, producing enzymes which digest their food.

digestive pouch. **bolsa digestiva**. A layer of cells at the apex of a lateral root which secretes enzymes that break down the cortical cells of the parent root, as the lateral root grows through it.

digitate. **digitado**. Radiating lobes or veins, spread like fingers on a hand; palmate.

digitiform. **digitiforme**. Having the shape of a finger or arranged like fingers; finger-like.

digynous. **digino**. Having two carpels.

diheterozygote. **diheterocigoto**. **diheterozigoto**. Heterozygous in respect of two genes.

dihybrid cross. **cruce dihíbrido**. A mating between individuals differing in two pairs of alleles.

dihybridism. **dihibridismo**. The process of producing a cross between organisms differing in two inheritable characters.

dikaryon. **dicario**. **dicarionte**. A fungal hypha or mycelium with each cell having a nuclei.

dikarophase. **dicariofase**. **fase dicariótica**. A diploid phase having a dikaryon.

dikontan. **dikontán**. Having two flagella.

dilacerate. **dilacerado**. As if torn into strips.

dilatation. **dilatación**. The expansion of secondary phloem that prevents it from being torn apart by the accumulation of secondary xylem interior to it; referred to as dilation tissue.

dilated. **dilatido**. Expanded and flattened.

diluted. **dilutido**. Pale and faint colored.

dimer. **dimer**. A polymer of two com-

ponents.

dimerous. **dímero**. Having two members in each whorl; often written 2-merous.

dimidiate. **demediado**. Split on one side, as some capsules; also, lopsided or appearing to lack one side, as an anther with a missing lobe, a pileus with one side larger than the other, or a lichen perithecium when the upper side only is enclosed in a wall; sometimes, hood-shaped.

diminute (-ly). **diminuto (-amente)**. Small.

diminutive. **diminuto**. A small form of a generally larger structure or part.

dimittic. **dimitico**. Having two different forms of hyphae.

dimonoecious. **dimonocio**. Having bisexual flowers, as well as male, female, and neuter ones.

dimorphic. **dimórfico**. Characterized by dimorphism.

dimorphic heterostyly. **heterostilia dimórfico**. When the flowers of the same species have styles of two different lengths, thereby encouraging cross-pollination.

dimorphism. **dimorfismo**. The occurrence of two different forms of a flower, leaf, or other part on the same plant or in the same species; generally sex-linked, but not always, as in the water crowfoot (**Ranunculaceae**).

dimorphous. **dimorfo**. Occurring in two forms, as the occurrence two different forms of flowers, leaves or other parts on the same plant, or the in the same species, as the disk and rays in composite flowers.

dinucleotide. **dinucleótido**. A unit derived from deoxyribose, linked

through a phosphate radical. Some are important as prosthetic groups of enzymic globular proteins.

dioecious. **dioico**. Unisexual or imperfect; having the pistils and stamens of the same species on different plants, therefore, plants of both sexes must grow near each other to provide pollen before fruits and seed can be produced, as ginkgo, the maidenhair tree (**Ginkgoaceae**); having male and female organs on separate individual plants.

dioxin. **dioxina**. A synthetic chlorinate hydrocarbon used in some herbicides, but highly toxic to humans; causing widespread environmental pollution.

dipeptide. **dipéptido**. A compound of two anion acid residues, joined by a peptide link,

dipetalous. **dipetalado**. Having two petals; bipetalous; two-petaled.

diphotic. **difotico**. Having two surfaces unequally lighted.

diphyletic. **difilético**. Descending from two distinct ancestral groups.

diphyllous. **diofilo**. Having two leaves.

diplanetism. **diplanetismo**. Producing zoospores of two morphological types.

diplecolobous. **diplecolobo**. Said of an embryo with an incumbent radicle and with cotyledons folded twice or more.

diplo-. **diplo-**. A Greek prefix that means, "double".

diplobiont. **diplobionte**. A plant which as two different kinds of individuals in its life-cycle; if dioecious, there will be three different kinds.

diplocaulescent. **diplocaulescente**. Having a central axis with branches.

diplochlamydeous. **diploclamideo**.

Dichlamydeous.

diplochlamydeous chimaera. **quimera diploclamideo**. A periclinal chimaera composed of an outer skin of one constituent, and two cells thick, surrounding a core of the other constituent.

diplochromosome. **diplocromosoma**. A chromosome which has divided twice instead of once since the preceding mitosis, the centromere being undivided.

diplococcus. **diplococo**. A coccus in which the individuals tend to form pairs.

diplodesmic. **diplodesmico**. Having two parallel vascular systems.

diplodization. **diploidización**. The process of fusion of hyphae, followed by the division of nuclei in pairing fungi, whereby haploid cells or mycelia become diploid.

diplohaplont. **diplohaplonte**. Having a life-cycle in which a many-celled haploid generation alternates with a similar diploid one.

diploid. **diploide**. With two sets or double the number of chromosomes in the germ cell. Germ cells have one set and are haploid; somatic cells have two sets and are diploid (except for polyploid plants).

diploid apogamy. **apogamia diploide**. Euapogamy. The development of a sporophyte containing diploid nuclei from one or more cells of the gametophyte, without any preliminary fusion of gametes.

diploid zygote. **cigoto diploide**. **zigoto diploide**. A fertilized gamete.

diploid gametophyte. **diploide gametófito**. The phase of gametophytic apomixis in which somatic (mitotic) division within an ovule forms directly an embryo sac with an un-

- reduced chromosome condition.
- diploidy. **diploidia**. The diploid condition.
- diplokaryotic. **diplocariotico**. Having twice the normal diploid number of chromosomes.
- diploonema. **diploonema**. The stage in the meiotic division at which the chromosomes are clearly double; also, a small diploid plantlet in the life cycle of some of the **Phaeophyta**.
- diploont. **diploonte**. An organism at the diploid stage of the life cycle; also, having the alternation of a one-celled haploid generation with a many celled (or coenocytic) diploid one.
- diplophase. **diplofase**. **fase diploide**. The diploid stage in the life cycle of plants; also, the stage in the life cycle of **Basidiomycetes** when the cells have two nuclei.
- diploisis. **diploisis**. The doubling of the chromosome number.
- diplosome. **diplosoma**. A paired heterchromosome; also, a double centrosome lying in the cytosome.
- diplospory. **diplosporia**. The formation of a diploid gametophyte from a sporogenous cell of an ovule with meiotic division either omitted or modified so that pairing and reduction of the chromosomes does not occur.
- diplostemonous. **diplostémono**. Having two stamens to each petal; also, having stamens in two whorls, the outer located opposite of the sepals and the inner located opposite the petals.
- diplovene. **diplóteno**. **diplótena**. The point in the prophase of meiosis when the points of interchange of chromatids appear. The five stages of prophase are: leptotene, zygotene, pachytene, diplotene, and diakinesis.
- dipolar ion. **ion dipolar**. **ión dipolar**. An ion having both positive and negative charges, *e.g.* on an amino acid in solution.
- dipterocarp. **dipterocarpo**. A two-winged fruit with elongated sepals.
- dipterous. **diptero**. **bialdo**. Seeds or fruits that have two wing-like appendages.
- direct adaptation. **adaptación directa**. Any adaptation which does not appear to stand in relation to natural selection.
- direct germination. **germinación directa**. The germination of a spore to produce a hypha or filament rather than a sporangium.
- directed speciation. **especiación direccional**. A speciation trend where the species does not conform to the continuum associated with adaptive types, but rather to the step-type succession of distinct species.
- directional selection. **selección direccional**. In a period of gradual environmental change, the normal process of modification is for individuals at one extreme of the population variation be selected for change and the remaining, remain unchanged. This results in the norm being moved in a specific direction toward an end of the range of variability.
- disaccharide. **disacárido**. A condensation product of two monosaccharides.
- disarticulate. **desarticular**. To separate at a joint.
- disarticulated. **desarticulado**. Separated at a joint.
- disarticulating. **desarticulándose**. At

maturity, separating at a joint, most often as a means of vegetative reproduction.

disassortative breeding. **disapareamiento de semejanza**. Mating between individuals of dissimilar phenotype. *See also* assortative breeding.

disc. **disco**. Same as disk. An outgrowth from the receptacle of a flower, beneath the carpels or stamens; also, the central part of a capitulum; also the portion of an apothecium that bears the asci and paraphyses.

disc flowers. **flores del disco**. The floret in the center of a daisy, aster or other **Asteraceae** flower is a disc flower. **Asteraceae** flowers are a combination of two kinds of flowers, the disc flower and the ray flower. Sometimes spelled disk.

disc floret. **flósculo discoide**. A regular, tubular flower in the center of a capitulum when it contains two types of flowers.

discal. **discal**. Pertaining to a disc flower.

discifloral. **discifloral**. Flowers with an enlarged disk-like receptacle surrounding the ovary, usually distinct from the calyx.

disciform. **disciforme**. In the shape of a disk (disc), round and flat.

disclimax. **disclímax**. In the monoclímax model of vegetation, the plant community that replaces the climax community following an environmental disturbance; similar to plagioclimax and biotic climax.

discocarp. **discocarp**. Apothecium.

discoid. **discoide**. Resembling a disc; disciform; sometimes used to describe a capitulum with no ray flo-

rets; also, said of an algal thallus which is one cell thick and closely applied to the substratum.

discolorous. **discoloro**. Changing in color; fading; not the same color throughout.

discontinuous distribution. **distribución discontinuo**. The occurrence of a species in one area, then in another area far from it, but not in any areas in between.

discontinuous variation. **variación discontinuo**. The rare occurrence of large differences between members of the same species; sport; saltation.

discoplankton. **discoplancton**. Plankton in which the cells form thin disks.

discrete. **discreto**. Remaining separate.

discriminant function. **función discriminante**. A linear compound of a series of variates, obtained by maximizing the differences between the classes relative to the differences between individuals in the classes, for the particular factor being measured.

disc-shaped. **orbicular**. Round and flat; orbicular.

discus. **disco**. The hymenium of an apothecium.

disease. **enfermedad**. Any change from the state of metabolism necessary for the normal development and functioning of any organism.

disepalous. **disepalo**. Having two sepals.

disinfection. **desinfección**. The killing, rather than removal, of microorganism in water or soil where they might pose a threat to health, as water chlorination.

disjunct. **disyunto**. Disjoined; occurring in separate geographic areas.

disjunction. **disyunción.** The separation of chromosomes at anaphase.

disjunctor. **disyuntor.** A small cell between two neighboring conidia in a chain. It disintegrates, thereby aiding in dispersion.

disk floret. **flósculo discoide. flósculo disco.** One of the two flowers (florets) in the center portion (disk) of a composite head flower, the other being a ray flower.

disk. **disco. discoide.** The ring of woody fiber of certain trees, visible in a longitudinal section; also, the surface of a leaf or petal (as opposed to the leaf margin); also, the yellow center of *Asteraceae* flowers; also, an expanded receptacle, commonly a nectary. Same as disc.

disk-like. **discoide.** Having the appearance of a disk.

disome. **disoma.** Bivalent.

disomic. **disomico.** Relating to two homologous chromosomes or genes.

disomic inheritance. **herencia disomico.** Arising from the determinate association of chromosomes in bivalents at meiosis.

disomy. **disomia.** The condition of having one extra chromosome that is homologous with a chromosome of the haploid set.

dispermic. **dispérmico.** Two-seeded.

dispermous. **dispermo.** Containing two seeds, especially fruits.

dispersal. **dispersión.** The tendency of organisms to move away from their birth or breeding site; also, the establishment of individuals in a new area. The opposite of philopatry.

dispersal barrier. **barrera dispersión.** An unfavorable habitat separating two areas of favorable habitat, as the separation by an ocean or desert.

disperse. **dispersar.** To scatter, especially the scattering of seeds by wind, water, and animal consumption.

disphotic zone. **zona disfótica.** *See* aphotic zone.

dispireme. **dispiema.** The stage of telophase in which the spireme thread of each daughter nucleus has been formed.

disruptive selection. **selección disruptiva.** A selection that changes the frequency of alleles which leads to the fixation of alternative alleles in members of the population. After several generations, there are two divergent phenotypic extremes, within the population.

dissect. **disecar.** To cut apart a plant or cell tissue to examine.

dissected. **disecado.** Divided into many lobes or segments, as dissected leaves; divided deeply into narrow lobes.

disseminate. **diseminar.** To scatter.

dissemination. **diseminación.** The dispersion or scattering of seed or spores by wind, water, and animals.

disseminule. **diseminulo.** *See* diaspore.

dissepiment. **disepimento.** A partition that separates the cells of some fruits and seeds, as in a green pepper (**Piper**); a septum.

dissilient. **disiliente.** Bursting apart of a dry seed pod or capsule, as a dissilient pericarp.

dissimilation. **desimilación.** Respiration; also, *see* destructive metabolism.

dissociation. **disociación.** A mutation or saltation.

distal. **distal.** Toward the tip, away from the center of an organ and the point of attachment.

distant. **distante**. Describes parts that are widely scattered or loosely arranged and often irregular.

distended. **hinchado**. Swollen.

distichous. **dístico**. Arranged alternately in two vertical rows on opposite sides of the axis, as distichous leaves.

distichous. **dístico**. In two ranks.

distinct. **distinto**. Separate; not united or fused to like parts—strictly applied to members of one series.

distinctly. **conspicuamente. marcadamente**. Without the union of like parts.

distribution. **distribución**. The occurrence of a species as it relates geographical considerations; also, dissemination.

distribution area. **área de distribución**. The geographic spread, range, or location of particular species.

disturbance. **factor perturbador**. An interruption in the pattern of vegetative succession by human or non-human activity, such as fire, flood, or cultivation.

disulfide bond. **enlace bisulfito**. The linking of sulfur atoms of two different amino acids in a protein.

dithecal. **ditécica**. Having two cavities in the ovary or an anther with two loculi.

ditheous. **diteo**. Having two cavities.

diurnal. **diurno**. Recurring or repeated every day, as flowers that open during the day and close in the evening or night, as the morning glory (**Convolvulaceae**).

divaricate. **divaricado**. Widely spreading or branching at a wide angle, as from a stem.

divergence. **divergencia**. The genetic segregation and differentiation within a species, genus, family,

order, or higher to the extent that distinct new taxa result.

divergens. **divergens**. A Latin word that means, “separating”.

divergent. **divergente**. Moving in different directions from the same point; an evolutionary tendency for plants coming from common ancestors to evolve into different forms when living under different conditions; also, said of two or more organs which spread so that they are further apart at the top than the base.

divergent evolution. **evolución divergente**. The appearance of different characteristics in plants closely related by common ancestry.

diversity. **diversidad**. Refers to the number of types or varieties of taxa in the plant kingdom.

diversity index. **índice de diversidad**. A mathematical description of the species diversity of a community; an important means for comparison of community structure and stability.

diverticulum (*pl.* diverticuli). **divertículo**. A pocket.

divided. **dividido. partido**. A leaf cut almost to the midrib or base, forming distinct parts.

division. **división**. A major classification of the plant kingdom, listed in increasing rank: Order, Class and Division; same as the older term Phylum; also, as in plant cell division, the dividing of the cell into two or more cells, each having its own nucleus.

DNA. **ADN**. Desoxyribose nucleic acid.

dodeca-. **dodeca-**. A prefix that means, “twelve”.

dolabrate. **dolabriforme. malpigiáceo**.

Fleshy leaves that are straight at the front, tapered at the base and compressed at the upper end of the back.

dolabriform. **dolabriforme**. Having the form of an axe or pick-axe and usually attached near the middle.

doliform. **doliforme**. Barrel-shaped.

domatium. **domatio**. A cavity formed by a plant in which live insects or mites live in a symbiosis with the plant.

domestication. **domesticación**. The selective breeding and cultivation of plants by humans.

dome. **cúpula**. The growing point of the receptacle of a flower.

dome cell. **célula cúpula**. The apical cell of the developing antheridium of some ferns. It divides to form the cap and the secondary cell.

dominance. **dominancia**. The quality or condition of being dominant, as expressed in Mendel's Law of Dominance; also, in genetics, the designation of the allele of any pair of contrasting alleles that prevails, when both are present in the genotype.

dominant gene. **gen dominante**. In diploid organisms, a gene that produces the same phenotypic character when its alleles are present in a single dose (heterozygous) per nucleus as it does in a double dose (homozygous).

dominant. **dominante**. In genetics, designating as dominant one of any pair of opposite characters (or the character it influences) that prevail in the germ plasma and the other as recessive; also, in ecology, designating the most extensive species in a plant community.

dormancy. **latencia**. **letargo**. A pe-

riod of not growing or germinating, usually associated with environmental conditions of cold or dry seasons external dormancy or quiescence, or to factors within the organ itself, internal dormancy or rest; hypobiosis.

dormant. **durmiente**. Plants or plant parts (seeds, bulbs, *etc.*) that are not growing or are in suspended development, especially during the winter or dry seasons.

dormany. **dormanía**. The temporary suppression of growth, frequently for survival. Of a seed, due to the presence of a growth inhibitor or the possession of a coat impermeable to essential external growth material.

dormin. **dormina**. See abscisic acid.

dorsal. **dorsal**. The under surface of a leaf; the surface farthest from the axis; of a perianth, the back or lower side; abaxial.

dorsal wall. **pared dorsal**. In a guard cell, the wall farthest from the stomatal pore.

dorsiferous. **dorsífero**. Producing clusters of sporangia on the underside of a frond, as a dorsiferous fern.

dorsifixed. **dorsifijo**. Attached at the back or dorsal surface, as a dorsifixed anther; adnate.

dorsiventral. **dorsiventral**. Leaves with the upper (dorsal) and lower (ventral) sides structurally different, as the juvenile leaves of the eucalyptis.

dorsiventral symmetry. **simetria dorsiventral**. Having both borders with the same shape but the top (dorsal) and bottom (ventral) different, as most leaves.

dothidiaceous. **doticiaceo**. Having the asci in cavities in the stroma.

dosage compensation. **compensación de dosificación.** The cellular mechanisms that make up for the activity of genes, which because of their location on the X chromosome, exist in two doses in females and one in males.

dotted. **punctato. punteado.** Covered with small, round spots.

double. **doble.** Having more than one set of sepals or petals.

double fertilization. **fertilización doble. fecundación doble.** In seed plants, the union of one sperm nucleus with the egg nucleus and the other sperm nucleus with the polar nuclei; or, a type of angiosperm reproductive strategy in which two sperm are involved in the fusion with other nuclei.

double flower. **flor doble.** A flower having more than the usual number of petals.

double flowering. **floración doble.** The abnormal production of flowers in the spring, and again in the autumn.

double fusion. **fusión doble.** The simultaneous joining of a sperm and egg and the union of another sperm and polar nuclei that occurs in the embryo sac of flowering plants.

double-helix structure. **estructura en doble hélice.** Consisting of two strands that coil around each other to form a double spiral or helix.

double heterozygote. **heterocigoto doble.** A heterozygote in respect of two genes.

double recessive. **recesivo doble.** A diploid homozygote for a recessive gene.

double reduction. **reducción doble.** Non-disjunction.

double-serrated. **doble-serrado. biserrado.** Doubly serrate; leaves that

have notched teeth along the margins; biserrate.

doubling time. **tiempo de duplicación.**

The amount of time it takes a plant population to double in size, assuming a particular rate of growth.

down. **bozo.** Soft, fine hair, as pubescence on plants and some fruits; the feathery substance on some seeds that are carried by the wind.

drepaniform. **drepaniforme.** Having the shape of a sickle; falciform.

drepanium. **drepanio.** A sickle-shaped cyme.

drift. **deriva.** An irregular variation in the genotype of a population due to random processes.

driodium. **driodio.** A dry thicket formation.

drooping. **inclinado.** Hanging down.

drought. **sequía.** An environmental condition in which precipitation is not adequate to maximize biological productivity.

drought cycle. **ciclo de sequía.** A temporary and repetitious period of reduced or low precipitation, in an otherwise favorable environment.

drupaceous. **drupado.** Pertaining to or producing drupes, as drupaceous fruit.

drupe. **drupa.** A fruit containing a single carpel, usually hard and one-seeded, surrounded by soft, pulpy flesh (mesocarp), and a thin exocarp.

drupelet. **drupéola.** A small drupe; one of the small drupes that make up blackberries (**Rubus**) and raspberries (**Rubus**).

dry season. **estación de sequía.** A regular period each year when there is little or no precipitation; occurring in tropical areas during the winter months, in the summer months

in the subtropics, and in the low latitudes, twice a year.

dry spore. **espora seco**. A spore that separates from the cell producing it, without any slime.

duct. **conducto**. A large tubular canal; a tube-like canal made from a row of cells whose cell walls have disappeared; usually refers to the trachea.

dulcis. **dulcis**. A Latin term that means, "sweet".

dull (color). **opaco**. Not bright.

dumose. **dumoso**. Shrubby.

duplex. **duplexo**. In two layers, one harder than the other; *also*, the condition of a polyploid when a particular dominant allelomorph is represented twice.

duplex group. **grupo duplex**. The diploid complement of factors and chromosome.

duplicate genes. **gens duplicado**. Genes which have an identical, but non-accumulative effect.

duplication. **duplicación**. The union of a fragment of a chromosome with a whole chromosome of the same sort.

duramen. **duramen**. The heartwood of an exogenous tree; *also*, the woody portion of a vine.

duration. **duración**. The period of time a plant continues to exist.

dwarf. **enano**. A tree or plant that is much below the ordinary height or size of its kind or related species.

dwarf embryo. **enano embrión**. An

axial embryo that varies in size in relation to the seed but ranges from smaller to nearly the same size as the seed.

dwarfism. **enanismo**. An underdeveloped growth condition that may result from genetic malformation or environmental deficiencies, as low light; nanism.

dwarf shoots (spurs). **enano vástago**. Shoots that emerge from preformed buds that have short internodal intervals.

dyad. **diada**. Occurring in groups of two, as grains of pollen; also, a product of disjunction of the tetrads, at the first meiotic division; one of the pairs of chromatids formed when a group of four spores or pollen grains (tetrad) split during meiosis.

dygenic. **digénico**. Referring to any factor that tends to decrease the fitness of the race.

dysphotic. **disfótica**. Growing in the lower depths of deep water where there is little light, as dysphotic vegetation.

dystrophic. **distrófico**. Containing large amounts of humus or peat through organic and inorganic sedimentation, as a dystrophic lake.

dystrophy. **distrófia**. Insects removing the nectar from a flower by some abnormal method, and consequently not operating the pollinating mechanism.

E

- e-. **e-**. A Latin prefix that means, “with-out” or “out of”.
- eae. **-eae**. In plant taxonomy, the ending or suffix used to indicate a tribe.
- ear. **espiga**. On cereal plants, the structure that bears flowers from which grains develop, as corn, wheat, and barley (**Poaceae**); spike.
- eared. *See* auriculate.
- early. **precoz. variedad precoz**. A variety that germinates and fruits before others of the same kind.
- earlywood (spring wood). **leña temprano. leña de primavera**. The less dense part of the growth ring made of cells with thinner walls; having a greater radial diameter and shorter length than those formed later in the year.
- ebeneous. **ebeneo**. Black as ebony.
- ebenaceous. **ebenáceo**. Pertaining to **Ebenaceae**, the ebony family found mostly in the tropics.
- ebracteate. **ebracteado**. Without bracts, as an ebracteate flower.
- ecalcarate. **ecalcarado**. Without spurs.
- ecarinate. **sin quilla**. Without a keel.
- eccentric. **excéntrico**. Off-center; not located directly on the central axis; having a trunk not regularly shaped; also, having fatty droplets lying to one side of a globular structure.
- ecdysone. **ecdisona**. A steroid hormone occurring in some ferns (**Filicopsida**), conifers (**Coniferae**), and flowering plants; the significance and function in plants, is not clearly understood.
- ecesis. **ecesis**. The adaptation of a species to a new habitat by germinating, growing, and reproducing successfully; the third stage in a series of six steps in plant succession. *See* sere.
- echinate. **aguijonado**. Having prickles or spines, as an echinate pericarp; prickly.
- echinulate. **aguijónulado**. Having a covering of small prickles or spines.
- eciliate. **sin cilios**. Having no cilia, or hair-like growth which is found on the underside of some leaves.
- eco-. **eco-**. A prefix that means, “of the environment”.
- ecocline. **ecolina**. A gradation from one ecosystem to another when there is no sharp boundary between the two systems.
- ecocrine. **ecocrino**. *See* ectocrine.
- ecodeme. **ecodeme**. A group of plants in a specific, unique habitat. *See* deme.
- ecological. **ecológico**. Pertaining to the environment of an organ or organism; having to do or pertaining to ecology.
- ecological amplitude. **amplitud ecológico**. A species tolerance range; those with a narrow range are often used as an ecological indicator species.
- ecological backlash. **reacción violenta ecológico**. The unexpected and harmful consequences of an environmental modification (*e.g.* hydroelectric dam construction) which may outweigh the gains ex-

pected from the change.

ecological efficiency. **eficiencia ecológica**. A ratio, expressed as a percentage, of energy flow measured at different points in a food chain.

ecological energetics. **energéticos ecológico**. The study of energy transformations within an ecosystem.

ecological factor. **factor ecológico**. Anything in the environment which affects the growth, development, and distribution of plants and thereby determines the characteristics of the plant community.

ecological genetics. **genética ecológico**. The study of genetics with a particular emphasis on geographic or global variations.

ecological indicator. **indicador ecológico**. A species or group of species that indicate a particular type of environment, as lichens detecting air pollution or fossils indicating conditions of the past.

ecological isolation. **aislamiento ecológico**. The separation of groups of species as a result of changes in their environment.

ecological niche. **nicho ecológico**. The functional position a species occupies in its environment; composed of the habitat, the periods of time during which it is active, and the resources available to it.

ecological pyramid. **pirámide ecológico**. A graphic depiction developed by Dr. Charles Elton of the trophic structure and function of an ecosystem; sometimes referred to as the Eltonian pyramid.

ecological race. **estirpe ecológico**. A race or group of many similar variants of the same species occurring

in local populations and distributed over a large geographical area.

ecological succession. **sucesión ecológica**. The sequential replacement of one vegetative community by another through a series of stages ending in a climax community.

ecological system. **sistema ecológico**. *See* ecosystem.

ecologically. **ecológicamente**. Pertaining to ecology.

ecologist. **ecólogo**. A person who studies organisms in terms of their relationships with other organisms and with their environment; environmentalist.

ecology. **ecología**. A subdivision of biology that studies the organic diversity of life forms and their interactive relationships with each other and with their physical and chemical environment; the study of organisms in relationship to their environment.

ecophene. **ecofeno**. The range of phenotypes produced by one genotype (or closely related genotype) within a particular habitat; also, a group of plants essentially, of the same genetic constitution, with members differing in appearance and reproductive vigor, due to the influences of their varying environments.

ecorticate. **ecorticado**. Lacking a cortex, especially seaweeds.

ecoscience. **ecociencia**. *See* environmental science.

ecospecies. **ecospecie**. A category of variant individuals capable of genetic recombination with other similar groups, often resulting in a reduction in fitness or fertility; although interfertile, they either do not cross with other ecospecies or produce progeny with reduced vigor.

Approximates the taxonomic species.

ecosphere. **ecosfera**. A whole planet, steady-state ecosystem with interacting biotic and abiotic components; biosphere.

ecosystem. **ecosistema**. A complete ecological system of an area, including plants, animals, and environmental factors; also, an interacting group of organisms that relate to each other and their physical and chemical environment by being self-sustaining, balanced, and self-perpetuating; also, an equilibrated biotic system formed by the balance of environment influences with interdependent organic life; first used in 1935 by A.G. Tansley. *See* biome.

ecotone. **ecotono**. A transition area between two communities, usually with characteristics of both as well as its own.

ecotope. **ecótopo**. A biome and its habitat; biogeoc(o)enosis.

ecotype. **ecotipo**. A genetic variant of a species which has adapted to a specific area within its overall distribution, yet remains infertile with all other members of the species; variant type.

ecrustaceous. **ecrustaceo**. Said of lichen without a well-defined thallus.

ecto-. **ecto-**. A Greek prefix that means, "to," "out of" or "on the outside," as ectoenzyme.

ectoascus. **ectoasco**. An outer ascus.

ectocarp. **epicarp**. **exocarp**. The outer layer of the pericarp of a fruit or ripened ovary of a plant, as the skin on a mango (**Mangifera**).

ectocrine. **ectocrino**. Refers to a chemical substance that is released dur-

ing decomposition that effects other organisms; ecocrine.

ectoenzyme. **ectoenzima**. An enzyme that exists on the outside of a cell; exoenzyme.

ectogenesis. **ecogenia**. Variations due to conditions outside the plant.

ectogenic. **ectogenico**. Describes the effect of pollen on the tissue of the female organs of a flowering plant; also, bacteria living on the outside of a body.

ectomycorrhiza. **ectomicorriza**. A type of mycorrhiza where the fungal hyphae do not enter the root cells, but do cover the root and grow between the root cells, especially in forest trees.

ectone. **ectono**. A well defined transition zone between two or more different plant communities.

ectoparasite. **ectoparásito**. When referring to a plant, a parasite which feeds from the inside the host, but the bulk of the plant body and reproductive organs are outside the host.

ectophloccodal. **ectoflocodal**. Living on the outside of bark.

ectophloic. **ectoflóico**. Refers to stems with the phloem on the outside of the xylem.

ectophyte. **ectofito**. A plant parasite living on the outside parts of a host plant.

ectoplasm. **ectoplasma**. The semiclear, somewhat rigid outer part of the cell cytoplasm; ectosarc; exoplasm.

ectosarc. **ectosarc**. *See* ectoplasm.

ectospore. **ectospora**. A spore developed on the outside of a hyphae; formerly, a term for basidiospore.

ectostroma. **ectostroma**. The part of the stroma formed on the surface of the bark, beneath, or within the

periderm, commonly only fungus tissue; epistroma.

ectothechal. **ectotecal**. Of ascomycetes, not having the hymenium covered.

ectotrophic. **ectótrofo**. Obtaining nourishment from outside, as some fungi that live on the outside of roots.

ectotrophic infection. **infección ectótrofo**. Pertaining to root-infecting fungi growing on the surface of the root but sending infection hyphae into the host tissue below; also hyphae running between the epidermal cells.

ectotrophic mycorrhiza. **micorriza ectótrofo**. A mycorrhizal association where the bulk of the fungus covers the root, with hyphae growing into the intercellular spaces.

ectrotropic. **ectrotroífico**. Curving outward.

edaphic. **edáfico**. More influenced by soil composition rather than by climate, as an edaphic plant.

edaphic climax. **clímax edáfica**. A climax that is primarily produced by soil conditions, such as moist, dry, or acid.

edaphic factor. **factor edáfica**. Any soil factor which affects the organism that grows in or on it.

edaphology. **edafología**. The study of plants and their relationship to the soil.

edaphon. **edafón**. The plants and animals living in a soil that affect the nitrogen content.

edema. **edema**. A large mass of unhealthy parenchyma; also, an abnormal swelling of large areas of tissue due to excess water; oedema.

edentate. **sin dientes**. Without teeth.

edge. **borde**. Margin, as the margin or edge of a leaf; border.

edge effect. **efecto de borde**. The in-

fluence of two bordering communities on the types and numbers of plants and animals in their adjoining fringes.

edged. **marginado. bordeado**. The margin of a flower or other structure that may have a different color than the main body; bordered.

edulis. **edulis**. A Latin term that means, "edible".

efficiency index. **índice de eficiencia**. The rate at which dry matter accumulates in plants.

effigurate. **efigurado**. Having a definite shape.

effigurations. **efiguracións**. Outgrowths from the receptacle.

efflorescence. **floración**. The production of flowers; also, the period of flowering; flowering.

effuse. **efuso**. Spreading out loosely or in an unrestrained, or indefinite manner, as effuse flowers.

egg. **huevo**. The middle of three haploid cells at the micropylar end of the embryo sac which becomes a zygote when fertilized; a nonmotile female gamete; a rudimentary embryo.

egg apparatus. **aparato de ovular**. Usually three cells in an embryo sac, one is the egg and the other two, synergids.

egg cell. **célula de huevo. ovocélula. óvulo**. In angiosperms and gymnosperms, the female reproductive cell that becomes a zygote after fertilization. *See* egg.

egg sac. **saco ovígero**. A membrane or covering around an egg.

egg-shaped. **obovado. obovoide. obvoide**. A three-dimensional structure that has the oblong shape of a bird's egg.

eglandular. **eglandular**. Without

glands.

eisodal aperture. **orificio eisodal.** The enlargement of the stomata pore nearest to the surface of the leaf.

ejection. **eyeculación.** The forcible expulsion of spores from a sporangium, or seeds from a fruit.

ejection. **eyección.** See ejection.

ectexine. **ectexina.** The outer layer of the exine of a pollen grain; usually has projections on it.

elaioplast. **elaioplasto. eleoplasto. cuerpo oleoso.** A plastid that contains stored oil.

elaiosome. **eleosoma.** An outgrowth containing fats or oils from the surface of a seed which often attracts ants that may aid in seed-dispersal.

elamine. **elaminado.** Without a blade.

elastic growth. **crecimiento elástico.** The part of a cell wall extension that is reversible.

elater. **eláter.** One of four filaments curled once or twice around spores in **Equisetaceae**; a spiral filament which is used in the dispersion of spores, as in liverworts (**Hepaticae**); also, in bryophytes, an elongated, spirally thickened cell derived from the sporangenous tissue, and sometimes aiding in spore-dispersal; in some **Lycoperales**, a spirally thickened structure in the fruit body.

elaterophore. **elateróforo.** A tissue that bears the elaters; also, a central column-like mass of sterile tissue in the sporangium of the **Jungmanniales**.

electrolyte. **electrolito. electrólito.** A substance that ionizes in solution, *i.e.* conducts electricity when in solution, by the movement of ions.

electron. **electrón.** A negatively

charged particle that is one of the three units (electrons, protons, neutrons) that make up an atom.

electron carrier. **(trans)portador de electrones.** A chemical compound that serves as an acceptor and donor of electrons and/or protons in an electron transport system.

electron transport. **transporte de electrones.** The carrying of an electron from one substrate to another, involving the oxidation of one and the reduction of the other, *e.g.* $HA + B = HB + A$. The enzyme bringing about such a transfer is termed an electron carrier; also, a sequence of chemical activity involving the transfer of electrons from one energy level to another in which the energy is made available to the cell.

electron transport chain. **cadena transportadora de electrones.** A system of electron carriers, present in mitochondria, which sequentially transport electrons and or protons from glycolysis, the citric acid cycle, and other metabolic reactions; also a system of electron transport in metabolic pathways, as photosynthesis; respiratory chain.

electron transport particle, ETP. **partícula transportadora de electrones, PTE.** The morphological site of the enzymes involved in electron transport.

electrophoresis. **electroforesis.** The movement of charge particles in a stationary liquid under the influence of an electric field; the rate varying according to the charge on the particle, its size, and shape.

electrophysiology. **electrofisiología.** The study of the relationship between living organisms and elec-

tricity.

electropism. **electrotropismo.** The curving of plant growth due to slight electrical currents.

electrotaxis. **electrotaxis.** The movement of cells or organisms in response to electric currents.

element. **elemento.** A substance composed of atoms that are chemically alike and which cannot be separated into simpler parts by any known chemical means.

eleutheropetalous. **eleuteropetalo.** Polypetalous.

eligulate. **sin ligula.** Without a ligule; without the strap-shaped portion of the perianth or a ray or ligulate corolla.

ellipsoid. **elipsoide.** A solid body which is elliptic in the long section and circular in the cross section.

elliptic. **elíptico.** With the widest axis at midpoint of the structure and with margins symmetrically curved, as in the leaves of the *Ficus macrophylla*; narrow and tapering at each end.

elongate. **alargado.** Long and narrow, as certain leaves; extended; drawn out.

elongation. **elongación.** A lengthening of some parts; the growth of a cell by an increase in length.

emarginate. **emarginado.** Lacking a distinct margin; also, the rounded lobe of a leaf or petal with a shallow notch at the apex; also refers to a fungal gill with a notch nearest the stipe.

emasculate. **emascular.** To remove the anthers from a bud or flower before pollen is shed; a normal preliminary step in hybridization preventing self-pollination.

emasculation. **emasculación.** A step in the hybridization process that involves removing a plant's anther(s) to avoid self-pollination.

Embden-Meyerhop-Parnas sequence. **secuencia de Embden Meyerhop-Parnas.** The second phase in glycolysis during aerobic respiration. A molecule of hexose diphosphate is formed into two molecules of triose phosphate. Two energy-rich phosphates are released. ADP is converted to ATP and DPN is reduced, with the formation of pyruvic acid.

embracing. **abrazador. abrazado.** Claspings or enwrapping.

embryo. **embrión.** The undeveloped or rudimentary plant developed from an ovum sexually or asexually and, in seed plants contained within the seed.

embryo sac. **saco embrional. saco embrionario.** The female reproductive organ usually consisting of the egg cell, three antipodal cells, two polar nuclei, and two synergids; the female gametophyte of flowering plants. The embryo sac arises from the megaspore by successive mitotic divisions.

embryogenesis. **embriogénesis.** The formation and development of an embryo.

embryogeny. **embriogenia.** The process leading to the formation of an embryo.

embryoid. **embrioides.** Resembling an embryo, as embryoids developing inside pollen grains, eventually emerging as root and stem meristems.

embryology. **embriología.** The branch of study that deals with the formation and development of em-

bryos.

embryonal. **embrional**. Related to an embryo.

embryonic. **embrionario**. Pertaining to embryos.

embryonic axis. **axón embrionario**. The main root-shoot body of a seedling; hypocotyl.

embryonic tissue. **tejido embrionario**. A tissue made up of actively dividing cells.

embryoniform. **embrioniforme**. Shaped like an embryo.

embryophytes. **embriófitas. embriófitos**. Any plants that develop embryos, as mosses (**Musci**), ferns (**Filicopsida**) and flowering plants.

embryostega. **embriostegio**. In some seeds, a cap that covers a portion of the embryo before germination and pushed off by the growth of the radicle; a disk-like callus on a seed.

emergence. **emergencia**. Various outgrowths that come from the tissue beneath the epidermis, such as thorns on a rose bush (**Rosa**).

emergence marsh. **marisma de emergencia**. The upper zone of a salt marsh from the general mean high water level to the mean high water level of spring tides; usually with sharply limited periods of continuous submergence.

emergents. **emergentes**. Individual trees or group of trees that stand strikingly higher than the top of a continuous canopy of low land tropical rain forests.

emersed. **salir**. Standing out of surrounding water, as part of an aquatic plant.

emersed leaf. **hoja emergida**. An aquatic plant leaf standing out of the water, as some water lilies

(**Nymphaeaceae**).

empty glume. **gluma estéril**. Sterile glume.

emulsin. **emulsina**. An enzyme that breaks down gluosides to give a sugar and an aromatic group.

emulsion. **emulsión**. A colloidal suspension of one liquid in another.

enation. **enación**. An abnormal growth of an organ or an excrescence on the surface of any part of the plant; also, tissue flaps growing out from the stem, possibly the origin of microphylls.

enatiostylous. **enacioestilo**. Refers to a flower which has the style(s) projecting from one side.

enchylema. **enquilema**. The more fluid constituents of the cytoplasm.

encircle. **encerrar**. Surrounded.

enclosed. **envuelto**. Surrounded.

encrustation. **encrustación**. Adcrustation.

encystment. **encistamiento. enquistamiento**. The formation of a walled, non-motile body from a swimming spore.

endangered species. **especie amenazada**. A living species that is in danger of becoming extinct because of small population sizes, poor reproduction, reduced available habitat, or combinations of two or more of these factors.

endarch. **endarchar**. The direction of differentiation of the xylem when it is cut off from the cambium towards the center of the axis. The protoxylem develops outward to the edge nearest the center of the axis, as an endarch stele.

endecandrous. **endecandro**. Having eleven stamens.

endemic. **endémico**. Species that are native to a particular environment

or geographic locality; not introduced or naturalized. Applied strictly when the element has not yet attained maximum area.

endemism. **endemismo**. A situation where a species or whole taxonomic group is limited to a particular geographic region due to isolation, soil composition, or climate; as to the region.

endergonic. **endergónico**. A chemical reaction showing a net gain in energy, but does require an energy input, as it is never spontaneous.

endergonic reaction. **reacción endergónico**. A reaction that needs energy put into the system for it to take place.

endo-. **endo-**. A Greek prefix that means, "within," "inside," or "inner."

endoascus. **endoasco**. An inner ascus.

endobasidial. **endobasidial**. Said of a lichen sporophore having a secondary sporing branch.

endobasidium. **endobasidio**. A basidium developing inside the fruit body.

endobiotic. **endobiótico**. Growing inside a living organism, as a parasite.

endocarp. **endocarp(i)o**. In fruit, the inner area of the pericarp, if the texture is different from the outer layer, as with peaches (*Amygdalus*) or mangoes (*Mangifera*).

endocarpous. **endocarpico**. Having the mature hymenium covered over.

endocellular enzyme. **enzima endocelular**. An enzyme which functions within the cell in which it was formed.

endoconidium. **endoconidio**. An asexual spore of fungi, formed inside a cell or coenocyte, from which

it is later expelled.

endocytosis. **endocitosis**. Cellular ingestion where the cell membrane folds inward to enclose and incorporate foreign substances, as bacteria.

endodermal pressure. **presión endodermal**. Root pressure.

endodermis. **endodermis**. The cylinder of cells surrounding the vascular bundle of a root. The radial walls are thickened by the Casparian strip so that substances entering or leaving the vascular bundle have to pass through the protoplasm of the endodermal cells; also, a layer of cells delimiting the cortex from the stele.

endoenzyme. **endoenzima**. An enzyme that responds or exists within the cell in which it originated; endocellular enzyme.

endoform. **endoforma**. Of the **Uredinales** where the teliospores are like the aeciospores in form.

endogamy. **endogamia**. The pollination of a flower by another flower of the same plant; also, the union of two related gametes; also, the union of two sister gametes, both female.

endogelatin. **endogelatina**. A gelatinous layer on the inner wall of the macrosporangia of some brown seaweeds (**Fucales**). When wet, it swells, forcing out the macrospores.

endogenic. **endógeno**. *See* endogenous.

endogenous. **endógeno**. Growing from within, as endogenous spores.

endogenous spore. **espora endógeno**. A spore formed within a sporangium.

endogenous thallus. **talo endógeno**.

- Describes a lichen thallus in which the alga predominates.
- endogonidium. **endogonidio.** A gonidium developing inside a receptacle.
- endolithic. **endolítico.** Growing in a stone, as the thalli of some lichens.
- endomitosis. **endomitosis.** Producing a polyploid by the doubling of chromosomes in a non-dividing nucleus; can be repeated many times in a single nucleus.
- endomycorrhiza. **endomicorriza.** A type of mycorrhiza where the fungus hyphae enter the cells of roots.
- endonuclease. **endonucleasa.** An enzyme that catalyzes a break at some point within the DNA molecule.
- endoparasite. **endoparásitico. endosito. parásito internal.** A parasitic plant or animal living in the tissues or cavities of a plant.
- endopeptidase. **endopeptidasa.** An enzyme that speeds the hydrolysis of proteins and peptides; in particular, the interior peptide bonds; proteinase. *See* exopeptidase.
- endoperidium. **endoperidio.** In some terrestrial fungi (*Gasteromycetes*), the inner, palisade-like layer of a double layered peridium.
- endophelloderm. **endofeloderma. endofeloderma. endofelodermis.** Cells cut off from the inner face of the phelloderm.
- endophytic mycorrhiza. **micorriza endófitico.** Endotrophic mycorrhiza.
- endophyllous. **endofilo.** Pertaining to a plant member developing in the shelter of a sheathing leaf; also, said of a parasite living inside a leaf.
- endophyte. **endófito.** A plant that grows inside another plant, but not necessarily as a parasite.
- endoplacodial. **endoplacodial.** Having the ostiolar disk developed from the endostroma.
- endoplasm. **endoplasma.** The inner part of cell cytoplasm.
- endoplasmic reticulum. **retículo endoplásmico.** A group submicroscopic, double layer membranes, consisting of canaliculi and cisternae, that permeate the cytoplasm of the cell; sometimes there are microsomal particles, usually ribosomes, associated with them and serve as a tubular system of the colorless cytoplasm in the cell. This association is responsible for the major biosynthesis to the cell.
- endopleura. **endopleura.** The inner seed coat of the *Cycadaceae*.
- endosmosis. **endosmosis.** The movement of a fluid inward through a membrane toward a solution of greater concentration.
- endorhizal. **endorizal.** Monocotyledonous.
- endorhizoid. **endorizoide.** A rhizoid formed at the base of the seta of a bryophyte and penetrating the gametophyte.
- endosperm. **endospermo. endosperma.** The nourishment or nutritive tissue that surrounds the embryo of a seed; formed from the fusion of a haploid sperm nucleus with the two haploid polar nuclei in the ovule of angiosperms.
- endosaprophytism. **endosaprofitismo.** The destruction of the lichen alga by the fungus.
- endosclerotium. **endosclerotio.** A sclerotium of an endogenous spore.
- endoscopic. **endoscópico.** Of a plant embryo, which divides transversely at the first division, the inner daugh-

ter cell being the embryonic one and the outer one the suspensor, *i.e.* the embryo points to the base of the archegonium.

endosome. **endosoma**. Karyosome.

endosperm. **endosperma**. **endospermo**.

The nutritive material developed in the embryo sac of flowering plants from the fusion of one female nucleus with one or more others, or with a male nucleus, or with both.

endospermous. **albuminoso**. Relating to the nourishing material that surrounds the embryo of a seed.

endospore. **endóspora**. The inner coat of some spores; also, a type of resting cell that develops inside a vegetative cell under some conditions and is quite resistant to adverse environmental conditions; also, a spore formed within a cell of some **Myxophyceae** and bacteria. The spore wall is not fused to the wall of the parent cell.

endostome. **endóstoma**. The opening at the top of the inner coat of an ovule.

endosymbiosis. **endosimbiosis**. A concept that some cellular organelles arose by the incorporation of a prokaryote into the cytoplasm of a eukaryote; also, a type of symbiosis where an organism lives inside another organism.

endothelial. **endotecial**. Of or pertaining to the endothecium.

endothecium. **endotecio**. The inner lining of the cell or cell layer of an anther.

endotoxin. **endotoxina**. A component of the walls of Gram-negative bacteria; toxic to humans and animals, but not released until the cell disintegrates.

endotrophic. **endotrófico**. **endótrofo**. Obtaining nourishment from within, as some fungi that live inside plant roots; also, having hyphae entering the cells.

endotrophic mycorrhiza. **endotrófico micorriza**. A mycorrhiza in which the fungus is growing almost completely internally within the cortex of the root.

endozoic. **endozoico**. Living inside an animal; also, a method of seed dispersal where plant seeds are swallowed by an animal and voided unharmed in the feces.

energid. **enérgida**. A volume of protoplasm which is controlled by the enclosed nucleus.

energy. **energía**. The capacity for doing work; may be chemical, electrical, mechanical, thermal, or nuclear, but always a measure of the work done.

energy flow. **flujo de energía**. **flujo energético**. The exchange and dispersion of energy along the food chains of the ecosystem.

energy of activation. **activación de energía**. The energy required to render molecules capable of reaction.

energy pyramid. **pirámide de la energía**. *See* pyramid of energy.

enfold. **envolver**. **envolviendo**. To wrap; to twine or coil around.

enlarge. **agrandar**. To make bigger, as an area or hole.

enlarge. **dilatar**. To make bigger, as a pore or vein.

enlarged. **agrandado**. Expanded or swollen.

enlargment. **dilatación**. Expanded pore or vein.

enol form. **forma enol**. A cyclic molecule with an -OH group on the second carbon atom.

enolase. **enolasa.** The enzyme catalyzing the formation of phosphoenolpyruvic acid from 2-phosphoglyceric acid.

ennea-. **enneo-.** A Greek prefix that means, "nine".

enneaphyllus. **enneofilo.** Having nine leaves.

enrichment. **enriquecimiento.** The replacement of trees in a forest after timber extraction.

enrolled. **enrollado.** Wrapped up or surrounded.

ensiform. **ensiforme.** Having the shape of a sword, as an ensiform leaf; sword shaped; xiphoid.

entangled. **enmarañado.** A confused mass of things such as branches or hair-like growths from certain vines; intertwine.

entelechy. **entelequia.** A concept which holds that evolution proceeds by the actualization of that which was always potential.

enterotoxin. **enterotoxina.** A type of poison produced by some bacteria which affects the function of the intestines of animals, causing diarrhea.

entine. **entina.** The inner layer of a pollen grain shell.

entire. **entero.** Without teeth, notching, undulations, or division; a smooth, undivided leaf margin.

entire leaf. **hoja entera.** A leaf with an unbroken, continuous leaf margin.

ento-. **ento.** A Greek prefix than means, "within".

entomogenous. **entomógeno.** Living on or in insects.

entomophilous. **entomófilo.** A group of flowers that depend on insects for fertilization.

entomophily. **entomofilia. polinizac-**

ión entomófila. Pollination through the activities of insects.

entoparasite. **entoparásito.** A parasite inside the host.

entostroma. **entostroma.** The part of the stroma within the host which is composed of fungus and host tissue.

entozoic. **entozoico.** Living inside an animal.

entrance cone. **cono entrada.** See fertilization cone.

enucleation. **enucleación.** The removal of the nucleus of a cell by manipulation.

envelope. **envoltura.** Any surrounding or enclosing structure, as a calyx or floral envelope.

environment. **medio ambiente.** All the surroundings and conditions affecting the growth and survival of various life forms.

environmental. **ambiental. medio-ambiental.** Pertaining to the environment.

environmental degradation. **degradación ambiental.** The depletion or destruction of a potentially renewable resource, such as a forest, by using it at faster rate than it is naturally replenished. If such a process continues, the resource becomes nonrenewable or extinct.

environmental insults. **insulto ambiental.** Any environmental factor that hinders the growth or development of an organism.

environmental resistance. **resistencia ambiental. resistencia del ambiente.** The combined biotic and abiotic factors which prevent a population from reaching its biotic potential.

environmental science. **ciencias ambientales.** The holistic study

of the interactive factors associated with various environments; may include the physical, biological, social, cultural, and other academic disciplines; ecoscience.

environmentalist. **ecologista**. A person working to identify and solve the physical and societal factors causing the degradation of the air, water, soil, plant, animal, and human condition; *See* ecologist.

enzymatic. **enzimático**. Of or pertaining to enzymes.

enzyme. **enzima**. A molecule, largely protein, functioning as a catalyst and control in cellular metabolism; causes or accelerates chemical reactions in other substances without being changed itself. Many are linked with non-protein groups (prosthetic) essential to functioning, the coenzymes often of complex constitution. Components of specific prosthetic groups are *e.g.* heavy metals (iron, magnesium, manganese, zinc) and trace food accessories, as thiamine and riboflavin.

enzymology. **enzimologia**. The study of enzymes and the reactions they produce.

epaleate. **sin pálea**. Without scales.

epappose. **sin paposo**. Without a papus, as with certain composite flowers.

epetiolate. **epeciolado**. Without a petiole, the stalk by which a leaf is attached, as with a sessile leaf.

epetiolulate. **epeciolulado**. Without a petiolule, the stalk of a leaflet, as with a sessile leaflet.

epharmonic convergence. **convergente de efarmonico**. A likeness in external appearance and structure in plants that are not closely related

taxonomically.

ephemeral. **efímero**. A plant that under favorable conditions, germinates, blooms, and sets seed several times a year, as with certain desert plants; also, temporary, as vegetation that completes its life cycle in a short time.

ephemeral movement. **movimiento efímero**. The movement of a part which cannot be repeated, as the opening of a bud.

epi-. **epi-**. A Greek prefix that means, "upon" or "on top of".

epiascidium. **epiascidio**. An abnormal funnel-shaped leaf with the upper surface of the leaf lining the inside of the funnel; pitcher leaf.

epibasal cell. **célula epibasal**. One of the upper cells of the **Bryophyta** or **Pteridophyta** embryo, which gives rise to the capsule and part of the seta, or to the stem and cotyledon.

epibasidium. **epibasidio**. A structure that develops between the hypobasidium and the sterigmata.

epibenthos. **epibento**. Plants and other organisms that live below the low-tide mark and above the 100 fathom line; also, organisms that live just above the sea floor.

epibiont. **epibionte**. A non-parasitic organism living on the surface of another, as occurs with many lichens or mosses (**Musci**).

epibioses. **epibioses**. Living on the surface of the water.

epibiotic. **epibiótico**. Growing on the surface of a living organism.

epiblast. **epiblasto**. A small outgrowth from a grass embryo.

epicalyx. **epicáliz. cálculo**. A whorl of sepal-like appendages which resembles but is not a true calyx.

epicarp. **epicarp(i)o**. The outer skin of a fruit or ripened ovary; exocarp.

epicormic. **epicormico**. Pertaining to a branch developing from a dormant bud on the trunk of a tree which becomes active as a result of damage or some other environmental abnormality.

epicormic shoot. **vástago epicormico**.

A type of shoot that grows from dormant lateral buds on trunks which have long and often variable internodal lengths or intervals; water shoots.

epicotyl. **epicótilo**. **epicotilo**. In the embryo, the part of the stem that is above the attachment point of cotyledons and below the first true leaves.

epictesis. **epictesis**. The ability of living cells to accumulate salts in a higher concentration than that in which they occur in the surrounding solution.

epidermal excrescence. **epidérmico excrecencia**. Refers to various types of surface outgrowths or secretions on plant parts or organs.

epidermal. **epidérmico**. Pertaining to the epidermis.

epidermis. **epidermis**. A protective outer layer of cells, especially on the stems, leaves, flowers, fruits, and seeds, but absent from the root cap and on apical meristems. The outer wall may be thickened by the production of a cuticle and the cells may be extended into hairs.

epigeal. **epigeo**. Growing above ground; a type of seed germination in dicots characterized by epigeal cotyledons which are borne on an axis, above ground, and serve as true leaves; epigeal germination occurs in the sunflower (**Asteraceae**) and beans

(**Phaseolus**); also, of germinating seeds when the cotyledons are brought above the surface of the ground.

epigean. **epigeo**. Occurring on the ground.

epigeic. **epigeico**. Pertains to a plant with stolons on the surface of the ground.

epigenesis. **epigénesis**. The development of the embryo from the substance of the egg.

epigenetics. **epigenética**. The study of the processes by which genes produce their phenotypic effects.

epigenous. **epigeno**. Said of a leaf fungus which grows on the surface.

epigeous. **epideo**. *See* epigeal.

epigynous. **epigino**. Pertaining to the stamens, petals, and sepals that appear to be or are growing from the top of the ovary; also, said of a flower when the receptacle encloses the carpel(s), so then the other flower parts arise above the carpel(s); also, having the antheridium arising above the oogonium.

epigyny. **epigínia**. An arrangement of flower parts where the ovary is embedded in the receptacle so that the other parts appear to come out from the top of the ovary.

epilimnion. **epilimnion**. The upper, warm, circulating water in a thermally stratified lake during the hot summer months; commonly a very shallow layer as compared to the hypolimnion.

epilithic plant. **planta rupestre**. Plants that grow on or are attached to rocks and stones; rupicolous plant.

epilittoral zone. **zona epilitoral**. A zone on the coast which is next to the zone occupied by plants which cannot withstand exposure to salt.

epilose. **glabro**. Having no hair or fuzz.
 epimatium. **epimatio**. The ovuliferous scale of conifers.

epinastic. **epinástico**. The bending downward of a part or organ caused by a more rapid growth along the upper surface, as with many leaves.

epinasty. **epinastia**. Differential growth of the upper part of a plant organ, involving auxin and ethylene; commonly seen in the rapid growth of a petiole, causing the leaf to bend downward.

epipelic. **epipélico**. Growing on mud.

epipetalous. **epipétalo**. Stamens fused with petals or corolla; attached to the petals, as epipetalous stamens.

epipetric. **rupicola**. Living on top of rocks, as some mosses and lichens.

epiphloedal. **epifloedal**. Growing on the surface of bark.

epiphloedic. **epifoedico**. *See* epiphloedal.

epiphragm. **epifragma**. The membrane stretching across the top of a moss capsule and is bordered by the peristome teeth; also, a membrane over the young fruit body of the **Nidulariaceae**.

epiphyllous. **epifilo**. Growing on leaves.

epiphysis. **epifisis**. A growth around the hilum of a seed.

epiphyte. **epífito**. Mosses (**Musci**) and various plants, such as orchids (**Orchidaceae**), that grow on other plants for physical support but draw nourishment from the air and rain rather than from the host; especially common in tropical forests.

epiphytic. **epifítico**. Having the characteristics of an epiphyte.

epiphytotic. **epifítotico**. A disease epidemic in a plant population.

epiplasm. **epiplasma**. The residual cytoplasm left in an ascus after as-

cospore formation; initially rich in glycogen, but later lost.

epipterous. **epiptero**. Having a wing at the apex.

epirhizal. **epirrizo**. Growing on a root.

epirhizous. **epirrizo**. *See* epirhizal.

episepalous. **episépalo**. Attached to the sepals; used to describe sepals fused to stamens or calyx.

episodic evolution. **evolución episódico**. The fossil record reflects intermittent extinction events followed by succeeding phases of rapid evolutionary change.

episperm. **episperma**. The outer portion of a seed coat.

epispore. **epispora**. The thick, outer coat of a fungus zygote.

epistasis. **epistasia**. **epistasis**. Masking, as when one gene has a masking effect on the expression of another nonallelic gene; the former is said to be epistatic.

epistatic. **epistático**. Said of a character which is dominant to another and is not an allelomorph.

epistroma (*pl.* epistromata). **epistroma**. Ectostroma.

epistropa. **epistrofa**. The positioning in diffuse light of the chloroplasts on the periclinal walls of the palisade cells.

epithalline. **epitalino**. Growing on a thallus; also, a falsely thalline apothecial edge in lichens.

epithallus. **epitalo**. The upper layer of fungal hyphae in a lichen thallus.

epithecium. **epiteca**. The older outer layer of the half-wall of diatoms and dinoflagellates.

epithecium. **epitecio**. A layer of tissue that covers the hymenium in an ascocarp; also, the outer dark colored layer of a peridium; also,

a thin, colored layer over the asci in an apothecium, particularly in lichen, formed from the tips of the paraphyses.

epithelial layer. **estrato epitelial**. A layer of elongated cells set end-on to the endosperm in grass fruit, forming the border of the scutellum.

epithelium. **epitelio**. A thin layer of tissue covering structures that are protective, secretive, or perform a variety of other functions.

epithem. **epitema**. A group of cells in the mesophyll of a leaf which exude water.

epithem hydathode. **hidatodo epitema**. A hydathode which is directly connected to the vascular bundle in a leaf.

epithet. **epíteto**. The second (specific) part of the scientific name that identifies species or any other division of the genus, as "cordifolia" in *Vitis cordifolia*.

epitrophic. **epitrófico**. Having buds on the upper side; also, growing more on the upper than lower side.

epitropous. **epitropo**. Hanging or pendulous ovule; used to describe the position of the ovule in locule.

epixylous. **epixilo**. Growing on wood.

epizoic. **epizoico**. An external parasite.

equal. **igual**. Evenly proportioned; not lop-sided.

equational division. **división ecuacional**. A nuclear division that maintains the same polyploidy level of the cell.

equatorial division. **división ecuatorial**. During the metaphase of mitosis or meiosis, the division of each chromosome into two equal halves which are then incorporated into separate daughter nuclei.

equatorial plane. **plano ecuatorial**. The plane midway between the two daughter nuclei of a dividing cell.

equatorial plate. **placa ecuatorial**. The position of chromosomes in the equatorial plane during metaphase.

equilateral. **equilátero**. With halves or sides equal in shape and size; often used when describing a particular leaf.

equilibrium. **equilibrio**. In population genetics, the condition when the forces that tend to change gene frequencies are counterbalanced so that there is no net change in gene frequencies from one generation to the next.

equilibrium species. **especie equilibrio**. A group of plants in which competitive ability rather than dispersal ability or reproductive rate is the principal method for survival.

equinoctial. **equinoccial**. Having flowers that open and close regularly at particular hours of the day or night.

equitant. **equitante**. A two-ranked arrangement of leaves with overlapping bases, usually sharply folded along the midrib.

erect. **erecto**. Standing upright, not spreading; also, set at right angles to the organ from which it arises; also, of an ovule which is upright with its stalk at the base.

eremium. **ermio**. A desert formation.

eremophilous. **eremófilo, deserticola**. Pertaining to the trees and shrubs of the genus *Eremophila* that thrive in hot dry areas.

ergastic substance. **sustancia ergastico**. A non-living inclusion in cells, e.g. crystals, starch grains, etc.

ergastoplasm. **ergastoplasma**. Endoplasmic reticulum.

ergot. **cornezuelo**. A spore-producing fungus, *Claviceps purpurea*, found on grain crops, especially rye (**Poaceae**); also, the sclerotium of this fungus which replaces the seeds of the host and contain alkaloids which cause ergotism in animals and humans.

ericaceous. **ericáceo**. Heather-like.

ericetal. **ericetal**. Growing on moss.

ericoid. **ericoide**. Having narrow, needle-like, rolled leaves, like heather.

erinose. **erinoso**. An abnormal development of hairs, usually resulting from mites, other pests, or diseases.

erio-. **erio-**. A Greek prefix that means, "woolly".

eriophorous. **erióforo**. Having a thick covering of cottony hairs.

erose. **eroso**. Irregular leaf margin with shallow teeth or lobes; appearing gnawed.

erosion. **erosión**. The process of soil particles being worn away by wind or water with the effect of degrading the soil to a coarser, sandier, stonier texture.

erostrate. **sin rostro**. **errostro**. Irregular leaf margin without sharp points.

erratic. **errático**. Of lichens not fixed to the substratum.

erubescens. **erubescens**. A Latin word that means, "bluish-red".

erumpent. **erumpente**. Bursting through.

erythrose. **eritoso**. D-erythrose is an aldodextrose sugar.

erythro-. **eritro-**. A Greek prefix that means, "red".

erythrophyll. **eritrofil**. The red-brown-violet group of water soluble sap pigments, especially in flowers; anthocyanin.

erythrulose. **eritruroso**. A ketose, tetrose sugar.

escape. **huida**. To grow wild after slipping away from a cultivated field; also, a cultivated plant that grows wild.

esculent. **esculente**. Edible.

essential element. **elemento esencial**.

A chemical nutrient that is vital for the growth, development, and maintenance of an organism.

essential oils. **aceites esencial**. Highly volatile and aromatic oils formed in special cells by some plants; probably involved in the pollinator attraction-repulsion of herbivores; volatile oils.

essential organs. **órganos esencial**. Sex organs.

establishment. **establecimiento**. The successful germination and growth of a plant, especially in a new area.

ester. **éster**. Any of a group of organic compounds formed from the condensation (water removed) of an acid and an alcohol; fats and oils of plants are esters.

estipulate. **estipulado**. Having no stipules; exstipulate.

estival. **estival**. Refers to the summer. *See* aestival.

estivation. **estivación**. *See* aestivation.

estuary. **estuario**. A marshy area where the fresh water from a stream or river joins with salt water from the ocean.

ethanol. **etanol**. One of the end products of an alcoholic fermentation. Same as ethyl alcohol.

ethanolamine. **etanolamina**. A precursor of choline.

ethene. **etene**. *See* ethylene.

ethnobotany. **etnobotánica**. The scientific study of local people's interactions with plants, including their uses of plants for food, shelter,

medicine, and religion; considered by some to be a sub-discipline of ethnoecology.

ethnoecology. **etnoecología.** The scientific study of local people's interactions with their natural environment, including the sub-disciplines of ethnobotany, ethnozoology, ethnoentomology, and others.

ethyl alcohol. **alcohol etílico.** A colorless, volatile liquid made by the fermentation of grain, sugar, and other plant items; ethanol.

ethylene. **etileno.** A gaseous growth hormone produced naturally by plants that regulates vegetative growth, fruit ripening, and abscission of plant parts.

etiolate. **etiolado.** The whitening of plants through inadequate light.

etiolated. **decolorado.** Blanched; turned white because of inadequate sun light.

etiolation. **etiolación. ahilamiento.** The abnormal whitened condition of plants or the elongation of plant stems and small leaves that have had insufficient light. Etiolated stems often lack chlorophyll.

etiological. **etológico.** Of etiology.

etiology. **etiología.** The study of causes, especially the cause of disease.

eu-. **eu-** A Greek prefix that means, "true," "real," "good," or "well;" used especially in ecology to denote abundance, as euphotic, "light-rich".

euapogamy. **euapogamia.** The development of a sporophyte from the tissue of a gametophyte and not from a zygote in sexual fusion.

euapospory. **euaposporia.** The failure to form spores.

eubacteria. **eubacterios.** The true bacteria. They have rigid cell walls, the motile species move by flagella, and the cells divide by binary transverse division.

euamptodromous (venation). **euamptódroma (nervadura).** A system of venation where the veinlets join after curving near the margin of the leaf.

eucarpic. **eucarpico.** Refers to a fungus where only part of the thallus differentiates to form a reproductive structure; also, having both sexual and asexual reproductive organs separate and functioning at the same time.

eucaryote. **eucaryota.** See eukaryote.

euchromatin. **eucromatina.** The active chromatin of a chromosome during the interphase; also, a chromosomal region that stains normally and thought to contain the normally functioning gene; also, the part of the chromatin having its maximum nucleic acid attachment on the mitotic spindle.

euchromocenter. **eucromocentro.** A part of a chromosome which stains very deeply, and does not loosen out to form part of the reticulum.

euchromosome. **eucromosoma.** A typical chromosome in contrast to a sex-chromosome.

eucyclic. **euiclico.** Having the same number of organs in each whorl.

eugenic. **eugenético.** That which tends to increase the fitness of the race.

eugeogenous. **eugeógeno.** Weathering readily.

euglena. **euglena.** One cell, spindle-shaped algae (**Euglena**) that are usually green and have one flagellum.

euglenoid. **euglenoide.** Pertaining to

euglena, as a euglenoid movement involving worm-like contractions.
eugonidium. **eugonidio**. A unicellular member of the **Chlorophyceae**, forming part of the thallus of a lichen.

euhymenial. **euhipmenial**. Said of a hymenium in which all the basidia are formed nearly at the same time.

eukaryote. **eucariota**. Having a nucleus; a nucleus surrounded by a membrane.

eukaryotic. **eukaryotico**. Multicellular plants, all of which have a distinct nucleus surrounded by a membrane.

eumitosis. **eumitosis**. A normal mitosis in which all the basidia are formed nearly at the same time.

eumorphic. **eumorfico**. Well formed.

eumycetae. **eumicetos**. The true fungi. There is no photosynthetic pigment and the food is stored as glycogen. Most have a definite cell wall containing cellulose and or chitin, and have a branching filamentous thallus (mycelium) consisting of individual hyphae; also, the term is sometimes used to include the ascomycetes, basidiomycetes, and the Fungi Imperfecti.

euphotic. **eufótica**. Describes an upper layer of water that receives adequate light for photosynthesis, often only a few centimeters deep.

euphotic zone. **zona eupótica**. The top layer of a sea or lake that light can penetrate, allowing photosynthesis to take place; usually up to about 100 meters deep.

euphotometric. **eufotométrico**. Said of a leaf which is permanently placed in a plane perpendicular to the direction of the strongest diffuse light reaching it.

euploid. **euploide**. Having all the chromosomes of the set present in the same member; also, a cell with any number of complete chromosome sets; polyploid.

eupotamous. **eupotamo**. Living in rivers and streams.

eurybathic. **euribático**. Able to live in a wide range of water depths.

euryecious. **euriecio**. Having a wide range of habitats.

euryhaline. **eurihalino**. Able to tolerate a wide range of salinity.

eurythermic. **euritérmico**. Able to survive in a wide range of temperatures.

eurytopic. **eurítopo**. Capable of surviving in a wide range of environments.

eusporangiate. **eusporangiado**. In the sporangium-type ferns, having the spore cases produced by a group of cells rather than by a single parent cell.

eustele. **eustela**. Denotes a siphonostele with phloem only to the outside of the xylem; an arrangement where the xylem and phloem are not surrounded by endodermis but occur in discrete strands separated by parenchymatous tissue.

eutrophic. **eutrófico**. In water, a high concentration of phosphate, nitrates and other nutrients that encourages a rapid growth of algae, which depletes the oxygen and causes the extinction of other plants; also, said of a type of lake habitat with gently sloping shores a wide belt of littoral vegetation.

eutrophication. **eutroficación**. The natural process of dead organisms gradually filling a standing body of water as eutrophic (nutrient-rich) cycles cause rapid population in-

creases followed by sharp declines due to a nutrient shortage; also, the process of becoming eutrophic.

eutrophous. **éutrofo**. Climbing plants that turn with the sun.

eutropic. **eutópico**. Turning with the sun, as occurs with some climbing plants.

evaginate. **evaginado**. Not having a sheath.

evagination. **evaginación**. The process of turning inside out or protruding, as occurs in the development of some tubular organs; also, the release of the contents of membranaceous vesicles to the exterior.

evanescent. **evanescente**. Passing away quickly; soon disappearing, as evanescent flowers.

evaporate. **evaporar**. To change from a liquid into a vapor.

evaporation. **evaporación**. The process of changing from a liquid into a vapor with the rate determining the effectiveness on plant growth.

evapotranspiration. **evapotranspiración**. A water loss into the atmosphere through soil surface evaporation and plant transpiration; the combined water loss from both leaf surfaces and from the soil surface.

even. **liso. uniforme**. Not irregular; equally balanced; uniform or smooth surface.

evenly. **uniformemente**. Having a smooth, uniform surface.

even-pinnate. **paripinnado**. A compound leaf arrangement with the leaflets equally located on both sides of a common axis, and a terminal pair of leaflets or a tendrill rather than a single terminal leaflet.

evergreen. **perennifolio. siempre-verde. sempervirente**. Having

green leaves or needles throughout the year; not deciduous; never entirely leafless.

ever-bloomer. **florece constante**. A plant that produces leaves and flowers for a long period of the growing season and often bears flowers and fruits at the same time.

ever-sporting. **siempre esta mutando**. Producing frequent sports; especially a heterozygote which segregates homozygous recessives, but not homozygous dominants in every generation.

evergreen. **siempreverde. de hoja perenne**. Bearing and losing leaves continuously throughout the year.

evergreen forest. **bosque perennifolio**. A forest where there is no complete seasonal loss or shedding of leaves.

evergreen mixed forest. **bosque mezclado perennifolio**. A forest where the dominant trees are both conifers (**Coniferae**) and broad-leaved hardwoods.

everted. **evertado**. Turned outward abruptly.

evolute. **evoluto**. Having the margins rolled outward.

evolution. **evolución**. The process of gradual change from simpler, earlier forms of life by the modification of characteristics of successive generations to more complicated life forms.

evolutionary determinism. **determinismo evolutivo**. The change in gene frequencies by directed processes, in contrast with random change.

evolutionary lineage. **linaje evolutivo. líea evolutiva**. The line of descent of an organism from its ancestral taxon; includes the species to the genus, genus to the family, family

to the order, and continuing.

evolutionary rate. **velocidad de evolución.** The amount of evolutionary change that occurs in a given period of time; various time or number units are used in the process, including biological, chronological, and geological units.

evolutionary species. **especie evolutiva.** According to the idea of evolution contained in the theory of phyletic gradualism, a new organism is descended from its ancestor by a process of slow, steady evolutionary change; the descended organism might not necessary be classed as a member of the same species as its ancestor, in which case it is classified as a new species, an evolutionary species; chronospecies.

evolutionary trend. **tendencia evolutiva.** A steady change in a particular adaptive direction, as the height of an organism.

evolute. **evolvado.** Lacking a volva.

evolve. **evolucionar.** To undergo evolution.

ex-. **ex-.** Prefix that means, "without".

exaggeration. **exageración.** The expression of a hypomorphic gene placed opposite a deficiency.

exalbuminous. **exalbuminoso.** Without albumen; lacking endosperm.

exannulate. **exanillo.** Lacking an annulus.

exarch. **exarch.** Having protoxylem tissue developing toward the center, as exarch vascular tissue.

exarillate. **sin arilo.** Without an aril.

exasperate. **exasperado.** Covered with short, stiff points; rough surface with sharp, projecting points.

exceed. **rebasar. sobrepasar.** To project beyond a neighboring mem-

ber.

excelsus. **excelsus.** A Latin term that means "lofty".

excentric. **excéntrico.** Eccentric; also, of a pileus in which the stipe is not central.

exchange capacity. **capacidad de cambio.** The total ionic charge of the adsorption complex active in the adsorption of ions. Also referred to as anion exchange capacity, cation exchange capacity, and base exchange capacity.

exchange pairing. **intercambio de apareamiento.** A pairing of homologous chromosomes which allows genetic cross-over to occur.

exciple. **excípulo.** A true exciple is produced as a rim of apothecial tissue from a lichen and does not contain algal cells. A false exciple is produced by the thallus around the apothecium and does contain algal cells; also, the outer layer of the wall of an apothecium or perithecium.

excipulum. **excípulo.** In lichens, a cup-shaped layer of partially enclosing sterile tissue that contains the hymenium; also, the outer layer of the wall of an apothecium or perithecium; exciple

excipuliform. **excipuliforme.** Cup-shaped.

excitation. **excitación.** The action of a stimulus on a plant or plant organ.

exclusion principle. **principio de exclusión.** A view that two species cannot coexist in the same locality if they have identical ecological requirements; also, that no two electrons or subatomic particles in an atom can occupy the same energy level or have the same set

of quantum numbers.

exclusive species. **especie exclusivo.**

A species confined or almost completely confined to a particular community; in phytosociology the optimum fidelity class 5.

excrecence. **excrecencia.** An outgrowth or disfiguring addition occurring on plant parts or organs. *See* upgrowth.

excrecent. **excrecente.** Forming an abnormal addition.

excrete. **excretar.** To element waste substances from the cells.

excretion. **excreción.** A substance exuded or discharged from a plant; also, the removal of the wastes of metabolism, often insoluble salts in the cells.

excurrent. **excurrente.** The midrib projecting beyond the tip, as in some leaves; having an undivided main stem, as with fir (**Pinaceae**) trees; in some leaves, the base extending down the stem further than is typical.

excurved. **excurvado.** Curving outward from the stem.

exendospermous. **exendospermo.** Pertains to a seed that lacks endosperm.

exergonic. **exergónico.** A chemical reaction that produces a net loss in energy and occurs spontaneously.

exergonic reaction. **reacción exertónico.** A chemical reaction which releases energy.

exfoliate. **exfoliar.** To peel off in layers, as tree bark that cracks and splits off in large sheets; also, to remove of leaves.

exfoliation. **exfoliación.** The process of tree bark splitting off from the trunk in large sheets, flakes, layers, or scales.

exfoliative. **exfoliativo.** Having a ten-

dency to exfoliate.

exindusiated. **exindusiado.** Without an indusium, as some ferns (**Filicopsida**).

exine. **exina.** The outer layer of a two-layered spore wall; also, the decay resistant, exterior coat on a pollen or spore grain; extine.

exit tube. **tubo de salida.** A small outgrowth occurring in some **Phycomycetes**, which functions to invade the host cell; also, an outgrowth from a zoosporangium through which the zoospores escape.

exo-. **exo-.** A Latin prefix that means, "outer"; also, a Greek prefix that means, "without".

exobasidial. **exobasidial.** Having the basidia uncovered; also, separated by a wall from the basidium; also, of a lichen sporophore having no secondary sporing branch.

exobiology. **exobiología.** The scientific study of the possibility of life on other planets.

exocarp. **exocarp(i)o.** The external layer of the pericarp of a ripened fruit; epicarp.

exochite. **exoquito.** The firm outer wall of the macrosporangium of the **Fucales**.

exocrine. **exocrina.** *See* ectocrine.

exocytosis. **exocitosis.** A secretion discharge process by which a vacuole fuses with the plasma to discharge its contents outside the cell.

exodermis. **exodermis.** The outer layer of the cortex in roots, immediately under the epidermis; corresponds to the hypodermis in stems.

exoenzyme. **exoenzima.** An enzyme that is discharged outside the cell; ectoenzyme

exogamy. **exogamia.** The joining of

- two gametes of different descent; out-breeding.
- exogenous. **exógeno**. Produced from the outside, as a type of stem that grows by adding layers of wood on the outside under the bark, as exogenous stems of gymnosperms and dicotyledons.
- exogenous spore. **espora exógeno**. A spore formed at the end of a hypha, not inside a sporangium.
- exogenous thallus. **talo exógeno**. The thallus of a lichen in which the fungus is dominant.
- exogynous. **exogino**. Having the style projecting beyond the corolla.
- exolete. **exoleto**. Of a fungus fruit body when it is long over-mature but has nothing inside it.
- exon. **exón**. The "sense" segments of mRNA that contain the genetic message for producing a particular protein.
- exonuclease. **exonucleasa**. An enzyme that attacks the free ends of the nucleotide sequence of DNA or RNA, breaking up the sequence.
- exopeptidase. **exopeptidasa**. An enzyme that speeds the hydrolysis of proteins and peptides, particularly those adjacent to a free amino or carboxyl group. *See* endopeptidase.
- exoperidium. **exoperidio**. In some **Gasteromycetes**, the outer layer of the peridium.
- exophelloderm. **exofelodermo**. **exofeloderma**. Phelloderm cells cut off on the outside of the phellogen.
- exoplasm. **exoplasma**. *See* ectoplasm.
- exoscopic. **exoscópico**. Of a plant embryo when the first division is at right angles to the archegonial neck; the apex of the embryo growing towards the archegonial neck and the basal region is in continuity with the gametophyte.
- exosmosis. **exosmosis**. The movement of a fluid through a membrane toward a solution of lower concentration.
- exospore. **exóspora**. The outer coat of a spore in some plants, especially an asexual spore formed by abstriction; exine.
- exosporium. **exosporio**. The outer layer of a spore wall.
- exothecium. **exotecio**. The outer layer in the wall of a moss capsule; also, the outer layer of the microsporangium of the gymnosperms.
- exotic. **exótico**. **aloctono**. A plant that is not native; also, an introduced species that has not been completely naturalized.
- exotoxin. **exotoxina**. Any poison secreted by a living organism, especially by bacteria.
- expanded. **expandirse**. Enlarged; also, flattened out and becoming less concave as growth proceeds.
- explant. **explanta**. Living tissue removed from a body and placed in an artificial medium for tissue culture.
- exponential growth. **crecimiento exponencial**. Growth in which some quantity, such as population size or pollution, increases by a fixed percentage of the whole in a given time period; providing a plotted curved J shape.
- exponential growth equation. **crecimiento exponencial ecuación**. A compound interest equation which assumes that the absolute rate of growth of an organism or population is dependent on the original size, or number, and that the relative growth rate is constant.
- expressivity (gene). **expresión (gen)**.

The degree a particular genotype is expressed in the phenotype.

exserted. **exserto**. Projecting beyond another part, as stamens exserted or extending from a corolla.

exsiccat. **exsiccat. A** dried plant, especially one in a herbarium.

exstipulate. **exestipulado**. Having no stipules.

extant. **existente**. Having living members, as a particular species. Opposite of extinct.

extended. **extendido**. Protruding or projecting outward.

extension factor. **factor extensión**. Genes which increase the expressivity of other genes.

external plasma membrane. **externo membrana plasmática**. Ectoplasm.

extinct. **extinto. desaparecido**. Describes a species or other taxonomic group that is no longer living; dead.

extinction. **extinción. desaparición**. The permanent removal of all individuals of a species from earth.

extine. **extina**. The outer coat of a pollen grain; exine.

extra-. **extra-**. A Latin prefix that means, "outside" or "beyond".

extra-axillary. **extra-axilar**. Said of a bud which is formed in other than in the axil of a leaf.

extracellular. **extracelular**. Located or taking place outside a cell, as extracellular fluid.

extrachromosomal. **extracromosoma**.

Occurring outside the chromosomes, as extrachromosomal influences.

extrafloral nectary. **nectario extrafloral**. A nectary that is found in some place other than the flower.

extramatrix. **extramatricial**. Said of a fungus which as the greater part of the thallus, especially the reproductive bodies, outside the host, or on the surface of the substrate.

extranuclear. **extranuclear**. Located or occurring outside the cell nucleus, as extranuclear determinants.

extratropical. **extratropical**. Originating outside the tropics, as an extratropical species.

extorse. **extroso**. Facing or turned outward; away from the axis.

exudate. **exudado**. A liquid substance discharged or excreted from a plant or certain tree barks; resin.

exudation. **exudación**. The discharging of liquid or sap from special pores on the plant.

exude. **exudar**. To discharge a substance, as exude resin.

eye (bud). **ojo (yema)** The bud or shoot of a tuber or plant.

eye-spot. **mancha ocular**. A light sensitive patch of orange or red carotenoids in some unicellular and green algae; also, a fungal disease of cereal plants; sometimes called stigma.

F

- F. **F.** A class of flowers pollinated by butterflies and moths.
- F1. **F1.** First filial generation; the progeny of a cross between two parent plants.
- F2. **F2.** Second filial generation; the progeny of F plant family; a classification category between an order and a genus.
- faboid. **faboide.** Bean-like.
- face. **superior. arriba.** The upper surface of an organ that has two distinct sides.
- facet. **faceta.** On some seeds, there are surfaces, like a gem that has been cut with many facets or surfaces.
- facies. **facies.** The appearance or composition of a population, species, or other grouping.
- facilitated diffusion. **difusión facilitado.** The movement of solutes across a plasma membrane in the direction that diffusion would take them, but with the passive assistance of carrier proteins.
- factor. **factor.** That which is responsible for the independent inheritance of a Mendelian difference. *See* gene.
- facultative. **facultativo.** A plant with the capacity to survive under a variety of conditions, such as a saprophyte which can also act as a parasite; referred to as a facultative parasite; a plant that can respire under aerobic and anaerobic conditions.
- facultative anaerobes. **anaerobio facultativo.** Microorganisms capable of switching pathways of respiration, depending on the presence or absence of oxygen.
- facultative gamete. **gameto facultativo.** A zoospore that can function as a gamete.
- facultative parasite. **parásito facultativo.** A saprophyte which may become a parasite under certain conditions.
- facultative saprophyte. **saprófito facultativo.** A parasite which can live as a saprophyte.
- FAD. **FAD.** *See* flavin adenine dinucleotide.
- faded. **descolarido.** Discolored, as faded flower blooms.
- faded. **mustio. marchito.** Withered or shriveled.
- fading. **decoloración.** The discoloring of flowers or leaves.
- fading. **marchitado.** Wilting, drying or shriveling, as fading leaves or flowers.
- Fahrenheit. **Fahrenheit.** Of or based on a temperature measuring scale in which 32° marks the freezing point of water and 212° marks the boiling point of water at standard atmospheric pressure.
- faint. **tenue.** A subdued or pale color.
- fairy ring. **anillo de hada.** A circle of dark green grass in which mushrooms are found. The circle is formed by a radial expansion of a fungus through the soil; often the

Marasmius oreade (**Tricholomataceae**).

faithful species. **especie fiel**. In phytosociology, a species confined, or almost confined to an association with certain other community types.

falcate. **falcado**. Having the curved shape of a sickle or scimitar, or the beak of a falcon; scutate.

falcato-second. **falcado-secundo**. Curved to one side.

falciform. **falciforme**. Having the curved form or shape of a sickle.

fall. **otoño**. Autumn; the season between summer and winter.

fall. **tépalo**. The outer perigone leaf.

falls. **brácteas espatiformes**. The sepals of an Iris (**Iridaceae**).

fallow. **en barbecho**. Crop land left idle for one or more seasons.

false. **falso**. Inaccurate, usually because of its resemblance to another part or species.

false annual ring. **anillo anual falso**. A second ring of xylem formed in one season following an abnormal defoliation, commonly caused by insects.

false axis. **eje falso**. A monochasium which looks like one axis, but is really a number of successive lateral branches in a line; sympodium.

false berry. **baya falso**. A fleshy fruit which looks like a berry, but has some of the flesh derived from the receptacle.

false dichotomy. **dicotomia falso**. Branching in which two lateral branches arise on opposite sides of the main axis and overtop it.

false dissepiment. **disepimento falso**. A wall which divides the loculus of an ovary into two compartments, but is an ingrowth of the carpel wall,

and not a wall between one carpel and the next.

false fruit. **fruto falso**. A fruit formed from other parts of the flower as well as the gynecium; pseudocarp.

false germination. **germinación falso**. An appearance of germination by a dead seed, due to the swelling of the embryo, as it takes up water.

false hybrid. **híbrido falso**. A plant developing after cross-fertilization but having the characteristic of only one parent.

false indusium. **indusio falsa**. A folded leaf margin protecting the sorus rather than a tissue flap.

false septate. **septado falsa**. A false septum, division or partition.

false septum. **septo falso**. A false septum, wall or partition.

false tissue. **tejido falso**. Pseudoparenchyma.

false vein. **nervadura espuria**. Small vein-like areas of thick walled cells in the leaves of some lower vascular plants.

false whorl. **verticilo falsa**. *See* verticillaster.

family. **familia**. A subdivision in plant taxonomy composed of one or more related genera, ranking above a genus and below an order. The names of botanical families usually end in -aceae.

fan-shape. **forma de abanico**. Having the shape of an open, hand-held folding fan; triangular with the upper side concave; flabelliform.

farctate. **farctado**. Having the center softer than the outer layer; stuffed.

farinaceous. **farinoso**. Mealy or starchy in texture or odor; also, of an endosperm that is starchy.

farinose. **farinoso**. Covered with a mealy powder; powdery in appearance or texture.

farinous. **farinoso**. Covered with a white, mealy substance, as on the leaves of certain popular trees.

fasciated. **fasciado. fasciada**. Unnaturally compressed into a bundle, with the coalesced stems malformed and flattened like a ribbon, often proliferating in number and size, as the inflorescence of **Celosia**.

fasciation. **fasciación**. Coming together to form a bundle; the condition of being fasciated; often the result of a bacterial infection.

fascicle. **fascículo**. A tight bundle, tuft, or cluster of fibers, flowers or leaves, but especially needles borne on a small, short shoot in the axil of a primary leaf, as in the **Pinus**; also, a set of fibers bound closely together, as a vascular bundle.

fascicular cambium. **cámbium fascicular**. The section of the cambium that occurs within the vascular bundle.

fasciculate. **fasciculado. fasciculada**. A tuft or cluster with the members coming from a common point, as fasciculate leaves.

fasciculate basidium. **basidio fasciculado**. One of a group of basidia.

fastigate. **fastigiado. fastigiada**. Having branches that are erect and parallel, as on certain popular (**Populus**) trees; also, tapering to a narrow point, as a pyramid.

fastigate cortex. **córtex fastigiado**. Of lichen composed of parallel hyphae at right angles to the axis of the thallus.

fat. **grasa**. Any of a class of organic compounds containing carbon,

hydrogen, and oxygen, but no nitrogen; chiefly glycerides, and compound esters of several acids. Plants such as corn (**Poaceae**), olives (**Oleaceae**), cotton **Malvaceae**, and walnuts (**Juglandaceae**) change carbohydrates into fats and store them in seeds.

fatiscient. **fatiscente**. Cracking and falling apart.

fatty acids. **ácido graso**. Any of a long unbranched hydrocarbon with little or no oxygen, terminating in an acid ($-\text{COOH}$) group, such as palmitic acid; the basic unit in the formation of fats and lipids.

faveolate. **faveolado. panal**. Honeycomb in appearance; alveolate.

Fe. **Fe**. The chemical symbol for iron.

feathery. **como pluma. plumoso**. Covered with long, branched hair.

fecund. **fecundo**. Able to produce off-springs or vegetable growth; fertile.

fecundate. **fecundar**. To impregnate, as pollen fecundates the stigma; fertilize.

fecundation. **fecundación**. The process of pollination.

fecundity. **fecundidad**. See fertility.

feedback inhibition. **inhibición por retroacción. retroinhibición**. A cellular control device where an increase in a substance or activity obstructs the very process leading to the increase.

feedback loop. **bucle de regulación. circuito de regulación**. A circuit of sensing, evaluating, and responding to changes in environmental conditions resulting from information fed back into the system.

feedback regulation. **regulación por retroacción. regulación retroactivo**. The self-control placed on

the activity or amount of one or more enzymes by the product of a metabolic pathway; usually inhibitory.

feeder root. **raíz nutrífera.** A thin-walled, hair-like tube that absorbs from the soil, water and minerals; root hair.

Fehling's Solution. **solución de Fehling.** Fehling's A contains 34-66 grams of copper sulphate crystals, dissolved in 500 ml. of water, and Fehling's B, 173 grams of potassium sodium tartrate, and 50 grams of sodium hydroxide dissolved in 500 ml. of water. They are used in equal parts, and give a red-orange precipitate when boiled with a reducing sugar. This is due to the reduction of the cupric ions to cuprous.

Fehling's Test. **Prueba Fehling.** A test for the presence of reducing sugars and aldehydes in solution, using freshly boiled Fehling's Solution.

fell. **páramo.** An area of low-lying vegetation on a mountainside.

felted. **afelpado.** Pannose; closely matted with intertwined hairs or a felt-like texture or appearance.

female flower. **flora hembra.** A flower that has pistils but no pollen-bearing stamens.

female. **hembra. pistilada.** Designating the sex opposite to male; having a pistil but no stamens; the reproductive part containing large gametes; any part that can produce fruit after being fertilized.

fen. **turbera.** A marshy area or bog of wet peat, typically alkaline but occasionally neutral or slightly acidic; swamp.

fenestrate. **fenestrado. fenestrada.**

Having window-like holes, or see-through tissue, as in leaves or other parts; also, of spores, muriform.

ferment. **fermentar.** To make a gradual chemical change in which yeast, aided by enzymes, change sugar into alcohol and produce carbon dioxide; also, a chemical change caused by a ferment.

fermentation. **fermentación.** A form of respiration carried on by yeast cells with a partial breakdown of glucose, in the absence of oxygen, yielding ethyl alcohol, carbon dioxide, and a release of energy; anaerobic respiration.

fern. **helecho.** Seedless plants with alternate, compound leaves, a branching system of veins and sporangia borne on the bottom of leaves in clusters (sori); also, any plant belonging to the class of plants **Filices.**

fern-like. **filiciforme.** Having the appearance of a fern (**Filicopsida**). See filicoid.

-ferous. **-fero.** A suffix that means, "producing", "containing", or "conveying".

ferrodoxin. **ferrodoxina.** A protein that functions as an electron carrier in both photosynthesis and nitrogen fixation.

ferruginous. **ferrugineo.** Reddish-brown color; having the color of iron rust.

fertile. **fértil.** Able to produce fruit, seeds, spores, or pollen; also, a perfect pistil, as a perfect flower (does not refer to the presence or absence in grasses).

fertile hypha. **hifa fértil.** Conidiophore.

fertility. **fertilidad.** The condition of being fertile; productiveness;

also, the soil condition relative to the elements necessary for plant growth.

fertilization. **fertilización.** The process of fertilizing by the union of two haploid gametes, male (sperm) and female (egg), to form a new diploid zygote capable of developing into a new plant; also, an application to soil of plant nutrients, such as nitrogen, phosphoric acid, potash, and others.

fertilization cone. **cono de fertilización.** A conical protrusion formed by the protoplasm of an egg cell at the point of entrance of the sperm in fertilization; entrance cone.

fertilization membrane. **membrana de fecundación.** The membrane that surrounds the female gamete and prevents the entry of additional male gametes after fertilization has occurred.

fertilization tube. **tubo de copulación.** Conjugation tube.

fertilize. **fecundar.** To pollinate or to produce the fusion of male and female gametes; also, to add soil nutrients.

fertilizer. **fertilizante. abono.** Any organic or inorganic material of natural or synthetic origin added to a soil to supply nutrients essential to the growth of plants.

fetid. **fétido. hediondo.** Having a disagreeable odor.

feulgen stain. **tintura feulgen.** A stain which stains DNA purple, *e.g.* chromosomes.

fiber. **fibra.** Woody, thread-like cells in the bast or sclerenchyma; the part of an edible plant that resists human digestive enzymes; also, a thin, thread-like root; any of the long, fine, thread-like pieces of

which many organic and some inorganic materials are composed.

fiber tracheid(e). **traqueida fibriforme.** An elongated cell in wood which has thicker walls and fewer pits than a tracheid, but thinner and fewer than a fiber.

fibril. **fibrilla.** One of the hairs on a root; a root hair; also, a small fiber or fiber-like structure.

fibrillar. **fibrilar.** Pertaining to or like a fibril.

fibrillose. **fibriloso.** Having fine, thread-like root hairs.

fibrous. **fibroso.** Made of fibers or organic, thread-like material, commonly used to describe a branching root system.

fibrous cortex. **cótex fibrosa.** Of lichens, having a cortex composed of hyphae lying parallel with the longitudinal axis of the thallus.

fibrous layer. **estrato fibrosa.** A layer of cells found in the wall of an anther. The cell walls are thickened irregularly by bands of material, which set-up uneven strains, causing it to rupture.

fibrous protein. **proteína fibrosa.** A type of protein molecule that composes the structural cells found in the cortex, phloem, and xylem.

fibrous root. **raíz fibrosa.** A system of mat-like roots with many slender, thread-sized fibers, but with no tap root, as in grasses (**Poaceae**). *See* filamentous.

fibrovascular bundle. **haz fibro-vascular. hacecillo fibrovascular.** A vascular bundle surrounded by long fibers, as a leaf vein.

fibrovascular. **fibrovascular.** Composed of woody fibers and ducts.

-fid. **-fido.** A suffix meaning "separated into" or "split", as palmatifid.

field capacity. **capacidad de campo.**

The soil water storage capacity; also, the saturated soil profile after gravitational percolation stops flowing.

field layer. **estrato herbáceo.** The herb and small shrub layer composing the plant community; herbaceous layer.

field. **campo.** A space used for the cultivation of plants.

fil-. **fil-**. A Latin prefix that means, "thread-like".

filament. **filamento.** The stalk-like structure of a stamen that supports the anther; also, any very slender, thread-like part; also, one of the strands of protein, grouped according to diameter, found in many cells; also, a chain of cells set end-to-end; also, in the **Cyanophyta**, a trichome(s) and its enclosing sheath.

filamentoid. **filamentoides.** Resembling a filament.

filamentose. **filamentoso.** Leaves with coarse marginal fibers or threads.

filamentous. **filamentoso.** Having long, tubular or thread-like structures, as filamentous alga.

filar. **filar.** Of or pertaining to a thread-like structure.

filial generation. **generación filial.** An off-spring generation of a hybrid.

filicicoid. **filicicoide.** Propagating, as a fern (**Filicopsida**).

filiciform. **filiciforme.** Having the shape of a fern (**Filicopsida**); fern-shaped.

filiferous. **filifero.** Having coarse marginal fibers or filament-like growths, as filiferous leaves.

filiform. **filiforme.** Thread-like; having the shape of a filament, slender and of equal thickness from the top to the bottom, as a filiform peduncle; also, of bacterial stab-culture,

having equal growth on either side of the line of inoculation

filipendulous. **filipéndulo.** Tuberous swellings developed in the middle of small, thread-like radicles (rootlets).

filoplasmodium. **filoplasmodio.** A net-like pseudoplasmodium.

fimbria(e). **fimbrias.** A fringe or fringed border.

fimbriate. **fimbriado.** A fringed border, usually fringed with hair, or hair-like growths, as fimbriate leaf margins, stigma or styles.

fimbricolous. **fimbricolo.** Growing on or in dung.

fimbriolate. **fimbriolado.** Minutely fimbriate.

fimetarious. **fimetario.** Growing in or on dung.

fimicolous. **fimícolo.** Fimbricolous.

finite resources. **recursos finito.** Resources that are limited; not boundless; a resource that has a small concentration or is formed at a rate much slower than the rate of consumption, becoming for practical purposes, a non-renewable resource.

fir. **abeto.** The general name of a number of trees included in the genus **Abies**, which are similar to pine (**Pinus**), but differ in that their leaves grow singly on the stem and their cone scales are round, smooth, and thin.

fire blight. **encendido bacteriano. fuego bacteriano. tizón de fuego.**

A disease which affects many species of the **Rosaceae** family, especially apple, pear, and hawthorn, giving them the appearance of having been scorched by fire. The causal carrier is the bacterium *Erwinia amylovora*.

fire climax. **fuego clímax.** A climax community for which fire is the

controlling factor, as in pine forests and grasslands.

fire ecology. **ecología de fuego.** The study of the environmental effects of fire.

fissile. **fisible.** Split or tending to split.

fission. **fisión.** A type of asexual reproduction that occurs in some unicellular organisms in which the parent cell divides to form two or more similar daughter cells; reproduction by the splitting of the nucleus and cytoplasm into equal parts.

fissiparous. **fisíparo.** Splitting.

fissure. **fisura.** A deep groove.

fissured bark. **corteza fisurada.** Bark that is cracked or split.

fistular. **fistuloso.** Hollow, like a pipe, and herbaceous.

fistulose. **fistulo.** See fistulous.

fistulous. **fistuloso.** Having a part which is tubular or like a hollow cylinder, as a culm without a pith.

fitness. **eficacia reproductora. fitness.** The balance of genetic advantages and disadvantages that determine a genotype's capacity to survive in an environment; adaptive value.

fixation. **fijación.** The process in soil by which chemical elements, which are essential for plant growth, convert from a soluble form to a much less soluble form; also, the treatment of a specimen with a reagent which will fix its structure and appearance in a life-like condition.

fixation of nitrogen. **nitrógeno de fijación.** The formation of nitrogenous compounds from gaseous nitrogen by soil bacteria.

fixative. **fixativo.** A reagent which will bring about fixation.

fixed. **fijo.** In taxonomy, refers to the seemingly invariable charac-

ter or attribute of a plant or plant part.

fixed light position. **posición fijo de luce.** The position of a fully developed leaf in respect of the direction of the strongest diffuse light that reaches it.

flabellate. **flabelado.** Shaped like a fan; fan-shaped.

flabelliform. **flabeliforme.** Having the shape of a fan; fan-shaped; rhipidate.

flabellinerved. **flabelinervio.** Having nerves branching from a base in a fan-like or flabellate manner, as in a leaf or petal.

flaccid. **flácido.** Limp, without rigidity, as a cell or tissue with less than full turgor pressure; wilted.

flaccidity. **flacidez.** Limpness.

flagella. **flagela.** Elongated appendages of certain cells used in moving through the environment; longer and fewer than cilia. Plural of flagellum.

flagellar movement. **movimiento flagelar.** A locomotion or feeding process requiring energy from respiration, similar to muscle contraction.

flagellar. **flagelar.** Pertaining to flagella.

flagellate. **flagelado.** Having long slender runners; also, algae having one or more whip-like parts used for movement or obtaining food.

flagelliform. **flageliforme.** Having the shape or form of a whip, long, thin, and flexible.

flagellum. **flagelo.** A long, thin, whip-like runner growing from a plant; in algae, serving as a means of locomotion in finding food; also, a runner of a plant; in some liverworts (*Hepaticae*), a runner-like stem with small leaves.

flange. **reborde**. Projecting outward, as a rim or edge.

flanged. **realzado**. Having a flange or projecting rim.

flask-shaped. **lageniforme**. Having the shape of a Florentine vase or a narrow-necked bottle.

flat. **aplandado**. Having an even surface, without risings or indentations, usually horizontal.

flavescent. **flavescente**. Becoming yellow or yellowish; also, having yellow or yellow-green spots mixed with the normal surface green.

flavi-. **flavi-**. A Latin prefix that means, "yellowish".

flavidulous. **flavescente. amarillo pálido**. Having a diseased condition that causes the green parts of plants to turn yellow.

flavins. **flavinas**. Mono- or dinucleotides which occur as components of reductases; also, a generic name for a group of light-sensitive pigments that influence the action of phytochrome and phototropism.

flavin adenine dinucleotide (FAD). **flavin-adenin-dinucleótido (FAD)**. A coenzyme of the vitamin riboflavin, which is involved in dehydrogenation reaction interposed by flavoproteins; an important intermediate in oxidative phosphorylation.

flavin mononucleotide (FMN). **flavin-mononucleótido (FMN)**. In aerobic respiration, an electron acceptor in the electron transport scheme.

flavone. **flavona**. A colorless, crystalline compound found in many plants and produced synthetically; used in dye production.

flavonoid. **flavonoide**. A group of organic plant compounds, found

chiefly as coloring agents in flowers and fruits, which attract pollinators and are useful in chemical identification processes; possibly contained in petals that reflect ultraviolet patterns.

flavoprotein. **flavoproteina. fermento amarillo**. Compounds involved in electron transfer and associated with the cytochromes; also, conjugated proteins in which the prosthetic group is riboflavin-phosphoric acid, or a compound of this with another nucleotide. They function as hydrogen carriers in oxidation; yellow enzyme.

flavus. **flavus**. Latin for "yellow".

flesh. **pulpa**. The soft, juicy, edible part of fruits.

fleshy. **carnoso. pulpejo**. The soft, sometimes juicy, pulpy part of leaves, stems, or fruits.

fleshy disseminule. **diseminula carnoso**. A seed or fruit consisting of a large amount of fleshy material

fleshy fruit. **fruto carnoso**. Any fruit formed from an ovary that has pulpy (not dried) walls at maturity; also, fruits that include fleshy parts of the perianth, floral tube, or the receptacle.

fleshy root. **raíz succulenta**. Succulent roots.

flexicaulis. **flexicaule**. A pliant, easily shaped stem.

flexuous. **flexuoso**. Alternately bent in opposite directions; waving, bending, or winding from joint to joint or flower to flower, as a flexuous stem.

flexuous hypha. **hifa flexuoso**. Of the **Uredinales**. A branched or unbranched hypha growing from a pycnidium which may be diploidized by a pycnidium of the

opposite sex.

floating. **flotante**. Located on the surface of the water; also, used to describe the placement of organs of certain plants; also, of structural or gene changes for which a mating group is not uniform; also, of a tissue in water-dispersed fruits and seeds that contains air and is not easily waterlogged.

floccose. **flocoso**. Patches or tufts of soft, tangled trichomes; also, having a cottony surface; having a dense covering of tangled, wool-like hair that is easily detached from the plant.

flocculent. **floculente**. Having tufts or patches of very fine, woolly hairs; also, of bacterial liquid cultures when they have small masses of bacteria throughout or as a deposit.

floodplain. **tierras que quedan inundadas durante la crecida de un río**. Any low lying area that has the potential for flooding, including coastal areas; also, a flat valley floor next to a river channel.

flora. **flora**. A collective term for all the plants of a particular country, region, or time period, as the flora of the Yucatan Peninsula; also, a descriptive list of the plants of an area, including a key for identification.

floral axis. **eje floral**. Receptacle.

floral bud. **yema floral**. **capullo floral**. A bud that contains flower primordia that will produce one or more flowers.

floral diagram. **diagrama floral**. A composite diagram of a transverse section through a flower to show the position of the various parts and their relation with other parts.

floral envelope. **envoltura floral**. The

perianth of a flower; a collective term for the sepals and petals; the calyx and corolla, or perianth.

floral formula. **fórmula floral**. A summary of the characteristics of a flower. K= calyx, C= corolla, A = andrecium, G = gynecium (carpels). The number following represents the number parts. () means that the parts are fused, e.g. C (5) means 5 fused petals. M indicates 1 whorl fused to another, e.g. C(5)MA5 would mean a corolla of 5 fused parts to which are joined 5 free stamens. A line below the figure for the gynecium means that it is superior, e.g. G(5), beside it, that it is perigynous, e.g. G(5)-, and above it inferior. One problem in using floral formulas is that the symbols and systems have not been standardized.

floral incompatibility. **incompatibilidad floral**. A genetic condition in which some normal male gametes are incapable of functioning in some pistils.

floral kingdom. **reino floral**. See floral province.

floral leaf. **hoja floral**. A bract or bracteole; also, a petal or sepal.

floral leaf bud. **yema floral de hoja**. A bud that contains leaf and stem primordia that will produce a branch with leaves.

floral primordium. **primordio floral**. Meristematic tissue that becomes a flower.

floral province. **provincia florística**. A major geographical grouping of plants, particularly flowering plants, identified on the basis of floristic distinctiveness with special attention to the degree of endemism at family and generic levels. Some

authorities distinguish between floral kingdom and floral realm, classifying them as having the highest status. In this system, groups of provinces make up the kingdom or realm.

floral terminal bud. **yema floral terminal.** A bud occurring at the apex or end of a stem.

floral. **floral.** Pertaining to flowers.
florete. **florete.** A small flower in a densely flowered involucre head of members of the Sun Flower Family (**Asteraceae**); also, in the spikelet of grasses (**Poaceae**).

floribundus. **floribundus.** Latin meaning "producing many flowers".

floriferous. **florífero.** Flower-bearing.

floridean starch. **almidón floridean.** An insoluble carbohydrate storage product found in red algae. It stains red rather than blue-black with iodine solution.

floridus. **floridus.** Latin meaning "showy".

florigen. **hormona florígena. florígeno.** The hypothetical flowering hormone (compound or compounds) which has not been identified chemically, which may be synthesized in the leaves during a photoperiod.

floristics. **florístico.** The study of species diversity in relation to habitat diversity within a geographic area. *See* phytogeography.

floristic composition. **composición florística.** A complete list of the plants forming a plant community.

-florous. **-floro.** A suffix that means, "having many flowers", as multiflorous.

-florus. **-florus.** A Latin suffix that means, "flowered".

flos. **flos.** Latin meaning "flower".
floscular. **floscular.** Made-up of florets; discoid.

floscule. **flósculos. floret.** A single flower of a compound or composite flower; a floret.

flower. **flor.** A blossom. The collective reproductive stem of angiosperms. Typically it is composed of a calyx of sepals, a corolla of petals (these being the perianth), an andrecium of stamens, and a gynecium of carpels. Any of these parts may be absent in a particular flower. The floral axis is the receptacle.

flower. **floreceer.** To bloom or blossom.

flower bud. **botón floral. yema floral. yema florífera. capullo floral.** A bud containing a rudimentary shoot that will bear only flowers.

flower cluster. **glomérulo floral.** A cyme condensed into a head-like cluster, as the flowering dogwood (**Cornaceae**); glomerule.

flower cup. **cáliz floral.** The cup-shape of some flowers; also, the calyx.

flower head. **cabezuela floral. capítulo floral.** A dense cluster of florets growing on the top of a stem, as a dandelion or sunflower (**Asteraceae**); capitulum.

flower secund. **secundiflora.** Flowers arranged on the stem on one side only.

flower sheath. **vaina floral.** In orchids (**Orchidaceae**), the enclosure where flower stalks develop.

flower stalk. **pedúnculo floral.** The stem of a plant that bears a flower or flowers; a peduncle.

flowering. **floración.** The act of bear-

ing flowers.

flowering glume. **glumela florífera**.
A glume which subtends a flower in a grass spikelet.

flowering stem. **tallo florífero**. The stalk that supports a flower or flowers.

fluitans. **fluitans**. Latin meaning "floating".

fluorescence. **fluorescencia**. In atoms or molecules, a type of luminescence which emits radiation as electrons pass from a higher to a lower energy state. The subsequent release of energy is in longer wavelengths than the absorption wavelengths, but is still in the visible spectrum.

fluorescent. **fluorescente**. Giving out light when placed in ultra-violet (or other radiation).

fluted. **acostillado. costato. costillado**.
Channeled; having grooves or furrows, as a fluted stem.

fly trap. **atrapamoscas**. Refers to a hinged leaf structure that is insectivorous, capturing insects that light on it, as in **Dionaea**.

FMN. **FMN**. *See* flavin mononucleotide.

fog. **niebla**. A low cloud or thick mist, as surrounds cloud forests.

folded embryo. **embrión doblado. embrión plegado**. A type of folioate embryo with thin, folded, and extensively expanded leaves.

folded vernation. **vernación doblado. vernación plegado**. The condition in which the leaf is folded about the midrib with the two faces brought together.

foliaceous. **foliáceo**. Having leaves or the shape of leaves; also, flat and leaf-like; foliose.

foliage. **follaje**. The leaves of a plant.

foliage leaf. **hoja foliácea. hoja vegetativa**. A green leaf.

foliar. **foliar**. Pertaining to or like a leaf.

foliate. **folioso. foliado. folífero**.
Covered with leaves.

foliation. **foliación**. The process of putting out leaves; being in leaf; also, foliage.

folicole. **folículo**. A plant living on leaves, either as a saprophyte or parasite.

folicolous. **folicole**. Growing on leaves; epiphyllous.

foliferous. **folioso**. *See* foliiferous.

foliiferous. **folífero. foliado**. Producing leaves or leaf-like appendages.

foliiform. **foliiforme**. Leaf-like.

folioform. **folioform**. *See* foliiform.

foliolate. **folioado**. With small leaves, as in bifoliate leaves.

foliole. **folíolo**. One leaflet in a compound leaf; leaflet.

foliolose. **folioloso**. Consisting of minute flattened lobes.

foliose. **folioso**. Having many leaves; also, composed of thin, flat, expanded, leaf-like lobes, as in the thalli of some lichen and algae; foliaceous; leafy; foliaceous.

-folium. **-folium**. A Latin suffix that means, "leaved".

follice. **folice**. A small bladder on the the leaves of some mosses (**Musci**); also, a many-seeded dry fruit, derived from a single carpel and splitting longitudinally down one side at dehiscence.

follicetum. **plurifolículo**. A group or aggregate of follicles, as in **Caltha**.

follicle. **folículo**. A dry fruit that develops from one carpel and dehisces along one suture when mature, as

milkweed pods (*Asclepias*) and magnolia (*Magnoliaceae*).

food body. **corporal alimenticia.** A mass of cells on the outside of a seed coat, attracting ants which aid in dispersal. The attraction is due to stored food, usually oils.

food chain. **cadena alimentaria. cadena alimenticia. cadena trófica.** A cycle of organisms where plants are the primary food source for herbivores, that are in turn the food source for carnivores, and continues until the top carnivore level is reached.

food cycle. **ciclo alimentario. ciclo alimenticio.** See food web.

food pollen. **polen alimenticio.** Infertile pollen, sometimes produced in special anthers. It attracts insects which bring about the dispersal of the fertile pollen.

food pyramid. **pirámide alimenticia. pirámide trófica.** A gradually narrowing structure which represents the amount of nutrients moving along a food chain, as at each upward step, the amount of energy passed along, becomes smaller. In a forest, grassland, lake, or desert, photosynthetic plants provide the basic nutrients and is the base of a food pyramid.

food web. **sistema trófico.** A network of many food chains portraying which species feed on each other and their special interrelationships; encompassing primary producers, consumers, decomposers, and detritivores.

foot. **pie.** The absorbing basal structure of embryonic sporophyte in liverworts (*Hepaticae*), mosses (*Musci*), and seedless vascular plants; it is attached to and absorbs

food from the gametophyte; also, a small, thick-walled segment of the hyphae from which a conidiophore of *Aspergillus* arises; also, the lower of two cells derived from a binucleate basal cell in the early stages of the development of a uredospore.

foramen. **foramen.** An opening in the covering of the ovule; micropyle

forb. **forb.** Any herbaceous plant, excluding the grasses.

forcing. **forzado.** A cultivation device used to hasten flowering or growing plants outside their natural season.

forcipate. **forcipado.** Deeply forked; furcate.

foreshore. **parte de la playa entre la pleamar y la bajamar.** The lower shore zone that lies between the normal high and low water mark; gradually sloping with a smooth bottom or a bottom with ridges and runnels, depending on the wave action.

forest (tropical). **selva.** A tropical plant community, including a large number of trees whose crowns touch and form a continuous canopy.

forest (woodland). **bosque.** A plant community, including a large number of trees growing close together, as an oak (*Quercus*) forest; also, a collective term referring to the trees and other plants that make-up a tree-covered area.

forest climax. **clímax de bosque.** A climax community composed of trees.

forestation. **forestación.** The process of planting or taking care of forests.

forested. **arbolado.** An area heavily

populated with trees.

forester. **silvicultor**. A person working in or managing a forest.

forestry. **silvicultura**. **ingeniería forestal**. The science of systematic planting and managing forests for the benefit of humans.

forficulate. **forficulado**. Shaped like a scissors.

fork. **bifurcación**. A fork.

fork. **bifurcarse**. To fork.

forked. **bifurcado**. **bifurcada**. Having two or more parts, as a forked branch or thorn.

form. **forma**. In taxonomy, one of the three measures of character: form, function, and structure; shape.

-form. **-forme**. A suffix that means, "having the shape of ____".

form genus. **género forma**. A group of plants without a definite genetic relationship but classed together as a genus because they show similarities of form, structure, behavior or other characteristics; especially common with fungi groupings.

formaldehyde. **formaldehído**. **aldehído fórmico**. The aldehyde derivative of methyl alcohol (methanol); HCHO.

formation. **formación**. The process of originating or developing, as the formation of new cells; a classification unit describing a specific physiological shape rather than species; also, an association or stable plant community named after the dominant plant, but sometimes referred to by the habitat rather than the dominant plant(s).

formative. **formativo**. Pertaining to the formation or development of new organs or parts, as formative tissue.

formative region. **región formativo**.

The zone just behind the dividing zone of the stem or root growing point, where the tissues begin to differentiate.

formic acid. **ácido fórmico**. A colorless liquid, irritating to the skin, which is produced by nettles (**Urticaceae**); H.COOH.

formic dehydrogenase. **de(s)hidrogenasa fórmico**. An enzyme that breaks down formic acid to carbon dioxide and water in the presence of co-enzyme 1.

formic hydrogenlyase. **hidrogenliasa fórmico**. An enzyme in a few groups of bacteria which catalyzes the combination of carbon dioxide and hydrogen, or bicarbonate ions and hydrogen to form formates.

fornicate. **forniculado**. Forming an arch or arching over, as a fornicate leaf or petal; hood-like arching.

fornicle. **fornículo**. An arch or arching.

fornix. **fornix**. A small arch or crest in the throat of a corolla.

fossae. **surcos**. A long, shallow depression.

fossil. **fósil**. Any impression, natural or impregnated remains of once-living plants; usually prior to the last glacial period or more than 10,000 years old.

fossil fuels. **fósiles combustibles**. Oil, gas, and coal which are derived from partially decayed plant and animal matter produced during the Carboniferous period.

fossilization. **fosilización**. The process of becoming hardened, as a plant fossil.

fossilized. **fosilizado**. Having become hardened in some previous geological period, and become preserved

in a rock formation.

fovea. **fóvea**. A small, round depression or pit; in reproductive structures, a depression with the sporangium in the leaf base, as **Isoetes**.

foveate. **fovéado**. Marked with small depressions or pits.

foveola. **fovéola**. Small or diminutive fovea.

foveolate. **foveolado**. Pitted or having depressions.

fovilla. **fovila**. The material inside a pollen grain.

fragment. **fragmento**. A new acentric product of chromosome breakage; also, a small supernumerary chromosome.

fragmentation. **fragmentación**. An asexual form of reproduction among some algae in which an organism splits into two or more individuals, especially common in blue-green algae.

fragmentation spores. **esporas de fragmentación**. Conidia produced by hyphae breaking into separate cells.

fragrance. **fragancia**. A pleasant, sweet smelling odor.

fragrant. **fragante**. **oloroso**. Having a delicate or sweet odor.

free. **libra**. Not attached to other parts or organs; also, said of the gills of agarics that reach the stipe, but are not joined to it.

free basal placentation. **basal libre placentación**. Having ovules arranged on a basal placenta in a unilocular ovary.

free cell formation. **formación celular libre**. The formation of daughter cells that do not remain united.

free-central. **de central libre**. Refers to the location of ovules on a free standing column, attached at

the base, in the center of a single-chambered ovary.

free nuclear division. **división de nuclear libre**. Nuclear division not accompanied by the formation of cell walls.

free-living. **de vida libre**. Living independent of a host; non-parasitic.

free veins. **nervado libre**. Leaf veins that are not united into a network.

frequency. **frecuencia**. The number of cases of the data being considered falls within a particular class interval.

frequency distribution. **distribución de frecuencia**. The distribution of the frequencies of observations with respect to the classes into which the observations are divided.

frequency factor. **factor frecuencia**. The percentage occurrence of a species in a plant community.

freshwater. **agua dulce**. Of or living in water that has a relatively low salt concentration or is not salty, as distinguished from sea or salt water.

friable. **friable**. A term applied to soil that crumbles easily.

fringe forest. **selva hilerá**. A luxuriant, ribbon-like plant community, usually found along a river bank, that connects a rain forest to an adjacent savannah.

fringe. **flequillo**. **fleco**. Describes hair or other structures on petals, sepals, tepals, or lips.

frond. **fronda**. **fronde**. A photosynthetic leaf blade of a fern, palm or cycad; also, a leaf-like part, as the thallus of a lichen; also, the blade-like thallus of a seaweed.

frondescence. **frondescencia**. The process or period of putting forth leaves; also, the foliage put forth;

phyllody.

frondescent. **frondescente**. Leaf-like; also, having a lot of leaves.

frondose. **frondoso**. Frondescent.

frontal cavity. **cavidad frontal**. The opening of a stomata nearest the exterior.

frost. **escarcha**. **hielo**. Feather-like ice crystals that are formed when water vapor condenses at a temperature below freezing (0° Celsius or 32° Fahrenheit).

fructiferous. **fructífero**. Fruit-bearing.

fructification. **fructificación**. The process of forming fruit; also, the fruit itself; also, a general term for the body which develops after fertilization and contains spores or seeds; also, any spore bearing structure, whether developed after fertilization or vegetatively.

fructofuranose. **fructofuranoso**. The furanose form of fructose in which it exists in disaccharides, polysaccharides, and in its phosphates.

fructopyranose. **fructopiranos**. The pyranose form of fructose in which it exists in solution.

fructose. **fructosa**. A natural sugar sometimes occurring with glucose in the form of disaccharide sucrose; also, a decto-hexose sugar which rotates a beam of polarized light the left; fruit sugar; levulose.

fruit. **fruto**. An angiosperm's, ripened ovary (pistil), including other structures that enclose it; the seed-bearing organ; or, the mature ovary of a seed plant, composed of seeds, related tissues, and their coverings. Taxonomists place fruits into four main types (except aggregate and multiple fruits): 1) berries 2) drupes 3) pomes 4) single-seeded with a

hard pericarp.

fruiting body. **cuero fructífero**. A well-defined group of fungal spores and the hyphae which bear and surround them; also, the reproductive structure of some fungi; also, any part of a plant that produces spores.

fruit sugar. **azúcar de fruto**. See fructose.

fruiting. **fructificación**. The process of bearing fruit.

frustule. **frústulo**. The silica, bivalve wall and its contents of a diatom.

frutescent. **frutescente**. Shrubby or shrub-like.

frutex. **frútice**. See shrub.

fruticule. **fruticola**. Of parasitic fungi living off fruit.

fruticose. **fruticoso**. Shrub-like or branching like a shrub, as in the thalli of some lichens or in fruticose stems.

fucoid. **fucoid**. Seaweed or resembling seaweed, especially **Fucaceae**.

fucopyranose. **fucopiranos**. The pyranose form of fucose.

fucosan. **fucosán**. A polysaccharide in brown algae. It is built up of fucopyranose units, joined in the 1 : 4 position.

fucose. **fucoso**. A methyl sugar found in brown algae.

fucoxanthin. **fucoxantina**. **ficoxantina**. A brown pigmentation in the chlorophyll of brown algae and some protists.

fucus. **fuco**. Pertaining to a seaweed that has flat, leathery fronds; also, in the family **Fucaceae**.

fugacious. **fugaz**. Refers to falling, fading, or wilting parts, especially early in the growing season; parts that shed or are not permanent; short-lived, as fugacious corollas.

fugitive species. **especie fugitivo**. Species with a strong dispersal capacity, often found in deserts and other extreme environments; opportunist species.

fulcrate. **fulcrado**. Downward turning, as a fulcrate branch or stem.

fulcrum. **fulcro**. An accessory organ, as bract or tendril; also, an outgrowth from the wall of the zygospore of some fungi; also, a sporophore.

fuliginous. **fuligno**. Having the color of soot; dusky colored.

fulvic acid. **ácido fúlvico**. An acid in humus. It is soluble in cold alkali from which it is precipitated by dilute acid and is then soluble in water. It also forms the yellow pigment of *Penicillium fulvus*.

fulous (color). **pardo-amarillento (color)**. A dull yellow or a deep reddish-yellow, including a little gray and brown.

fumaginous. **fumagino**. Smoky-colored.

fumarase. **fumarasa**. The enzyme catalyzing the reciprocal change from malic acid to fumaric acid and water.

fumaric acid. **ácido fumárico**. A dicarboxylic acid, an intermediate in the Citric Acid Cycle which is produced from succinic acid.

function. **función**. In plant taxonomy, one of the three measures of character: form, structure, and function; also, describes the action of an organ or part.

functional group. **grupo funcional**. Atoms or groups of atoms bonded to an organic molecule and contributing to its characteristic structure and properties.

fundamental tissue. **tejido fundamen-**

tal. The parenchyma tissue in monocots comparable to the cortex and pith in dicots.

fungal gill. **laminilla**. The thin, leaf-like plates on the underside of a mushroom.

fungal. **fúngico**. Resembling or caused by a fungus.

fungal cellulose. **celulosa fúngico**. A carbohydrate like cellulose in fungal cell walls. Sometimes called "chitin".

Fungi. **Fungi**. One of the taxonomic kingdoms consisting of eukaryotic, non-photosynthetic (non-green) organisms, including, mushrooms, mildews, molds, smuts, and others, which obtain nutrients by the absorption of organic compounds from their surroundings. The body is made of simple filaments (in the true fungi), hyphae, and asexual (and usually sexual) reproduction is by spores. There is no fission. They accumulate glycogen rather than starch.

fungi. **hongos. micófitos. micófitas**. Plural of fungus.

fungicide. **fungicida**. A chemical or biological agent that destroys or inhibits fungal growth.

fungiform. **fungiforme**. Terminating in a shape similar to the cap of a mushroom; having the shape or form of a fungus.

fungistatic. **fungistático**. A compound occurring in the bulbs of some orchids (**Orchidaceae**) that stops the development of a fungus without killing it.

fungoid. **fungoide**. Spongy, like a fungus; also, sometimes used to describe an unhealthy growth on plants.

fungus. **hongo**. A large group (**Fungi**)

- of acotyledonous or cryptogamous organisms without chlorophyll, comprising mushrooms, rusts, yeasts, toadstools, smuts, molds and mildews, traditionally considered as plants, but today treated as a separate kingdom by many professional botanists and mycologists.
- funicle. **funiculo**. The stalk of an ovule (and later the seed) by which it is attached to the placenta; funiculus.
- funicular. **funicular**. An elongated stem, funiculus, attached to a seed coat, as in the **Magnolia**; also, cord-like.
- funiculate. **funiculado**. Having a funiculus.
- funiculus. **funiculo**. The stem that attaches the ovule to the placenta; also, of the **Nidulariaceae**, the cord of hyphae by which the peridioles are first fixed to the inner wall of the peridium.
- funiculose. **funiculoso**. Forming ropes of intertwined hyphae.
- funiform. **funiforme**. Rope-like.
- funnel-form. **infundibuliforme**. Having the form of a funnel that gradually widens from the base to the apex, as some monopetalous corollas.
- funnel cell. **celular embudo**. A cell in the palisade layer of a leaf which is widest just below the epidermis and narrows below.
- funnel-shaped. **infundibuliforme**. See funnel-form.
- fur. **pelo**. Any coating, like fur on plants.
- furanose form. **forma furanoso**. Said of a compound built upon on a five-sided ring.
- furanose sugar. **azúcar furanoso**. An hexose sugar in its furan form.
- furcate. **ahorquillado**. To branch or to fork, as furcate venation which occurs in some ferns (**Filicopsida**); forcipate.
- furcipulate. **furipulado**. Pincer-like.
- furfuraceous. **furfuráceo**. Covered with bran-like scales; scurfy.
- furrowed. **acanalado**. Channeled.
- fuscous (color). **pardo oscuro (color)**. A dusky, brownish or gray-brown color.
- fuse. **fusionar(se)**. To unite or to become one.
- fused. **fusionarse**. The combining of a similar or dissimilar structure or structures.
- fusiform. **fusiforme**. Having the shape of a spindle, thick in the middle and tapering at each end, as a fusiform root.
- fusion nucleus. **núcleo de fusión**. The product of fusion of nuclei in the embryo sac.
- fusoid. **fusoide**. Rounded in the center and tapering at each end but not markedly elongate; fusiform.

G

galacto-. **galacto-**. A Greek prefix that means, “milky”.

galactan. **galactán**. A polysaccharide that occurs during the germinative period in plants and produces galactose on hydrolysis.

galactoaraban. **galactoarabán**. A polysaccharide which is a polymer containing galactose and arabinose.

galactolipid. **galactolípid**. **galactolípina**. A lipid that contains galactose, an important constituent of plant membranes.

galactopyranose. **galactopiranos**. The pyranose form of galactose which polymerizes to form the hemi-cellulose galactan.

galactose. **galactosa**. A 6-carbon sugar.

galacturonic acid. **ácido galacturónico**. An organic compound formed by hydrolysis of pectins, and related to galactose.

galbulus. **gábul**. A scaly cone, as in the fruit of the juniper (**Juniperus**).

galea. **gálea**. Helmet-like; also, the upper lip of an open corolla.

galeate. **galeado**. Having flowers that resemble a helmet, as the monkshood, *Aconitum napellus*.

galeiform. **galeiforme**. Helmet-shaped.

galerculate. **galerculado**. Covered by a cup-like lid.

galeriform. **galeriforme**. Cup-shaped.

gall. **agalla**. An abnormal growth on stems, leaves, and roots caused by fungi, insects, or parasitic bacteria; cecidium.

gallery forest. **bosque de galería**. A ribbon-like forest that runs along riverbanks that connects a rainforest to a savannah; fringing forest.

Galton's laws. **leyes de Galton**. Of ancestral inheritance: “any offspring of bisexual parentage derives $\frac{1}{2}$ of its inherited characters from its parents, ($\frac{1}{2}$ from each), $\frac{1}{4}$ from its grandparents, one eighth from great grandparents etc. These fractions whose numerators are 1, and denominators are the successive powers of 2, add up to 1, e.g. $\frac{1}{2} + \frac{1}{4} + \dots = 1$ ”.

galvanotaxis. **galvanotaxis**. Changing the direction of movement in a motile organism or cell in response to an electrical stimulus.

galvanotropism. **galvanotropismo**. A tropism in response to an electrical stimulus; electrotropism.

gametangium (*pl.* gametangia). **game-tangio**. A structure where gametes are produced in some fungi, mosses (**Musci**), and ferns (**Filicopsida**). See carpogonium.

gamete. **gameto**. **gameta**. **célula sexual**. A sex cell; a mature reproductive cell (haploid) capable of uniting directly without fusion with another of the opposite sex, to form a fertilized cell that can develop into a new plant; germ cell.

gamete formation. **formación gameto**. A specialized haploid or sex cell whose nucleus and sometimes its cytoplasm combines with another

gamete of the opposite sex in the process of fertilization, forming a diploid zygote.

gametic. **gamético**. Of or pertaining to gametes.

gametic equilibrium. **equilibrio gamético**. A condition in which the frequency of gametes formed by the association of alleles at different locations is equal to the product of the frequencies of the alleles that compose them.

gametic number. **número gamético**. The number of chromosomes in a gamete nucleus, usually the haploid number.

gametocyte. **gametocito**. A cell that produces gametes by meiosis.

gametogenesis. **gametogénesis**. The process of forming gametes from gametocytes by meiosis.

gametogenic. **gametogénico**. Of or pertaining to gametogenesis.

gametogenous. **gametogénico**. Having to do with gametogenesis.

gametophore. **gametóforo**. A specialized branch or filament bearing gametangia or gametes, as in some liverworts (**Hepaticae**).

gametophyte. **gametófito**. The haploid phase in the life cycle of an individual vascular plant or generation of a plant that produces gametes during mitosis. It arises from a haploid spore produced by meiosis from a diploid sporophyte; also, in mosses (**Musci**), the gametophyte is the dominant generation; also, commonly used for the prothallus of ferns (**Filicopsidea**); also, that stage in the life cycle of thallophytic plant in which the sexual organs are produced.

gametrophic. **gametrófico**. The movement of organs before fertilization.

gamo-. **gamo-**. A Greek prefix that means, "joined", "united", or "fused".

gamochlamydeous. **gamoclamideo**. Having a fused floral envelope.

gamogastrous. **gamogastro**. Said of a syncarpous gynecium in which the ovaries are fused but the styles and stigmas are free.

gamogenesis. **gamogénesis**. Sexual reproduction.

gamogenic. **gamogénico**. Resulting from sexual fusion.

gamopetalous. **gamopétalo**. Having the petals united, as a gamopetalous corolla; sympetalous; flowers with fused or partially fused petals.

gamophase. **gamófase**. The haploid phase of the life cycle.

gamophyllous. **gamófilo**. Having the leaves united, usually by the margins, as a gamophyllous perianth.

gamosepalous. **gamosépalo**. Having the sepals united, as a gamosepalous calyx; synsepalous.

gamostely. **gamostelia**. The fusion of steles.

gamotropic. **gamotrópico**. Movement before fertilization.

gamma rays. **rayos gamma**. That part of the sun's total range of radiation in which rays are shorter than X-rays.

-gamy. **-gamia**. A suffix meaning "joined together".

gangliform. **gangliforme**. Having knots; knotted.

gas exchange. **intercambio de gas**. A reciprocal change of respiratory and other gases between a plant and the environment; also, the diffusion of gases in and out through a cell wall.

gas vacuole. **vacuola de gas**. **vacúolo de gas**. A small, gas-filled vesicle.

- cle that provides buoyancy for some aquatic bacteria and cyanobacteria.
- Gause principle. **principio de Gause.** See competitive exclusion principle.
- geitonogamous. **geitonógamo.** Fertilization occurring between flowers on the same plant.
- geitonogamy. **geitonogamia.** A fertilization where a flower is pollinated by another flower on the same plant.
- gel. **gel.** The apparently solid, often jelly-like, material formed from a colloidal solution. It offers little resistance to liquid diffusion and may have as little as 0.5% solid matter.
- gelatinous. **gelatinoso.** A texture that is jello-like; soft and quivery.
- geminate. **geminado.** Occurring in two's, as having two leaves or fruits coming from the same point; also, two branches from the same node on the same side of the stem. See bifoliate and jugate.
- geminated. **geminado.** Growing in pairs; binate.
- geminiflorous. **geminifloro. geminifloro.** Producing flowers in pairs.
- gemma. **gema. yema.** A leaf bud; also, a vegetative reproductive bud on a stem; a bud-like reproductive group of cells on liverworts (**Hepaticae**) and mosses (**Musci**) that become detached and grow into new plants; a specialized reproductive structure on the parent plant, as the lateral bulbils occurring on the *Agave americana* (**Agavaceae**); a type of asexual reproduction.
- gemma cup. **copa propagulífera. cestilla de propágulos.** A structure on the gametophyte of some liverworts that produce asexual plantlets (gemma) capable of starting new gametophytes; cyathus.
- gemmaceous. **gemáceo.** Resembling or pertaining to leaf buds.
- gemma. **gemado.** Having or reproducing by buds.
- gemma. **gemación.** The act of budding; the structure of a bud; budding; reproducing by budding. See asexual reproduction
- gemma. **gemífero.** Bud producing.
- gemma. **gemificación.** The formation of a bud.
- gemma. **gemiflorado.** Having bud-shaped flowers.
- gemma. **gemiforme.** Bud-like.
- gemma. **gemoid.** Like a bud or gemma.
- gemma. **gémula.** A small bud; commonly the rudimentary terminal bud of the seed embryo.
- gene. **gen(e).** In heredity, the basic physical unit that transmits the characteristics of the plant; also, segments of various DNA molecules that control inherited characteristics in plants.
- genecenter. **genocentro. centro genético. centro génico.** A geographical area, especially in the tropics, where a particular taxon provides greater genetic diversity than it does in other locations; possible the center or origin; center of diversity.
- gene conversion. **conversión de gene.** A process where a member of a gene family acts as a blueprint for the correction of others by suppressing new mutations or lateral spreads in the genome.
- gene dosage. **dosis génica.** The number of times a gene is present in a nucleus.

gene duplication. **duplicación de gene.**

A process in evolution in which a gene is copied twice, with both lying side by side along the same chromosome.

gene family. **familia gene.** A group of similar or identical genes that often lie along the same chromosome, having originated from a gene duplication process.

gene flow. **flujo de gene. flujo génico.** The transfer of genes from one population to another.

gene frequency. **frecuencia de genes. frecuencia génica.** The frequency a particular gene occurs in a particular species or other group.

gene locus. **locus de gene.** The location of a specific gene on a chromosome.

gene mapping. **mapaje genético.** The strategies that locate the position of gene loci on chromosomes.

gene mutation. **mutación génica.** The occurrence of a heritable alteration in the genotype which was not handed down from its ancestors; point mutation.

gene pair. **par de genes.** In diploid cells, the two alleles at a given gene locus on homologous chromosomes.

gene pool. **fondo genético. acervo génico.** All genetic information in a reproducing population of a particular species; more accurately, allele pool.

gene redundancy. **redundancia de gene.** The presence in a cell of many copies of a single gene.

gene regulation. **regulación gene.** The method by which genes are turned on and off to regulate growth and development.

genera. **genus.** Plural of genus.

general adaptation. **adaptación gen-**

eral. An adaptation that fits an organism for living in a broad range of environmental conditions, as opposed to a specialized adaptation which fits an organism for life in a narrow set of circumstances.

generation. **generación.** A group of plants with the same parent or parents, making up a single step in the line of descent; also, a form or stage of a plant that refers to the method of reproduction, as the asexual generation of a fern (**Filicopsida**).

generation time. **período de generación. tiempo de generación.** The time needed for a cell to complete one full growth cycle.

generative. **generativo. generador.** Pertaining to the production of progeny; reproductive.

generative apogamy. **apogamia generativo.** Reduced apogamy.

generative cell. **célular generativo. celular generador.** The cell of the male gametophyte of angiosperms that divides, producing two sperms; also, the cell of the male gametophyte of gymnosperms that divides, producing a sterile cell and a spermatogenous cell.

generative nucleus. **núcleo generativo.** Produced by the haploid microspore nucleus of a pollen grain, the generative nucleus divides during mitosis to form two sperm nuclei.

generic. **genérico.** The characteristics of a species or class; also, the term may be used to refer to a kind, class, or group, as opposed to a specific.

generic characters. **caráters genérico.** In taxonomy, diagnostic characters used in delimiting a genus.

generic name. **nombre genérico.** In

taxonomy, the Latinized scientific name of an organism which makes use of a binary system with the genus (generic name) first and the specific epithet (species) second, as *Quercus alba*.

genesis. **génesis**. The origin, formation, or development of a group, species, individual, organ, tissue, or cell.

genetic. **genético**. Of, or having to do with, or pertaining to genes.

genetic adaptation. **adaptación genética**. A change in the genetic composition of an organism that allows the species to reproduce and gain a competitive advantage under changing environmental conditions.

genetic alphabet. **alfabeto genética**. A set of symbols that identify the four nucleic acid bases that combine in various combinations to form the genetic code.

genetic code. **código genético**. **clave genética**. The various combinations of nucleotides in chromosomes that determine the make-up of genes and gene products; also, the basic language of protein synthesis in which nucleotide triplets in DNA (and then RNA) call for particular amino acids used in protein synthesis; or, the sequence of nitrogen bases in a DNA molecule that codes for an amino acid or protein.

genetic complex. **serie genético**. The sum total of the hereditary factors contained in the chromosomes and cytoplasm.

genetic diversity. **diversidad genética**. Variability in the genetic composition among individuals within a single species.

genetic drift. **dervia genética**. Ran-

dom changes in allele frequencies over time, due to chance alone.

genetic engineering. **manipulación genética**. **ingeniería genética**. The process of modifying DNA information by splicing in selected genetic information from another organism by using recombinant DNA technology.

genetic equilibrium. **equilibrio genético**. The stability of allelic and genotypic ratios in a population over successive generations. The reference point signifying zero evolution is used for measuring rates of evolutionary change.

genetic hom(o)eostasis. **hom(e)ostasis genética**. See genetic equilibrium.

genetic load. **carga genética**. **lastre genético**. The average number of lethal mutations per individual in a population; divided into three principal types: An input load occurs when inferior alleles are introduced into the gene pool of a population, a balanced load is created with a selection favoring genetic combinations that form inferior genotypes every generation, and a substitutional load is generated by a selection favoring the replacement of an existing allele by a new allele.

genetic map. **mapa genético**. **mapa génico**. The linear arrangement of mutable sites on a chromosome; deduced from genetic recombination studies.

genetic marker. **marcador genético**. A trait or gene variation in the DNA that can be tracked from generation to generation.

genetic polymorphism. **polimorfismo genética**. The existence of three or more distinctly different genetic

forms of a plant species. Genetic polymorphism is said to be balanced, or in equilibrium with one another at a particular locus. In the transient form, mutations spread through the population in a constant direction.

genetic rearrangement. **reestructuración genética**. Any process that produces a new combination of hereditary determinants, as a crossing over.

genetic recombination. **recombinación genética**. The presence of a new combination of alleles in a DNA molecule from a cross over at meiosis, a chromosomal aberration, or a gene mutation.

genetic resources. **recursos genética**. The diverse gene pool of natural and cultivated organisms available for human use.

genetics. **genética**. A branch of botany that studies heredity and gene variations in similar or related species; the science of heredity, including the study of its chemical foundation, its developmental expression, and its bearings on variation, selection, adaptation, evolution, breeding, and the activities of man.

genetic spiral. **espiral genética**. A hypothetical line drawn on a stem, passing by the shortest path through the points of insertion of successive leaves.

genetic system. **sistema de genética**. The organization of genes in a species and the method of transmission from the parental generation to the filial generation.

genetic variation. **variación genética**. Refers to the differences in genotypes within a population or species produced from mutation, re-

combination, or gene interaction.

genic. **génico**. Of or like a gene.

genicular. **genicular**. Growing at or on a node; also, growing in the tissue of a node.

geniculate. **geniculado**. Bent at the joint, as a geniculate stalk.

geniculum. **feiculio. nódulo**. The node or joint of a stem.

genocenter. **genocentro**. Reproductocenter.

genom(e). **genoma**. The complete genetic composition for a particular organism; also, a haploid set of chromosomes with their genes.

genotype. **genotipo**. The genetic make-up of a haploid nucleus or individual plant, as opposed to its physical appearance (phenotype).

genotypic control. **control genotípica**. The control of chromosome behavior by the genotype, in contrast to structural control, especially at meiosis through the effects of dissimilarity of the pairing chromosomes in hybrids.

genotypic environment. **medio ambiente genotípica**. The aggregate of all the genes considered as acting on one or more of them.

genotypic variation. **variación genotípica**. Variation due to differences in the gametes. *See* genetic variation.

genra. **género**. A particular kind or type.

gentianose. **gentianoso**. A trisaccharide composed of gentiobiose and fructose, or sucrose and glucose. It is found in gentian roots (**Gentianaceae**).

genus. **género**. In taxonomy, the classification of plants by distinguishing characteristics with genus as the main subdivision of the fam-

ily; usually composed of one or more species; as a group or groups of structurally or phylogenetically related species.

genus name. **nombre genérico.** The first name in a scientific binomial.

geo-. **geo-.** A Greek prefix that means, "pertaining to earth".

geobotanical exploration. **exploración geobotánica.** The use of indicator plant species to identify the possible presence of metal-rich deposits; biogeochemical exploration.

geobotany. **geobotánica.** The study of plants and their relationship to their geological and geographical environments; phytogeography.

geocarpel. **geocarpelo.** A plant that fruits underground, as a peanut (*Arachis*).

geocarp. **geocarpia.** The ripening of fruits underground. The young fruits are pushed into the soil by a post-fertilization curvature of the stalk.

geoflorous. **geofloro.** A plant that bears flowers underground.

geographic isolation. **aislamiento geográfico.** A physical separation by location, which prevents gene exchange between individuals or populations.

geonasty. **geonastia.** Curvature towards the ground.

geophilous. **geófilo.** Growing in the ground, especially plants with deep, underground buds.

geophyte. **geófita. geófito.** A plant that has deep, underground buds.

geoplagiotropic. **geoplagiotrópico.** Growing in a direction at an angle to the ground surface

geotaxis. **geotaxis. geotactismo.** Change in the directional movement of an organism in response

to gravitation forces.

geotropic bending. **curvatura geotrópica.** The tendency of plants to curve or bend in response to gravity. Upward movement is negative geotropism and downward movement (growing roots) is positive geotropism; gravitropism.

geotropism. **geotropismo.** The growth of part of a plant due to the influence of gravity.

geranial. **geranial.** An open chain olefinic aldehyde.

geraniol. **geraniol.** An open chain olefinic alcohol.

germ. **germen.** Seed, spore, or bud; the rudimentary form of a new, individual plant; an embryo plant in the seed.

germ cell. **célula germinal. célula germinativa.** A fertile cell from which a new plant emerges; a fertile seed, bud, or spore cell; gamete.

germen. **germen.** The ovary.

germ layer. **hoja embrionaria. hoja germinal.** Embryonic tissue that becomes the tissues and organs of the adult.

germ plasm. **germoplasma.** The inherited material transmitted to offsprings through the germ cells.

germ pore. **poro germinal.** A thin walled area on a spore wall, or pollen grain, through which a germ tube is produced.

germ seed. **semilla germinal.** *See* germ cell.

germ sporangium. **esporangio germinal.** A sporangium formed at the end of a germ tube produced by a zygospore.

germ tube. **tubo germinal.** The filament that comes out at spore germination; also, a tubular outgrowth

of a germinating spore from which the thallus develops by branching, or a germ sporangium is produced; also, a tube growing down through the style from a germinating pollen grain which carries the male nuclei.

germinal. **germinal**. Capable of germination in the right conditions; characteristic of or like germ cells; also, occurring in the earliest developmental stage.

germinal disk. **disco germinal**. A disk-like spot on the fertilized ovum, indicating a developing embryo; also, a flattened plate of cells developing at the end of the filamentous young thallus of some **Hepat-icae**, and ultimately producing the adult thallus.

germinal protoplasm. **protoplasma germinal**. The protoplasm from which gametes are formed.

germinal selection. **selección germinal**. The selection during gametogenesis against induced mutations that retard the spread of mutant cells.

germinal tube. **tubo germinal**. The tube produced by the elongation of the spore-contents during the germination of a spore of the **Hepat-icae**.

germinal vesicle. **vesícula germinal**. An enlarged nucleus of an ovum before meiosis or segmentation begins.

germinate. **germinar**. To sprout or start growing, as from a bud, seed, or spore.

germination. **germinación**. The beginning of growth or development, as the sprouting or budding of a seed, bud, or spore; also, a sequence of events in a viable seed starting with imbibition of water that leads

to the growth of the embryo and development of a seedling.

gibberellic acid. **ácido giberélico**. A crystalline compound first found in a fungus, that increases the size and growth rate in plants.

gibberellin. **giberelina**. A group of natural growth hormones that are synthesized in the protoplasm, increasing a plant's rate and amount of growth, especially the elongation of its stem. They increase general physiological activity, *e.g.* increase cell elongation, promote germination, and flowering.

gibbose. **giboso**. *See* gibbous.

gibbous. **giboso**. A swelling or bulging, especially on one side; also, pouched; also, convex above and flattened below.

gigantic. **gigante, gigantesco**. Being especially large in size.

gigantism. **gigantismo**. Abnormally large vegetative growth, often associated with polyploidy.

gill. **laminilla**. A leaf-like structure or slits in the underside of a mushroom cap where basidiospores are produced; also, simply the fruit-bearing under-surface of some fungi.

gill cavity. **cavidad branquial**. The ring-shaped hollow in the young fruit body of an agaric; in it the early stages of organization of the gill is completed.

gill cleft. **hendidura branquial**. Gill slit.

gilvous. **gilvo**. Brownish.

girdling. **decorticación anular**. Cutting completely around a tree trunk to a depth that penetrates through the bark and into the wood so that the downward transport of substances cannot occur, resulting in

the tree's death; also, the condition when a leaf trace arises on the opposite side of the stele from the leaf which it serves, and in reaching the leaf curves widely through the cortex.

girth. **circunferencia**. The measure around anything; commonly used in the description of a stem or trunk.

glabrate. **glabro**. Smooth, lacking hair.

glabrescent. **glabrescente**. Very thinly covered with hair; also, becoming nearly hairless as it matures; becoming glabrous.

glabrous. **glabro**. Hairless; smooth, without any trichomes, as glabrous fruit

gladiate. **ensiforme**. Sword-shaped, as a gladiate leaf.

gland. **glándula**. Any of a group of structures, generally near the surface, that secrete a variety of substances, as digestive glands on the leaves of a Venus flytrap (**Droseraceae**) or a pungent oil in the rind of oranges (**Citrus**).

glandiform. **glandiforme**. Having the shape of a gland; acorn-like.

glandular. **glandular**. Having minute, blackish to translucent, secretory, or excretory glands, or trichomes.

glandular serrate. **serrado glandular**. Having a toothed margin, with glands at the tips of the teeth.

glandular-pubescent. **peloso-glandular**. Having hairs with an enlargement at the apex.

glandular-punctate. **punteado-glandular**. Covered with minute secretory depressions.

glandulose. **glanduloso**. Same as glandular.

glans. **glande**. A single-celled, compound inferior fruit with a dry outer wall, as an acorn (**Quercus**).

glasswort. **cristalwort**. Any of a group of marine herbs (**Salicornia**) having fleshy, leafless stems that grow in salt water marshes.

glassy. **vidrioso**. Resembling glass, smooth, transparent, and brittle.

glaucous. **glaucoscente**. Having a glaucous luster or appearance.

glaucous. **glauco**. Covered with a white or blue-green powdery or waxy coating, as on plums (**Prunus**) or the leaves of cabbage (**Brassica**) plants.

gleba. **gleba**. Spore-bearing tissue in the fruit bodies in some fungi (**Gasteromycetes**).

glebula. **glebula**. A rounded process from a lichen thallus.

glebulose. **glebuloso**. Bearing rounded lumps on the surface of the thallus.

gliadin. **gliadina**. A protein, especially found in wheat grains.

gliding growth. **crecimiento deslizante**. The slipping, during growth, of a cell wall over that of its neighbors, over the surface of contact, so that new areas of contact are made with a contiguous cell, and with neighboring ones with which no previous contact had been established.

gliotoxin. **gliotoxina**. An antibiotic produced by *Aspergillus fumigatus*.

globoid. **globoide**. A rounded inclusion in an aleurone grain, consisting of a double phosphate of calcium and magnesium, combined with globulins.

globose. **globoso**. Round or sphere-shaped, as a globose flower head.

globular protein. **proteína globular**. **esferoproteína**. A protein with a globular configuration that functions in a variety of ways, includ-

ing enzymes, facilitating transport, and providing storage.

globular. **globular**. Round or spherical.

globulin. **globulina**. One of a group of globular proteins, that are soluble in dilute salt solutions but not in freshwater, occurring in the seeds of some plants.

glochid. **gloquidio**. A barbed, hairy structure occurring on the microspore of some aquatic ferns (**Azollaceae**) and as fine hair on some cacti (**Opuntia**).

glochidiate. **gloquidiado**. Having a barbed tip, usually occurring in tufts; having barbed bristles.

glochidium. **glochidio**. Hair-like processes on the masses microspongia produced by *Azolla*. They provide attachment to the macrosporangium. ??? CHECK

gloecystidium. **gloecistidio**. A horny or gelatinous cystidium.

glomerate. **glomerado**. Growing in a dense, rounded cluster.

glomerulate. **glomerulado**. Bearing small clusters of spores.

glomerular. **glomereular**. Of or like a glomerule.

glomerule. **glomérulo floral**. An indeterminate dense cymose cluster of flowers, as in the head of the flowering dogwood (**Corn-aceae**); also, adherent spores in some lichens.

glomerulus. **glomerulus**. A cymose inflorescence in the form of a crowded head of small flowers.

glosso-. **gloso-**. A Greek prefix for "tongue-like".

glossopodium. **glossopodio**. The sheathing base of a leaf, as in the quillworts (**Isoetaceae**).

glossy. **brillante**. Smooth and shiny surface.

glucan. **glucan**. Any of the polysaccharides that produce sugar on hydrolysis; glucosan.

gluconeogenesis. **neoglucogénesis**. The synthesis of non-carbohydrate substances, such as proteins, amino acids, fatty acids and others, into glucose.

glucoprotein. **glucoproteína**. A large molecule composed of a carbohydrate-protein complex other than a nucleic acid.

glucopyranose. **glucopiranosos**. The pyranose form of glucose.

glucosamine. **glucosamina**. An amino-sugar which represents the link between the carbohydrates and proteins.

glucosans. **glucosáns**. Carbohydrates, which give only glucose on hydrolysis, and are made up of β -D-glucose only, *e.g.* starch, dextrin, cellulose.

glucose. **glucosa**. The most common type of plant sugar from which starch and cellulose are synthesized; a 6-carbon sugar with 12 atoms of hydrogen and 6 atoms of oxygen. A hexose sugar. Only D-glucose exists in plants.

glucoside. **glucósido**. A glycoside, especially if it contains glucose.

glumaceous. **glumáceo**. Thin, brown, papery in texture; also, having the appearance of or bearing glumes, as a glumaceous calyx.

glume. **gluma**. One of a pair of scale or chaff-like bracts at the base of the spikelet of some grasses (**Poaceae**) and sedges (**Carex**, **Cladium**); and with wheat (**Triticum**), oats (**Avena**), and barley (**Hordeum**), they are enclosing.

glumiferous. **glumífero**. Having the flowers enclosed in glumes.

glutamic acid. **ácido glutámico. ácido aminoglutérico.** A crystalline amino acid occurring in plants and animals, especially in seeds.

glutamic acid dehydrogenase. **dehidrogenasa ácido glutámico.** The enzyme that catalyzes the reversible reaction α -ketoglutaric acid to glutamic acid.

glutamine. **glutamina.** One of the amino acids; an amide.

glutamine synthetase. **sintetasa glutamina.** The enzyme which catalyzes the synthesis of glutamine from glutamic acid and ammonia.

glutathione. **glutation. glutationa.** A polypeptide occurring in plants and animals tissues, involved in the physiological oxidation processes.

gluten. **gluten.** In wheat (*Triticum*) and other grain seed, a sticky, elastic protein substance.

glutinous. **glutinoso.** Having a moist, gummy, surface exudation, as glutinous leaves.

glyceric acid. **ácido glicérico.** A colorless, syrupy compound produced from a partial oxidation of glycerol during alcoholic fermentation.

glyceraldehyde. **gliceraldehido.** A triose aldose sugar.

glyceride. **glicerida.** An ester of glycerol and fatty acids.

glyceric dehydrogenase. **dehidrogenasa glicerico.** An enzyme that catalyzes the reversible reaction, changing glyceric acid to hydroxyacetic acid and hydrogen.

glycerol. **glicerol.** An intermediate in the metabolism of carbohydrates and fats; a trihydric alcohol which combines with fatty acids to form fats.

glycine. **glicina.** A simple amino acid,

and the only one that does not exhibit optical activity.

glycogen. **glícógeno.** A highly branched saccharide not found in higher plants but in some bacteria, cyanobacteria, and fungi; a glucosan.

glycol. **glicol.** A colorless, sweet alcohol derived from a variety of ethylene compounds.

glycolysis. **glicólisis.** The breakdown of glucose into two acid molecules; the series of reactions preceding anaerobic or aerobic respiration when glucose is oxidized to pyruvic acid, *e.g.* in an alcoholic fermentation.

glycoprotein. **glicoproteína. glicoproteido.** *See* glycoprotein.

glycoside. **glicósido.** The product formed from alcohol or phenol reacting with sugar.

glyoxylic cycle. **ciclo glioxílico. ciclo del glioxalato.** A modification of the Citric Acid Cycle. It seems to be limited to tissues where fats are being rapidly consumed, *e.g.* the endosperm of germinating fatty seeds.

gold color. **color oro.** Yellowish.

Golgi apparatus. **aparato de Golgi.**

A cellular organelle with stacks of flattened secretory sacs that package and synthesize membranes and cell walls; a type of cytoplasmic particle common in both plants and animals; a cytoplasmic organelle found in all cells except bacteria. It is composed of a cluster of flattened, parallel, smooth-surfaced sacs, and many smaller vesicles; dictyosome.

Golgi body. **cuerpo de Golgi.** A unit of the Golgi apparatus; seen by staining; dictyosome.

goni-. **goni-.** A Greek prefix that

means, "angled" or "angular".

gones. **gonios**. The group of four nuclei, or cells which are the immediate result of meiosis.

gonidial layer. **estrato gonidial**. The algal layer in a lichen thallus.

gonidiophore. **gonidióforo**. Conidiophore.

gonidium. **gonidio**. An asexually produced reproductive cell, such as a zoospore; also, a cell filled with chlorophyll which is formed in the thallus of lichens.

gonimum. **gonumo**. A cell of one of the **Myxophyceae** when it occurs as part of a lichen thallus.

gonimoblast filament. **filamento gonimoblasto**. In the **Florideae**, a filament developing from the zygote, and ultimately producing carposporangia.

gonioautoecious. **gonioautoecio**. Bearing the antheridia as a bud-like outgrowth from the branch bearing the archegonium.

gonophore. **gonóforo**. Having an elongated receptacle that raises the stamens and pistil above the perianth.

gonoplasm. **gonoplasma**. In some oomycetes, the protoplasm that passes through the fertilization tube and unites with that of the oosphere.

gonosphere. **gonosfera**. A zoospore of the **Chytridiales**.

gossypine. **gossipino**. Cottony.

gourd. **calabaza**. **jicaro**. The fruit of a tendril-climbing herb with sappy stems and palmate leaves *Cucurbita pepo* (**Cucurbitaceae**). When dry, commonly used for a drinking or food container.

gracilis. **gracilis**. Latin meaning "slender".

gradate sorus. **soro gradato**. A type of sorus or group of sporangia in

some ferns, as in the **Hymenophyllaceae**, where ripening occurs in a sequence from the apex to the base. It contrasts with the simple sorus, as in the **Osmundaceae**, where there is a simultaneous ripening of all the sporangia, or with the mixed sorus, as in the **Polypodiaceae**, where there is an irregular ripening.

gradient analysis. **análisis gradiente**. An ordination method used to describe and compare vegetation, in which the characteristics of a site rather than the composition of the species is the base. One or more environmental factors are identified and stands arranged according to the characteristics of their sites.

gradient. **gradiente**. A system of progressively increasing or decreasing differences in the rate of growth, functions or other plant properties.

gradualism. **gradualismo**. See phyletic gradualism.

gradually. **gradualmente**. In degrees, or step by step, when describing increasing or decreasing lengths or layers, as with bracts or petals.

graft. **injertar**. A shoot, bud, or branch from one kind of tree or plant placed into a slit in another related plant, so that the added part will continue to grow; also, to place a detached branch (scion) in close cambial contact with a rooted stem (rootstock) in a way that the scion and rootstock unite to form a new plant.

graft hybrid. **híbrido de injerto**. A chimaera produced by grafting dissimilar plants.

grafting. **injerto**. An asexual propagation method that places a shoot (scion) onto the rootstock (stock)

of another plant.

grain. **cariopsis**. A dry, one-celled indehiscent fruit with the pericarp fused to the seed coat; also, the arrangement or direction of fibers in wood; in pollen, a grain or microspore contains one mature or immature male gametophyte.

gramineous. **gramineo**. Grass-like or pertaining to grasses.

graminiform. **graminiforme**. Grass-like.

gram-negative bacteria. **bacteria gramnegativo**. Bacteria that do not stain with crystal violet and iodine.

gram-positive bacteria. **bacteria grampositivo**. Bacteria that retain the violet stain when treated with Gram's iodine, as staphylococci.

grana. **grana**. Plural of granum.

grandi-. **grandi-**. A Latin prefix that means, "large".

granular. **granular**. A fine, mealy surface; covered with granules or small projecting points.

granule. **gránulo**. A small, rounded, grain-like particle.

granuliferous. **granulifero**. Covered with very small granules.

granulose. **granuloso**. Finely raised bumps or a rough surface.

granum. **grano**. A disk-shaped stack of platelets within the chloroplasts of plant cells where sunlight energy is trapped and ATP is formed.

grandiflorus. **grandiflorus**. Latin meaning "large flowered".

grandifoliate. **grandifoliado**. The leaves are more conspicuous than usual, commonly on short stems.

grandis. **grandis**. Latin meaning "large".

grass. **grama**. The grass or **Poaceae** (**Gramineae**) family, which are

mostly annual or perennial herbs, as the cereal grasses wheat (**Triticum**), barley **Hordeum**), corn (**Zea**) and rice **Oryza**), but a few are woody, as the bamboo (**Bambusaceae**). Most have hollow stems, nodes capable of intercalary growth, and spikelets with one to numerous replaced by florets.

grassland. **pastizal. pradera**. A region of vegetation mainly composed of grasses (**Poaceae**) or grass-like plants; also, pasture land or grass-covered, as may occur after the removal of primary or secondary trees; one of the main divisions of vegetation, others are forest, desert, tundra, and taiga.

grass-like. **graminiforme**. Having the appearance of grass; commonly used to describes sedges (**Carex, Cladium**) and rushes (**Juncus**).

grassy. **graminoso**. Covered with grass or grass-like plants.

gravelly. **de grava**. A loose mixture of small rocks or rock fragments containing clay or other soil that is coarser than sand mixtures.

graveolent. **graveolente**. Having a strong, rank smell.

graviperception. **gravipercepción**. The perception of gravity by plants.

gravitation. **gravitación**. The attraction of one body or particle for another, or the effective force of one body or particle moving toward another.

gravitational. **gravitacional**. Of or pertaining to gravitation.

gravitational induction. **inducción de gravitación**. The development of a structure from the underside of a plant member.

gravitational water. **agua de gravitación. agua gravitacional**. Water that drains from the pores of a soil

after a rain.

gravitropism. **gravitropismo**. Directional growth of a coleoptile, root, or shoot in response to the earth's gravity; geotropism.

gravity. **gravedad**. The natural force that causes objects to move or tend to move toward the center of the earth.

greasy. **graso**. **grasoso**. **untuoso**. Slick, oily, as a greasy epidermal secretion; unctuous.

great. **gran**. A distinction of large size from other plants of the same genus.

green. **verde**. The color of growing plants.

green algae. **alga verde**. A division (**Chlorophyta**) of mostly green-green algae, composed of organisms with definite nuclei and chloroplasts, living mainly in fresh water.

green cell. **celular verde**. A cell of the alga *Chlorella* living inside certain simple animals.

greenhouse effect. **efecto de invernadero**. A natural effect that traps heat in the atmosphere (troposphere) near the earth's surface. Some flows back toward space and is absorbed by water vapor, carbon dioxide, ozone, and several other gases. As the atmospheric concentrations of these greenhouse gases rises, the temperature of the lower atmosphere also gradually increases.

greenhouse gases. **gas invernadero**. Gases in the earth's lower atmosphere (troposphere) that produces the greenhouse effect; carbon dioxide, chlorofluorocarbons, ozone, methane, water vapor, and nitrous oxide.

greenish. **verdoso**. Having a tinge

of green, as the leaves are greenish-yellow.

gregarious. **gregario**. Growing close together, but not matted.

grenadin. **grenadin**. A noticeable orange or brick-red color associated with the petals of the **Sphaeralcea**.

grenadine. **granadina**. Very red in color, as the juice from the fruit of the pomegranate (*Punica granium*).

groove. **surco**. A long, narrow hollowed, line, as if cut by a tool.

grooved. **sulcado**. Having a long, narrow furrow, as on the surface of an organ.

ground. **suelo**. The soil or earth, as plants growing in the ground.

ground layer. **estrato de suelo**. The lowest level of a plant community, generally composed of mosses (**Musci**), lichens, and fungi, and herb species with trailing stems or rosette forms.

ground meristem. **meristemo del suelo**. In the embryonic vascular plant, a group of cells that develop into the cortex, pericycle, and pith; located just below and derived from the apical meristem are the primary meristematic tissues, protoderm, ground meristem, and the procambium.

ground parenchyma. **parénquima de suelo**. The basic ground tissue composed of living parenchymal cells.

ground tissue. **tejido fundamental**. The general mass of parenchyma outside and between the vascular strands of a young stem or root.

ground water. **agua subterránea**. **agua del subsuelo**. **agua freática**. Water that seeps or flows down into the soil or rocks, supplying springs.

ground water table. **nivel freático.**

nivel de agua freática. The level of soil below which is saturated with water. *See* ground water.

group. **conjunto.** An indefinite term, denoting a number of species or genera belonging or classed together but without reference to specific taxonomic designations or relationships.

group translocation. **tra(n)slocación de grupo.** A natural method used for the movement of sugars across bacterial membranes and possibly across some of the higher cells.

grow. **crecer.** To develop toward maturity through the division, enlargement, and differentiation of cells, which in higher plants occurs in specific regions called meristems.

growing point. **punto vegetativo.** The apical meristem of an axis where cell division occurs, and differentiation begins.

growing season. **período de crecimiento.** In areas of the world with distinct seasonal climates, the period of rapid plant growth.

growing zone. **zona de crecimiento.** The portion of an organ in which elongation proceeds.

growth. **crecimiento.** An irreversible increase in cell size, weight, or number with or without differentiation of a plant or plant part.

growth apical meristem. **meristemo de crecimiento apical.** The tip where growth is occurring.

growth curvature. **curvatura de crecimiento.** The curving of an elongating part of a plant organ due to one side growing faster than the other.

growth curve. **curva de crecimiento.** A graphic representation of the

growth of a plant or plant population in relation to time.

growth factor. **factor de crecimiento.** Any determinant that affects the growth of a plant.

growth form. **forma de crecimiento.** The morphological structure of a plant, especially as it reflects a physiological adaptation to its as expressed by a growth curve.

growth inhibiting substance. **sustancia inhibidor del crecimiento.** A substance formed inside the cells which slows down or stops growth, often in some other part of the plant. Many of these substances have been identified and synthesized.

growth promoting substance. **sustancia promotor del crecimiento.** A substance which promotes, or accelerates growth. It may be formed inside the plant, or may be obtained from an external source.

growth rate. **índice de crecimiento. velocidad de crecimiento.** Increase in the size of a population per unit of time, such as in a year.

growth regulator. **regulador de crecimiento.** A synthetic or natural compound that controls growth in plants.

growth retardant. **retardante del crecimiento.** A chemical that selectively interferes with hormonal promotion of growth with limited toxic effect.

growth ring. **anillo de crecimiento.** In trees, the annual layer(s) of wood, just under the bark; each year a new annual ring is formed; also, a cylinder of secondary wood laid down in a single season in a stem or root; it is seen as a circle in a transverse section and is not necessarily the same as an annual ring.

growth substance. **sustancia de crecimiento.** A natural compound, other than a nutrient, that modifies, promotes, or inhibits plant growth.

guanidine. **guanidina.** Imino urea.

guanine. **guanina.** One of the purine based substances of DNA and RNA found in the nucleic acid of cells. *See* base.

guard cell. **célula de guarda. célula de cierre. célula oclusiva.** In the epidermis, one of a pair of specialized, chlorophyll-bearing cells that surround a stoma; a pair of reniform cells bounding a stoma with walls differentially thickened, and the cells containing chloroplasts.

gum. **goma.** Any of the soft, sticky substances (polysaccharides) that are exuded by various trees and other plants that harden in the air and dissolve in water; differing from resins in chemical make-up and solubility. These colloidal plant products either dissolve or swell in water. On hydrolysis they give complex organic acids, pentoses, and hexoses.

gummiferous. **gomífero.** Producing gum.

gummosis. **gomosis.** The exuding of various gummy substances as a result of cell degeneration, especially in some stone fruits.

gutta. **gota.** An oil drop in a spore or fungal hypha; also, a general term for a small vacuole.

guttate. **gutado.** Containing small drops of material.

guttation. **gutación.** The oozing of drops of water or salts from leaves, as the result of root pressure, particularly at night when transpiration rates are low.

guttifer. **gutífera.** Any species that produces gum or resin.

gymno-. **ginmo-.** A Greek prefix that means, "naked" or "bear".

gymnocarpous. **gimnocarpo.** Bearing fruit where the spore-bearing tissue is naked (hairless) during its entire development or the floral envelope does not cling to the outer skin, as a gymnocarpous species of lichen.

gymnocidium. **gimnocidio.** A swelling at the base of the spore case in urn mosses (**Musci**).

gymnocyte. **gimnocito.** A cell without a cell wall.

gymnogen. **gimnogeno.** A gymnosperm.

gymnogenous. **gimnogeno.** Having naked seeds; gymnospermous.

gymnogynous. **gimnogino.** Having a naked ovary, where the seeds are without a pericarp, as gymnogynous grain.

gymnogrammoid ferns. **helechos gimnogramoide.** The ferns which lack a sorus and have the sporangia distributed over the lower surface of the leaf.

gymnoplasm. **gimnoplasma.** An amorphous mass of naked protoplasm.

gymnosperm. **gimnospermas.** Seed plants not enclosed by a megasporophyll or pistil, borne outside an ovary or seed pod, and on the surface of cone scales, as pine (**Pinus**) and others (**Coniferae, Cycadaceae, Genetaceae**).

gymnospermal. **gimnospermal.** Pertaining to gymnosperms.

gymnospermous. **gimnospermo.** Of or resembling gymnosperms; having seeds not surrounded by a capsule or ovary.

gymnospore. **gimnospora.** A naked

- spore.
- gymnosporous. **gimnosporo**. Having naked spores.
- gymnostromous. **gimnostromo**. Lacking a peristome.
- gyn-. **gin-**. A Greek prefix that means, "female".
- gyn(o)ecium. **gineceo**. The female organ or organs of a flower; also, a collective term for all the pistils; also, the group of carpels in the center or at the top of the flower; also, the group of archegonia in mosses (**Musci**).
- gynagamocephalous. **ginagamocéfalo**. *See* gynagamous.
- gynagamous. **ginagamo**. An inflorescence with pistillate flowers inside or above and neuter flowers outside or below; gynagamocephalous.
- gynandrial. **ginandrial**. *See* gynostemial.
- gynandrium. **ginandro**. A column with fused stamens and pistils, common in orchids (**Orchidaceae**).
- gynandrophore. **ginandróforo**. A gynophore with stamens and pistils.
- gynandrous. **ginandro**. Having the stamen and pistil united in one column.
- gynandry. **ginania**. Hermaphroditism.
- gynantherous. **ginantero**. Having the stamens converted into pistils.
- gynaphore. **gináforo**. A special structure on the fruit of the peanut (*Aracnis hypogaea*) for absorbing ions.
- gynecandrous. **ginecandro**. An inflorescence with pistillate flowers inside or above and staminate flowers outside or below, as in the spikes of some **Carex**.
- gyn(o)ecium. **gineceo**. Gynaecium.
- gynehermaphrodicephalous. **ginehermafrodicéfalo**. *See* gynehermaphroditic.
- gynehermaphroditic. **ginehermafrodita**. An inflorescence with pistillate flowers inside or above and hermaphroditic flowers outside or below; gynehermaphrodicephalous.
- gynobase. **ginobase**. An enlargement of the base or receptacle of the flower.
- gynobasic. **ginobásico**. A type of style that is attached to the base of an invaginated ovary.
- gynodioecious. **ginodioico**. Within the species, some plants that bear pistils and others that bear perfect flowers.
- gynomonoecious. **ginomonoico**. Within the species, a plant with pistillates and perfect flowers.
- gynodioecy. **ginodioecia**. The condition in a plant population or species in which female and hermaphrodite individuals are formed.
- gynophore. **ginóforo**. The stipe or stalk of a pistil; also, the elongation of the receptacle of a flower with the gynoeceum at the apex; also, of the **Pyronemaceae**, the developing multinucleate female structure.
- gynostegium. **ginostegio**. A covering of the gynoeceum.
- gynostemial. **ginandro**. A column formed by the fusion of stamens and carpels (stigma and style), as in the orchid (**Orchidaceae**) family; same as gynandrial.
- gynostemium. **ginostemo**. A column that is formed from the fusion of the androeceum and gynoeceum, as in trigger plants (**Stylidiodeae**).
- gyrate. **gírar**. Circinate; coiled in a

-
- circle; having convolutions as, a gyrate cyme or gyrate foliation.
- gyrose. **girosa**. Having a folded surface marked with sinuous lines or ridges.
- gyttja. **gyttja**. An organic, muddy deposit in eutrophic bodies of water, produced by algae, macrophytes and other organisms.
- β -galactosidase. **β -galactosidasa**. The enzyme that splits lactose into glucose and galactose.

H

H. **H.** A flower class containing flowers which are usually zygomorphic with a corolla tube 6–15 mm long, and suited to pollination by bees.

habit. **hábito.** The form, shape, occurrence, or mode of growth of a plant, as climbing, erect, prostrate, or others.

habitat. **hábitat.** The natural living area or type of living area of a plant or plant community, characterized by its biotic and abiotic components.

habitat form. **forma hábitat.** A plant showing features which are abnormal but can be related to the place where it is growing *e.g.* dwarfing under poor growing conditions.

habitat group. **grupo hábitat.** A set of unrelated plants which occupy the same kind of situation.

hadrocentric vascular bundle. **haz vascular hadrocentrico.** A concentric vascular bundle in which the xylem is surrounded by phloem.

hadromase. **hadromasa.** An enzyme present in some fungi, which enables them to decompose wood.

haem. **hema.** One of a group of iron-porphyrins which are conjugated with proteins to form peroxidase, catalase, and all the cytochromes.

haemochrome. **hematocromo.** An orange-red pigment, probably a carotinoid, found in some **Chlorophyceae**.

haematin. **hemátina.** Its derivatives are present in living cells and play

an important part in cellular oxidations. They exist in combination with nitrogenous organic substances which are called haemochromogens. *See* haem.

haemochromogens. **hemocromógenos.** *See* haematin.

haerangiomycetes. **herangiomicetos.**

A group of the **Ascomycetales**, including some of the members in which the ascus does not have a definite cell wall.

haerangium. **herangio.** A funnel-like extension formed by filaments from the edge of an ostiole.

hair. **tricoma.** A thread-like growth on a plant.

hair-like. **piliforme.** Having the appearance of hair.

hairy. **peloso.** A hair-like covering.

half-inferior. **medio-inferior.** Describes an ovary when the lower part is embedded in the pedicel and the upper part is exposed, as in **Tetragonia**.

half-life. **período de vida media, semiperíodo.** The time needed for half the radiation of a radioisotope to be emitted; also, the length of time needed for half of a given substance deposited in a living organism to be metabolized or eliminated; also the length of time it takes for half the species in a group to become extinct; also the time required for a chemical reaction to affect half of the reactants.

half-race. **media raza.** A race of plants

in which only a few of the seedlings show the characteristic of the race, the other have the ordinary characteristic of the species, and in which selection does not lead to the fixing of a pure race.

haliplankton. **haliplancton**. The plankton of the seas.

hallucinogen. **alucinógeno**. A compound that produces mind-altering effects when ingested by humans.

halo-. **halo-**. A prefix that means, "pertaining to salt".

halobiotic. **halobiótico**. Living in a strongly salty environment, as around a seashore.

halobiontic. **halobiontico**. Strictly confined to salt water.

halonate. **halonado**. Of a leafspot fungus whose symptoms are concentric rings; also, of a spore having a ring around it.

halophile. **halófilo**. A freshwater species capable of living in saltwater.

halophilic. **halófilo**. Growing or living in an area rich in salt.

halophilous. **halófilo**. Thriving in or having a preference for salty soil, as in salt marshes and mudflats; also, pertains to microorganism that tolerate high concentrations of salt.

halophobe. **halófobo**. A plant that will not grow in a soil containing an appreciable amount of saltwater.

halophyte. **halófito**. Plants that grow naturally in salty soil or salt laden air, as some glassworts (**Salicornia**).

halosere. **haloser(i)e**. A sequence of communities associated with the developmental stages in plant succession on a salt marsh or salt desert.

hamate. **hamoso**. Hook-shaped or having a hook, as a narrow leaf hooked

at the tip or a bent trichome.

hamulate. **armado de púas**. Having a small hook or the appearance of a small hook.

handle-shaped. **manubrio**. In some algae, a cylinder-like cell protruding out from the shield in the wall of the antheridium; manubrium.

hapaxanthic. **hapaxántico**. **hapaxanto**. **monocárpico**. During a life span, fruiting or flowering only one time

haplo-. **haplo-**. A Greek prefix that means, "single".

haplobiont. **haplobionte**. A plant which has only one type of individual in its life cycle; also, having one type of thallus which is typically haploid.

haplocaulescent. **haplocaulescente**. Having a single axis.

haplochlamydeous chimaera. **quimera haploclamideo**. A periclinal chimaera in which one component is present as a single-celled layer, forming an epidermis.

haplodioecious. **haplodioecia**. Heterothallism.

haplodiplont. **haplodiplonte**. A sporophyte in which the cells contain the haploid number of chromosomes.

haplogonidium. **haplogonidio**. A gonidium produced singly, not in a group.

haploid. **haploide**. Describes a nucleus cell with a single set of unpaired chromosomes; brought about by meiosis, which is necessary for gamete formation; sometimes referred to as the sex cell.

haploid phase. **fase haploide**. See haplophase.

haploidy. **haploidia**. The condition of being haploid.

haplomonocios. **haplomonocia**.

Homothallic.

haplomorphic. **haplomorfo**. Flower parts spirally arranged in a semi-spherical or hemispherical form.

haplont. **haplonte**. An organism that is haploid during its entire lifetime, except as a zygote.

haplophase. **haplofase**. The haploid phase of an organism.

haplopolyploid. **haplopolidioide**. A plant derived from a polyploid by haploid parthenogenesis and therefore having half the number of chromosomes of the original polyploid.

haplois. **haplois**. The decrease in the number of chromosomes to half during meiosis.

haplostele. **haplostela**. A protostele with a smooth circular outline in a transverse section.

haplostemonous. **haplostémono**. Having the stamens in one whorl.

haplostromatic. **haplostromatico**. Having only an ectostroma or endostroma.

haplosynoeious. **haplosinoecia**. Homothallic.

haploxylic. **haploxílico**. Said of a leaf having one vascular strand.

haptera. **hapterios**. Attachment appendages or root-like forms of holdfast growing from the stems of aquatic plants and marine algae.

haptonasty. **haptonastia**. A movement induced by touch but not influenced by the direction of the stimulus.

haptotropism. **haptotropismo**. The tropic response (closing) of a plant being touched. *See* thigmotropism.

hard bast. **liber duro**. Sclerenchyma produced in the phloem.

harden off. **aclimatar**. To adapt a plant to new, outside conditions by withholding water, lowering the tem-

perature, or nutrient supply; especially used prior to transplanting.

hardening. **aclimatación**. Adapting plants to outdoor conditions. *See* harden off.

hardwood. **leñosa**. An angiospermous wood or tree species that has a high density (mass per unit of volume), broad, flat leaves, as distinguished from the softwood, coniferous or needle-leaved trees.

hardy. **resistente a las heladas**. Not harmed by climate extremes; usually applied to plants growing in the temperate zone that can survive frost.

Hardy-Weinberg law. **ley de Hardy-Weinberg**. A law stating the expected allele frequencies from one generation to the next under a set of specific conditions that precludes allele frequency changes; that random mating of individuals is equivalent to the random union of gametes.

harlequin chromosome. **cromosoma arlequín**. Sister chromatids that stain differently so that one appears dark and the other light. *See* sister chromatid exchange.

harsh. **áspero**. Having a rough surface, as on some leaves.

hastate. **hastado**. Triangular or arrow-shaped with two flaring basal lobes, as a hastate leaf; halbert-shaped.

hastiform. **hastiforme**. Resembling or having the shape of an arrow; having hastate or triangular-shaped leaves.

hulm. **caña**. A stem of grass (**Poaceae**), especially of cultivated cereals or bamboos (**Bambusaceae**); culm.

haustorial. **haustórico**. Of or per-

taining to a haustorium.

haustorium (*pl.* haustoria). **haustorio.**

In some parasitic fungi, an outgrowth from a thread-like filament that enters a host to absorb nutrients; also, in some parasitic flowering plants, one of the small roots that attaches itself to and penetrates the host to absorb nourishment.

hazard. **peligro.** Anything that can cause injury, disease, economic loss, or environmental damage.

head. **cabezuela.** A crowded group of sessile or subsessile flowers on a compound receptacle or torus, as the inflorescence of the **Asteraceae (Compositae)**; a type of inflorescence with the individual flowers grouped closely together on a receptacle; capitulum; also, a group of conidia and sterigmata crowded into a dense mass, which is rounded in outline.

heart-shaped. **cordiforme. acorazonado.** Having the form of a heart, as some leaves; cordate; cordiform.

heartwood. **corazón de la madera.** The dead, central wood of an exogenous tree, frequently impregnated with tannins, resins, and other excretory products, with the heartwood harder, somewhat darker and more solid than the surrounding sapwood; duramen.

heath. **brezo. brezal.** A flat, uncultivated region without trees; usually covered with low, shrubby plants.

hebetate. **hebetado.** Having a blunt or soft point.

height. **altura.** The distance from the bottom to the top.

hekistotherm. **hekistotermia.** Cold-tolerate plants of the Polar Regions.

helical. **helicoidal.** Having the form

of a helix.

helicoid. **helicoide.** Coiling in a spiral, like a snail shell.

helicoid cyme. **cima helicoide.** A determinate inflorescence in which the branches coil and develop only on one side, as in the **Boraginaceae**; bostryx.

helicoid dichotomy. **dichotomia helicoide.** A branch system of repeated dichotomies, giving a weak and strong branch, the latter always being on the same side.

heliophilous. **heliófilo.** Attracted by the sun, as heliophilous flowers.

heliophyte. **heliófita.** Plants that can adapt to bright, sunny habitats, as opposed to the shade-preferring sciophytes.

heliosciphite. **helioscífita.** A plant which will tolerate shade but grows better in the sun.

heliospore. **heliospora.** A coiled, corkscrew-shaped spore which is commonly septate.

heliotaxis. **heliotaxis.** Movement in response to sunlight.

heliotropic. **heliotrópico.** A plant or part of a plant that grows in the direction of light; phototropic.

heliotropism. **heliotropismo.** The tendency of some plants to bend or turn under the influence of light, especially sunlight; positive heliotropism causes a movement toward the light and negative heliotropism causes a movement away from the light; phototropism.

helix. **hélice.** A spiral form often used in reference to the double spiral of the DNA molecule.

helmet. **casco.** The upper lip of an open corolla or any similar hood-like part; galea.

helmet-shaped. **galeiforme.** Flowers

with the shape of a helmet, as the monkshood and various other aconites (**Aconitum**); galeiform.

helminthoid. **helmintoide**. Worm-shaped.

helodrium. **helodrio**. A thicket formation.

helophyte. **helófito**. Plants typically found growing in marshes and along the edge of lakes, in which the perennating bud lies in the soil or mud below the water level, but the aerial shoots stick out above the water, as the reed *Phragmites communis*; a bog plant.

helotism. **helotismo**. A form of symbiosis in which one partner benefits more than the other, *e.g.* the fungus in a lichen thallus benefits more than the alga.

hemi-. **hemi-**. A Greek prefix that means, "half" or "partial".

hemianatropous. **hemianátropo**. **hemítropo**. Describes an ovule which is half-inverted so that the funiculus is attached near the middle with the micropyle terminal at a right angle. Same as hemitropous.

hemiangiocarpic. **hemiangiocarpo**. Said of the fruit body of a fungus when the hymenium begins its development enclosed, but is exposed at maturity; also, said of sporocarp which opens just before it is mature.

hemiascus. **hemiasco**. **hemiasca**. An atypical, multispore ascus.

hemiautophyte. **hemiautófito**. A parasite that contains chlorophyll so that it can manufacture some carbohydrate.

hemicarp. **hemicarpo**. Mericarp.

hemicellulose. **hemicelulosa**. A heterogeneous group of gummy compounds in plant cell walls, rich in

five-carbon sugars, which form part of the matrix where cellulose fibers are embedded; similar to cellulose, but more easily degraded.

hemicryptophyte. **hemicriptófito**. A Raunkiaer category of plants whose perennating buds are at ground level and the aerial shoots die down at the beginning of unfavorable conditions.

hemicyclic. **hemicíclico**. Designating flowers which have the separate portions of the inflorescence arranged in spirals.

hemiform. **hemiforme**. A form of life cycle in the **Uredinales**, which includes only uredospores and teleutospores.

hemigamous. **hemigamo**. Having one of the two florets in the same spikelet neuter, and the other unisexual; said of grasses (**Poaceae**).

hemikaryon. **heminúcleo**. A cell with the haploid number of chromosomes.

hemiparasite. **hemiparásito**. A partially parasitic plant that has chlorophyll and photosynthesizes but adds to its nutrient supply by also feeding on a host; characteristically form haustorial connections (root grafts) with plants around them; sometimes referred to as a semi-parasite; facultative parasite.

hemisaprophyte. **hemisaprófito**. Facultative parasite.

hemispor. **hemispora**. Used especially for the fungi attacking skin: a cell at the end of a filament which later becomes a deuterioconidium by division.

hemitropous. **hemítropo**. **hemianátropo**. *See* hemianatropous.

hemizygote. **hemicigoto**. **hemizigoto**. A plant or animal whose chromo-

somes have only one pair of genes.
 hemizygous. **hemizigótico**. The condition of having only one set of alleles instead of two, as in the case of loci on the X chromosome in males; also, of or pertaining to a hemizygote.

hendeca-. **hedeca-**. A prefix that means, "eleven of _____".

hendecagynous. **hendecagio**. Having eleven pistils.

hendecandrous. **hendecandro**. Having eleven stamens.

hepatica. **hepática**. Liverworts; plants from the class **Hepaticae**, which are similar to mosses (**Musci**), and together are termed bryophytes (**Bryophyta**).

hepta-. **hepta-**. A Greek prefix that means, "seven".

heptamerous. **heptamero**. Having seven members, as in each whorl; often written 7-merous.

heptandrous. **heptandro**. Having seven stamens.

heptapetalous. **heptapétalo**. Having seven petals.

heptasepalous. **heptasépalo**. Having seven sepals.

heptaspermous. **heptaspermo**. Having seven seeds.

heptose. **heptoso**. A monosaccharide with seven carbon atoms.

herb. **hierba**. Seed plants whose non-woody stems die back to the ground at the end of the growing season, distinguishing them from trees and shrubs; also, a plant whose flowers, leaves, roots, or stems can be used for medicine, seasoning, or perfume.

herbaceous. **herbáceo**. Having the characteristics of an herb; plants that do not develop woody tissues; typically annual and biennial plants;

perennials that die back to the ground level each year.

herbaceous layer. **estrato herbáceo**. *See* field layer.

herbal. **de hierbas**. Of or pertaining to herbs or uses for herbs, as herbal or medicinal tea.

herbalist. **herbolario**. **herborista**. **yerbatero**. **yerbatera**. A person who collects or deals in herbs; formerly, a descriptive botanist; a traditional physician that uses herbs.

herbarium. **herbario**. An institutional repository for dried and pressed plant collections that may additionally conduct research, provide training, facilitate referrals, engage in documentation, and serve as a specialized library and data storehouse.

herbicidal. **herbicidal**. That which inhibits or kills plant growth, a herbicidal compound.

herbicide. **herbicida**. A chemical that kills a plant or inhibits its growth; may work against a narrow or wide range of plant species.

herbivore. **herbívoros**. Animals that feed only on plants.

hercogamy. **hercogamia**. The condition of a flower when the stamens and stigmas are arranged so that self-pollination is impossible.

hereditary. **hereditario**. Being transmitted or capable of being transmitted by genes from parents to offspring; passed down by inheritance.

hereditary character. **carácter hereditario**. *See* hereditary characteristic.

hereditary characteristic. **característica hereditario**. Any detectable attribute, character, or property of the plant that is transmitted from parent to off-spring, as color; trait.

hereditary determinant. **determinante**

- hereditario.** A gene; also, a hereditary factor corresponding to the function of a gene.
- hereditary factor. **factor hereditario.** A gene.
- heredity. **herencia.** The transmission or capability of transmission of morphological and physiological characters from parent to child through chromosomes and their thread-like genes.
- heritability. **heredabilidad.** A measure of the extent to which a phenotype is genetically influenced and can be modified by selection; a heritable condition.
- heritable. **heredable.** Capable of being inherited, as a physical trait.
- hermaphrodite. **hermafrodita.** A flower having both stamens (male) and pistils (female) reproductive parts in a single floral envelope or on the same receptacle; bisexual; perfect; monoclinal.
- hermaphroditic. **hermafrodita.** *See* hermaphrodite.
- hermaphroditism. **hermafroditismo.** The condition of a hermaphrodite; gynandry.
- hesperidin. **hesperidina.** A flavonoid occurring in citrus fruit peel and in most citrus fruit when immature.
- hesperidium. **hesperidio.** A fleshy berry-type fruit, covered by a tough, leathery skin, divided internally by separable pulpy cells, and growing on **Citrus** trees, such as grapefruit, orange, or lemon.
- heterandrous. **heterandro.** Having stamens that are not all the same size.
- hetero-. **hetero-.** A Greek prefix meaning "different", "other" or "not normal".
- heteroallele. **heteroalelo.** A type of allelic mutation which occurs at different sites within one gene, as opposed to homoallele mutants of a gene that have different mutations at the same site.
- heteroauxin. **heteroauxina.** Indolyl-acetic acid; indole-3-acetic acid.
- heterobasidium. **heterobasidio.** A septate basidium.
- heterobrachial. **heterobraquial.** A chromosome bent into two parts of unequal length.
- heterocarpous. **heterocarpo.** Bearing fruit of two kinds or shapes, as in **Amphicarpaea**.
- heterocarp. **heterocarpia.** *See* heterocarpous.
- heterocaryon. **heterocarionte.** *See* heterokaryon.
- heterochlanydeous. **heteroclamideo.** The flower whorl is different in form, size and color; also having a distinct calyx and corolla.
- heterochromatic. **heterocromático.** Having more than one color, as heterochromatic flowers.
- heterochromatin. **heterocromatina.** A portion of chromatin with tightly coiled DNA, inactive in the transcription of the genetic code, and staining intensely during the interphase of mitosis; an effective gene repressor which neutralizes protein-forming activities genes.
- heterochromosomes. **heterocromosoma.** Chromosomes composed mostly of heterochromatin.
- heterochromous. **heterocromo.** Having different colored florets in the center than those on the margin, as asters or daisies (**Asteraceae**).
- heterochrony. **heterocronia.** Dissociation during the development of shape, size, and maturity, so that these features mature at earlier or

later growth stages.

heterocyclic. **heterocíclica**. The ring system of a compound molecule made up of atoms of different elements.

heterocyst. **heterocisto**. **heterociste**. A large, specialized cell located along filaments in blue-green algae.

heterodromous. **heterodromo**. Having leaves on stems that spiral in one direction and leaves on branches, spiraling in the opposite direction.

heterodynamic. **heterodinámico**. Of unequal potentiality.

heterodynamic hybrid. **hibrido heterodinámico**. A hybrid that resembles one parent more than the other.

heteroecious. **heteroico**. In some parasitic fungi, having various stages of growth take place on different hosts; heteroxenous.

heteroecy. **heterocia**. Dioecious; also, heteroecious.

heterofertilization. **heterofertilización**. The fertilization of the endosperm nucleus and egg-nucleus by gametes of different genetic composition.

heterogametangic. **heterogametangico**. Having gametangia of more than one type.

heterogamete. **heterogameto**. Two differing gametes, either in structure or behavior, which can unite with the other to form a zygote.

heterogametic. **hetergamético**. With respect to sex chromosomes, producing two types of gametes.

heterogamous. **heterógamo**. Having flowers or florets that are sexually different borne on the same plant; maturation of flower parts occurring at different times.

heterogamy. **heterogamia**. Reproduction by the union of two different types of gametes; anisogamy.

heterogeneity. **heterogeneidad**. A phenotype that can be produced by different genetic mechanisms.

heterogeneous. **heterogéneo**. **heterógeno**. Made of dissimilar parts; varied; not homogeneous.

heterogenesis. **heterogénesis**. *See* alternation of generations.

heterogenic. **hetergénico**. Of a population or gamete containing more than one allelomorph of a particular gene or genes.

heterogonic coefficient. **coeficiente de heterogonico**. An allometric coefficient which is used in expressing the ratio of relative growth rates. Expressed as $\log Y/d \log X$, where X is the measure of the organ, or part of the organ, and Y is the measurement of the whole organism, or part of it.

heterogonous. **heterogono**. Refers to monoclinal flowers that occur in two or more forms but cross-fertilization is still possible because of the differing lengths of stamens and pistils.

heterogony. **heterogonia**. An alternation of generations in which a parthenogenetic generation alternates with a sexual generation; also, the condition of being heterogonous.

heteroicous. **heteroico**. Said of the **Bryophyta** which have more than one kind of arrangement of the antheridia and archegonia on the same plant.

heterokaryon. **heterocarión**. A cell with several genetically different nuclei, especially a fungal mycelium or hypha.

heterokaryosis. **heterocariosis**. Of a cell having more than one genetically different nucleus.

heterokinesis. **heterocinesis**. Differential division of chromosomes.

heteromerous. **heterómero**. Composed of units, such as cells, of different types; also, having the flower parts of one or more whorls differing in number from the others; also, layered, as with a lichen thallus where the algae cells lie between two layers of fungus hyphae; anisomerous.

heteromorphic. **heteromórfico**. Occurring in different forms, as in the relative length of the stamens and pistils; also, chromosome pairs with some homology but differing in size and shape, especially at meiosis.

heteromorphic incompatibility. **incompatibilidad heteromórfico**. Incompatibility associated with or dependent on morphological variations.

heteromorphous. **heteromorfo**. Existing in more than one form; also, having more than one kind of flower on the same plants. *See* heteromorphic.

heteronomous. **heterónomo**. Having different growth modes, as heteronomous appendages.

heteropetalous. **heteropétalo**. Having two different types of petals on the same plant.

heterophyllous. **heterófilo**. Having two different types of leaves on the same plant; heterophyllous shoots come from winter buds and are different than the other leaves that develop later.

heterophylly. **heterofilia. polimorfismo foliar**. A condition of having different shaped leaves on the same plant.

heteroploid. **heteroploide**. Having a chromosome number that is not the same multiple of the haploid number of chromosome of the species; aneuloid.

heteropucnosis. **heteropucnosis**. Excessive charging of heterochromatin with nucleic acid at meiosis and premeiotic divisions.

heterosepalous. **heterosépalo**. Having different types of sepals on the same plant.

heterosis. **heterosis**. The increased vigor, growth, size, yield, or function of a hybrid progeny over the parents by crossing genetically unlike organisms; hybrid vigor.

heterosporangy. **heterosporangia**. The formation of more than one kind of sporangium containing more than one kind of spore.

heterosporic. **heterospórico**. Producing both microspores and megaspores.

heterosporous. **heterospóro. heterospóreo**. Having two different kinds of spores, often different in size.

heterospory. **heterosporia**. The production of more than one kind of asexual spore on the same plant.

heterostylism. **heteroestilismo**. Polymorphism found in angiosperm flowers; heterostyly.

heterostylous. **heterostilo**. Styles of different lengths on different plants of the same species which tends to encourage cross-pollination.

heterostyly. **heterostilia**. Anthers and styles of different heights that facilitate cross fertilization through pollination by insects; also, the division of a species into two or three kinds of individuals by the relative positions of the stigma(ta) and anthers; heterostylism.

heterosynapsis. **heterosinapsis**. The pairing of two dissimilar chromosomes.

heterotaxis. **heterotaxis**. An abnormal or an irregular arrangement, as parts of a plant.

heterothalism. **heterotalismo**. Refers to algae and fungi having separate, physiologically different male and female thalli; or in the fungi, both types of sex organs may be present on the same thallus, but self-fertilization is impossible. Sexual reproduction only occurs when two appropriate strains come together.

heterothallic. **heterotático**. Having two types of haploids, one serving as male and the other female, as fungi that are designated plus and minus are said to be heterothallic.

heterotroph. **heterótrof**. An organism that cannot make its own food, but is dependent on organic substances for nutrition, as fungi and most bacteria.

heterotrophic. **heterotrófico**. Obtaining nutrients from organic material; unable to use inorganic matter.

heterotropous. **heterótrofo**. Having the embryo or ovule oblique or traverse to the axis of the seed; the ovule position not fixed in the ovary.

heterotypic. **heterotípica (inflorescencia)**. Identifies the first meiotic division of a germ cell.

heteroxenous. **heteroico**. *See* heteroecious.

heteroxeny. **heteroxenia**. *See* heteroecious.

heterozygo(si)ty. **heterozigotismo**. Developing from a heterozygote; being heterozygous.

heterozygosis. **heterocigosis**. **hetero-**

zigosis. *See* heterozygosity.

heterozygote. **heterozigoto**. **heterocigoto**. A plant whose chromosomes have both genes of a contrasting pair, as tallness and shortness, and therefore do not always breed true to type; and, having non-identical alleles at a specific gene locus; also, a zygote derived from the union of gametes dissimilar in quality, quantity, or arrangement of their genes, so that it is heterozygous for one or more allelomorphs.

heterozygous. **heterozigótico**. **heterocigótico**. Having different genes of a Mendelian pair present in the same cell, as a tall pea (**Pisum**) with genes for both tallness (T) and dwarfness (t).

hexa-. **hexa-**. A Greek prefix that means, "six".

hexamerous. **hexamero**. Having parts arranged in sixes or multiples of six; 6-merous.

hexandrous. **hexandro**. Having six stamens.

hexaploid. **hexaploide**. In each cell, having six full sets of chromosomes.

hexaploidy. **hexaploidia**. The condition of having six times the haploid set of chromosomes in the somatic cells.

hexasomic. **hexasomico**. A diploid with one chromosome represented six times.

hexokinase. **hexoquinasa**. The enzyme which combines the phosphate in ATP with glucose to give glucose 6-phosphate.

hexosans. **hexosáns**. Hemicelluloses formed from hexose sugars.

hexose. **hexosa**. A monosaccharide sugar having six carbon atoms.

hexuronic acids. **ácido hexurónico**. Acids derived from six carbon sug-

ars found mostly in the pectic substances and the hemicellulose of the cell wall.

hians. **hians**. Latin meaning "gaping".

hiascent. **hiascente**. Becoming wide open.

hibernaculum. **hibernáculo**. The part of a plant that is specialized to protect the embryo during winter, as a bud or bulb.

hibernal. **hibernal**. Flowering or appearing in the winter time; also, used in reference to the six part division of the year: hibernal, aestival, autumnal, prevernal, serotinal, and vernal.

hibernate. **hibernar. invernar**. To live through the winter in an inactive state.

hibernation. **hibernación**. Remaining quiescent during the winter.

hibernating. **hibernante. invernante**. Overwintering.

hiematis. **hiematis**. Latin meaning "winter".

high. **alto. alta**. Greater than usual development; more complex, especially in structure, as higher fungi.

higher fungi. **hongos superiores**. Fungi belonging to the subdivisions **Ascomycotina, Basidiomycotina,** and **Deuteromycotina**; true fungi

Hill reaction. **reacción de Hill**. The splitting of a molecule of water during the light reactions of photosynthesis; occurs when chloroplasts exposed to light yield oxygen even in the absence of carbon dioxide, provided the hydrogen acceptors are present to cause the dissociation of water and the resulting release of oxygen; the photolysis of water.

hilum. **hilo**. A scar on the testa of a

seed that shows where it was attached to the funicle; also, the nucleus in grasses (**Poaceae**); also, the point on a fungal spore where it was attached to its sporophore; also, the lateral depression in which the flagella are inserted in reniform zoospores.

himantoid. **himantoide**. Said of a mycelium which spreads out in fan-like cords.

hinge. **ginglimo**. A thin strip in the wall of a guard cell about which movement can occur.

hip. **cinarrodon**. A small, fleshy hypanthium that surrounds numerous achenes, as on mature rose bushes (**Rosa**).

hippocrepiform. **hipocrepiforme**. Having the shape of a horseshoe.

hircinus. **hircinus**. Latin meaning "with a goatly smell".

hirti-. **hirti-**. A Latin prefix that means, "with long hairs".

hirsute. **hirsuto**. Covered with long, stiff trichomes.

hirsutidin. **hirsutidina**. An anthocyanin.

hirsutulous. **hirsútulo**. Covered with very small hirsute.

hirtellous. **hértulo**. Having bristles; hirsutulous.

hirtose. **hirtoso**. Having hairs.

hirtus. **hirtus**. Latin meaning "hirsute".

hispid. **hispidó**. Covered with very long, bristles, spines, or stiff trichomes.

hispidulous. **hispidúlo**. Similar to hispid but the trichomes are smaller or more delicate.

histidine. **histidina**. A basic, polar amino acid. *See* polar molecule.

histochemistry. **histoquímico**. The study of tissues and cells, using

- procedures from chemistry and biology.
- histocompatibility. **histocompatibilidad.** The condition in which grafted or transplanted tissue is accepted (without rejection) by surrounding tissue.
- histogen. **histógeno.** Any area of a plant in which tissue differentiation occurs.
- histogenesis. **histogénesis.** The development of tissues from embryonic germ layers.
- histogenous. **histógeno.** Produced from tissues; also, of spores produced from hyphae or cells without conidiophores.
- histogeny. **histogenia.** Histogenesis.
- histoid. **histoide.** Covered with soft fibers or hairs, appearing like a cobweb.
- histology. **histología.** The study of tissue structures of plants or animals, especially the microscopic structures.
- histolysis. **histólisis.** The disintegration of tissues due to the disappearance or solution of the walls or tissues.
- histone. **histona.** Proteins, rich in amino acids, found in the nucleus and associated with the eukaryotic chromosomes and nucleolus.
- hoarfrost. **escarcha.** See white frost.
- hoary. **canescente.** Covered by dense, grayish-white hair.
- holandric. **holándrico.** Of or pertaining to the inheritance of genes located on the Y chromosomes.
- holdfast. **órgano fijador. órgano de sujeción.** A structure at the base of macroalgae that attaches the stalk to a rocky surface.
- holistic. **holístico.** Pertaining to the whole. In ecology, the term is used to indicate the study of an entire ecosystem rather than its component parts.
- hollow. **hueco.** An empty space.
- hollowed. **fistuloso (en órganos cilíndricos).** Tubular or reed-like.
- holo-. **holo-.** A Greek prefix that means, "entire" or "complete".
- holobasidium. **holobasidio.** A basidium which is not septate.
- holobenthic. **holobéntico.** Living at the bottom of the sea during all stages of development.
- holoblastic. **holoblástico.** An ovum composed mostly or completely of germinal matter.
- holocarpic. **holocarpico.** Used to describe a fungus in which the whole thallus differentiates to form one or more reproductive structures; also, said of a fungus which is completely enclosed in the host.
- holocentric. **holocéntrico.** Chromosomes in which the properties of the centromere are diffused over the entire chromosome.
- holoenzyme. **holoenzima.** A fully active complex enzyme composed of a protein component and a coenzyme.
- hologamete. **hologameto.** A gamete formed from the entire cell body, in **Protista.**
- hologamy. **hologamia.** The fusion of two mature cells each of which has been completely changed into a gametangium.
- holophyte. **holófito.** A plant that produces its own food by photosynthesis.
- holophytic. **holofítico.** Capable of synthesizing complex molecules from simple ones, thus storing chemical energy, and building new tissues from them; refers particularly to photosynthesis.

holosaprophyte. **holosaprófito**. A true saprophyte.

holotype. **holótipo. ejemplar tipo**. A single specimen on which the description of a species or variety is based; type specimen.

homo-. **homo-**. A Greek prefix that means, "same" or "similar".

homoallele. **homoalelo**. A type of allele mutant of a gene that has different mutations at the same site, as opposed to heteroallelic mutants which occur at different sites within one gene.

homobasidium. **homobasidio**. A non-spore-bearing basidium.

homobium. **homobio**. A self-supporting association of a fungus and an alga, as in lichens.

homocarpous. **homocarpo**. Having similar carpels or fruits, as in the head of a composite flower.

homocaryon. **homocarión. homocario**. *See* homokaryon.

homochlamydeous. **homoclamideo**. Having the same flower whorls; with the perianth having similar parts and each part a tepal.

homodromous. **homodroma**. Leaves on the stem and branches spiraling in the same direction; also, having all the leaves turned the same way.

homodynamic hybrid. **hibrido homodinámico**. A hybrid having an equal grouping of characters derived from each parent, and differing in appearance from both.

homoeosis. **homoeosis**. A type of variation in which a plant member takes on the characters of an unlike member, *e.g.* when a petal changes into a stamen.

homoeostasis. **homeostasis**. A dynamic steady state in which inter-

nal processes change in response to changes in external conditions to maintain constant internal conditions; a state of balance.

homogametic. **homogamético**. Producing one type of gamete or sex chromosome.

homogamous. **homógamo**. Having flowers of the same sex; also, stamens and pistils maturing at the same time.

homogamy. **homogamia**. Having a homogamous condition; especially having stamens and pistils of a monoclinal flower mature at the same time.

homogeneous. **homogéneo**. Having all the same character or kind of parts; uniform.

homogenesis. **homogénesis**. The ordinary path of generation in which the offspring is like the parent, both in structure and development.

homogenic. **homogénico**. Of a population or gamete containing only one allelomorph of a particular gene or genes.

homogenous. **homogéno**. Having the same structure because of a common origin.

homograft. **homoinjerto**. *See* allograft.

homoimerous. **homoímero**. Said of a lichen thallus in which the algal and fungal components are mixed, not in layers.

homokaryon. **homocarión. homocario**. A fungal mycelium where all the nuclei are genetically identical.

homolog(ue). **homologue**. Something that shows correspondence in structure or origin. The corresponding portion of a homologous chromosome.

homologous. **homólogo.** Being identical in morphology and in arrangement of genetic loci; also, corresponding in type of structure and in origin; in contrast with analogous.

homologous chromosome. **cromosoma homólogo.** A chromosome which contains an identical linear sequence of genes, and pair during meiosis. Each is a duplicate of one of the chromosomes provided by one of the parents and each is identical in shape and size; also, the pairs of chromosomes present in a diploid nucleus.

homologous recombination. **recombinación homólogo.** Crossing over and the exchange of segments between homologous chromosomes during meiosis I. The exchange can occur anywhere along the chromosome, and is reciprocal, fairly long, and with staggered joint forms between the interacting DNA strands.

homologous variation. **variación homólogo.** The occurrence of similar variations in related species.

homology. **homología.** Having a similar structure occurring in different organisms; as seen in the fertilization of lower plants, which is often achieved by motile male gametes. This is homologous to the male gamete of **Spermatophytes** which is non-motile and transferred in the pollen grain.

homomorphic. **homomorfo.** All of a similar shape, size, and form, but not the same structure or origin.

homomorphic incompatibility. **incompatibilidad homomorfo.** Incompatibility not dependent for its action on morphological variation, *e.g.* the incompatibility between two

strains of a fungus which look identical.

homomorphism. **homomorfismo.** The condition of being homomorphic.

homonym. **homónimo.** In botanical nomenclature, one of two or more separately published names for the same taxon or identical names for different taxa.

homopetalous. **homopétalo.** All the same type of petals.

homophyllous. **homófilo.** Having the same kind of leaves.

homophytic. **homofítico.** Having the diploid (sporophytic) thallus bisexual.

homoplasmic. **homoplásmico.** Homokaryotic.

homosporangic. **homosporangico.** Having only one kind of sporangium.

homosporic. **homospórico.** Having asexual spores of one kind only, as opposed to heterosporic.

homosporous. **homósporo.** Having only one kind of asexually produced spores, as opposed to heterosporous; also, producing spores that are all the same size; isosporous.

homospory. **homosporia.** The production of only one kind of asexual spores.

homostylous. **homostílo.** Describes species that have styles of the same length and character, as opposed to heterostylous.

homostyly. **homostília.** Having styles all the same length.

homosynapsis. **homosinapsis.** The pairing of two similar chromosomes.

homothallic. **homotálico.** Having one haploid type, that produces self-fertile cells which mate with each other; a homothallic fungus.

homothallism. **homotalismo.** homo-

talía. Said of the **Thallophyta** which bear male and female sex organs on the same thallus and are capable of self-fertilization. If both male and female organs are present but there is no self-fertilization, the organism is physiologically heterothallic.

homozygosis. **homozigosis. homozigosis.** Homozygosity.

homozygosity. **homozigotismo.** The condition of being homozygous; coming from a homozygote.

homozygote. **homozigoto. homocigoto.** A plant whose chromosomes have an identical pair of alleles at a given gene locus; for example tallness (T), which therefore will always breed true to type.

homozygous. **homocigoto. homozigótico.** Having similar genes of a Mendelian pair in the same cell as a dwarf pea (**Pisum**) with genes for dwarfness (tt) only; having identical genes at the same locus on each member of a pair of chromosomes which are homologous.

hood. **capuchón. cubierta.** The cover-shaped part of a perianth with a turned down margin; the upper petal or sepal, as in the monkshood, *Aconitum napelius*; flower parts shaped like a hood, especially the arched upper areas of the corolla or calyx in some species.

honey guide. **señal del néctar.** Lines, dots, etc. on perianth lobes showing insects the way to nectar; nectar guide.

hook. **ganchuelo. ganchillo.** A small hook, bent down or curved.

hooked. **uncinado. ganchudo. hamoso.** Curved like a hook; bent like a hook; uncinat.

hooked disseminule. **disemínulo**

uncinado. A fruit, seed, or spore with a hook that aids in dispersal by becoming attached to animals.
hordein. **hordeína.** A gluten protein.

horizon. **horizonte.** A stratum of the soil. They start with the A horizon at the surface and usually end with the C horizon, which is the parent material.

horizontal. **horizontal.** Lying flat or parallel to the ground, as a horizontal stem.

hormesis. **hormesis.** The stimulus given to an organism by a non-toxic concentration of a normally toxic substance.

hormocyst. **hormociste.** A short hormogonium enclosed in a thick, stratified sheath.

hormogone. **hormogonio.** Short sections of the trichome which are organs of vegetative reproduction in some of the **Myxophyceae**.

hormogonium. **hormogóneo.** In some algae, a segment of the filament that becomes detached and develops into a new filament.

hormone. **hormona.** Growth producing substances in the protoplasm of plants.

hormospore. **hormospora.** A thick walled, multicellular body, which is spore-like and produced by some **Myxophyceae**.

horological. **horológico.** Said of a flower which opens and shuts at a definite time of the day.

horn. **cornículo.** A curved, pointed, and hollow extension from the perianth.

horny. **córneo.** Describes a tapering projection similar to a cow's horn.

horotelic. **horotélico.** See horotely.

horotely. **horotémente.** The average

rate of evolution per million years for a taxonomic group or genera.

hortensis. **hortensis**. Latin meaning "of gardens".

horticultural. **horticola. de horticultura**. Of or pertaining to horticulture.

horticulture. **horiticultura**. The study and growing of various plants, especially decorative as flowers, fruits, shrubs, and trees.

hortus siccus. **hortus siccus**. Latin for a herbarium or collection of dried plants.

host. **huésped. hospedero**. A plant that provides nourishment protection for a parasite; also, the dominant partner in a symbiotic or commensal relationship.

host-specific. **hospedero-específico**. Living in or on a particular species as a host.

hue (color). **tono (color)**. One of the three measurements of color (hue, chroma, and value) indicating the degree of lightness of reds, yellows, greens, blues and purples.

hull. **casco**. The outside covering of a seed or fruit; also, the calyx of some fruit, as the green leaves around the stem of a strawberry (**Ericaceae**).

humic acid. **ácido húmico**. A fraction of the soil organic matter which is soluble in cold alkali, then precipitated in dilute acid, and then insoluble in ethanol.

humicolous. **humico**. Growing on soil or humus.

humid. **húmedo**. Very moist, with the air containing much water vapor.

humidity. **humedad**. The amount of moisture or water vapor in the air. See relative humidity.

humification. **humificación**. A process

in which organic matter (dead leaves etc.) in the upper soil is reduced to finely divided pieces of humus or partially decomposed organic material; essentially an oxidation process that reduces organic molecules into organic acids that are mineralized into simple, inorganic forms, suitable for uptake by plants. With the aid of saprotroph organisms, which use these dead materials for their own food, humification is a vital stage in the cycling of nutrients. In short, the transformation of organic material into humus.

humifusus. **humifusus**. Latin meaning "spreading on the surface".

humilis. **humilis**. Latin meaning "dwarf".

humins. **humina**. The fraction of the soil organic matter which is insoluble in cold alkali.

humus. **humus. mantillo**. A slightly soluble, dark brown or black, partially decomposed organic material in top soil, formed from decayed leaves and other vegetable matter, which helps retain water and water-soluble nutrients and is stable enough to release its nutrients to plants.

humus nucleus. **núcleo humus**. A combination of lignin and protein which forms the basis of humus.

husk. **cáscara**. The dry, outer covering of a variety of nuts, fruits and vegetables, such as the coconut husk, enclosing both the hard shell and the inner parts.

hyaline. **hialina**. Translucent or transparent; used to describe the consistency of an organ as thin and hyaline.

hyaline cell. **célula hialina**. A colorless

cell lying between those containing chlorophyll in a 'leaf' of *Sphagnum*.

hyalo-. **hialo-**. A prefix referring to spores which are hyaline or brightly colored.

hyalogen. **hialogéno**. A particle formed by the secretory processes of a cell.

hyalogenesis. **hialogénesis**. The secretory processes of a cell.

hyaloplasm. **hialoplasma**. The ground substance of cell cytoplasm where organelles and membranaceous constituents are implanted; cytoplasmic matrix.

hyalosporous. **hialosporo**. Having hyaline, one-celled spores.

hybrid. **híbrido**. The offspring of two parent plants that are from different varieties, species, sub-species, or genera.

hybrid cell. **célular híbrido**. A cell derived from the fusion of cells from different cultured cell lines.

hybrid swarm. **enjambre de híbridos**. A continuous series of morphologically distinct hybrids attributable to the hybridization of two species followed by a crossing and back-crossing of later generations.

hybrid vigor. **vigor híbrido**. *See* heterosis.

hybrid zone. **zona híbrida**. A geographical area where the hybrids of two geographical races may be found.

hybridism. **híbridismo**. The production of hybrids; crossbreeding; hybridity.

hybridization. **híbridación**. The crossing of individuals of unlike genetic composition; also, a method of breeding new cultivars that uses crossing to obtain genetic recombinations.

hybridize. **híbridar**. To produce by hybrids.

hybridity. **híbridez**. *See* hybridism.

hydathode. **hidatodo**. An opening on the tip or margin of some leaves that secretes water during guttation; also, a water-secreting gland found on the edges and tips of leaves.

hydrosphere. **hidrosfere**. The earth's water deposits, including: liquid water (oceans, lakes, and other surface and underground waters); frozen water (polar ice caps, floating ice caps, and ice in the soil ((permafrost))); and, water vapor in the atmosphere.

hydric. **hídrico**. Characterized by the need for much moisture, as hydric plants.

hydrase. **hidrasa**. An enzyme which can add or remove water without hydrolysis.

hydration. **hidración**. The addition of water, either physically, or in chemical combination.

hydrocarbon. **hidrocarburo**. Any of a large group of organic compounds containing only hydrogen and carbon.

hydrocarpic. **hidrocarpico**. Said of aquatic plants which ripen their fruits under water after pollination has taken place in the air above.

hydrochoric. **hidrocoro**. Dispersed by water.

hydrochory. **hidrocoria**. Water dispersal.

hydrogen. **hidrógeno**. A colorless, odorless, gaseous element with the chemical symbol H.

hydrogen acceptor. **aceptor de hidrógeno**. In the equation $AH + B = BH + A$, AH is the hydrogen donor, and B is the hydrogen acceptor.

hydrogen bond. **puente de hidrógeno. enlace de hidrógeno.** A type of chemical bond in which an electronegative atom interacts with a hydrogen atom that is participating in a polar covalent bond.

hydrogen donor. **donador de hidrógeno.** See hydrogen acceptor.

hydrogen ion. **hidrogenión. ion hidrógeno.** See ion.

hydrogen ion concentration. **concentración de hidrogeniones.** The pH.

hydrogenase. **hidrogenasa.** An enzyme that activates processes involving the addition of hydrogen to a substrate.

hydroid. **hidroide.** Plants that grow well in water or in very wet surroundings; also, empty, thin-walled cells in the central cylinder of certain mosses (**Musci**).

hydrolase. **hidrolasa.** An enzyme that activates processes involving the hydrolysis of a substrate.

hydrologic cycle. **cíclica hídrico.** The movement of water from the atmosphere to the earth and its return to the atmosphere.

hydrolysis. **hidrólisis.** A decomposition process by which one compound is broken down into other compounds by taking up elements in water; water serving as a reactant and not as a solvent; also, the addition of water to a large molecule to produce smaller ones.

hydrolytic. **hidrolítico.** Of or pertaining to hydrolysis.

hydrolyze. **hidrolizar.** To decompose by hydrolysis.

hydrophilic. **hidrofílico.** The quality of a substance, molecule, or surface to attract water.

hydrophilous. **hidrófilo.** Water loving plants; plants that grow best

in water or moist, wet conditions; also, pollinated by water.

hydrophobic. **hidrofóbico.** The quality of a substance, molecule, or surface to cause water to be repelled.

hydrophyte. **hidrófita.** Plants that are adapted morphologically and/or physiologically to grow only in water or very wet soil, as most algae.

hydrophytium. **hidrofítio.** A water-plant formation.

hydroponics. **cultivo hidropónico. hidropóni(c)a.** Growing plants in aerated water containing all the essential nutrients.

hypopote. **hidropota.** A cell or group of cells easily permeable to water and dissolved salts; found in submerged leaves.

hydrosere. **hidroser(i)e.** A continuity of communities that reflects developmental stages in plant succession which began in soil submerged by fresh water.

hydrostatic equilibrium. **equilibrio hidroestático.** Water that is in a state of perfect balance between the forces of gravity and pressure.

hydrotaxis. **hidrotaxis. hidrotactismo.** The movement of an organism toward or away from water in response to the stimulus of water.

hydrotropic. **hidrotrópico.** Plant roots that have a strong tendency to move toward water, as willows (**Salix**) and cottonwoods (**Populus**).

hydrotropism. **hidrotropismo.** The directional growth of a plant or plant organ, towards moisture in response to the stimulus of water.

hydrous. **hidratado.** Watery.

hydroxyl group. **grupo hidroxilo.** A univalent group $-OH$; one unit of oxygen and one unit of hydrogen,

found in all hydroxides.

hygrochastic. **higroquístico.** Of a fruit which opens by the absorption of water.

hygrometric. **higrométrico.** Said of a movement due to changes in the atmospheric humidity.

hygrophanous. **higrófono.** Having a translucent or watery appearance.

hygrophilous. **higrófilo. higrófito.** Growing well in damp places, as water lilies (*Nymphaeaceae*).

hygrophobe. **higrófobo.** Living in dry conditions.

hygroscopic. **higroscópico.** Absorbing water from the air; also, used to describe absorbed moisture held in soil and unavailable in amounts necessary for plants to survive.

hylum. **hilio.** A forest formation.

hylodium. **hilodio.** An open, dry woodland.

hylophyte. **hilófito.** A plant growing in damp woods.

hymatomelanic acid. **ácido himatomelánico.** A constituent of soil organic matter. It is soluble in cold alkali from which it is precipitated by dilute acid and is then soluble in ethanol.

hymenium. **himenio.** The spore-bearing, gill covering surface of mushrooms; also, the palisade-like layer of basidia.

hymenophore. **himenópteros.** Any structure bearing a hymenium.

hymenopodium. **himenópodio.** The tissue under the hymenium.

hypanthium. **hipanto.** A cup or tube-like enlargement of the flower receptacle below the calyx; the fused basal portion of sepals, petals, and stamens around the ovary.

hypanthodium. **hipantodio.** An inflorescence of sessile flowers borne

on a wall of a capitulum, as in the *Ficus*.

hyper-. **hiper-.** A Greek prefix that means, "beyond" or "above".

hyperbasal cell. **célula hiperbasal.** One of the two lowermost cells of the developing sporophyte of bryophytes and pteridophytes. It usually develops into part of the seta and foot.

hyperchimaera. **hiperquimera.** A chimaera in which the components are intimately mixed.

hyperdiploidy. **hiperdiploidía.** The condition where the full diploid complement of chromosomes is present, as well as a portion of one chromosome which has become translocated.

hypermorph. **hipermorf.** A mutant gene having a similar but greater effect than the non-mutant allelomorph.

hyperparasite. **hiperparasíto.** A parasite, as parasitic on another parasite; superparasite.

hyperplasia. **hiperplasia.** An abnormal increase in the size of tissue by cell division.

hyperploid. **hiperploide.** Having the number of chromosomes greater than, but not a multiple of, the diploid number for the species.

hypersensitivity. **hipersisibilidad.** A method of resistance to invasion by an obligate parasite. The first few host cells that are invaded first die rapidly, thus removing the food supply for the parasite, which consequently dies.

hyperstromatic. **hiperstromático.** Having the stroma on the upper surface of a leaf.

hypertonic. **hipertónico.** Of a solution, having a greater osmotic pres-

sure than the one with which it is being compared.

hypertrophy. **hipertrófia**. The abnormal increase in the size of a tissue by an enlargement of the original cells.

hypertrophyte. **hipertrófito**. A parasite causing hypertrophy.

hypha. **hifa**. A long, thread-like filament with a transparent wall, often reinforced with chitin, that is the structural unit of the mesh-like mycelium of many fungi and actinomycetes.

hyphomycetous. **hifomiceto**. Mold or cobweb-like.

hypophodium. **hifopodio**. A more or less lobed outgrowth from a hypha, often serving to attach an epiphytic fungus to a leaf.

hypnocyst. **hipnociste**. A thick-walled resting spore of some algae.

hypnospor. **hipnóspora**. A thick-walled aplanospore.

hypnozygous. **hipnócigo**. Said of a zygote which remains inert for some time after formation.

hypoascidium. **hipoascidio**. An abnormal cup-shaped outgrowth from a leaf; also, a transformation of a leaf, the inner surface corresponding to the lower surface of the leaf.

hypo-. **hipo-**. A prefix that means, "under".

hypobasidium. **hipobasidio**. An enlarged cell of a hyphae, in which a nuclear fusion takes place before the formation of the basidium.

hypobiosis. **hipobiosis**. Dormancy.

hypocarpogenous. **hipocarpógeno**. Flowering and fruiting underground.

hypochnoid. **hipoquinoide**. Having effused, resupinate, dry, rather loosely intertwined hyphae.

hypocotyl. **hipocótilo**. The embryonic stem (in the seed) which is

located below the cotyledons and above the radicle; embryonic axis.

hypocotylespermous. **macrópodo**. A seed type that has nourishment stored in the hypocotyl; macropodial.

hypocrateriform. **hipocrateriforme**. Salver-shaped; having a short tube with the limb spreading into a flat surface, as in the primrose (**Primulaceae**); used to describe a gamopetalous corolla.

hypocraterimorphous. **hipocraterimorfo**. Same as hypocrateriform.

hypodermis. **hipodermis**. **hipodermo**. The outer layer of cortex in stems, immediately under the epidermis; corresponds to the exodermis in roots.

hypodermal. **hipodermal**. Beneath the epidermis.

hypogeal germination. **germinación hipogeo**. In dicots, a type of seed germination where the cotyledons remain below the soil surface, as peas (**Pisum**).

hypogean. **hipogeo**. Growing underground.

hypogenous. **hipógeno**. Produced lower down.

hypogeous. **hipógeo**. Living or growing under ground; attached and growing under a leaf; subterranean.

hypogynium. **hipoginio**. A perianth-like structure of bony scales located at an angle to the ovary and occurring in **Scleria** and other members of **Cyperaceae**; also, a condition in some flowers in which all the floral parts, calyx, corolla, and stamens are attached below and free from the ovary.

hypogynous. **hipógino**. Located on the receptacle below the ovary, as sepals, petals, and stamens; also,

of an antheridium developing on a branch of the oogonial stalk; also, said of a flower in which the other parts arise below the gynecium.

hypogyny. **hipoginia**. A condition in flowers where the calyx, corolla, and stamens are inserted on the receptacle or axis below and unattached to the ovary.

hypolimnion. **hipolimnion**. The lower, cooler, non-circulating water in a thermally stratified lake during the hot summer months. Commonly, this layer is below the compensation level and the dissolved oxygen supply depletes gradually with replenishment by photosynthesis prevented until stratification breaks down in the autumn.

hyomorph. **hipomorf**. Of a mutant gene having an effect similar to, but less than that of the non-mutant allelomorph.

hyponasty. **hiponastia**. A nastic growth on the lower part of a plant organ, such as a nastic growth on the underside of a leaf which causes the blade to curve upward.

hypophloeodal. **hipofloeodal**. Growing or living underneath or inside tree bark.

hypophyllous. **hipofilo**. Attached to or growing on the under surface of a leaf.

hypoplasia. **hipoplasia**. A state of having growth less than others; a developmental deficiency.

hyploid. **hiploide**. A diploid lacking a piece or pieces of chromosome from its complement.

hypopolyploid. **hipopoliploide**. A polyploid in which one or more of the chromosomes are lost from the complete set.

hypostasis. **hipostasis**. *See* epistasis.

hypostatic. **hipostático**. Recessive, when relating to one of two characters which are not allelomorphic.

hypostomatic. **hipostomática**. Having stomata on the lower surface of a leaf.

hypostroma. **hipostroma**. A stroma found beneath the epidermis of the host.

hypothallus. **hipotalo**. In some lichens, a layer of fungal tissue under the thallus and extending beyond the edges; also, in myxomycetes, a layer of material where sporangium are positioned or the stalk.

hypotheca. **hipoteca**. The inner of the two half-walls of the cell wall of diatoms, and dinoflagellates.

hypothecium. **hipotecio**. The lower layer of an ascocarp of the **Hysteriales**. It contains the ascogenous hyphae.

hypothesis. **hipótesis**. A postulated explanation for one or more observations that must be tested experimentally before it can be accepted as valid or discarded if incorrect; an idea or belief than can be tested by experimentation.

hypotonic. **hipotónico**. Said of a solution having a smaller osmotic pressure than that of the solution with which it is being compared.

hypotrophy. **hipotrófia**. Eccentric thickening of the underside of an approximately horizontal shoot or root.

hypoxylloid. **hipoxiloide**. Forming a cushion-shaped, or crust-like stroma.

hysophyllary leaf. **hoja hisofilaria**. A bract.

hysteranthous. **histeranto**. Developing leaves after flowering.

hysteresis. **histeresis**. A lag in move-

ment at one level, in response to a stress at another level.

hysteriaceous. **histeriaceo.** Long and cleft.

hysteriform. **histeriforme.** Having the shape of a long, narrow ridge, with a longitudinal opening along the top.

hysterophyte. **histerófito.** A plant

which springs from and lives upon organic matter; also, of the order **Hysterophyta**; also, a fungus or any similar colorless organism.

hysterothecium. **histerotecio.** An elongated perithecium, remaining closed as it develops and opening when ripe, by a slit-like cleft at the top.

I

i.e. **i.e. es decir. esto es.** An abbreviation for the Latin phrase, *Id est*, which means, "that is."

IAA. **AIA.** An abbreviation for indoleacetic acid.

IBA. **AIB.** An abbreviation for indolebutyric acid.

ICF. **LIC.** An abbreviation for intercellular fluid.

ICSH. **ICHs.** An abbreviation for interstitial cell stimulating hormone.

identification. **identificación.** The taxonomic determination of the specimen, its naming, placement, and refinement in the classification system.

idioblast. **idioblasto.** An isolated plant cell that is quite different from the surrounding cell system; also, a supporting thick-walled, elongated cell, lacking chlorophyll, among chlorophyllaceous tissue.

idiochromatin. **idiocromatina.** A substance within the nucleus of a cell which controls the reproduction of the cell.

idioplasm. **idioplasma.** Germ-plasm.

idoses. **idoses.** Monosaccharides belonging to the aldohexoses.

illegitimate pollination. **polinización ilegítimo.** Self-pollination which takes place in spite of the flower appearing to be adapted for cross pollination.

imberbate. **glabro. imberbe.** Having no hair; smooth.

imbibe. **embeber. emparar.** To absorb moisture.

imbibition. **imbibición.** The absorption of water into the small spaces or pores of cellulose, pectin, and the cytoplasmic proteins in seed; it occurs when a solvent enters a colloid between the free capillary spaces and the intermicellar spaces. It causes the colloid to swell and ultimately to be dispersed. The swelling causes considerable pressure – the imbibitional pressure.

imbricate. **imbricado.** Overlapping; laying over each other in a regular order, as leaf buds.

imbrication. **imbricación.** The condition of being imbricate.

imine. **imina.** A compound composed of the imino group NH.

imino acid. **ácido imino.** An acid derived from an imine in which the components are combined to the same carbon atom. Proline is an imino acid.

imitation. **imitación.** Mimicry.

imitative. **imitativa.** Closely resembling, as an imitative coloration in flowers.

immaculate. **inmaculado.** Without colored spots; spotless.

immarginate. **inmarginado.** Lacking a distinct edge.

immature. **inmaduro. inmaturo.** Underdeveloped, as with fruits or leaves; juvenile; not completely grown; unripe.

immature community. **comunidad inmaduro.** A community in ecological succession, characterized

by only a few species and ecological niches; unable to efficiently capture and use energy or cycle critical nutrients.

immature. **inmaduro. inmaturo.** Underdeveloped, as with fruits or leaves; juvenile; not completely grown; unripe.

immaturity. **inmadurez.** The state or quality of being immature.

immediate germination. **germinación inmediato.** Germination without under going a period of inactivity.

immersed. **sumergido.** Growing completely under water; also, embedded in the tissues of the plant; also, arising beneath the surface of the substratum.

immigration. **inmigración.** The flow of different genes into a population, caused by new individuals that inbreed with the resident species.

immobilis. **immobilis.** Latin meaning "immovable".

immobilization. **inmovilización.** The conversion of an inorganic compound to an organic form by biological activity that removes it from the reservoir of compounds available to plant roots.

immune. **immune.** Free from attack by a specific pathogen; also, not subject to the disease.

immunity. **inmunidad.** Acquired: a natural or an acquired resistance to a pathogenic agent or substance. Structural: *e.g.* a thick cuticle may prevent the penetration of the fungal hyphae.

Physiological: *e.g.* the protoplasm is an unfavorable environment for the development of the parasite.

immunological. **inmunológico.** Pertaining to an immune response in

which a protein is synthesized by an organism to counteract some pathogenic agent.

imparipinnate. **imparipinnado.** Odd-pinnate; leaflets arranged on both sides of an axis but ending with a single terminal leaflet.

imperfect (flower). **imperfecto (flor).** With stamens or carpels absent in the flower; unisexual.

imperfect fungus. **hongo imperfecto.** Any fungi of the **Order Fungi Imperfecti** that only form asexual spores.

imperfect hybridization. **hibridización imperfecto.** An abortive attempt to form zygospores between the hyphae of two distinct species of *Zygomycetes*.

imperfurate. **imperfurado.** Having no holes or openings.

impermeability. **impermeabilidad.** The quality or state of being impermeable.

impermeable. **impermeable.** Characterized by the capacity to restrict the passage of substances.

impervious. **impermeable. no poroso.** Resistant to penetration by roots or fluids.

implicate. **implicado.** Entangled; interwoven; twisted together, as implicate hair.

impressed. **impreso.** Having the surface marked by slight depressions below the surface, as with some leaf venation.

in vitro. **in vitro.** Living in a test tube or outside the organism, as in an artificial environment; Latin for "in glass".

in vivo. **in vivo.** Residing in the living organism; Latin for "in living".

inactivity. **inactividad.** Not vegetating; dormancy, as plants in a state of

inactivity.

inaequale. **inaequale**. Latin meaning "unequal".

inarticulate. **inarticulada**. Not joined.

inbred line. **línea consanguínea**. **filiación consanguínea**. A pure line, generally originating by self-pollination and selection.

inbred. **endogámico**. Reproduced from closely related parents; developed from inbreeding.

inbreeding. **entrecruzamiento**. **crucamiento**. **endogamia**. Reproducing by the continuous mating of individuals of the same or closely related stock.

inbreeding coefficient. **coeficiente de consanguinidad**. **coeficiente de inbreeding**. The probability that an individual has a pair of alleles that are identical by descent from a common ancestor; the proportion of loci that carry alleles that are identical by descent from a common ancestor.

inbreeding depression. **degeneración consanguínea**. **depresión consanguínea**. A decline in successful breeding as a result of continuous inbreeding.

incanus. **incanus**. Latin meaning "hoary-white".

incanous. **incano**. Covered with a dense, grayish-white hair that grows on certain stems or leaves; canescent.

incertae sedis. **incertae sedis**. Of uncertain taxonomic position.

incipient plasmolysis. **plasmólisis incipiente**. The condition when about half the cells of a tissue are plasmolysed. It is in this condition that the osmotic pressure of cell sap is usually measured.

incised. **inciso**. Having sharp or deep

indentations, sometimes jagged or notched, as on the outer edge or margin of certain types of incised leaves.

incision. **incisión**. A deep notch or indentation, as on a leaf margin.

incline. **inclinado**. Rising in an upward direction and at a moderate angle.

included. **incluido**. Not extending beyond the surrounding parts, as stamens which don't protrude beyond the edge of the corolla, or as veinlets ending inside areoles; also, embedded in the xylem.

inclusion. **inclusión**. A body occurring in the cytoplasm of a cell.

inclusion body. **cuerpo de inclusión**. **corpúsculo de inclusión**. A non-living material present in the cytoplasm of a cell, such as a starch grain.

incompatibility (floral). **incompatibilidad (flor)**. A failure to achieve fertilization and seed formation after pollination, generally because of slow pollen tube growth in the stylar tissue; also, differences in the physiology of a host and parasite which inhibits or stops the growth of the latter.

incompatibility (graft). **incompatibilidad (injerto)**. The failure of two graft components (stock and scion) to unite and develop into a successfully growing plant.

incomplete. **incompleto**. Lacking one or more parts, as a leaf without blade, petiole or stipules; or lacking one of the four flower parts, sepals, petals, stamens, and pistils, as some willows (*Salix*).

incomplete dominance. **dominación incompleto**. A partial controlling influence in which a heterozygote

- shares a phenotype that is intermediate between those of the corresponding homozygotes.
- incomplete flower. **flor incompleta**. Without one or more of the four floral parts: sepals, petals, stamens, pistils.
- incrassate. **engrosado**. Thickened or thickening, as an incrassate node.
- incrustation. **incrustación**. A coating of iron carbonate or iron compounds on the surface of some algae.
- incubation period. **período de incubación**. The time between the inoculation with a pathogen and the development of symptoms.
- incubous. **incubo**. In leaf arrangements, the lower edge of each leaf is hidden by the upper edge of the next leaf down; commonly used to describe a type of leafy liverwort (**Jungermanniales**). *See* succubous.
- incumbent. **incumbente**. Leaning or resting against another part, as incumbent stamens or anthers leaning against the inner side of a filament.
- incurved. **incurvado**. Bent or curved inward or upward toward the apex or base; also, said of a radical which is bent back to lie on one of the cotyledons; campylotropous.
- indeciduous. **no deciduo. de hoja persistente. perennifolio**. Trees not losing their leaves seasonally; also, not deciduous, as a leaf.
- indefinite. **indeterminado**. Having a large, but indefinite number.
- indefinite inflorescence. **inflorescencia indefinida**. Not ending in a flower, and so theoretically, capable of further elongation; also racemose.
- indehiscent. **indehiscente**. Dry fruits that at maturity do not split open along definite lines to release their seeds.
- indentation (margin). **mella (margen)**. Notching on the outer border of leaves.
- independence. **independencia**. The relation between two variates, the variation of one being uninfluenced by the variation in the other.
- independent assortment (of genes). **distribución independiente (de los genes)**. A Mendelian principle that the alleles of two or more gene pairs on non-homologous chromosomes tend to be assorted independently of one another into gametes; also, a random alignment of homologous chromosomes in meiosis.
- indeterminate inflorescence. **inflorescencia indeterminado**. A type of inflorescence in which the lower or lateral flowers develop first and the primary axis continues to grow and elongate.
- indeterminate. **indeterminado**. Of or pertaining to a stem that produces unrestricted growth and does not terminate with flowering; also, without a distinctive edge.
- index fossil. **fósil característico**. The fossil remains of an organism that lived in a particular geologic age.
- index species. **especie indexa**. *See* indicator species.
- indicator species. **especie indicadora**. In a community classification system, an indicator species denotes the more characteristic member(s); also, in geobotany, they may highlight particular environmental factors, such as species which are heavy-metal tolerant indicating the presence of metallic ore; ecologically, indicative of a specific habi-

tat; also, an organism at the top of a food chain that indicates the lower levels by its food residues; index species.

indifferent species. **especies indiferente.** A species without an affinity for any particular community, but not rare, as an accidental species would be.

indigenous. **indígena. nativo.** A species that is living naturally in an area; not introduced; native.

individual. **individuo.** A single organism or plant that can not exist independently.

indoleacetic acid (IAA). **ácido indol(il)-acético (AIA).** A natural or synthetic plant growth regulator; an auxin.

indolebutyric acid (IBA). **ácido indol-butírico (AIB).** A synthetic compound used to regulate plant growth and development.

inducer. **inductor. agente inductivo.** A compound that stimulates the induction of a particular enzyme.

inducible enzyme. **enzima inducible.** An enzyme that is present only when stimulated by some particular substrate; adaptive enzyme.

induction. **inducción.** The process of initiating or increasing the production of an enzyme or other proteins.

induction of flowering. **inducción de la floración.** The process of initiating or regulating the time of flowering.

induction of mutation. **inducción de mutaciones.** The process of mutation determined by external conditions.

inductor. **inductor.** An embryonic tissue that influences the differentiation of other embryonic tissue.

indumentum. **indumento.** A hairy or scaly covering that is often easily rubbed off, especially pubescence.

induplicate. **induplicado.** Having leaf or flower margins bent inward and touching the margin of each adjoining structure.

indurated. **endurecido.** Hardened.

indusium. **indusio.** In ferns, a thin, epidermal outgrowth that covers the sorus; often breaking at the time of spore maturation.

inequilateral. **inequilátere.** With halves or sides unequal in shape and size; not symmetrical.

inermis. **inermis.** Latin meaning "unarmed" or "thornless".

inermous. **inerme.** Having no prickles or spines; unarmed.

inert. **inerte.** Having very limited or no physiological properties.

inertia. **inercia.** The ability of an ecosystem to resist being disturbed or altered.

infection. **infección.** The invasion of plant tissue by a pathogenic microorganism.

infection tube. **tubo infección.** The germ tube which penetrates the host from the germinating spore of a parasitic fungus.

inferior. **inferior. infero (relativo al ovario).** Growing below some other part, as having the floral organs attached above the ovary with the hypanthium fused to the lower half. The flower is then epigynous. Also, inferior is used to describe the annulus of an agaric when it is placed low on the stipe.

inferior ovary. **ovario infero.** An ovary where parts of the calyx, corolla, and stamens are more or less joined so that they appear to be attached at the top of it.

inferior palea. **palea inferior**. In the florets of grasses, the 2-nerved membrane (palea) in the inner bract which is located between the flower and the rachilla (a shortened axis). Together, the lemmas (bearing in their axis a single flower), the flower, and the palea, constitute the floret.

infertile. **infértil. infecundo**. Not able to reproduce; barren; unproductive.

infiltration of water. **infiltración de agua**. The downward movement of water through soil.

inflated. **inflado**. Swollen, thickened, or distended, as a perianth or pericarp.

inflexed. **inflexo**. Bent or curved downward or inward, as with a petal or sepal.

inflorescence. **inflorescencia**. An axis bearing flowers or a flower cluster; also, the arrangement of flowers on a stem in relation to each other: classified as determinate or indeterminate; a flower structure that supports more than a single flower.

influx. **entrada**. The gross uptake of ions by a plant root.

inflorescent. **inflorescente**. Flowering.

informosome. **informosoma**. Messenger RNA synthesized during oogenesis and deposited in the egg cytoplasm, with ribosome, as an inactive complex; maternal message.

infra-. **infra-. infr-**. A Latin prefix that means, "below" or "beneath".

infracted. **infracto**. Abruptly bent, as at a node; geniculate.

inframedial. **inframedio**. Below the middle.

infrapetiolar. **infrapeciolar**. An ax-

illary bud surrounded by the base of the petiole; subpetiolar.

infrared. **infrarroja**. The portion of the sun's total radiation which has wave lengths immediately longer than the longest of the visible spectrum (red).

infraspecific. **infraspecífico**. Occurring within a species.

infructescence. **infrutescencia**. A fruiting structure that has more than a single fruit; also, the inflorescence after the flowers are fallen, and the fruits are formed.

infundibular. **infundibuliforme**. Having the shape of a funnel, as a funnel-shaped corolla.

infundibuliform. **infundibuliforme**. Having the shape of a funnel, as an infundibuliform flower; funnel-shaped.

infundibulum. **infundíbulo**. A funnel-shaped organ or structure.

inheritance. **herencia**. The acquisition of the species characteristics or qualities by germ cells, from parent to offspring, generation to generation.

inherited. **heridado**. Acquired characteristics transmitted by germ cells from parent to offspring.

inherit from. **heredar de**. To acquire characteristics from one's parents by germ cells.

inhibit. **inhibir**. To slow down or hold back the growth of a plant or cell; also to hinder or block the action of an enzyme.

inhibitor. **inhibidor**. Anything that inhibits or regulates the action of an enzyme or other chemical reaction.

initial cell. **célula inicial**. A cell which remains meristematic, divides repeatedly, and gives rise to many

daughter cells, from which, after further division, the permanent tissues of the plant are differentiated.

initial spindle. **huso inicial**. Netrum.

initiator. **inicio**. The transfer ribonucleic acid (tRNA); also, a substance or molecule that starts a reaction but different than a catalyst, in that it is usually chemically changed in the reaction.

inland wetland. **pantano interior**. Land away from the coast, such as a swamp or marsh that is covered with fresh water, all or part of the year.

innate. **innato**. Attached to the end of the filament, as an anther; occurring within the substance of a plant; also, originated in or sunken into the thallus.

inner endodermis. **endodermis interno**. The endodermis internal to the vascular tissues in a solenostele.

inner fissure. **grieta interno**. The inner layer of the raphe (wall) of the **Bacillariophyceae**.

inner glume. **gluma interno**. The inner glume is the second or inside bract in a pair of chaff-like bracts at the base of the spikelet of some grasses (**Poaceae**).

innoculation. **inoculación**. The process of inoculating; also, the conveyance of an infection to a host plant by any means of transmission; also, the entry of the germ tube of a parasitic fungus into a host; also, the placing of spores, or pieces of mycelium of growing fungi, or bacteria into a culture medium.

innovation. **brote**. A new shoot or a new annual growth on an existing stem.

inoculate. **inocular**. To induce a disease in a living organism by introducing a pathogen; also, to treat soil

or seeds of leguminous plants with bacteria to induce nitrogen-fixation in the roots.

inoculum. **inóculo**. A substance containing bacteria or other agents for inoculation.

inoculum potential. **potencial de inóculo**. The energy of growth of a fungus or other microorganism, available for the colonization of a substrate.

inodorous. **inodoro**. Odorless; without an odor.

inoperculate. **inoperculado**. Said of a sporangium which lacks a lid.

inordinate. **inordinado**. Not arranged in any special order.

inorganic. **inorgánico**. Composed of matter that is not animal or vegetable, as water and minerals; also, a chemical compound without carbon as its skeleton atom.

inorganic compound. **compuesto inorgánico**. A chemical compound that usually is not derived from life processes; also, compounds that do not contain carbon.

inositol. **inositol**. A sugar alcohol common to both plants and animals.

inrolled. **enrollado hacia adentro**. Rolled inward, as inrolled or involute petals.

insculptate. **ensculptada**. Having holes or depressions in the surface.

insectivore. **insectívoro**. A plant capable of capturing and deriving nutrition by digesting insects.

insectivorous. **insectívoro**. Plants that capture and feed on insects.

inseminate. **inseminar**. To sow or plant seeds.

inserted. **inserto. insertado**. Attached or growing out of another part; also an introduced section of DNA or other genetic material into another

- sequence or region; in grafting, a scion is inserted into root stock.
- insertion. **inserción.** The placement of one section of DNA or other genetic material into another; also, the section inserted.
- insertion mutant. **mutante de inserción.** A mutation caused by the addition or deletion of one or two nucleotides in the DNA chain, so that some nucleotide sequences are read in incorrect group of three during translation; sometimes referred to as a frameshift.
- insignis. **insignis.** Latin meaning "notable".
- insipid. **insipido.** Without taste; tasteless.
- insolation. **insolación.** Exposure to the sun.
- insolubility. **insolubilidad.** The quality or characteristic of not being dissolvable, especially into a fluid form.
- insoluble. **insoluble.** A substance or matter that can not be dissolved.
- inspersed. **insparcido.** Having granules penetrating the substance of the thallus.
- insular. **insular.** Occurring in isolated patches or locations.
- integrifolius. **integrifolius.** Latin meaning "simple-leaved".
- integument. **integumento.** The outer protective covering of an ovule perforated by the micropyle; commonly, angiosperms have two integument and gymnosperms one; also, the membrane enclosing the female gametophyte in the **Lepidocarpaceae**.
- intemperate phase. **intemperado fago.** See virulent phase.
- intensity. **intensidad.** The degree of color as influenced by the proportional presence of its complementary color.
- inter-. **inter-.** A Latin prefix that means, "among" or "between".
- interact. **interactura.** To act upon each other.
- interaction. **interacción.** An action upon or an influence by and on each other.
- interbreed. **interprogenie. interseleccionar.** To mate different varieties or species of plants.
- intercalary. **intercalary.** Intercalary.
- intercalary. **intercalario.** Growing in locations other than at the apex, commonly between the apex and the base.
- intercalary cell. **célula intercalary.** A small cell between two aecidiospores which disintegrates as the spores ripen and breaks down as they are set free.
- intercalary growth. **crecimiento intercalary.** A pattern of stem elongation occurring in grasses (**Poaceae**); lengthening starts at through the differentiation of meristematic tissue at the base of each internode.
- intercalary meristem. **meristema intercalary.** The area of growth near the internode base or at the base of a blade.
- intercalary plates. **placa intercalary.** A layer of plates between the apical and precingular plates of the cell wall of the **Peridinales**.
- intercellular space. **espacio intercelular.** Positioned between or among cells.
- interchange. **complementación inter-cistrónica.** An exchange of non-homologous terminal segments of chromosomes; reciprocal translocation.
- interchromocenter. **intercromocentre.**

- The areas of a chromatid composed of euchromatin.
- intercostal. **intercostal**. Lying between the rib or the vein.
- intercross. **intercruzada**. Interbreed; to cross with each other.
- interfascicular cambium. **cámbium interfasicular**. A layer of cambium that develops between vascular bundles and connects with the fascicular cambium to form the vascular cambium of woody tissues.
- interference. **interferencia**. The probability of another crossing-over occurring along or in the vicinity of the chromosome where one has already occurred.
- interfertile. **interfértil**. Able to interbreed, as interfertile plant species.
- interfoliar. **interfoliar**. Being between opposite leaves but placed alternately with them, as interfoliar flowers.
- intergeneric. **intergenérico**. Occurring between genera, as an intergeneric hybrid.
- intergrade. **intergrado**. An intermediate form of a plant; also, to become alike through a repeated flow of intermediate forms, as one population of plants with another.
- intergradation. **intergradación**. The process of intergrading. *See* intergrade.
- intergrana lamella. **laminilla intergranular**. The fine plate-like structure of a chloroplast made of a layer of chlorophyll and lipid, bounded on either side by a layer of protein.
- interkinesis. **intercinesis**. The activities occurring between meiosis I and meiosis II which are similar to interphase but are without chromosome replication.
- intermediate filament. **filamento intermedio**. A fiber or filament that contributes to the cytoskeleton structure of eukaryotic cells
- intermediate inheritance. **herencia intermediaria**. **herencia intermedia**. A type of inheritance where heterozygous offspring are different in phenotype than their homozygous parents.
- intermediate-day plant. **planta de día intermedio**. A plant with two critical photoperiods so that it will not flower if the days are either too short or too long.
- intermittent. **interrumpido**. Describes a renewal-stopping period of growth that produces clusters of stems or leaves along the stem.
- intermolecular. **intermolecular**. Between molecules.
- internal environment. **medio interno**. The fluid that surrounds tissue and organ cells.
- internal factor. **factor interno**. Any factor which depends on the genetic constitution of the plant and which influences its growth and development.
- internal phloem. **floema interno**. A phloem lying between the xylem and the center of the stem.
- International Code of Botanical Nomenclature. **Código Internacionales de Nomenclatura Botánico**. A set of rules for the scientific naming of plants, accepted by botanists, in which the underlying objective (not always the practice) is the assignment of a single, unambiguous name to each taxon. To guide those who are selecting a new name, the Code is composed of a group of *6 Principles, 75 Articles*, and a

- series of *Recommendations*. It is mandatory to observe the Articles, but not the Recommendations.
- internodal. **internodal**. Pertaining to nodes or the intervening area between nodes or joints.
- internode. **entrenudo. internodio**. The space on the stem between two successive nodes or joints; also, the part of the thallus of the **Charales**, where the branch-like filaments arise.
- internuclear. **internuclear**. Located or occurring in the area between the nuclei of atoms or cells.
- interpetiolar. **interpeciolar**. Between the petioles; also, connate stipules from two opposite leaves.
- interphase. **interfase**. The period of time between the close of one cell division and the beginning of the next.
- interrupted. **interrumpido**. Not continuous; having the main leaflets or flower spikes divided by a series of smaller ones.
- interrupted pinnately compound. **pinnado compuesta interrumpido**. A leaf type with the smaller and larger leaflets alternating along the main axis.
- intersex. **intersexo. intersexuado**. A member of a bisexual species that has sexual characteristics intermediate between male and female.
- interspecies hybrid. **híbrido interespecie**. Occurring between two species.
- interspecific competition. **competencia interespecífica**. Two or more species trying to use the same limited resources in an ecosystem.
- interspecific hybrid. **híbrido interespecífico**. *See* interspecies hybrid.
- interstitial. **intersticial**. Growth occurs in the entire organ rather than localized, as in some fruits; also, occupying the narrow spaces or interstices of tissue.
- intertidal zone. **zona intermareal. zona de (entre)marea**. The area between low and high tide. *See* littoral zone.
- intertwine. **entrelazarse**. Entangled or snarled, as trichomes.
- intervarietal. **intervarietal**. Said of a cross between two individuals of the same variety and of the same species.
- intervein. **internervadura**. Refers to the areas between the veins, as with leaves.
- interxylary phloem. **floema interxilaria**. A strand of secondary phloem surrounded by secondary xylem.
- intine. **intina**. The inner membrane of a spore; also, the endospore in the spores of bryophytes.
- intorsion. **intorsión**. The twisting or winding of a plant stem.
- intort. **intort**. To twist, curl, or twine, as an intort stem.
- intra-. **intra-**. A Latin prefix that means, "within" or "on the inside".
- intracellular. **intracelular**. Occurring within a cell or cells.
- intrafoliar. **intrafoliar**. Growing on the inside or in front of a leaf, as intrafoliar stipules.
- intramarginal. **intramarginal**. Within in the margin.
- intramolecular. **intramolecular**. Occurring within a molecule or molecules.
- intramolecular respiration. **respiración intramolecular**. Anaerobic respiration.
- intranuclear. **intranuclear**. Within

the nucleus of an atom or cell.

intrapetiolar. **intrapeciolar**. Growing inside the petiole; also, a pair of stipules at the base of a petiole, united by the margins that are next to the petioles, giving the appearance of being a single stipule between the stem and the petiole.

intraspecies. **intraespecie**. Involving members of the same species.

intraspecific. **intraespecífico**. See intraspecies.

intraspecific competition. **competencia intraespecifica**. Two or more individual organisms of the same species try to use the same limited resources in an ecosystem.

intrastaminal. **intraestaminal**. Within the androecium.

intravaginal. **intravaginal**. Located inside the sheath, as within a sheathing petiole in grasses.

intraxylary phloem. **floema intraxilaria**. Internal phloem.

intricate. **intrincado**. Tangled hair, as intricate hair.

intro-. **intro-**. A Latin prefix that means, "inside".

introduced. **introducido**, **exótico**. A species that has been intentionally brought from another area; not native.

introgressant. **introgresante**. A gene acquired by introgression.

introgression. **introgresión**. The merger of genes of one species into the gene pool of another through hybridization and chance backcrossing.

introgressive hybridization. **hibridación introgresiva**. Introgression.

introrse. **introrso**. Turned inward, or toward the axis, as introrse anthers.

intumescence. **intumescencia**. A lo-

calized pathological swelling, consisting mainly of parenchyma.

intussusception. **intususcepción**. The process of taking in nutrients by a living organism and converting it into living tissue.

inulase. **inulasa**. The enzyme that hydrolyses inulin to fructose.

inulin. **inulina**. A white, starchy substance obtained from the roots of a variety of composite plants, especially elecampane (*Inula helenium*) and dahlia (**Asteraceae**); used as a substitute for starch in foods for diabetics.

invader. **invasor**. A plant occurring in a community to which it does not belong.

invagination. **invaginación**. Placing or placed in a sheath.

invariance. **invarianza**. The reciprocal of variance.

invasion. **invasión**. The growth in an area of a large population of a species not previously present.

inverse. **inverso**. Reverse in order or relationship; said of the condition of an embryo in which the radicle is turned towards a point in the seed at the opposite end to the hilum.

inverse analysis. **análisis inverso**. The arrangement of individual characteristics in groups based on an analysis of the individuals that possess or lack those characteristics. In plant ecology, the method is used to group species according to their presence, absence, or relative abundance at sample sites.

inversion. **inversión**. The reversal of one segment of a chromosome by turning it around 180° and then reinserting it at the same position in the chromosome; also, the hydrolysis of some carbohydrates,

such as sucrose into glucose and fructose by reversing the optical rotation of the solution; also, the turning inside-out of the colony of some of **Volvocales**.

invert. **invertir**. To decompose by inversion.

invertase. **invertasa**. An enzyme responsible for the catalytic hydrolysis of sucrose to fructose and glucose; sucrose.

inverted. **invertido**. Opposite in order, direction, or relationship; turned upside down.

inviability. **inviabilidad**. The condition of being inviable.

inviable. **inviable**. Unable to survive, especially because of some genetic defect.

involucel (lum). **involucelo**. **involucela**. A small or secondary cluster of bracts.

involucral. **involucral**. Pertaining to involucre, as involucral bracts.

involucral bract. **bráctea involucral**. See involucre.

involucrate. **involucrado**. Having an involucre.

involucre. **involucro**. A cluster or circle of small leaves or bracts below or subtending an inflorescence; also, a shield-like structure growing over the calyptra and enclosed embryo of some **Hepaticae** and **Anthocerotae**.

involute. **involutu**. Margins rolled inward toward the upper surface.

involution. **involución**. An infolding of membranes which produces an increased surface area.

ion. **ion**. **ión**. An atom, groups of atoms, a compound, or molecule that has gained (anions) or lost (cations) an electron, resulting in a positive or negative electrical

charge; also, in chemistry, an atom or compound with a negative or positive electric charge as a result of having lost or gained one or more electrons.

ionic antagonism. **antagonismo iónico**.

antagonismo de iones. The effect of adding one element as its ions to the soil, causing deficiency of another in a crop, *e.g.* adding potassium may cause symptoms of magnesium deficiency.

ionic bond. **enlace iónico**. An association of two oppositely charged ions.

ionic linkage. **linkage iónico**. The linkage between an acid and a base.

ionize. **ionizar**. To split a molecule into two or more parts with each part becoming electrically charged.

ionizing radiation. **radiacione ionizante**. High energy gamma rays or fast-moving alpha or beta particles emitted by radioisotopes which can dislodge one or more electrons from atoms they hit, forming charged ions in tissue which can damage living tissue.

iridescent. **iridiscente**. Having or displaying many colors, as a rainbow; versicolor.

iridoid. **iridoide**. A class of compounds, mostly lactones, used by taxonomists in their study of interfamilial relationships of the **Asteraceae**.

iron. **hierro**. A magnetic element with the chemical symbol of Fe; required by plants in which rapid oxidation reductions occur during electron transfers, as in photophosphorylation and oxidative phosphorylation.

irradiation. **irradiación**. Exposing seed, pollen, or other plant parts to X-rays or other short wave lengths

(gamma rays) to increase mutation rates.

irregular (flower). **irregular (flor).**

Having floral parts in a whorl that are dissimilar in shape or size; flowers that are bilaterally symmetrical with parts usually reduced in number, as a snap dragon (**Antirrhinum**); zygomorphic.

irregular symmetry. **simetría irregular.**

Bilateral symmetry; having only one plane through which a flower can be cut to result in mirror image halves; zygomorphy.

irrigation. **irrigación.** Artificially applying water to the soil.

irritability. **irritabilidad.** The capacity of living plant tissue to respond to a stimulus; sensitiveness to stimuli.

irritable. **irritable.** Responding to stimuli.

irritate. **irritar.** To stimulate.

irrorate. **irrorado.** Covered with dew.

irruption. **irrupción.** A sudden change in the population density of an organism.

isadelphous. **isadelfo.** A diadelphous flower in which the separate bundles of stamens are equal in number.

isidium. **isidio.** A branched or unbranched projection from the thallus in some lichens; thought to function as propagules.

island biogeography. **biogeografía isla.**

The study of plants and animals, on islands or in isolated areas that resemble islands, to establish relationships between land area and species numbers, as an equilibrium between immigration and extinction.

island biotas. **biotas isla.** The plants and animals of oceanic islands.

island of fertility. **fertilidad de isla.**

In desert ecology, the area directly below a tree or shrub where leaves fall and decay, producing a nutrient circle around the plant.

island. **isla.** A body of land, smaller than a continent, surrounded by water.

iso-. **iso-.** A Greek prefix that means, "equal" or "alike".

isocarpic. **isocárpico.** A flower with the same number of carpels as other floral parts.

isobilateral. **isobilateral.** Refers to leaves having the same structure on both surfaces, *e.g.* monocotyledons; also, divisible into symmetrical halves by two distinct planes.

isobrachial. **isobraquial.** Said of a chromosome which is bent into two equal arms.

isochromosome. **isocromosoma.** A metacentric chromosome produced during cell division when the centromere splits transversely instead of longitudinally; the arms of the chromosome are equal in length and genetically identical.

isochrous. **isocro.** Being of equal color throughout.

isocitric acid. **ácido isocítrico.** An acid in the Citric Acid Cycle formed from aconitic acid; oxidizes to oxalo-succinic acid.

isocitric enzyme. **enzima isocítrico.** The enzyme that catalyses the formation of isocitric acid from a-ketoglutaric acid.

isocotylous. **isocótilo. isocotiledóneo.** Having two embryonic leaves.

isodiametric. **isodiamétrico.** Of the same length, vertically and horizontally.

isodynamous. **isodínamo.** Having an equal size.

isoelectric point. **punto isoelectrico.**

See amphoteric electrolyte.

isogametangic. **isogametangico**. Having gametangia of the same size and form.

isogamete. **isogameto**. Two gametes of the same character or behavior that can unite with one another to form a zygote, as isogamete algae.

isogamous. **isogamo**. Having isogametes; also, reproducing by the uniting of two similar gametes, as some algae and fungi.

isogamy. **isogamia**. The fusion of two similar gametes or gametangium, as in some algae and fungi.

isogenic. **isogénico**. Pertains to a graft using a scion and stock that are genetically identical.

isogenomatic. **isogenomatico**. Said of chromosome complements which are composed of similar genomes.

isogenous. **isogéno**. Having parts originating from the same or corresponding tissue of the embryo.

isogeny. **isogenia**. Originating in or derived from the same or corresponding tissue.

isokont. **isoconto**. Having flagella of equal length.

isolateral. **isolateral**. Having an equal number on the side of the structure.

isolation. **aislamiento**. The prevention of crossing among plant populations because of distance or geographic barriers; also, the condition in which chromosomes of common ancestry are prevented from undergoing effective recombination.

isolation transect. **transecto aislamiento**. A belt of land to which grazing animals are admitted under observation so that the effect of grazing on the vegetation may be studied.

isolating mechanism. **mecanismo aislante**. **mecanismo de aislamiento**. Some characteristic of the structure or functioning that prevents interbreeding between populations that are undergoing or have undergone speciation.

isoleucine. **isoleucina**. An amino acid found in protein.

isomer. **isómero**. Any of the two or more compounds that have the same molecular composition but different molecular structure; differing only in their physical and chemical properties.

isomerase. **isomerasa**. **enzima isomerizante**. An enzyme that catalyses the interconversion of one isomer into another; glucose 6-phosphate to fructose 6-phosphate.

isomerous. **isomero**. Having an equal number of members in each whorl or having an equal number of parts or markings.

isomorph. **isomorf**. An isomorphic organism or substance.

isomorphic. **isomorfo**. Having a similar appearance or structure but belonging to a different species or genotype; also, refers to an alteration of generations when the sporophyte and gametophyte generations are morphologically similar.

isomorphism. **isomorfismo**. The property of being isomorphic; the apparent likeness between individuals belonging to different species or races.

isopetalous. **isopétalo**. **homopétalo**. Having all the petals alike.

isophase. **isofase**. The condition when one hereditary factor influences the development of several characteristics.

isoprene. **isopreno**. Five-carbon com-

pounds that are the basic unit of terpenes.

isoprenoid. **isoprenoide**. A compound composed of two or more isoprenes or their spin-offs.

isoreagent. **isoreactivo**. A variety of microspecies.

isosporous. **isóporo**. Having asexually produced spores of only one kind. *See* homosporous.

isostemonous. **isostémono**. With stamens equal in number to the sepals or petals.

isotonic. **isotónico**. Said of a solution having the same osmotic pres-

sure as the one with which it is being compared.

isotope. **isótopo**. Two or more forms of a chemical element that have the same number of protons but different mass numbers which denotes the different numbers of neutrons in their nuclei.

isozyme. **isoenzima**. Different chemical forms of the same enzyme, occurring possibly as a response to various environmental extremes.

isthmus. **istmo**. The narrow connecting zone between the semi-cells of **Desmidiaceae**.

J

jaculator. **jaculator**. A plant or fungi that bursts and hurls spores, as a puffball (**Gasteromycetes**); retinaculum.

joined. **unido**. United but not necessarily fused.

joint. **nudo**. A part of the stem where a leaf or branch grows, especially when thickened, as in grasses (**Poaceae**); node.

jointed. **articulado**. Said of an elongated plant member which is constricted at intervals, and ultimately separates into a number of portions by breaking across the constrictions; also, having a stem that easily can be pulled apart at the nodes, as in certain **Equisetaceae**.

jugate. **yugado**. Having two leaflets from a common point; bifoliate; geminate.

jugum. **jugum**. Occurring in pairs, as a pair of opposite leaflets in a pinnate leaf.

julaceous. **julaceo**. Cylindrical and smooth; also, resembling a catkin.

juncous. **juncous**. Latin meaning "rush-like".

juncoid. **juncoide**. Rush-like.

juncous. **junco**. Full of rushes or pertaining to the **Order of Juncaceae**.

jungle. **selva**. **jungla**. A subclimax tropical rain forest, composed mainly of liana, bamboo (**Bambusaceae**), palm (**Palmae**), and a wide variety of other densely growing tropical plant species.

juvenile form. **forma juvenil**. A young plant that has leaves and other features different from those of a mature plant of the same species.

juvenile leaf. **hoja juvenil**. Immature or undeveloped, as juvenile leaves that can differ in form, attachment, or arrangement from mature leaves; primary leaf.

juvenile stage. **estad(i)o juvenil**. A special stage in the life of some algae in which the ordinary plant develops as an outgrowth.

juvenility. **juventud**. Having the characteristics of being young.

K

K. K. The chemical symbol for the element potassium.

karyaster. **cariáster.** A group of chromosomes arranged like the spokes of a wheel.

karyo-. **cario-.** A Greek prefix that means, "nuclues".

karyogamy. **cariogamia.** The dividing of a nucleus into two, passing to the opposite sides of the cell; also, the union of two nuclei, especially gametic nuclei.

karyokinesis. **cariocinesis.** The division of the cell nucleus, especially in mitosis.

karyology. **cariología.** Nuclear cytology.

karyolymph. **cariolinfá.** The fluid portion within the nucleus of the cell; or, the matrix lying in the reticulum of the nucleoplasm; nuclear sap.

karomere. **cariómero.** A swollen condition sometimes seen in chromosomes towards the end of a nuclear division.

karyomicrosome. **cariomicrosoma.** A nuclear granule.

karyomite. **cariómito.** Chromosome

karyoplasm. **carioplasm.** The protoplasm in the nucleus of a cell; nucleoplasm.

karyoplasmatic ratio. **nucleoplasmático ratio.** The ratio of the volume of the nucleus and that of the cytoplasm of the same cell.

karyorhexis. **cariorrexis.** The disintegration of the chromatin of the

nucleus into darkly staining granules, during the necrosis of the cell

karyosome. **cariosoma.** A body of chromatin in the nucleus which is similar to but distinguished from a nucleolus; also, a type of nucleolus of the lower plants which stain with basic dyes and furnish material for the chromosomes during mitosis; nucleosome; a nucleus; a chromosome.

karyotheca. **carioteca.** Nuclear membrane.

karyotin. **cariotina.** Chromatin.

karyotype. **cariotipo.** The character of a set of chromosomes grouped by their arrangement, size, shape, or other defined characteristics.

kata-. **cata-.** A Greek prefix that means, "down".

katadromous. **catadroma.** Said of the venation in ferns when the first nerves in each leaf segment come off on the basal side of the midrib.

katakinetic. **catacinético.** Tending to discharge energy.

katakinetomere. **catacinetémero.** An energy-poor, stable protoplasm molecule.

kataphase. **catafasa.** The stages of mitosis from the formation of the chromosomes up to the division of the cell.

keel. **quilla.** A conspicuous linear seam, or longitudinal ridge, like the keel of a boat; also, the two lower united petals of a papilionaceous flower, as in the **Fabaceae**;

carina.

keeled. **carenado. aquillado.** Having a pronounced seam or ridge, as on a leaf; carinate.

keimplasm. **ceimplasma.** Germplasm.

kelp. **kelp.** Large brown algae or seaweed that grows below the low tide sea level in temperate waters; for example **Laminaria** in which the thallus is composed of a holdfast, a stipe, and a flattened blade.

kernel. **pepita.** The soft, inner part of hard shell nut or inside the stone of a fruit; also, the body of a seed, inside its coat.

ketoglutaric acid. **ácido cetoglutarico.** An acid in the Citric Acid Cycle, produced from oxalosuccinic acid, with the evolution of carbon dioxide, and oxidized to succinic acid.

ketone. **quetona. cetona.** The oxidation products of secondary alcohols.

ketose. **quetosa. cetosa.** A hexose sugar having a = O group on the second carbon atom and no HO group on the first one, *e.g.* fructose.

keto-uracil. **ceto-uracilo.** One of the precursors of nucleosides.

keystone species. **especie piedra angular.** Species that affect many other organisms in an ecosystem.

kinase. **kinasa.** The enzyme which catalyses the transfer of phosphate to ADP, forming ATP.

kinetic body. **cuerpo cinética.** A small granular body lying where a chromosome is attached to the spindle.

kinetic energy. **energía cinética.** The energy that results from the random movement of molecules.

kinetochore. **quinetócoro.** The portion of a chromosome where the attachment is made to a spindle

fiber; centromere.

kinetomere. **cinetómero.** Molecules of protoplasm which may be energy-rich and reactive, or energy-poor and stable.

kinetosome. **cinetosoma.** *See* basal granule.

kingdom. **reino.** The common taxonomic classification from most general to most specific, as kingdom, phylum, class, order, family, genus, species, subspecies, or variety; the highest classification, *e.g.* Kingdoms: Plant, Protista, Fungi, Monera, Animal.

kinin. **quinina.** A group of plant hormones influencing the rate of mitosis; found in young developing tissue and embryos; citoquinina.

kinked. **enroscado.** A short twist or coil on some vines.

kino. **kino. cino.** A resin-like substance, soluble in water, astringent and used medicinally and in tanning.

kinoplasm. **cinoplasma.** Protoplasm which is composed of fibrils and which in cell division composes the spindle fibers, attraction sphere, and astral rays.

klinostat. **clinóstato.** Clinostat.

klinotrophic. **clinotrófico.** Placed at a slant to the direction of a given stimulus.

knee. **rodilla.** A knob on the root of a tree that grows in the swamp or wet area, as a cypress (**Cupressaceae**).

knob-like. **obpiriforme.** A hard swelling or rising; obpiriform.

knot. **nudo.** A hard mass of wood that is formed where a branch grows out from a tree; a node on a stem, such as a joint on grasses (**Poaceae**); a node where leaves grow from a

stem.

knotted. **nudoso.** Full of knots or having knots.

Kranz anatomy. **anatomía de Kranz.**

A specialized leaf anatomy in which the vascular bundle is surrounded by bundle sheath cells.

Krebs Cycle. **ciclo de Krebs.** A stage of aerobic respiration in which there is a mitochondrial oxidation of pyruvic acid being broken down

into carbon dioxide; molecules reduced in the process can be used in forming electron carriers for use in the last stage of the aerobic pathway; tricarboxylic

acid cycle; Citric Acid Cycle.

kremnophyte. **cremnófito.** A plant that grows alongside a steep wall.

krummbholz. **krummbholz.** Literally crooked forest; the low, wind-distorted forest at timberline.

L

L. L. In botany, an abbreviation for Linnaeus.

labellate. **labelado.** Having a labellum or lip-like parts.

labellum. **labelo. labium.** Lip; the lowest or middle of the three petals of the corolla, usually larger than the other two and sometimes with a spur or different in color or shape, as in the **Lamiaceae** and **Orchidaceae**.

labial. **labial.** Of the lips.

labiate. **labiado.** Lipped; having the corolla or calyx divided into two parts and overlapping in such a manner that gives the suggestion of lips.

labium (*pl.* labia). **labio.** The lower lip of a two-lipped corolla.

labyrinthiform. **labirintiforme.** Marked by sinuous lines; maze-like.

laccate. **laccado. hoja laciniada.** Having the shiny appearance of having been waxed or varnished, as in laccate leaves.

lacerate. **lacerado.** Having the appearance of an irregular cut or tearing, as with a lacerate leaf.

lacinia. **lacinia.** An incision in a leaf, petal, *etc*; also, a slender lobe, projecting from the margin of a thallus.

laciniate. **laciniado.** Cut or deeply incised, forming irregular segments or lobes; said of leaf margins, petals, and bracts, which appear as if cut into bands.

laciniform. **laciniforme.** Resembling

fringe.

lacinla. **lacinla.** One of the straps forming the fringe on the outer portion of the blade of the petals of certain flowers; also, one of the incisions making this fringe.

lack. **falta.** Deficient; being without.

lacking. **ausente.** The condition of not having any.

lacrimiform. **lacrimiforme.** Teardrop-shaped.

lactase. **lactasa.** An enzyme in certain yeasts, capable of decomposing lactose into glucose and galactose.

lactescence. **lactescencia.** The large flow of sap from a wounded tree.

lactic acid. **ácido láctico.** A colorless, odorless acid formed by lactobacilli in vegetable and fruit juices.

lactic dehydrogenase. **de(s)hidrogenasa láctico.** The enzyme which reduces pyruvic acid.

lactiferous. **lactífero.** Producing a milky latex or substance.

lactiferous tube. **tubo lactífero.** In some fungi, tubes filled with latex that coagulates on a wound.

lactific. **lactífico.** Producing latex.

lactoflavin. **lactoflavina.** A yellow pigment produced by *Eremothecium ashbyii*; one of the vitamin B's; riboflavin.

lactone. **lactona.** Any of a group of anhydrides produced by the loss of a molecule of water from the hydroxyl.

lacuna (*pl.* lacunae). **laguna**. A hollow air space or chamber within a tissue; a small hollow in the thallus of a lichen; also, a depression in the surface of a plant.

lacunose. **lagunar**. Having a pitted surface or a surface with many hollow spaces, or lacunae, as a lacunose leaf.

lacustrine. **lacustre**. Pertaining to a lake; also, living in or on the shores of a lake.

lacustrine peat. **turba lacustre**. The decomposition of vegetation to form peat under anaerobic conditions.

laceyeous. **lacieo**. Milky.

laevi-. **laevi-**. A Latin prefix that means, "smooth".

laevigate. **laevigado**. Shining or lustrous, commonly used to describe an epidermal excrescence; levigate.

lag-period. **fase de retardo**. The period between the initial inoculation of a culture medium with an organism and the resumption of normal growth.

lageniform. **lageniforme**. Flask-shaped; shaped like a Florentine vase.

lake forest. **bosque lago**. A conifer (**Coniferae**) dominated forest in North America, occurring around the Great Lakes, and in the northern New England; said to be a transition area between the boreal coniferous forests and the southern deciduous forests with little surviving 19th century harvesting.

lake. **lago**. A large, natural body of fresh water formed from precipitation, land runoff, ground water, or a combination of one or more of these.

lamarckism. **lamarckismo**. **lamarquismo**. The theory that acquired

characters are inherited during sexual reproduction.

lamella (*pl.* lamellae). **laminilla**. Erect foliage scales on the petals of certain corolla that form part of the corona; gills forming the fruit-bearing surface of some fungi; also, an erect layer of cells on the midrib of some mosses (**Musci**); also, membranes that occur in plastids and form the basic structural unit of the chloroplasts; also, a gill of an agaric.

lamellar. **lamelar**. Having foliage cells arranged in erect layers.

lamellate. **lamelado**. Covered with thin foliage plates or scales.

lamelliform. **lameliforme**. Having the form or structure of lamella.

lamellose. **lameloso**. Stratified.

lamina. **lámina**. A flat, sheet-like structure, as leaf tissue, other than veins; the blade, as distinguished from the stem; the border or the broad part of the petal in a polypetalous corolla; the flat, broad portion of a leaf surface; the blade or the expanded part of a leaf or petal.

laminar. **laminar**. A leaf-like stamen without a distinct anther or filament but having a superficial or embedded microsporangia; also, thin, flat, and expanded, as a leaf blade.

laminarin. **laminarina**. A polysaccharide storage product found in brown algae. It is constructed of β -D-glucopyranose units, linked in the 1 : 3 position.

lamine. **laminado**. Arranged in thin plates or layers.

lamine placentation. **placentación laminado**. Having the placenta located over the inner surface of the ovary wall.

lamination. **laminación**. Arrangement

in thin layers; also, a layered structure.

laminated bulb. **bulbo laminado.** A bulb composed of a number of swollen leaf bases, each of which completely encloses all parts of the bulb inside it, *e.g.* onion.

lammas shoot. **vástago lamas.** An abnormal, non-recurring shoot that develops late in the season from a terminal bud.

lanate. **lanso.** Covered with long, tangled hair or trichomes; woolly.

lanceolate. **lanceolado.** A flat surface with the shape of a lance; longer than wide with the widest point below the middle and the margins symmetrically curved, as a lanceolate leaf; lance- shaped.

lanceoloid. **lanceoloide.** A solid structure with the shape of a lance; egg-shaped.

lanci-. **lanci-.** A Latin prefix that means, "lance-shaped".

land. **tierra. terreno. suelo.** The solid part of the earth's surface, divided into four landforms with distinct vegetation: plains, plateaus, hill lands, and mountains. When broadly used, refers to soil, surface soil, mineral deposits, and water supplies in a certain area.

landlocked. **sin salida al mar. sin litoral.** Living in waters shut off from the sea.

lani-. **lani-.** A Latin prefix that means, "woolly".

lanuginose. **lanuginoso.** Cottony, with soft, finely intertwined hair, similar to lanate but with shorter hair.

lanugo. **lanugo.** A covering of soft, thick downy hairs on the surface of leaves or fruit.

lanulose. **lanuloso.** Short, cottony hair; a very shortened form of lanate.

lapidicolous. **lapidicólo.** Living under or around rocks, as lapidicolous moss (**Musci**).

lasio-. **lasio-.** A Greek prefix that means, "woolly".

late. **tardío. tarde.** After the set time, as late blooming.

latent. **latencia.** Dormant or undeveloped, as buds not externally visible.

latent period. **periodo de latencia. tiempo de latencia.** A period of suspended development, often occurring at the beginning of the dry season, winter or autumn; dormancy.

lateral. **lateral.** Growing on the side of a structure, as a side shoot from a shoot or root, or side growths which develop from the main branches of a tree, shrub, or other plants; also, on or near the edge of a thallus or fruit.

lateral branch. **rama lateral.** Branches that grow on the sides of stems.

lateral bud. **yema lateral.** Buds that emerge from nodes located below the terminal bud and in axils of leaves or leaf scars where the previous year's leaves were attached; axillary bud.

lateral embryo. **embrión lateral.** A basal embryo surrounded by abundant endosperm.

lateral flower. **flor lateral.** An inflorescence that develop from nodes below the apex of the main stem.

lateral leaf. **hoja lateral.** A leaf occurring on the side of the stem, as in the heterophyllous family **Selaginellaceae**.

lateral lobe. **lobo lateral.** One of the two lobes to either side of the midlobe of a three-lobed labellum.

lateral meristem. **meristemo lateral.** Plant growth that occurs in the

cambium, as distinct from apical meristem; responsible for secondary growth that increases diameter; vascular cambium.

lateral root. **raíz lateral.** See secondary root.

lateral shoot. **brote lateral. vástago lateral.** Shoots that emerge below the principal bud.

lateral stipule. **estípula lateral.** Having stipules joined to the petiole and the free part of the stipules located along the petiole.

lateral style. **estilo lateral.** The style is located at the side of the ovary.

latewood. **leña tardío. leña de otoño. leña estrecho.** The denser portion of an annual growth ring which is produced late in the season; composed of thick-walled xylem cells, a smaller radial, and cells generally longer than those formed earlier in the season.

latex (latice, pl) **látex.** A white or yellowish sticky substance produced in specialized tissues within plants, including poppies (**Papaveraceae**), milkweeds (**Asclepias**) and others used to make chicle (**Achras**) and rubber (**Hevea**) products.

latex cell. **célula látex.** A simple or branched cell, derived from the enlargement of a single cell and containing latex.

latex duct. **tubo látex.** An elongated, branched, aseptate system of anastomosing hyphae, containing latex and present in some of the larger agarics.

latexosis. **latexosis.** An abnormal secretion of latex due to a pathological condition.

lath house. **cobertizo.** An open wood lath or plastic screen structure for protecting plants from excessive

heat, light, or frost.

lati-. **lati-.** A Latin prefix that means, "wide" or "broad".

laticifer. **laticífero.** A plant cell that secretes latex.

laticiferous. **laticífero.** Producing latex.

laticiferous duct. **tubo laticífero.** A cavity into which latex is secreted.

laticostate. **latiacostillado.** Broad-ribbed, as a laticostate leaf.

latidentate. **latidentado.** Broad-toothed, as latidentate leaves.

latifoliate. **latifolio.** Broad-leaved.

latifolious. **latifolioso.** Broad-leaved.

latifolius. **latifolius.** Latin meaning "broad-leaved".

latiseptate. **latiseptado.** Having wide septa or dissepiments.

latitude. **latitud.** The distance north or south from the equator with one degree of latitude equaling approximately 69 statute miles or 60 nautical miles.

latorse. **latrorso.** Dehiscing longitudinally and laterally.

lattice. **retícula.** A vestigial sieve plate on the side wall of a phloem sieve tube, with vaguely defined edges and very minute pores.

latticed. **clatrado. de celosia.** Having venation-like latticework or threads of a net; also, a crystal-line-like appearance caused by the orientation of molecules in a solid or liquid; reticulated; clathrate.

laurium. **laurio.** A drain formation.

lawn. **césped. pasto.** Covered with grass, especially around a house.

lax. **laxo.** Loose, not compacted, as a lax cluster of flowers.

laxi-. **laxi-.** A Latin prefix that means, "loose" or "unstrung".

layer. **estrato.** A branch from a living plant bent into the ground and

covered with soil so that it will take root and form a new plant while attached to the parent; also, a plant propagated by layering; also, a stratum of vegetation, as the shrubs in a forest.

layer. **tejido.** Tissue of a uniform thickness spread over a definite area; stratum.

layering. **acodadura.** A type of artificial vegetative or asexual propagation that produces a root by a branch being bent down and covered with soil, so that rooting of a new plant occurs while attached to the parent plant; also the banding seen in thick cell walls, due to the presence of wall layers differing in water content, chemical composition, and physical structure; also the grouping of vegetation in a forest into two or more defined layers differing in height, as trees, shrubs, and ground vegetation.

leach. **lixiviar. lavar.** To remove soluble materials from soil or plant tissue with water; to treat by downward drainage, as rain washing away nutrients from the soil.

leaching. **lixivación.** A natural or artificial process in which various chemicals in the upper layers of soil are dissolved and carried to the lower layers, and in some cases to groundwater.

leader (of a tree). **guí (del árbol).** The main or terminal shoot of a plant, such as the topmost point of a fir (**Pinaceae**) or the strongest shoot of a young fruit tree.

leaf. **hoja.** A thin, usually flat part of a plant growing from a stem or up from the roots, that photosynthesizes and transpires, developing usually from a bud and borne on

the stem of a plant.

leaf abscission. **abscisión de las hojas.**

The shedding or falling of leaves that occurs from the breakdown of at the cells base of the leaf; shed(ding).

leaf area index. **índice (de superficie) foliar. índice del área foliar.** A numerically based index of the ratio of leaf area to ground area in a plant community.

leaf axil. **axila de la hoja.** The angle between the leaf and the stem.

leaf base. **base foliar.** The bottom or lower portion of the leaf; also, the base of the leafstalk where it joins the stem.

leaf blade. **limbo (foliar). lámina foliar. lámina de hoja.** The flat, enlarged part of a leaf.

leaf bud. **yema foliar.** A plant bud that produces a leaf or branch rather than a flower bud which produces a flower; a bud that develops into a leafy branch.

leaf cushion. **cojinete foliar.** A swollen leaf base; pulvinus.

leaf cutting. **esqueje de hoja.** A cutting made from a single leaf, as with a succulent leaf. When purposely rooting a succulent leaf, the leaf can be placed on top of clean sand, where it will begin to root after a week. Once there are a sufficient number of roots, set the leaf root down into a shallow hole in the sand. The leaf will soon produce leaves from the base of the plant. The mother leaf will soon die, leaving a new plant.

leaf divergence. **divergencia foliar.** The angle of the intersection of the planes passing longitudinally through the middles of two successive leaves.

leaf gap. **espacio foliar**. A parenchyma-filled interruption in a stem's cylinder of vascular tissue, immediately above the point where a branch of vascular tissue occurs; also, a space in the stele of plant where the leaf trace emerges; lacuna.

leafless. **áfilo. sin hojas. afoliado. deshojado**. Having no leaves or bearing no leaves; aphyllous.

leaflet. **folíolo. hojilla**. Small blades or separate segments of a compound leaf attached to a stalk (rachis) that is without buds in the axil of its petiole; a subdivision of a compound leaf.

leaf-like. **foliiforme**. Foliiform.

leaf margin. **margen foliar**. The surrounding, outer edge of a leaf.

leaf mold. **moho de hoja. mantillo de hoja**. Decomposing leaves on the surface of wooded areas; also, mold (fungi) living from decomposing foliage.

leaf mosaic. **mosaico de hoja**. The arrangement of leaves on trees, shrubs, or vines where the petiole length and position enables each leaf to receive the maximum amount of sunlight.

leaf primordium. **primordio de hoja. primordio foliar**. In buds, meristematic tissue that develops into a flower.

leaf trace. **rastro foliar. traza foliar**. The vascular bundle(s) extending from the stem to the leaf.

leaf raceme. **racimo foliar**. A raceme in which the bracts differ little, or not at all, from the ordinary foliage leaves of the plant.

leaf rosette. **roseta foliar**. A cluster of leaves crowded on short internodes.

leaf scar. **cicatriz foliar. cicatriz de la hoja**. The mark that remains on the twig where a leaf once grew.

leaf scorch. **escaldadura foliar. quemadura foliar**. Foliage that appears to have been dried by heat, occurring from a variety of conditions, including dryness, high temperature, disease, or lack of certain nutrients in the soil.

leaf sheath. **vaina foliar. vaina de la hoja**. A leaf base or other tubular portion of the leaf that wraps around the stem where it grows.

leafstalk. **pecíolo. tallo de la hoja**. Petiole; the supporting stem of the leaf which attaches to a twig or branch.

leaf surface. **superficie de la hoja. superficie foliar**. The upper side of a leaf.

leaf tip. **ápice foliar**. The top point of a leaf.

leafy. **folioso. foliado. hojoso**. Having many leaves; foliose.

lecanorine. **lecanorina**. A type of apothecium surrounded by a rim of tissue of the same color as the thallus; especially occurring in the genus **Lecanora**.

lecideine. **lecideina**. A type of apothecium that lacks a margin of thalline tissue; especially occurring in the genus **Lecidea**.

lecithin. **lecitina**. A group of nitrogen-phosphorous fatty substances (phosphatidyl choline) found in both plant and animal tissues.

lecithinase. **lecitinasa**. An enzyme for hydrolyzing lecithin and its components.

lecithoprotein. **lecitoproteína**. Lipoprotein.

lectin. **lectina**. A generic term for proteins extracted from plants.

lectotype. **lectotipo**. One of a group of syntypes, which prior to publication of the original description, is selected and designated through published papers to serve as the type specimen.

leeward. **sotavento**. The side away from the direction of a prevailing wind, as the leeward or lee side of a rock.

leggy. **ahilamiento**. Weak-stemmed, spindly plants with sparse foliage caused by too much heat, shade, crowding, or over fertilization.

legume. **legumbre**. Any plant of the pea family, **Fabaceae (Leguminosae)**; any of the dicotyledonous plants which bear pods that have a number of seeds, as beans (**Phaseolus**) and peas (**Clianthus**); also, from one carpel, a dry dehiscent fruit, with an elongated pod that splits in two along two sutures, containing seeds attached along one edge; has a capability to fix atmospheric nitrogen in nodules on its roots if inoculated with proper bacteria.

leguminous. **leguminosa**. Pertaining to or of the group of plants bearing legumes, or pods to which peas (**Clianthus**) and beans (**Phaseolus**) belong.

leio-. **leio-**. A Greek prefix that means, "smooth".

leiosporous. **leiosporo**. Having smooth spores.

lemma. **lema**. The lower bract of the pair (lemma and palea) surrounding the flower in a spikelet of grass (**Poaceae**); also, the outer bract of a grass floret, e.g. has the grass floret in its axile.

lemon. **limón**. The pale yellow fruit of the semi-tropical evergreen tree

Citrus limon (**Cistaceae**).

lentic. **léntico**. Pertaining to or living in freshwater habitats, such as stagnant or swamp-like water; as lentic plants.

lenticel. **lenticela**. A lens-shaped group of cells that form pores in the corky layer of bark (periderm); appearing as a raised spot, filled occasionally with a powdery substance. These pores permit atmospheric gases to reach tissues below the surface.

lenticular. **lenticular**. Shaped like a lentil or a double convex lens, as some seeds; biconvex.

lentiform. **lentiforme**. Lenticular.

lentiginous. **lentiginoso**. Covered with minute dots; freckled; speckled.

lentil. **lenteja**. *Lens esculenta*, an annual plant of the pea family or the small edible seeds which are shaped like double convex lens.

lepido-. **lepido-**. A Greek prefix that means, "scaly".

lepidote. **lepidoto**. Covered with minute scales, as some parts of certain **Bromeliaceae** or leaves of **Aetoxicaceae**; squamulose.

lepis. **lepis**. The minute scales on the fruits of some rattans, *Myrialepis* spp. (**Palmae**).

leprose. **leproso**. Having powdery or scurfy granules or scales.

lepto-. **lepto-**. A Greek prefix that means, "narrow" or "thin".

leptocentric vascular bundle. **haz vascular leptocentrico**. A concentric vascular bundle in which a central strand of phloem is surrounded by xylem.

leptodermous. **leptoderma**. Thin-skinned or thin-walled, especially of a bryophyte capsule which is soft.

leptoform. **leptoforma**. A life cycle

of the rusts in which there are only teleutospores which germinate without rest.

leptome. **leptoma**. The conducting elements in the phloem.

leptonema. **leptonema**. Leptotene

leptophyllos. **leptófilo. angustifolio**. Having narrow leaves.

leptosporangiate. **leptosporangiado**. Having sporangia that are each derived from a single cell of the epidermis, as most ferns (**Filicopsida**).

leptotene. **leptóteno**. In meiosis I, during prophase, the point just before the chromosomes unite when the chromatids are not yet visible as separate structures. Prophase is divided into five stages: leptotene, zygotene, the pachytene, the diplotene, and diakinesis.

leptotichous. **leptótico**. Said of a tissue that is thin-walled.

lesion. **lesión**. A wound; also, a well-marked but limited disease area.

lethal. **letal**. In genetics, a mutant whose presence can only be inferred from the absence of an expected class of individuals in the progeny; also, death-causing, which may apply to a normal or abnormal environmental factor, or to a hereditary factor.

lethal factor. **factor letal**. See lethal gene.

lethal gene. **gen letal**. Any gene whose action results in the death of the plant; dominant lethals kill heterozygotes and recessive lethals kill homozygotes.

lethal mutation. **mutación letal**. A gene mutation which results in the premature death of the organism carrying it. Dominant lethals destroy heterozygotes while recessive

lethals destroy only homozygotes. leucine. **leucina**. An aliphatic amino acid, unlike most, which is slightly soluble in water.

leuco-. **leuco-**. A Greek prefix that means, "white".

leucoanthous. **leucoanto**. White-flowered.

leucoplast. **leucoplasto**. A colorless plastid in the cytoplasm that is involved in processing and storing of oils and starches.

leucosporous. **leucosporo**. Having white spores.

levan. **levana**. A polysaccharide; a polymer of fructose.

levigate. **levigado**. Having a smooth, polished surface.

levulose. **levulosa**. Fructose.

liana (liane). **bejuco. liana**. Any free hanging, woody or wiry vine, that roots in the ground, climbs and entwines, especially around trees; usually have anomalous secondary thickening; often hanging from the canopy;

liber. **liber**. A plant bast or phloem.

liberate. **liberar**. To set free from a combination, as to liberate energy or gas; to give off or liberate as heat.

liberation. **liberación**. The act of freeing, as the liberation of energy.

libriform. **libriforme**. Resembling bast; also, elongated, woody, thick-walled cells.

libriform fiber. **fibra libriforme**. An elongated thick-walled element of the xylem, formed from a single cell.

lichen. **liquen**. A composite organism, that looks similar to moss (**Musci**), generally found growing in patches on rocks and tree trunks, made of a fungus and an alga liv-

ing in a symbiotic relationship. They are classified according to the fungus in the association, commonly **Ascomycotina**. Due their sensitivity to environmental factors they are sometimes viewed as useful pollution indicators.

lichen woodlands. **bosque liquen**. A boreal conifer area, located south of the forest tundra and north of the closed forest; characterized by a sparsely forested, open woodland, set in a ground layer dominated by lichens. *See* taiga.

lichen zone. **zona de liquen**. An area characterized by lichen flora ranging from complete absence to a full complement of foliose and fruticose species.

lichenic acid. **ácido liquénico**. Organic acids special to the lichens, lichenicolous. **liquenícolo**. Growing on lichens, said especially of parasitic fungi.

lichenin. **liquenina**. A glucan found in lichens.

lichenology. **liquenología**. The specialized study of lichens.

lichenometry. **liquenometría**. The measurement of lichen diameters for determining the age of areas in which they grow; commonly used methodology in the non-forested alpine and arctic areas.

lichenous. **liqueno**. Pertaining to or covered with lichens.

lid. **opérculo**. **tapadera**. In mosses (**Musci**), the top of spore cases; also, the top of a pitcher-shaped leaf; also, the cap of a box-like seed capsule that bursts open transversely; operculum.

life cycle. **ciclo de vida**. **ciclo vital**. A series of developmental changes that take place in the life of every

individual plant in a population, involving fertilization, reproduction, death, and replacement by a new generation.

life expectancy. **esperanza de vida**. **expectativa de vida**. The length of time a plant is expected to live, as established by statistical probability studies.

life form. **forma biológica**. The structure, form, habits, and life history of plants with special focus on morphological features and their relationship to different environments, especially the Raunkiaer scheme of 1934.

life history. **historia vivo**. The successive stages of plant development, from inception to death.

life sciences. **ciencias biológicas**. A collective term for any of the fields of study dealing with living matter and biological processes, such as botany, biochemistry, microbiology, and zoology.

life zone. **zona biológica**. **biozona**. **área vital**. A regional environment with a uniform climate, plant and animal life.

ligand. **ligande**. A molecule that can bind to a specific location on a cell membrane, as an antibody; also, electron-donor partner in coordination bonds.

ligase. **ligasa**. An enzyme that triggers a reaction joining two substrates, by using energy from the hydrolysis of a nucleotide; synthetase.

light dependent reaction. **reacción lumínica dependiente**. The first phase of photosynthesis where the sunlight is used as an energy source for synthesizing ATP alone or ATP and NADPH.

light independent reaction. **reacción lumínica independiente.** The second phase of photosynthesis when sugars and other compounds are brought together with ATP and NADPH produced in the first phase. See light dependent reaction.

light microscopy. **microscopía de luz. microscopía de luminoso.** The use of a microscope where light, rather than electrons, is passed through or impinges on the object being viewed.

light reaction. **reacción lumínica. reacción luminosa.** In photosynthesis, a series of physical and chemical reactions that are dependent on light, such as photophosphorylation and photolysis in which light energy is converted to chemical energy with the aid of chlorophyll molecules. During the process water produced molecules are split, with hydrogen ions, electrons, and oxygen gas being released.

light stage. **estada lumínica.** The stage in photosynthesis when triosephosphate is formed from a 3-carbon acid (phosphoglyceric acid). The energy absorbed by the chloroplasts is used to split the water molecule into hydrogen and oxygen.

ligneous. **leñoso.** Woody, as distinguished from herbaceous.

lignescent. **lignescente.** Tending to be or become ligneous or woody; somewhat woody.

lignicolous. **lignícola.** Living on decorticate wood, as fungi.

lignification. **lignificación.** The process of becoming woody or lignified; also, the deposition of lignin on and in a cell wall.

lignified. **leñosa.** Pertaining to cells with large amounts of lignin de-

posited in their walls, giving them a rigid, woody structure.

ligniform. **ligniforme.** Resembling wood.

lignify. **lignificarse.** Changing into wood as cells thicken by the introduction of lignin.

lignin. **lignina.** An organic substance, closely related to cellulose; when lignin and cellulose are combined they provide strength and rigidity to many secondary cell walls and make up the essential part of woody tissue (up to 15 to 30 percent by weight).

lignocellulose. **lignocelulosa.** Lignin and cellulose linked, forming the essential component of woody tissue.

ligulate (of shape). **ligular.** Shaped like a tongue, as a corolla, leaf, or a petal.

ligulate. **ligulada.** Having a ligule; having a tongue-like projection at the base of a blade or at the tip of a leaf sheath; also, said of a corolla which has a very short tube and is prolonged above into a flattened group of united petals; also, said of a capitulum in which all the flowers have a ligulate corolla.

ligule. **lígula.** A tongue-shaped corolla or flattened ray in some members of the daisy family (**Asteraceae**); an outgrowth from the top of the leaf sheath, as in the **Poaceae**; a membrane at the base of the lamina of a grass leaf where the blade meets the leafstalk, as that of millet (**Panicum**); also, a flattened membrane arising from the base of the leaves of some lycopods.

liguliflorate. **liguliflorado.** Having ligulate flowers.

liguliform. **liguliforme. lorado.**

Having the shape of a tongue and flat like a strap.

lilac (color). **lila (color)**. A pale purple color.

limb. **límb**. In the perianth, the expanded part of the corolla or calyx that lies above the tube, throat, or claw; in the hypanthium, the free, flared portion.

limb. **rama**. A primary branch of a tree; also, the lamina of a leaf; also, the widened upper part of a petal; also, the upper, often spreading part of a sympetalous corolla.

limbate. **limbato**. Bordered, as a flower with a different colored edge.

lime (agricultural). **enclar (agrícola)**. **cal**. A material containing the carbonates, oxides, and/or hydroxides of calcium, and/or magnesium that are used to alter soil pH or neutralize soil acidity. The amount of lime in the soil determines whether the soil is acid, neutral, or alkaline.

lime (fruit). **lima (fruta)**. A fruit from the species *Citrus aurantiifolia* (**Rutaceae**), or in British usage, lime may also refer to the linden tree (**Tiliaceae**).

lime green. **verde lima**. A yellow-green color.

lime tree. **limero**. The *Citrus aurantiifolia* (**Rutaceae**).

lime tree (British). **tilo (británico)**. **tila (británico)**. A linden tree, *Tilia cordata* or the natural hybrid *T. europea*.

limestone forest. **bosque caliza**. A distinguishing type of forest occurring in tropical rain forest regions that grow on special limestone formations (karst) that are characterized by underground drainage, sinkholes, rolling sur-

faces, and caverns. Often there are a few endemic genera which are limited to the habitat.

limestone. **pedra caliza**. **pedra calcárea**. **caliza**. Rock mostly composed of calcium carbonate, yielding lime when processed.

limicolous. **limícola**. Living in mud, as limicolous species.

limit of trees. **límite de arbols**. The line north or south or upwards on mountains, beyond which trees do not naturally occur.

limiting factor. **factor limitante**. **factor limitador**. Any single factor that prevents or inhibits the growth, abundance, or distribution of a species in an ecosystem; also, the environmental conditions that most nearly approximates the maximum or minimum limits of tolerance for a given organism.

limiting nutrient. **nutritivo limitante**. Any substance added to or removed from a body of water that will stimulate or inhibit eutrophication.

limits of tolerance. **límites de tolerancia**. **límites de tolerado**. The upper and lower bounds of a particular environment (light, heat, water) within which an organism can survive. Same as tolerance limit.

limnetic zone. **zona limnética**. The deeper, open freshwater ecosystem that lies beyond the littoral (lake-edge) zone; sublittoral.

limnetic. **limnético**. Plants that thrive in the open water of lakes.

limnium. **limnio**. A lake formation.

limnodium. **limnodio**. A salt marsh formation.

limnology. **limnología**. The study of inland freshwater ecosystems, especially lakes and their surrounding habitat.

limoniform. **limoniforme**. Lemon-shaped.

limp. **flácido. flácido**. Wilted; having lost stiffness, as a limp leaf.

linamarin. **linamarina**. A cyanogenetic glucoside present in flax roots.

line. **línea**. A group of individuals from a common ancestry that retain their characteristics when propagated by seed; also, a type of cultivar.

line breeding. **crianza de líneas**. The mating in successive generations of individuals having the same common ancestor.

lineage. **linaje**. The descent in a line from an ancestor; ancestry.

linear (leaf). **linear (hoja). lineal**. Narrow and uniform in width, with the widest axis at midpoint and the margins mostly parallel, as with certain willow leaves. (**Salix**).

linear embryo. **embrión linear**. A type of axil embryo several times longer than wide, straight, curved or coiled, expanded cotyledons, but endosperm not always present.

linear growth. **crecimiento linear**. Growth in which a quantity increases by some fixed amount during each unit of time.

linear leaf. **hoja linear**. A leaf type that is narrow, flattened, triangular or quadrangular, usually $\frac{1}{2}$ to 2 inches long, as some spruce (**Pinaceae**).

linear tetrad. **tétrade linear**. A row of four megaspores, as is usual in flowering plants.

lineate. **lineado**. Marked with lines, as lineate leaves or stigma.

lineolate. **lineolado**. Marked with minute, fine lines that are often parallel.

linguiform. **lingúiforme**. Having the form of a tongue; shorter and wider

than ligulate, and somewhat fleshy with a blunt apex.

lingulate. **lingulado**. Tongue-shaped; ligulate.

linin. **linina**. The more solid, form-conserving part of the nucleus, which holds the chromioles in definite relationship with each other; achromatin.

linkage. **ligamiento. linkage**. The proclivity of genes on the same chromosome being inherited together instead of under going independent assortment.

linkage disequilibrium. **desequilibrio de ligamiento**. The non-random association of alleles at different gene locations in a population.

linkage equilibrium. **equilibrio de ligamiento**. See gametic equilibrium.

linkage group. **grupo de ligamiento**. A assembly of genes that are transmitted together.

linkage map. **mapa ligamiento**. A chromosome map, determined by recombination relations.

Linnaeus. **Linnaeus**. The 18th century (1707–1778) Swedish naturalist Carolus Linnaeus, famed for his system classifying plants and animals. The Linnean system of naming uses two words, the first for the genus and the second for the species.

lip. **labio. labelo. labium**. One of the upper or lower parts of a bilabiate (two-lipped) flower; also, in orchids (**Orchidaceae**), it is one of the three petals that has a different shape than the other two. See labellum.

lipase. **lipasa**. An enzyme breaking down a true fat into its component fatty acid(s) and glycerol.

- lip cells. **célula de labio**. The line of cells between which the sporangium dehisces.
- lipid(e). **lípid**. A chemical component, generally a hydrocarbon, which is composed of three fatty acids and glycol that are insoluble in water but soluble in organic solvents. Their function is diverse, including energy storage as hormones or as structural components in membranes.
- lipochondria. **lipocondria**. Golgi Apparatus.
- lipochrome. **lipocromo**. Fat soluble pigments, such as carotenoids.
- lipoid. **lipoide**. Lipid or any of a group of fat or oil-like substances.
- liponic acid. **ácido lipónico**. It may be concerned with the transfer of the acetyl radical to coenzyme A, and hydrogen to coenzyme 1 in the pyruvate oxidation system; thioctic acid.
- lipophilic. **lipofilíco**. Attracted by hydrocarbons and repelled by hydroxy- (OH) substances.
- lipoprotein. **lipoproteína**. Any of a class of proteins, one of which is lipid, which are most commonly found in membranes.
- liposome. **liposoma**. A drop of fat or a lipid in the cell cytoplasm.
- lipoxidase. **lipoxidasa**. An enzyme which plays a part in fatty acid oxidation by breaking the chain at the double bond.
- lipped. **labiado**. Labiate.
- lirella. **lirella**. A long, narrow apothecium with a ridge in the middle, found in some lichens.
- lireliform. **lirelifome**. Like a furrow.
- lithophilous. **litófilo**. Growing on rocks, as algae, mosses, and flowering species which comprise a portion of the lithophilous benthos.
- lithophyte. **litófito**. A plant that grows on the surface of rocks, getting nourishment from the air, as some orchids (**Orchidaceae**).
- lithosere. **litoserie**. **litosere**. The flow of plant communities, proceeding through all the stages of a succession to a climax vegetation that begins on a bare rock.
- lithotroph. **litótrofo**. An organism that obtains energy from inorganic compounds or elements; not the same as an autotroph.
- litter. **basura**. The more or less undercomposed plant residues on the surface of soil in a forest; horticulturally used in weather protection for plants.
- litter layer. **hojarasca**. Dead organic matter such as branches, leaves, tree trunks, and grasses (**Poaceae**) that accumulate on the forest floor.
- littoral. **litoral**. Growing along the sea or lakeshore.
- littoral zone. **zona litoral**. In a freshwater ecosystem, the shallow area around a lake where light penetrates into the sedimentation and provides conditions conducive to root-plant colonization; in a saltwater or marine area, the shore or intertidal zone where periodic submersion by tide water is normal.
- littuate. **lituado**. Forked with the points turned outward.
- litturate. **liturado**. Spotted.
- liverwort. **hepática**. The common name for a group of green, red, purple, or yellowish non-vascular plants with undifferentiated stems and leaves, belonging to the class **Hepaticae** and similar to mosses (**Musci**), together, classified as bryophytes; hepatica.

liveus. **liveus**. Latin meaning "pale lead-colored".

living fossil. **fósil viviente**. An organism that is one of the last living species of an extinct stock known only from fossil remains.

lobate. **lobado**. Having rounded lobes, varied depths and the outer and inner margins concave, as lobate leaves.

lobe. **lobo**. A rounded projection or division of an organ, as leaves, fruit, or other organs.

lobed. **lobulada**. Leaf shapes that are deeply cut, but less than half way toward the midrib, as compound leaves; divided into segments.

lobed margin. **margen lobulada**. The outer edge of a leaf with gaps more or less to the center of the leaf.

lobular. **lobular**. Having the shape of a lobule or small lobe.

lobulate. **lobulado**. Divided into lobules.

lobule. **lóbululo**. A small lobe, as a smaller subdivision of lobe.

localization. **localización**. The restriction of crossing over and chiasma formation to certain corresponding parts of all the chromosomes. This is genetically determined. It may be procentric or proterminal, according to whether the contact points are near the centromere or near the ends.

localized. **localizado**. Limited or confined to a particular area.

locellate. **locelado**. Subdivided into smaller loculi.

lochromium. **lochromio**. A thicket formation.

loci. **loci**. Plural of locus.

lock. **esclusa**. The cavity of the ovary in plants; a locule.

locomotion. **locomoción**. The capacity

of an organism to move from place to place, increasing its probability of surviving.

locular. **locular**. Having one or more cells or loculi, as bilocular or trilocular.

loculate. **loculado**. Having locules.

loculatus. **loculatus**. Latin meaning "divided into compartments by septa".

loculation. **loculación**. Separation into locules.

locule (*pl.* loculi). **lóculo**. A small cell or cavity in plant tissue that is separated from another locule by a septum, as in an ovary, anther or fruit; also, one portion of a septate spore; seed cavity;

loculicidal. **loculicida**. A lengthwise splitting through the back suture of each locule or carpel; also, one of the three types of dehiscence: septicidal, septifragal, and loculicidal.

loculose. **loculoso**. Divided into locules or cells.

loculus. **lóculo**. See locule.

locus (*pl.* loci or loca). **locus**. The position or location of a gene on a chromosome.

locusta. **locusta**. In grasses (**Poaceae**), a long spike or flower cluster.

lodge. **acamado**. A condition in which plants permanently bend near the soil surface and fall more or less flat on the ground; especially common with cereals (**Poaceae**) with an excess of nitrogen.

lodicule. **lodícula**. One of the two or three small hyaline scales located near the base of the ovary and below the stamens in the flowers of many grasses (**Poaceae**); they become distended with water and assist in the separation of the

glumes.

loment(um). **lomento**. Indehiscent legume seed pods with spaces between the seeds which break into many dry, one-seeded pieces when ripe.

lomentaceous. **lomentáceo**. Pertaining to or bearing lomentos.

long bud shoot. **vástago de yema largo**. An abnormal bud or shoot that grows in length but does not develop leaves or branches.

long shoots. **vástago largo**. Normal shoots that grow from the terminal or axillary buds that have normal internodal intervals.

long-day plant. **planta de día largo**. **planta macrohémera**. Any plant that requires many hours of light to bloom, usually those indigenous to latitudes greater than 60° both north and south of the equator. Long-day plants bloom in late spring and early summer, following long-days of light, fourteen to seventeen or more hours daily, and correspondingly short dark periods. Lettuce (**Asteraceae**) is a common long-day plant.

longevity. **longevidad**. The continuance of an individual for longer than most members of its species or of a genus or species over a sustained period of geologic time.

longi-. **longi-**. A Latin prefix that means, "long".

longicollous. **longicolo**. Having a long beak or neck.

longiflorous. **longiflo(ro)(ra)**. Long-flowered.

longitude. **longitud**. Distances east and west on the earth's surface, as measured in degrees from a certain meridian; ordinarily the meridian passing through Greenwich, England.

longitudinal axis. **eje longitudinal**. Running lengthwise along the axis of a structure.

longitudinal dehiscence. **dehiscencia longitudinal**. Describes a type of anther that opens or dehisces along the long axis of the theca.

long-night plant. **planta de noche larga**. Plants that require long nights and short days for maturation, as poinsettias (**Euphorbiaceae**).

loose. **laxo**. Describes an arrangement of widely separated or scattered parts, often irregular.

loosely. **laxamente**. Markedly loose.

lophium. **lófio**. A hill formation.

lophotrichous. **lofótrico**. Said of an organism which has the flagella in one group arising at one point on the surface of the cell.

lorate. **loriforme**. Having long, vertical waves in the margins; strap-shaped; ligulate.

loriform. **loriforme**. Having the form or flat shape of a strap or tongue.

lotic. **lotíco**. **torrentícola**. Pertains to freshwater habitats involving rapidly running water, such as springs, rivers, and creeks.

low. **bajo**. **baja**. Not advanced in organization or development.

lower fungi. **hongos inferiores**. Fungi belonging to the subdivisions **Mastigomycotina** and **Zygomycotina**; phycomycetes.

lower. **inferior**. Below or not as advanced in organization or development.

lubricous. **lubrico**. Having a slippery surface.

luciferase. **luciferasa**. An enzyme occurring in the cells of luminescent organisms, which acts on luciferin to produce luminosity.

luciferin. **luciferina**. A chemical substance in the cells of luminescent organism, which produces heatless light.

lucifugous. **lucífugo**. Shunning light.

lumen. **luz**. **lumen**. The central cavity within the wall of a cell.

luminescence. **luminescencia**. The giving off of light.

luminescent. **luminescente**. Pertaining to luminescence.

lunate. **lunular**. Crescent or half moon-shaped with acute ends.

lustrous. **brillante**. Bright and shining.

luteic acid. **ácido luteico**. A metabolic product of *Helminthosporium leersi*.

lyase. **liasa**. **sintasa**. An enzyme that catalyses non-hydrolytic reactions that either remove or add to a substrate, causing a double bond.

lycopene. **licopino**. **licopina**. A red pigment, carotenoid, in ripe fruit, especially tomatoes (**Solanaceae**).

lyrate. **lirado**. Lyre-shaped; having large terminal lobes, cut more than halfway to the midrib and smaller lower lobes, as lyrate leaves.

lyriform. **liriforme**. Having the shape of a lyre.

lysine. **lisina**. An amino acid that is essential for growth but of limited occurrence in plant proteins, but abundant in animal proteins.

lysis. **lisis**. The rupture and death of

a bacteria as a result an infection by a bacteriophage.

lysogenic phage. **fago lisogénico**. A bacteriophage which does not kill its host.

lysogenic response. **respuesta lisogénico**. The rupture and death (lysis) of a bacterial cell from infection by a bacteriophage which does not reproduce, but instead responds as a prophage.

lysogeny. **lisogenia**. A generally stable, non-destructive association between a bacteriophage and its host bacterium.

lysosome. **lisosoma**. Small cytoplasmic bodies containing enzymes, surrounded by a single unit membrane, that can break down all polysaccharides, nucleic acids, and proteins, as well as some lipids; essential in the cell's material recycling and biosynthesis.

lysozyme. **lisozima**. A substance present in some plants, which has the power to kill bacteria. It resembles an enzyme in some respects, but cannot reproduce itself.

lytic phage. **fago lítico**. A bacteriophage which causes lysis.

lytic response. **respuesta lítico**. The rupture and death (lysis) of a bacterial cell from infection by a bacteriophage which then reproduces inside the cell.

M

macrandrous. **macroandro**. Having very tall male plants, as certain algae.

macro-. **macro-**. A Greek prefix that means, "large" or "long".

macroalgae. **macroalga**. Multicellular brown, red, and green algae.

macrobiotic. **macrobiótica**. Long-lived.

macrocephalous. **macrocéfalo**. Having massive embryonic cotyledons, as compared to other embryonic parts.

macroclimate. **macroclima**. The characteristic weather of a large locale.

macroclimatic. **macroclimático**. Pertaining to a macroclimate.

macroconidium. **macroconideo**. A very large or long conidium.

macrocytic. **macrocíclico**. Having a long or complex life cycle, as a macrocyclic plant; also, said of rusts which have two alternative hosts, and all the stages in the life cycle.

macrocyst. **macroquiste**. A large reproductive sac in some fungi; also, the resting form of the young plasmodium of the myxomycetes.

macroelement. **macroelemento**. *See* macronutrient.

macroenvironment. **macroecológico**. **macro de medio ambiente**. The surroundings of a large area inhabited by a particular species or community, as the macroenvironment of the eastern deciduous forest.

macroevolution. **macroevolución**. Large scale changes in rates, trends

and patterns among groups of species over extensive time periods.

macrofibril. **macrofibrilla**. Very large root hairs; also, a group of microfibrils, as cellulose fibrils.

macroflora. **macroflora**. The macroscopic plants in a particular place or in a particular time segment.

macrofossil. **macrofósil**. A plant found in the earth's strata, large enough to be seen without a microscope.

macrofungi. **macrohongos**. **macrofitas**. Fungi having large fruit bodies.

macrogamete. **macrogameto**. The larger of the two conjugating gametes, which reproduce by the union of unlike gametes; a large gamete containing food reserves, *e.g.* the female gamete.

macrogametocyte. **macrogametócito**. A gametocyte that gives rise to macrogametes.

macrogametophyte. **macrogametófito**. The larger of the gametophytes of the heterosporous pteridophytes. It produces the female gametes.

macrogonidium. **macrogonidio**. A large gonidium.

macrohabitat. **macrohábitat**. A particular locality, regardless of size, containing a large number and variety of organisms or species.

macromolecular. **macromolecular**. Pertaining to macromolecules.

macromolecule. **macromolécula**. The very large, organic molecules such as proteins and nucleic acids that

- make up the structural and functional parts of cells; also, many small molecules linked together, as in a resin.
- macromycetes. **macromicitos**. Macrofungi.
- macronutrient. **macronutriente**. Elements in relatively large amounts required for plant growth, such as calcium, phosphorus, sulfur, potassium from the soil, and hydrogen, oxygen and carbon from the air.
- macrophyll. **macrofilo**. Having large leaves.
- macrophylline. **macrofilina**. Having large lobes.
- macrophyllous. **macrofile**. Large-leaved; also, said of leaves with a branched vascular system.
- macrophyte. **macrofito**. A macroscopic plant, commonly used with plants living in water.
- macropodial. **macroápodo**. With a long stem, as a macropodial leaf; also, having food stored in the hypocotyl; hypocotylespermous.
- macropodous. **macropodio**. Said of an embryo without cotyledons.
- macroscopic. **macroscópico**. The size is large enough to be seen without magnification.
- macrosporangium. **macrosporangio**. *See* megasporangium.
- macrospore. **macrospora**. A large spore; megaspore.
- macrosporophyll. **macrosporofilo**. Megasporophyll.
- macrostyle. **macroestilo**. With a long style.
- macrotaxonomy. **macrotaxonomía**. The taxonomic classifications that pertain to family, order and other larger groupings.
- macula. **mácula**. A spot or blotch, as a macula of color on a petal; also, a small tubercule; also, a small shallow pit.
- maculate. **maculada**. Having spots or being speckled.
- maculation. **maculación**. The pattern of spots on leaves or flowers.
- maculatus. **maculatus**. Latin meaning "spotted".
- maculicolous. **maculícolo**. Growing spots, *e.g.* leaf-spots.
- magnesium. **magnesio**. A metallic element with the chemical symbol of Mg used by green plants in the formation of chlorophyll.
- magnoliophyta. **magnoliófito**. Enclosed, seed bearing flowering plants with varied leaf shapes, sizes, and venation patterns.
- maintenance evolution. **evolución mantenimiento**. *See* stabilizing selection.
- major. **mayor**. Greater in size, shape, or order.
- major gene. **gen mayor**. A gene with conspicuous phenotypic effects, in contrast to a modifier gene which alters the phenotypic expression of another gene; oligogene.
- majus. **majus**. Latin meaning "greater".
- malacoid. **malacoide**. Like mucilage.
- malacophily. **malacófilia**. Pollinated by snails.
- malacophyllous. **malacófilo**. Having soft leaves; said of xerophytic plants which have fleshy leaves containing much water-storing tissue.
- malate dehydrogenase. **de(s)hidrogenasa malado**. *See* malic acid.
- male flower. **flora masculina**. A flower having stamens but no carpels.
- male sterility. **esterilidad macho**. A condition in some plants where pollen is not formed or does not function normally, even though the

stamens may appear normal.

male. **masculino**. In fertilization, a designation of the organs, as male gametes; also, a flower with only stamens and no pistils.

malformation. **malformación**. Anomalous formation of organs or structure.

malformed. **deforme**. **mal formado**. With a faulty form or shape.

malic. **málico**. Pertaining to or obtained from apples (**Rosaceae**).

malic acid. **ácido málico**. A dicarboxylic acid formed during the citric acid cycle and found in apples (**Rosaceae**) and some other fruits. It is formed from fumaric acid by hydrolysis (enzyme fumarase) and is changed to oxaloacetic acid by dehydrogenation by malic dehydrogenase.

malodorous. **maloloroso**. Having a bad or unpleasant odor.

malolactic. **maloláctico**. Pertaining to the bacterial conversion of malic acid to lactic acid in wine.

malpighiaceous hair. **pelo malpigiáceo**. Straight hair that is tapered at the ends, as a pick and attached at the middle; dolabriform.

malpighian cell. **célula de malpighi(o)**. One cell of a layer of closely packed, radically directed, thick-walled cells occurring in the testas of some seeds.

malpighian layer. **estrato de malpighi(o)**. A layer of closely packed, radically directed, thick-walled cells occurring in the testas of some seeds.

maltase. **maltasa**. An enzyme breaking maltose into its two component glucose molecules.

maltose. **maltosa**. A disaccharide sugar made from the condensing of two

D-glucose molecules, in the 1 : 4 and a position; malt sugar.

maltotriose. **maltotriososa**. A trisaccharide sugar.

malvidin. **malvidina**. A blue anthocyanin pigment.

mammillar. **mamilar**. Having a rounded outgrowth, ending in a papilla or point.

mammiform. **mammiforme**. Shaped like a nipple, papilla, or breast; breast-shaped.

mammilla. **mamila**. **pezón**. A floral structure or any other protuberance with the shape of a woman's breast or the tip of a breast; nipple.

mammillae. **mamilae**. Plural of mammilla.

mammillate. **mamilífero**. Having mammillae or nipples.

mammose. **mamoso**. Breast-shaped.

manganese. **manganeso**. A chemical element with the symbol Mn; required in small amounts for plants to bind protein and for light to function correctly in photosynthesis.

mangrove. **mangle**. Any of a group of tropical trees or shrubs that grow in swampy ground along riverbanks, producing branches that spread and send down roots, thereby forming more trunks which cause thick growth, as *Rhizophora mangle*.

mangrove forest. **bosque de manglar**. A forest growing in tropical or subtropical brackish water areas, particularly on mudflats; characteristically the mangrove forest is low and dense with a tangle of aerating roots rising above the mud.

mangrove swamp. **pantano de manglar**. Characteristic vegetation occurring in brackish or saline water along tropical and subtropical coasts, particularly at river mouths;

- typically made up of numerous stands of aerating roots rising above the surrounding mud flats and mangrove; encourages the gradual seaward extension of the land area.
- mannon. **manon**. A polymer of D-mannose.
- mannitol. **manitol**. A sugar alcohol of mannose.
- mannose. **manosa**. A monosaccharide occurring in a wide variety of organisms, including vegetable gums, bacterial capsular layers, and fungi; a hexose sugar.
- manocyst. **manociste**. The receptive papilla of some *Oomycetes*.
- manoxylic wood. **madera manoxilico**. Wood of a somewhat loose texture and contains a large amount of parenchyma.
- manubrium. **manubrio**. Shaped like a handle; handle-cell.
- many. **mucho**. A relatively large number, usually more than ten.
- many-stemmed. **multicaule**. Having a number of stems.
- map distance. **distancia de mapa**. A measure of distance between two gene loci based on the frequency of crossing over between them; a map unit is equal to one percent crossing over.
- maranta. **maranta**. **malvito**. A group of plants having tuberous roots, commonly associated with the arrowroot (*Marantaceae*).
- marbled. **veteado**. Marked with irregular streaks of color.
- marcescent. **marcescente**. Leaves with a short duration that do not fall off, but only wither, remaining attached to the plant.
- margin. **margen (márgenes)**. The outer edge of leaves, petals, sepals, bracts, scales, or other flattened structures; also, the edge of a growing fungal mycelium.
- marginal. **marginal**. Situated on or arising from the edge of a member; also, of a placenta, in a single carpel, or on the edges of the carpels; having a nerve running parallel along the edge of the leaf.
- marginal community. **comunidad marginal**. A plant community bordering on another community of slightly different character.
- marginal placentation. **placentación marginal**. With the placenta located along the margin of a simple ovary; ventral placentation.
- marginal ray cell. **célula radial marginal**. A more or less specialized cell, occurring with others of the same kind, at the edge of a vascular ray.
- marginal species. **especie marginal**. A plant that grows along the edge of a woodland.
- marginal veil. **velo marginal**. Partial veil.
- marginate. **marginado**. Having a well marked border, which is often composed of cells or elements differing in form or color from those making up the rest of the organ.
- marine. **marino**. Of or pertaining to plants living in or near saltwater.
- marine biology. **biología marina**. A branch of biology that studies living organisms of the sea.
- marine ecology. **ecología marina**. The study of the sea environment.
- maritime. **marítimo**. Growing near saltwater.
- marl. **marga**. **saskab**. Lime-rich clay, often occurring in alluvial deposits and containing large amounts of calcium carbonate.
- marsh gas. **gas metano**. **gas de los**

- pantanos.** Methane gas.
- marsh plant. **planta palustre.** Helophyte.
- marsh. **pantano.** A tract of low, very wet mineral soil, as distinct from peaty soil, occasionally, or sometimes permanently covered with water, growing coarse grasses (**Poaceae**), reeds (**Poaceae**) and sedges (**Cyperaceae**); bog, swamp or fen.
- marshy tundra. **tundra pantanoso.** Marsh-like tracts found in the Arctic tundra which support a luxuriant growth of mosses (**Musci**), and an array of grasses (**Poaceae**), sedges (**Carex**, **Cladium**) and dwarf willows (**Salix**).
- marshy. **pantanoso.** Like a marsh, soft, sometimes wet, growing trees, rushes (**Juncaceae**), reeds (**Poaceae**) and sedges (**Cyperaceae**); living in marshes.
- marsupium. **marsupio.** Upgrowths around the "stem" apex of the **Acrogynae**.
- masculine. **masculino. estaminado.** See male.
- mass spectrometry. **espectrómetria de masas.** A method for measuring atomic and molecular masses.
- massula. **másula.** A small group of adherent pollen grains produced by the same mother cell and occurring in many members of the **Orchidaceae**; in ferns (**Filicopsida**), a sticky mass of microspores also, one of the four alveolar from the plasmodial tapetum of *Azolla*. One contains the functional macrospore.
- mast. **bellota.** The fruit of oak (*Quercus*) trees, especially as food.
- mast. **hayucos.** The fruit of the beech (*Fagus*) and related trees, especially as food.
- master factor. **factor mayor.** Any powerful acting ecological factor, which plays the main part in determining the occurrence, in a given area of a plant community of major rank.
- mastigoneme. **mastigonemo.** A stiff, lateral projection on the flagellum of some algae cells.
- maternal inheritance. **herencia materno. herencia maternal.** An inheritance pattern where all the progeny have the genotype and phenotype of the maternal parent.
- maternal messenger. **mensajero maternal.** See informosome.
- mating continuum. **continuo de apareamiento.** An aggregate of individuals whose gens systematically recombine.
- mating group. **grupo apareamiento.** A group of individuals, haploid or diploid, within which mating is favored at the expense of mating outside the group, by genetic or environmental conditions characteristic of the group.
- mating type. **tipio apareamiento.** In microorganisms, the equivalent of sex designations (male-female) in higher organisms.
- mastoid. **mastoide.** Like a nipple; nipple-like.
- matorral. **matorral.** Refers to drought resistant, evergreen shrubs and small trees with thick, leathery leaves; sclerophyllous vegetation.
- matrix. **matriz.** The substance between the cells of plant tissue; the outer layer of stainable material in a chromosome; also, any substratum, living or dead, in which a fungus grows.
- matrix potential. **potencial de matriz.** The water potential component

- produced by the attraction of water molecules to a hydrophilic matrix.
- matromorphic. **matromórfico**. Resembling the female parent.
- matroclinus. **matroclino**. Exhibiting the characters of the female parent more prominently than the male.
- maturation. **maduración**. The final stage in the fertilization process, including meiosis and changes in the cytoplasm; also, refers to the time of development of organs and their parts; also, the formation of gametes or spores by meiosis.
- mature (fruit, vegetables). **maduro**. Ripe, fully developed, as mature mangoes (*Mangifera*).
- mature. (tree, plant). **adulto (arbol, planta)**. Fully grown, or completely developed, as a mature flower or fruit.
- maturity. **madurez**. Full development or mature condition.
- matutinal. **matutino**. Occurring in the morning time, as flowers opening in the morning hours.
- mauve color. **color malva**. Various shades of light purple.
- maximus. **maximus**. Latin meaning "very large".
- mazaedium. **mazaedio**. A type of ascocarp in which the asci, paraphyses, and others, disintegrate into powder.
- meadow. **pastizal**. A low growing, grassy, open clearing in a landscape, sometimes associated with grazing animals.
- mealy. **harinoso**. Covered by a scurfy powder.
- mean. **valor medio**. The arithmetic average; the sum of all quantities divided by the number of quantities.
- mechanical tissue. **tejido mecánico**. Tissues, usually made of thick-walled cells, which give support to the plant body; supporting tissue.
- medial. **medio**. Near the middle of a longitudinal axis; also, the value of a variate on each side of which lie equal numbers of observations.
- median. **medina. valor central**. The middle value of a group of numbers arranged in order of size; also, a nutritive substance on, or in which, tissues or cultures of microorganisms maybe grown.
- median leaf. **hoja mediana**. The leaf on top of the stem, as in the heterophyllous species of the *Selaginellaceae* family.
- median stipule. **estípula mediana**. Stipules that are adnate to the petiole with the free part near the middle of the petiole.
- medio-. **medio-**. A prefix that means, "middle"
- mediolittoral. **mediolitoral**. Identifies the portion of a shore that is approximately equal to the intertidal or littoral zone, but does not include the lowest reaches which remain uncovered for only very limited periods.
- medulla. **médula**. The pith or central part in cylindrically stemmed plants; the cellular matter around which wood is formed in trees; in lichens, the inner tissue of the thallus.
- medullary. **medular**. Pertaining to or like a medulla.
- medullary bundle. **haz medular**. A vascular bundle running in the pith.
- medullary ray cell. **célula de los radios medulares**. In stems and roots, strands of radiating vascular tis-

sue. In the stems, the vertical tissue extends from the pith that separates the vascular bundles and connects the pith to the bark of dicotyledons and gymnosperms. They are concerned with food storage and lateral conduction of food materials, water, *etc.* They may be primary or secondary, *e.g.* produced from the cambium, when they are called vascular rays.

medullary sheath. **vaina medular.** The innermost ring or layer of woody tissue that surrounds the pith in some plants. These peripheral cells surrounding the pith are smaller cells than those of the pith, and usually have thicker walls and denser content than the pith; myelin sheath.

medullary stela. **estela medular.** A meristele lying in the center of a fern stem.

medullate. **medulado.** Pithy; having a pith.

medullose. **meduloso.** Having a texture that is soft and spongy, like a pith.

mega(lo)-. **mega(lo)-.** A Greek prefix that means, "very large" or "great" in size.

megagamete. **megagameto. megagámeta.** Macrogamete.

megagametogenesis. **megagametogénesis.** The production of large gametes (megagametes) from megaspores in the ovules of angiosperms.

megagametophyte. **megagametófito.** The gametophyte stage containing eight haploid nuclei within the embryo sac; a female gametophyte that comes from a megaspore.

megalogonidium. **megalogonidio.** Macrogonidium

megaphyll. **megafil.** Large-leaved.

Same as macrophyll.

megaphanerophyte. **megafanerófito.**

A tree over thirty meters high.

megaphyllous. **megafiló.** Having very large leaves, especially when supplied with a vascular bundle(s).

megasporangiate (female) cone. **estróbito megasporangiado.** In gymnosperms, a group of sporangia-bearing ovules at the tip of the stem.

megasporangium (*pl.* megasporangia). **megasporangio.** A spore producing sac (sporangium) or ovule that usually contains four megaspores. Known as the ovule in flowering plants.

megaspore. **megáspora.** One of two types of spores arising from meiosis with the megaspore being rather large and producing the female gametophyte; in seed plants, it is the seed sac.

megaspore mother cell. **megáspora célula madre.** A diploid cell which produces megaspores upon undergoing meiosis.

megasporocyte. **megasporócito.** In an ovule, a diploid megaspore mother cell that forms four haploid megaspores by meiosis, only one of which remains functional.

megasporogenesis. **megaesporogénesis.** The process of large spores (megaspores) being produced during meiosis.

megasporophyll. **megaesporófilo.** A sporophyll or specialized leaf that bears one or more megasporangium or ovules.

meiocyte. **meiocito.** Any cell in which meiosis has begun.

meiomerous. **meiomero.** Having a small number of parts.

meiophase. **meiofasa.** The part of a life cycle in which a diploid nu-

cleus undergoes reduction.

meiosis. **meiosis**. A two-cell nuclear division in which chromosomes are reduced to half the original number, resulting in gametes or spores; also, the process of two sequential nuclear and cellular divisions producing four haploid cells from a single diploid cell.

meiosporangium. **meioesporangio**. A sporangium in which meiosis occurs.

meiospore. **meiospora**. A haploid cell that divides by mitosis and differentiates into multicelled haploid bodies (gametophytes); also, the resulting spore from meiotic division.

meiotaxy. **meiotaxia**. The failure of a whorl or whorls to develop.

meiotic. **meiótico**. Pertaining to meiosis or the period between two meiotic divisions.

meiotic euapogamy. **euapogamia meiótico**. The development of a sporophyte from a cell or cells of a gametophyte, without any fusion of gametes, giving a plant whose nuclei have the gametic number of chromosomes.

meiotic nondisjunction. **nondisyunción meiótico**. **nondisyunción meiótico**. The failure of two members of a chromosome pair to separate properly during meiosis, so that both go to one daughter cell, and the remaining daughter cell receives nothing.

meiotic spindle. **huso meiótico**. The spindle-shaped system of microtubules that crosses the nuclear region of eukaryotic cells during cell division.

mela(n)-. **mela(n)-**. A Greek prefix that means, "black" or "very

dark".

melanosporous. **melanosporo**. Having black spores.

melibiose. **melibiosa**. A disaccharide of D-glucose and a D-galactose linked in the 6 : 1 position.

melieus. **melieus**. Latin meaning "honey-colored" or "honey-tasting".

member. **miembro**. A part or organ of a plant from the view of morphology.

membral. **membral**. Pertaining to a member.

membranaceous. **membranáceo**. Soft, thin, and flexible, like a membrane; pertaining to a membrane.

membrane. **membrana**. A soft, thin, sheet-like layer of tissue that lines, covers, separates, or connects parts of the plant.

membranous. **membrano**. Of or like a membrane, but usually thin, dry, not green, flexible.

Mendel's laws. **leyes de Mendel**. A series of three laws formulated by Gregor Mendel (1822–1884); each is generally true but each is true with exceptions. The laws are: 1) law of dominance, in which characters exhibit alternative inheritance, being either dominant or recessive; 2) law of segregation, when each gamete receives one member of each pair of factors present in a mature individual; and 3) law of independent assortment in which reproductive cells combine at random.

Mendel's first law. **primera ley de Mendel**. Law of dominance or of uniformity (of hybrids). *See* Mendel's laws.

Mendel's second law. **segunda ley de Mendel**. Law of segregation or of the purity of the gametes. *See* Men-

del's laws.

Mendel's third law. **tercera ley de Mendel**. Law of independent assortment or of recombination (of genes). *See* Mendel's laws.

Mendelian character. **carácter mendeliano**. Allelomorph.

Mendelian inheritance. **herencia mendeliana**. Inheritance in accordance with Mendel's laws; particular.

Mendel's Law of Inheritance. **Ley de las herencia de Mendel**. (1) The Law of Segregation – that the gametes produced by a hybrid or heterozygote contain unchanged, either one or the other, of any two factors determining alternative unit characters, in respect of which, its parental gametes differ. (2) The Law of Recombination – that the factors determining different unit characters are recombined at random in the gametes of an individual heterozygous, in respect of these factors.

meniscoidal. **meniscoidal**. A thin, solid, concave-convex figure.

mentum. **mentón**. A chin; also, an axial growth in orchids (**Orchidaceae**) that carry the sepals forward.

merenchyma. **merenquima**. Plectenchyma.

merging. **pasando**. Uniting or coming together to the extent of losing individual identity.

mericarp. **mericarpo**. One part of a dry fruit that at maturity divides into two or more one-seeded parts and that does not split open (schizocarp); fruit parts that mature and appear as separate fruit.

mericlinal chim(a)era. **quimera mericlinal**. A chimaera in which one component does not completely

surround the other.

mericloning. **mericlونación**. The multiplication of plants through culturing and artificial dividing of shoot meristems.

merism. **merismo**. The development of more than one member of the same kind, usually in such a way that a symmetrical arrangement or pattern is formed.

merismatoid. **merismatoide**. Said of a pileus composed of smaller pelei.

merispore. **merispora**. One segment of a multiple spore.

meristele. **meristela**. A group of specialized cells associated with the growth of xylem and phloem in the stems and roots; the vascular tissue of a dictyostele, running between two overlapping leaf-gaps.

meristem. **meristemo**. A group of specialized cells in the cambium (lateral meristem) or at the tip of a stem or root (apical meristem) that provides growth by dividing; also within the leaf and stem sheaths of grasses (intercalary meristem).

meristem spore. **espora meristemo**. Phialo-spore.

meristematic. **meristemático**. Pertaining to or consisting of the meristem.

meristematic tissue. **tejido meristemático**. Plant tissue formed by the specialized cells occurring at the tips of stems, roots and in the cambium. *See* meristem.

meristematic variation. **variación meristemático**. Variation in the number of organs or parts.

meristemoid. **meristemoide**. Having the shape or resembling meristem.

meristic. **merístico**. Having or composed of segments.

meristogenetic. **merisitogénético**. Formed from or by a meristem.

meristogenous. **meristógeno**. Said of pycnidia and others, formed by the growth and division of one hypha.

merogamy. **merogamia**. The union of two individualized gametes.

meromictic. **meromíctico**. Identifies lakes that have permanently stratified waters, usually because of some chemical differences, such as salinities, therefore densities.

meront. **meronte**. One of the daughter myxamoebae, cut-off in turn by a parent myxamoeba.

merosporangium. **merosporangio**. Of the **Mucorales**, a cylindrical projection from the swollen end of a sporangiophore, in which a chain-like series of sporangiospores are generally produced.

-merous. **-mero**. A suffix that means, "having a specified number of parts", as in bimerous (sometimes written as 2-merous).

mesic. **mésico**. Describes a habitat that is not very wet (hydric) or very dry (xeric), but uses a medium amount of moisture.

meso-. **meso-**. A prefix that means, "in the middle" or "intermediate", as in mesocarp.

mesocarp. **mesocarp(i)o**. The middle, fleshy layer of a fruit, located between the exocarp and endocarp; as found in a plum (**Prunus**); the middle layer of the periderm; pericarp.

mesochite. **mesócito**. The firm inner wall of the macrosporangium of the **Fucales**.

mesoclimate. **mesoclima**. A general term to describe the characteristics of a relatively small geographic area, as a valley or metropolitan area.

mesogelatin. **mesogelatina**. A gelati-

nous layer separating the exochite from the mesochite of the **Fucales**.

mesohaline. **mesohalino**. Brackish water.

mesomitosis. **mesomitosis**. Mitosis which takes place within the nuclear membrane without any cooperation form the cytoplasmic elements.

mesophanerophyte. **mesofanerófito**. A tree having the height of eight to thirty meters.

mesophil(e). **mesofilico**. Plants that grow best at moderate temperatures, between 20°–45° C.

mesophilic bacteria. **bacteria mesofilico**. Bacteria which grows best at a temperature of 10–40° C.

mesophyll. **mesófilo**. The inner green tissue that occurs between the upper and lower epidermis of a leaf; also, the parenchymal tissue of a leaf, differentiated into the palisade cells with a large number of chloroplasts and arranged with a cylindrical axis at right angles to the epidermis; and the spongy mesophyll of loosely packed cells with fewer chloroplasts, and larger air-spaces.

mesophyte. **mesófito**. **mesófita**. A plant that lives well in an environment that is neither very wet nor very dry.

mesopod. **mesolegumbre**. Said of the fruit body of a fungus which has a central stipe.

mesosaprobe. **mesosaprobio**. A plant living in foul water.

mesosome. **mesosoma**. An infolding of the plasma membrane that occurs in prokaryotic cells.

mesospore. **mesospora**. A teliospore, usually one-celled; also, the middle layer of the zygote wall in the **Volvocales**; also, a layer of a spore

wall developed inside the first formed outer layer, sometimes having ridges, pointed projections, and other configurations.

mesosporium. **mesosporio**. The thick middle layer of a spore wall of **Ricciaceae**.

mesotrophic lake. **lago mesótrofo**. A lake with moderate amounts of plant nutrients.

messenger RNA (mRNA). **ARA-mensajero**. A form of RNA (ribonucleic acid) which is produced in the nucleus and carries genetic information from the DNA in the cell nucleus to the ribosomes in the cytoplasm; determines the sequence of amino acids in the protein molecule.

meta-. **meta-**. A Latin and Greek prefix that means, "next to" or "after".

metabasidium. **metabasidio**. Heterobasidium.

metabiosis. **metabiosis**. The association of two organism acting or living one after the other.

metabolic. **metabólico**. Of or pertaining to metabolism.

metabolic energy. **energía metabólica**. Energy from ATP that is produced in metabolism.

metabolic inhibitor. **inhibidor metabólica**. A substance which is closely related chemically to the normal metabolite, and can occupy the same place on an enzyme preventing the normal reaction.

metabolic nucleus. **núcleo metabólica**. A nucleus when it is not dividing, and when the chromatin is in the form of a network; energetic nucleus.

metabolic pathway. **ruta metabólica**. **via metabólica**. An ordered series of enzymatic reactions involving the synthesis, degradation, or trans-

formation of a metabolite.

metabolic reaction. **reacción metabólica**. A type of energy change in a cell.

metabolic stage. **fase metabólica**. The resting phase between two successive cell divisions.

metabolism. **metabolismo**. The process by which plants grow and maintain life by breaking down organic compounds to yield energy, which is then used to build cells and tissue; also, the balance between anabolism and catabolism.

metabolite. **metabolito**. Chemical substances required in metabolism, *e.g.* oxygen during respiration, or carbon dioxide during photosynthesis.

metaboly. **metabolía**. The capacity of some cells to alter their external form.

metacellulose. **metacelulosa**. The cellulose of fungi and lichens.

metacentric chromosome. **cromosoma metacéntrico**. A chromosome with the centromere at or near the middle.

metacentric. **metacéntrico**. A term used to identify a chromosome that has its centromere in the middle, as a metacentric chromosome.

metachromatic granule. **granúlo metacromático**. An inclusion in the cytoplasm consisting of metachromatin.

metachromatin. **metacromatina**. A substance occurring in granules in cytoplasm.

metagenesis. **metagénesis**. The alteration of generations, as the regular alteration of sexual and asexual generations.

metakinesis. **metacinesis**. Metaphase.

metamitosis. **metamitosis**. Mitosis in which the nuclear membrane dis-

- appears and the karyokinetic figure lies free in the cytoplasm.
- metamorphosis. **metamorfosis**. A change in form or structure during the development of an individual or species.
- metaphase. **metafase**. The stage in nuclear division, mitosis or meiosis, when chromosomes move to the center of the cell. In mitosis, metaphase occurs in the second stage at which the single chromosomes move about until they arrange themselves into their equatorial division along the middle of the spindle. In meiosis, homologous chromosomes enter metaphase during the first division as pairs of chromosomes (bivalents) instead of as single chromosomes longitudinally doubled; pairing index.
- metaphase plate. **placa metafase**. The cellular plane where chromosomes are aligned during mitosis or meiosis; also, the group of chromosomes arranged in the equatorial plane of the spindle.
- metaphloem. **metafloema**. The primary phloem, composed of sieve tubes, companion cells, parenchyma, and fibrous sclerenchyma, is formed from the procambium and after the protophloem. It is the last primary phloem to develop.
- metaphyll. **metafilo**. In seedlings, the adult leaf.
- metaphysis. **metafisis**. Paraphysis.
- metaplast. **metaplasma**. Any substance in the cell body which is not protoplasm, especially food material.
- metaprotein. **metaproteina**. Any of the group of products from hydrolytic decomposition which are soluble in acids or alkalis but not in water.
- metasyndesis. **metasíndesis**. End-to-end union of the elements of a pair of chromosomes.
- metaxenia. **metaxenia**. Any effect that may be exerted by pollen on the tissues of the female organs.
- metaxylem. **metaxilema**. The primary and last xylem formed from the procambium and the protoxylem. The cells are heavily lignified and have reticulate thickening or pitted walls and cannot be stretched.
- methane. **metano**. A colorless, odorless gas formed by the decomposition of plant and other organic matter, as in marshes, volcanoes, and in coal mines; sometimes referred to as "marsh gas".
- methanogenic. **metanogénico**. Methane producing.
- methanotroph. **metanótrofo**. A bacterium that uses methane as a nutrient.
- methionine. **metionina**. An amino acid.
- methoxone. **metoxona**. A synthesized substance with the properties of auxin.
- methyl alcohol. **alcohol metilo**. The simplest alcohol, many of whose esters are found in plants.
- metoecious. **metoecio**. Heteroecious.
- metoxenous. **metoxeno**. Heteroecious.
- metromorphic. **metromórfico**. Resembling the female parent.
- metula. **metula**. A sporophore branch, bearing further branches and chains of conidia.
- metuliform. **metuliforme**. Resembling a pyramid.
- metuloid. **metuloide**. An encrusted cystidium.
- Mg. **Mg**. The chemical symbol for magnesium.

micro embryo. **embrión micro**. An axial embryo in minute, undifferentiated seeds.

micaceous. **micaceo**. Said of a pileus surface covered with bright particles.

micella. **micela**. A crystalline structure, which may, with many other similar structures, form the foundation of cell walls, starch grains etc.

micellar region. **región micelar**. An area of crystallinity in a cellulose molecule.

micelle. **micelle**. Micellar region.

micranthous. **micranthous**. Latin meaning "small-flowered".

micro-. **micro-**. A Greek prefix that means, "small" or "little".

microaerobic. **microaerobio**. An environment where the concentration of oxygen is less than in air.

microaerophile. **microaerófilo**. An organism which cannot grow well in the atmospheric concentration of oxygen, but only when it is lower than normal.

microbe. **microbio**. A microorganism.

microbial genetics. **genética microbiana**. The study of the genetics of microorganism.

microbial. **microbiano**. Pertaining to microorganisms.

microbic. **micróbico**. Pertaining to microorganisms.

microbiology. **microbiología**. The study of microorganisms.

microbiota. **microbiota**. Microscopic or submicroscopic life.

microchemistry. **microquímica**. The branch of chemistry dealing with minute amounts of chemicals or the chemistry of cells and microorganisms.

microclimate. **microclima**. The small, distinct atmospheric environment near a plant, as around a glacier, or in a river bottom, or banana plantation, including the interchanges of energy, gases, and water between the atmosphere and the soil.

micrococcus. **micrococo**. Any of a group of spherical parasitic or saprophytic bacteria, with some that produce disease and others producing fermentation.

microcolony. **microcolonia**. A group of organisms living in a microhabitat.

microconidium. **microconidio**. A small conidium produced by some species of fungi, differing in form, as well as in size, from the larger conidia characteristic of the species.

microconsumer. **microconsumidor**. In its broadest usage, consumers are heterotrophic organism that feed on living or dead organic material; divided into animals (macroconsumers) and bacteria and fungi (microconsumers), that feed on dead cytoplasm, absorbing some of the decomposition and releasing inorganic substances into the environment.

microculture. **microcultivo**. A culture of an organism in very small amounts of medium, usually so that the whole can be viewed under the microscope.

microcyclic. **microcíclico**. Of the **Uredinales**, short cyclic.

microecology. **microecología**. The study of environmental conditions in a very small area, as a garden.

microcyst. **microciste**. An encysted myxamoeba or swarm spore.

microelement. **microelemento**. A chemical element present in very

small amounts.

microenvironment. **micromedio.** The environment of a very small area, and particularly, the immediate surroundings of a specific species.

microenvironmental. **microambiental. micromedioambiental.** Pertaining to a microenvironment.

microevolution. **microevolución.** The evolution of subspecies due to a succession of small genetic variations in response to natural selection.

microfibril. **microfibrilla.** Having microscopic cell walls composed primarily of cellulose; also, very fine root hairs.

microfilament. **microfilamento.** An extremely long, fine fiber in the cytoplasm of cells, that is associated with protoplasmic motility, cytokinesis, and cytoplasmic streaming.

microflora. **microflora.** The microscopic plants or plant-like organisms in a particular area or time period; also, the plants found in a microhabitat.

microfloral. **microfloral.** Pertaining to microflora, as microfloral growths of yeast.

microfossil. **microfósil.** Primitive, microscopic fossilized plants, as pollen grain.

microfungus. **microhongos.** A microscopic fungus.

microgametangium. **microgametangio.** A gametangium which produces microgametes.

microgamete. **microgameto.** The smaller of two gametes, usually the male, that reproduces by the joining of unlike gametes.

microgametocyte. **microgametócito.** A gametocyte that divides to form

microgametes.

microgametogenesis. **microgametogénesis.** The production of small gametes (microgametes) from microspores in the anthers of flowering plants.

microgametophyte. **microgametófito.** In the reproductive cycle of mosses (**Musci**) and other bryophytes, the haploid stage or dominant phase when the sex organs are produced; also, a male gametophyte that develops from a microspore.

microgonidium. **microgonidio.** A very small green body in a lichen thallus.

microhabitat. **microhábitat.** A small area habitat with a small number of organisms.

miconemous. **micronemo.** Having small hyphae.

micronutrient. **micronutriente.** A chemical element in amounts less than one part per million, but essential for plant growth, as boron, copper, iron, manganese and zinc.

microorganism. **microorganismo.** Minute organisms that are microscopic or submicroscopic, as bacteria and algae.

microparasite. **microparásito.** A parasitic microorganism or pertaining to or caused by a microparasite.

microphanerophyte. **microfanerófito.** A woody plant from two to eight meters in height.

microphyll. **microfiló.** A small leaf or a small leaf with a single, unbranched vein; especially used with certain pteridophytes that have single, unbranched midribs.

microphylline. **microfilina.** Composed of small scales or lobes.

microphyllous. **microfiló.** Said of leaves which are small and with a

single central vein, especially of the **Pteridophyta**; said of xerophytic plant leaves.

microphyte. **micrófito**. A microscopic plant or plant-like organism, such as a fungus.

micropopulation. **micropoblación**. A large group of microorganism living in a particular habitat.

micropylar. **micrópilar**. Pertaining to the characteristics of a micropyle.

micropyle. **micrópilo**. A tiny hole or passageway in the outer layer of an ovule where the pollen tube passes through during fertilization; also, the corresponding opening on a developed seed; also, the opening in the integument of the **Lepidocarpaceae**.

microsome. **microsoma**. A minute particle, free or fused to the endoplasmic reticulum, and containing RNA; responsible for metabolism, especially respiration and protein synthesis; also, a small, membranous vesicle thought to consist of fragmented endoplasmic reticulum and ribosomes.

microspecies. **microespecie**. Single parent plant populations, frequently hybrid and with a limited geographic presence; sometimes, a species variety.

microsporangiate (male) cone. **microsporangiado cono**. In gymnosperms, a group of sporangia-bearing pollen sacs.

microsporangium. **microsporangio**. A structure (sporangium) in ferns (**Filicopsida**) and club mosses (**Lycopsidea**) containing or producing microspores that germinate into male gametophytes.

microspore. **micróspora**. One of four

haploid spores that originates from the meiotic division of the microsporocyte in the anther of the flower that gives rise to the pollen grain; in seed plants, a small spore (meiospore) that becomes a male gametophyte.

microspore mother cell. **micróspora célula madre**. A diploid cell that produces microspores upon undergoing meiosis.

microsporocyte. **microsporocito**. A diploid cell in the anther that gives rise through meiosis to four haploid microspores; pollen mother cell.

microsporogenesis. **microsporogénesis**. The process of small spores (microspores) being produced during meiosis in the anthers of angiosperms.

microsporophyll. **microsporofilo**. A specialized leaf that bears microsporangium; in **Angiospermae**, a stamen.

microsystem. **microecosistema**. Small scale experimental ecosystems that may be laboratory or field based.

microtherm. **microterm**. A cool temperature plant, where temperatures in warm months should range between 10°C to 22°C and during the cold months, the temperature should not fall below 6°C.

microtome. **micrótopo**. An instrument for cutting thin sections of specimens; section cutter.

microtubular spindle. **huso microtubular**. A group of microtubules that helps establish the polarity necessary for chromosome movements during nuclear division.

microtubular. **microtubular**. A tiny tube-like filament in cells that assist in the formation and maintenance

- nance of distinctive cellular shapes, motion, and growth.
- microtubules. **microtúbulos**. A tubular structure that occurs in large numbers in all eukaryotic cells providing cell motility, cell shape, and the transport of materials within cells; important in the synthesis of certain membranes.
- middle lamella. **lamela medio**. The primary layer of a cell wall, mostly made from calcium pectate which serves as the base on which secondary layers of cellulose are deposited; also, the area of the cell wall common to two cells.
- midrib. **costilla media**. **nervio medio**. In a simple leaf, the large conducting vein and supporting structure.
- midvein. **nervadura media**. In a leaflet, the main supporting and conducting structure.
- migrate. **migar**. To spread from one localized area to another or to expand into a larger area.
- migration. **migración**. One of the six stages of vegetative succession in which migrating propagules arrive at a newly denuded location; also, the movement of individuals from one area to another prompted by internal responses to seasonal changes or other periodic factors such as day-length. *See sere*.
- miktohaplont. **mictohaplonte**. A haplont made of cells having genotypically different nuclei.
- mildew. **mildíu**. A general term for various fungi (*Ascomycetes*) that grow on organic matter; also, any fungal disease where the mycelium of the causal agent appears white and powdery on the plant leaves.
- milk secretion. **secreción láctea**. A type of liquid that resembles milk, as the white juice of a plant, tree, or nut.
- mimesis. **mimesis**. Mimicry.
- mimetic. **mimético**. Exhibiting mimicry.
- mimic. **mimetizar**. To take on a resemblance to an unrelated organism or surrounding in form, color or some other aspect.
- mimicry. **mimetismo**. The resemblance of one organism to a completely unrelated organism or surrounding; with the similarity in color, form, or behavior, possibly providing protection or some other advantage, as mimicry plants.
- minioluteic acid. **ácido minioluteico**. A metabolic product of *Penicillium minioluteum*.
- minimal area. **área mínima**. In the graphic plotting of an ecosystem, the smallest area that can contain the species representative of a particular plant community.
- minimal medium. **medio (de cultivo) mínimo**. Of culture media, which includes the minimum amount of materials for complete metabolism to occur.
- mineralization. **mineralización**. The deposition of inorganic substances in a cell wall.
- minor element. **oligoelemento**. A chemical element essential in trace or small amounts for plant growth; micronutrient.
- minute(ly). **diminuto(-amente)**. Very small.
- misdivision. **misdivisión**. The spontaneous crosswise division (not lengthwise) of the centromere on the spindle, especially of univalents.
- missense mutant. **mutante errónea**. **mutante con sentido erróneo**. A mutant with a codon which has been

altered by mutation so that it encodes a different amino acid resulting in the production of an unstable enzyme.

missense mutation. **mutación errónea**.

A codon change that results in the substitution of one amino acid for another.

mistus. **mistus**. A crossbreed between two forms of a species.

mitochondrion (*pl.* mitochondria).

mitocondria. A double membrane organelle with its own DNA and ribosome, which reproduces by binary fission, and houses the enzymes involved in the tricarboxylic acid cycle; primarily concerned with energy conversion by aerobic respiration; chondriosome; plastosome.

mitogenic. **mitogénico**. Able to induce mitosis.

mitogenetic rays. **rayos mitogénéticos**.

rayos mitógenos. A form of radiant energy, possibly ultraviolet radiations of low intensity, emitted by some actively growing parts of plants, and said to influence development.

mitosis. **mitosis**. A four stage process when a cell nucleus divides into two parts, forming two new nuclei with the same number of chromosomes as the original.

mitosome. **mitosoma**. Mitochondria.

mitotic index. **índice mitótico**. The proportion of dividing cells in any tissue.

mitotic nondisjunction. **nondisyunción**

mitótico. The failure of two members of a chromosome pair to separate properly at mitosis, so that both members go to one daughter cell, and the other daughter cell gets nothing.

mitotic spindle. **huso mitótico**. The spindle-shaped system of microtubules, that crosses the nuclear region of eukaryotic cells during cell division.

mitriform. **mitriforme**. Having the shape of a bishop's hat; miter or mitra-shaped; folded inwards at the top; also, of a calyptra when not split down one side; also, split on two or more sides at the base in a symmetrical manner.

mixed. **mixta**. Describes an inflorescence that combines both determinate and indeterminate arrangements, as in the lilac (**Syringa**) and horse chestnut (**Hippocastanaceae**); thyrses.

mixed bud. **yema mixta**. A small, swollen structure that contains both rudimentary leaves and vegetative shoots; also, a bud that contains both foliage and flower(s).

mixed forest. **bosque mixto**. A stand of trees composed of both deciduous and evergreen species, but the minority not amounting to less than 20% of the total.

mixed inflorescence. **inflorescencia mixto**. Having both racemose and cymose on a single inflorescence.

mixed pith. **médula mixto**. A pith composed mostly of parenchyma, but with isolated tracheids scattered in it.

mixed sorus. **soro mixto**. *See* graduate sorus.

mixochim(a)era. **mixoquim(a)era**. A chimaera produced experimentally in fungi by mixing the contents of two hyphae of different strains.

mixochromosome. **mixocromosma**. A new chromosome formed by the fusion of a pair of normal chromosomes.

mixoploid. **mixoploide**. A diploid-polyloid chimaera.

Mn. **Mn**. The chemical symbol for manganese.

Mo. **Mo**. A chemical symbol for the element molybdenum.

mode. **modo**. The class of numbers that contains the largest number of representatives in a statistical sample.

moder. **moder. sustancia vegetal en descomposición**. Material in which biological decomposition has been arrested, but still shows cellular structure, sometimes more less felted together with fungal hyphae.

modification. **modificación**. In a plant, a non-inheritable change resulting from external or situational circumstances, usually associated with a beneficial functional adaptation.

modifier gene. **modificador de gen**. A gene that alters the phenotypic expression of another gene.

moist evergreen forest. **selva alta perennifolia**. A stand of trees in a wet climate that retain their leaves all year long.

moist. **húmedo. mojado**. Slightly wet; damp.

moisture. **humedad**. Water or some other liquid which causes a slight wetness.

mold (mould). **moho**. A group of wool-like fungi (**Ascomyctes**) with various colors, usually found on the surface of food that has had prolonged exposure to warmth and moisture; also, in ecology, humus or loose, broken crumbly soil, rich in decayed leaves, manure or other organic matter.

moldy. **mohoso. enmohecido**. Covered with mold, as moldy bread.

molecular asymmetry. **asimetria mo-**

lecular. A molecule that cannot be divided into an equal portion, therefore not able to be superimposed on its mirror image.

molecular biology. **biología molecular**. The branch of biology that studies the formation, structure, and activity of macromolecules essential to life, such as nucleic acid and protein molecules, and their participation in cell replication and the transmission of genetic information.

molecular genetics. **genética molecular**. The study of heredity dealing with the background and variation in the sequence of nucleotide bases of the genetic code.

molecular. **molecular**. Of or pertaining to molecules.

molecule. **molécula**. The smallest particle into which an element or compound can be divided without changing its chemical and physical character. A molecule usually consists of two or more atoms that share electrons and therefore bond together.

molendinaceous. **molendiáceo**. With large, wing-like projections, as a molendinaceous stem.

mollis. **mollis**. Latin meaning "soft and hairy".

molybdenum (Mo). **molibdeno (Mo)**. A microelement essential to nitrogen assimilation and fixation in plants.

monad. **mónada**. A separate individual part, rather than united or fused with other similar individual parts, as monad pollen grains.

monadelphous. **monadelfo**. Having stamens united by their filaments into one bundle, as with various mallows (**Malvaceae**).

monandrous. **monandro**. Having a

- single stamen, as a monandrous flower; also, having one antheridium.
- monandry. **monandria**. The condition of having only one perfect stamen.
- monangial. **monangial**. Said of a sorus with a single sporangium.
- monanthous. **monato**. Single-flowered; bearing a single flower on each stem.
- monarch. **monarca**. Having a single strand of protoxylem in the stele.
- monaxial. **uniaxial**. **uni-áxico**. Bearing flowers directly from the main axis; uniaxial.
- monecious. **monecio**. *See* monoecious.
- moneran. **monerana**. Any member of the **Monera Kingdom**, composed of the prokaryotes, such as bacteria and blue-green algae.
- moniliform. **moniliforme**. Having the shape of an alternating swelling-constriction, like a string of beads, that occurs on some roots, stems, and seed pods, as the moniliform root of **Pelargonium**; toruliform.
- mono-. **mono-**. A Greek prefix that means, "one".
- monoallelic. **monoalélico**. A polyploid with all the alleles at a particular locus being the same.
- monoaxial thallus. **talo monoaxial**. Said of the **Florideae** in which there is a single axial filament that gives off filaments laterally on all sides.
- monocarp. **monocarp**. A plant that bears fruit only once in its life.
- monocarpellate. **monocarpelar**. Having a single carpel, as legumes.
- monocarpellary. **monocarpelaria**. Having one carpel.
- monocarpic. **monocárpico**. Describes some annuals, biennials, and certain trees that bear fruit one time and then die.
- monocaryon. **monocario**. A fungal mycelium or hypha with each cell having a single nucleus. Also spelled monokaryon.
- monocaulous. **monocaule**. One-stemmed; unicaulous.
- monocentric. **monocéntrica**. Describes a thallus with a single reproductive center, as the thallus of the **Chytridiales** with one center of growth and development.
- monocephalic. **monocéfalo**. Having a single head.
- monochasium. **monocasio**. A cymose inflorescence or flower cluster with one main axis.
- monochlamydeous. **monoclamídeo**. Having a single perianth with the corolla missing; also, said of a flower with only one whorl in the perianth.
- monochromatic. **monocromático**. Of one color.
- monoclimax model. **modelo monoclimática**. A theory that proposed the successional development of vegetative communities to an optimum sustainable level in equilibrium with their environment. Two important climax models exist: monocl意思 by F.E. Clements, 1904 and 1916, and polyclimax by A.G. Tansley, 1916 and 1920.
- monoclinous. **monoclino**. **hermafrodita**. A perfect flower; having pistils and stamens in a single flower; also, having the antheridium on the oogonial stalk; hermaphroditic.
- monocot. **monocot**. Any plant with a single monocotyledon.
- monocotyledon. **monocotiledónea**. The subclass of flowering plants (**Monocotyledoneae**) that have only

a single cotyledon at the first node of the primary stem; referred to as a monocot.

Monocotyledoneae. monocotiledóneae. One of the two major divisions in the **Angiospermae** (flowering plants) with the embryo characteristically having one cotyledon, usually amplexicaul and with parallel nervation. Also see **Dicotyledoneae**.

monocotyledonous. monocotiledóneo. Having a single cotyledon or seed leaf; also, belonging to the **Monocotyledoneae**.

monoculture. monocultivo. Cultivation of a single species.

monocyclic. monocíclico. Single-whorled; also, an annual plant.

monodesmic. monodesmico. Said of a petiole which contains one vascular strand.

monoecious. monoico. An imperfect flower; the condition of being unisexual by having the staminate and pistillate on separate flowers, but borne on the same plant; also, having male and female sex organs on the same thallus.

monofactorial. monofactorial. Involving or being controlled by only one gene; unifactorial.

monogenesis. monogénesis. Asexual reproduction; also, a theory that many living things originated from a single, common ancestor.

monogenic. monogénico. Controlled by a single gene; also, of an hereditary difference determined by one gene difference, as opposed to 2, 3, or many.

monogenocentric. monogenocéntrico. Said of the **Chytridiales**, having the development of one reproductive structure at the center of gravity

of the thallus.

monogerm. monogermen. Having or containing a single seed which becomes an isolated plant, as monogerm sugar beet varieties (**Chenopodiaceae**).

monogynous. monogino. Having only one pistil or stigma; also, having one carpel.

monohybrid cross. cruce monohíbrido. A cross between individuals differing in a single pair of alleles.

monohybrid. monohíbrido. Having parents whose genetic composition differs in only one pair of inheritable characters, as tall versus short; heterozygous in respect of one gene.

monioicous. monoíco. Said of mosses (**Musci**) which have the antheridia and archegonia borne on the same plant, but in separate groups.

monokaryon. monocario. A nucleus with only one centriole. *See* monokaryon.

monokaryotic. monocariótico. Having a single nucleus in each cell or unit of the mycelium in club fungus (**Clavariaceae** and **Clavulinaceae**).

monomeric. monómero. Having one member in each whorl; sometimes written 1-merous.

monomitic. monomítico. Having one kind of hypha.

monomorphic. monomórfico. Having a single form or appearance.

monomycelial. monomicelial. Pertaining to an isolate of a fungus grown from one spore or hyphal end.

mononucleate. mononucleado. With a single nucleus.

monopetalous. monopétalo. Having a single petal; having all the petals joined together by their margins; having the petals joined as

- in the morning glory (**Ipomoea**); gamopetalous.
- monophagous. **monófago**. Said of a fungal parasite which only attacks one host cell.
- monophyletic. **monofilético**. Developed from a single stock or origin; a group of species that come from common ancestry; also, descended from a single parent form; synapomorphic.
- monophyletism. **monofiletismo**. Descending from a single, interbreeding, ancestral population.
- monophyllous. **monofilo**. Having only one leaf, as a monophyllous calyx; unifoliate.
- monoplanetic. **monoplanético**. Having one period of locomotion.
- monoploid. **monoploide**. A single set of chromosomes in the gamete; also, having the number of haploid chromosomes in a polyploid series; having the basic number of chromosomes; haploid.
- monopodial. **monopodial**. **monopódico**. Like a monopodium; having branches that come from a single axis.
- monopodium. **monopodio**. A single main axis that continues to grow and produce lateral branches below, as the trunk of a pine (**Pinus**) tree.
- monosaccharide. **monosacárido**. The basic unit of carbohydrates; a class of sugars, such as glucose and fructose, that cannot be decomposed by hydrolysis; a sugar in its simplest functional unit, the single saccharide.
- monose. **monosa**. *See* monosaccharide.
- monosepalous. **monosépalo**. Having united sepals; gamosepalous.
- monosiphonous thallus. **talo monosifono**. A thallus of a single row of cells, joined end-to-end.
- monosome. **monosoma**. A single, isolated ribosome; also, an unpaired sex chromosome; also, an individual with less than the usual number of chromosomes, as a diploid missing one chromosome from the set.
- monosomic. **monosómico**. Of an otherwise diploid organism, lacking one chromosome of its normal complement.
- monosomy. **monosomia**. Lacking one chromosome of a set; $2n-1$.
- monospermous. **monospermo**. Having or producing a single seed.
- monosporangium. **monosporangio**. A sporangium producing monospores borne terminally on short lateral branches.
- monospore. **monospora**. A large 4-nucleate aplanospore produced by some brown algae.
- monosporous. **monosporo**. Containing one spore or derived from a single spore.
- monostele. **monostela**. A single central stele in a shoot. *See* protostele.
- monostichous. **monostico**. Being arranged in a single vertical row, line, or series on one side of an axis, as monostichous flowers.
- monostylous. **monoestilo**. Having a single style.
- monosy. **monosia**. The separation of parts that are usually fused.
- monosymmetrical. **monosimétrico**. Bilaterally symmetrical; zygomorphic.
- monotheca. **monoteca**. Having a single pollen sac or sac-like cell.
- monotrichous. **monotrico**. Having a single flagellum.
- monotypic. **monotípico**. A botanical taxon with a single representa-

tive, as a family with a single genus or a genus with a single species.

monoxerous. **monoxero**. Said of a parasitic fungus which is restricted to one species of host plant.

monozygotic. **monocigótico**. Produced by the splitting of a single fertilized embryonic cell mass; uniovular.

monsoon forest. **bosque monzónico. selva monzónica**. A type of tropical forest producing a wide variety of hardwoods and characterized by sharp seasonal changes induced by alternating wet and dry seasons resulting in trees both flowering and loosing their leaves during the dry period.

montane forest. **bosque montano**. A type of forest occurring in the mountainous zone of tropical and middle latitudes, which differ in the flora and ecology of the lower elevations but similar to the forests in the lowlands of adjacent higher latitudes.

montane rain forest. **bosque caducifolio. selva mediana o baja perennifolia**. A mountainous rain forest.

montane. **montano**. Of or pertaining to plants growing in a mountain habitat, below the subalpine zone.

montanus. **montanus**. Latin meaning "mountain".

moor. **llanura. páramo**. A high area of open, acidic land cover by peat, sometimes boggy, usually with heather (**Ericaceae**) and coarse grasses (**Poaceae**) growing.

mor. **humus ácido. mantillo humus. humus bruto**. A type of acidic raw humus, lacking microbial action, except that of fungi, which occurs

in cool climates, especially under conifer forests, moors, and heaths. morass. **ciénaga**. An area of low, soft ground; marsh.

moriform. **moriforme**. Like a mulberry (**Morus**) fruit in shape.

morphogenesis. **morfogénesis**. The growth, shaping, modification, and arrangement of cells during their development; the origin and development of morphological characteristics.

morph. **morf**. In plants, a variant form.

morphological. **morfológico**. Relating to plant form or structure.

morphology. **morfología**. The branch of biology that studies and classifies plants by form, structure, and development without regard to function.

morphosis. **morfosis**. The manner of formation and development of an organism or any of its parts.

morphospecies. **morfospecie**. A group of organisms which differ in some morphological aspect from all other groups.

mortar fruit. **fruto mortar**. A structure consisting of a persistent calyx from which the true fruits are thrown-out by wind, or by shaking caused by animals.

mosaic evolution. **evolución en mosaico**. Different rates of development of adaptive characteristics within the same evolutionary lineage.

mosaic. **mosaico**. A term used for various viral diseases in plants characterized by angular areas of yellow color on the leaves; also, an organism or part with adjacent cells or tissues of a different genetic type; also, the arrangement of the leaves on a plant in such a

way that the leaves above do not shade those below.

mosaicism. **mosaicismo**. The presence of different or antagonistic genetic characteristics in adjoining cells or tissues, which is often caused by faulty cell division.

moss. **musgo**. A common name for a group of terrestrial, small stemmed, non-vascular plants belonging to the class **Musci (Bryophyta)** that grow on the ground, on rocks, or on trees.

mother cell. **célula madre**. The cell from which daughter cells are formed in cell division; a cell with a diploid nucleus which gives rise to four haploid nuclei by meiosis.

mother. **madre**. The female parent of a plant; producing others.

motile. **motil**. Capable of spontaneous, independent movement, as some algae that are not attached.

motor cell. **célula motor**. One of a number of cells which together expand or contract and thereby cause movement in a plant member.

motor systems. **sistemas de motor**. Any system which causes or allows movement. There are three types: 1) having non-living tissues which move suddenly, *e.g.* dehiscence 2) parts capable of differential growth, *e.g.* tendrils 3) movement by alternation of turgor, *e.g.* pulvini.

motility. **motilidad**. Ability to move.

mottled. **manchado**. Having spots or blotches of color.

mould (mold). **moho**. A loose term for any superficial fungus. *See* mold.

mountain. **montano**. **montaña**. A large mass of rock and soil rising high above the surrounding terrain; usually higher than 600 meters.

m-RNA. **ARN m**. An abbreviation

for messenger RNA.

mucedineous. **mucedineo**. Mold-like; also, white and cottony.

mucilage. **mucílago**. Any of the various types of moist, gummy, or gelatinous substances secreted by some plants; also, a polymer of galactan.

mucilaginous. **mucilaginoso**. Slimy and moist; having or secreting mucilage.

mucoid. **mucilaginoso**. Resembling mucous.

mucoprotein. **mucoroteína**. Any of a group of viscous protein compounds, containing a mucopolysaccharides in their structure in which large numbers of disaccharides are bound to a protein chain.

mucous. **mucoso**. A moist, gummy substance occurring in some plants; slimy.

micro. **mucrón**. A sharp point formed by the continuation of the midrib of a leaf or other organ.

mucronate. **mucronato**. Tipped with a stiff, straight, abruptly pointed micro.

mucronulate. **mucronulato**. Having on a leaf tip or other organ, a very small micro that is broader than long.

mulch. **arropar**. **acolchar**. A loose soil surface, occurring naturally or applied, of organic or mineral materials that protect the soil or roots from damage caused by extreme temperatures, rain, or wind evaporation.

mull. **comedor de fango**. **limivoro**. **mantillo**. A type of soil surface humus, well aerated, which is chemically neutral or alkaline that provides favorable conditions for decomposition of organic matter;

common to deciduous forest soils.

multi-. **multi-**. A Latin prefix that means, "much" or "many".

multiapical. **multiapical**. Having many points or tips.

multiallele. **multialelo**. This condition arises when more than one allele occupies the same position on a chromosome. These genes do not usually exhibit any dominance.

multiaxial thallus. **talo multiaxial**. Said of the **Florideae** that have a central core of axial filaments, each giving off lateral filaments.

multicarpellate. **multicarpelar**. Having many carpels.

multicaulous. **multicaule**. Many-stemmed.

multicellular. **multicélular**. **pluricelular**. Composed of many cells.

multiciliate. **multiciliado**. **policiliado**. Many-cilia or marginal hairs.

multicostate. **multiacostillado**. Many-ribbed.

multienzyme system. **sistema enzimático complejo**. Such a condition exists when several enzymes can catalyse a similar number of reactions in the same place at the same time, without mutual interference.

multidentate. **multidentado**. Having many teeth, as a leaf margin.

multifactorial. **multifactorial**. Two or more pairs of genes acting together to produce a trait; polyfactorial.

multiferous. **multifero**. Heavy bearing or producing.

multifid. **multifido**. Separated into many narrow parts or lobes.

multiflora. **multiflora**. Producing many flowers.

multiflorous. **multifloro**. Many-flowered.

multifoliate. **polifilo**. Producing many

leaves or leaflets.

multiform. **multiforme**. Diverse in shape.

multigenic. **multigénico**. Inheritance where the genetic control for a trait results in the phenotypic expression varying all the time.

multilobate. **multilobular**. Having many lobes, as a multilobate leaf.

multilocular. **multilocular**. **plurilocular**. Many-chambered; with many locules or cells.

multinecleate(d). **multinuclear**. **multinucleado**. **plurinucleado**. **policario**. Having two or more nuclei.

multinodal shoot. **vástago multinodal**. A shoot that emerges from a terminal winter bud, producing two or more whorls during the spring growth cycle.

multinodal. **multinodal**. Having many nodes.

multinucleate. **multinucleado**. With many nuclei.

multiparous. **multiparo**. A cyme with many lateral axes.

multi-perennial. **multi-perenne**. Living several to many years before flowering, as some of the **Agavaceae**.

multiple alleles. **alelos múltiples**. More than two forms of alleles that can occur at a given gene location (locus).

multiple allelomorph. **alelómorfo múltiple**. A group of two or more allelomorphs of one gene, only two of which can be present in a diploid cell. They originate by mutation.

multiple chromosome. **cromosoma múltiple**. The product of the fusion of two chromosomes.

multiple factors. **factor múltiple**. **poligen**. A postulated association

of two or more pairs of genes which act together to produce a trait; polymeric genes.

multiple fruit. **fruto múltiple**. A fruit formed from a group of ripened ovaries produced by a number of separate flowers, as the mulberry (**Moraceae**) or pineapple (**Bromeliaceae**); also, described as a collective fruit or compound fruit.

multiplication. **multiplicación**. Increase by vegetative means.

multiradiate. **multirradiado**. Having many rays.

multiseptate. **multiseptado**. Partitioned or divided by many septum; having a number of septa.

multiseriate. **multiseriado**. Arranged in many rows; also, said of ascospores arranged in several rows in the ascus; also, said of a vascular ray, which is several to many cells wide.

multivalent. **multivalente**. An association of three or more chromosomes during the first division of meiosis.

muralis. **muralis**. Latin meaning "growing on walls".

muramic acid. **ácido murámico**. A derivative of lactic acid found in the cell walls of bacteria and blue-green algae.

muricate. **muricado**. Covered with short, pointed protuberances.

muriculate. **muriculado**. Having very small muricate or spines.

muriform. **muriforme**. Made in courses that resembles the layered organization of a brick wall, as muriform cellular tissue.

murren. **murren**. A highly indurated concretionary material with deposits of iron oxide. It develops in certain tropical soils under im-

peded drainage.

muscariform. **muscariforme**. Brush-like, as a part of a style that is brush-like.

muscarin(e). **muscarina**. One of the alkaloid poisons in certain mushrooms, rotten fish, etc.

muscolous. **muscícola**. Growing on or among mosses (**Musci**).

musculology. **musculología**. **briología**. The study of mosses (**Musci**) and liverworts (**Hepaticae**); bryology. mushroom. **hongo**. A common name for a group fungi (**Basidiomycetes**) that generate an above ground reproductive structure; also, a fruiting body of certain fungi that contain no chlorophyll for nourishment from the sun, but instead, extract nourishment from the soil or other materials; traditionally regarded as plants, but are now in a kingdom of their own.

mutable gene. **gen mutable**. A gene that is inclined to frequent mutation.

mutafacient. **mutafaciente**. One gene or genetic element which determines or increases the chance of mutation of another.

mutagen. **mutágeno**. **sustancia mutágena**. A chemical or ionizing radiation that causes inheritable changes in the DNA molecules in genes; any substance able to initiate a mutation.

mutagenesis. **mutagénesis**. Mutant formation.

mutant. **mutante**. A new species or variety whose inheritable characteristics differ from those of the parents; the result of a mutation; sport.

mutarotation. **mutarotación**. Said of a compound, which, if it crystal-

- izes under different conditions, has different physical properties, and if dissolved in water rotates a beam of polarized light through different angles.
- mutate. **mutar**. To undergo or to cause mutation.
- mutation. **mutación**. A sudden, heritable change within a chromosome that results in the appearance of a new, inheritable character feature.
- mutation frequency. **frecuencia de mutación**. See mutation rate.
- mutation pressure. **presión de mutación**. The measure of the action of mutation in tending to alter the frequency of a gene in a given population.
- mutation rate. **frecuencia de mutación**. The number of mutations per gene per unit of time; also, referred to as mutation frequency.
- mutation theory. **teoría mutación**. That new species arise by single mutations.
- muticous. **mútico**. Having no awns or spines; spineless.
- muton. **mutón**. The smallest genetic unit able to produce a mutation.
- mutualism. **mutualismo**. **simbiosis mutualista**. An interrelationship between two or more organisms where all the participating species benefit from their association.
- myc(et)-. **mic(et)-**. A prefix than means, "fungus".
- mycelium (*pl.* mycelia). **micelio**. The perennial, white, interwoven filaments of a fungus that remain in the soil year after year, spawning new fruit; also, the collective term for the vegetative fungal hyphae; also, the somatic thallus of a fungus; also, a similar group of filaments in the bacteria.
- mycelioid. **micelioide**. Like a mycelium.
- myceloconidium. **miceloconidio**. Stylospore.
- mycetism. **micetismo**. Mushroom poisoning.
- mycetome. **micetoma**. A cellular organ inside an aphid, containing symbiotic yeasts.
- mycobiont. **micobionte**. The fungal symbiont in a lichen.
- mycobiota. **micobiota**. The mycological flora.
- mycocecidium. **micocecidio**. A gall on a plant caused by a fungus.
- mycocriny. **micocrinia**. The decomposition of plant material by fungi.
- mycoderma. **micoderma**. A name sometimes applied to the yeasts.
- mycogenous. **micógeno**. Coming from, or living on fungi.
- mycology. **micología**. The study of fungi; also, the fungi of a particular area; or details pertaining to a particular fungus.
- mycophagy. **micofagia**. Using fungi as food.
- mycophthorous. **micofitoro**. Said of a fungus that is parasitic on another fungus.
- mycoplasma(a). **micoplasma**. Any of a varied group of small, primitive bacteria that lack rigid cell walls, are gram-negative, that were previously referred to as pleuropneumonia-like organisms; often living parasitically or saprophytically with plants or animals.
- mycorrhiza. **micorriza**. A symbiotic connection between certain fungi and the roots of higher plants. Ectotrophic mycorrhiza is when the fungus forms an envelope over the small roots. Endotrophic mycorrhiza is when the fungus are in the cells

- of the root cortex.
- mycosin. **micosina**. A nitrogenous material, like animal chitin in the cell wall of fungi.
- mycose. **micoso**. Ergot sugar or trehalose.
- mycosis. **micosis**. The growth of parasitic fungi in any part of a body; also, a disease caused by the invasion of a fungus.
- mycostatic. **micostática**. Fungistatic.
- mycotic. **micotico**. Pertaining to or cause by mycosis.
- mycotoxin. **micotoxina**. A poison produced by fungus.
- mycotrophic. **micotrófico**. Refers to any plant with a mycorrhiz relationship.
- mycovirus. **micovirus**. A virus that lives and reproduces in a fungus.
- myiophilous. **miofilo**. Having inconspicuous, unpleasant smelling flowers, pollinated by flies.
- myllita. **milita**. A large sclerotium.
- myriosporous. **mirosporo**. Having a large number of spores.
- myrmecophilous. **mirmecófilo**. Pollinated by ants; also, said of fungi that provide cover or food for ants.
- myrmecophily. **mirmecófilia**. A symbiotic association between plants and ants.
- mytiliform. **mitiliforme**. Resembling a mussel shell in shape.
- myxamoeba. **mixameba**. An amoeboid cell produced by a slime mold; a naked, non-flagellate amoeboid cell, produced on the germination of a spore of the **Myxothallophyta**.
- myxobacteria. **mixobacteria**. A group of saprophytic bacteria that secrete a slime in which they crowd to form extensive colonies.
- myxomycete. **mixomicetos**. A cellular slime molds (**Myxomycota**), commonly found in humus and decaying wood.

N

n. n. In the study of genetics, n is an abbreviation for the gametic (haploid) number of chromosomes, differing from 2n (the somatic or diploid number), 3n (triploid) number, etc.

N. N. An abbreviation for the chemical element nitrogen; also, the haploid or gametic number of chromosomes.

nacreous. **nacreo.** Like mother-of-pearl.

na(n)noplankton. **nanoplancton.** Very small, one-celled plants and animals.

Na. **Na.** An abbreviation for the chemical element sodium.

NAD. **NAD.** See nicotinamide adenine dinucleotide.

NADP. **NADP.** See nicotinamide adenine dinucleotide phosphate.

naked. **desnuda.** Nude; any part lacking the typical covering or appendages, as a flower without a perianth, a seed without a case or ovary, stems without leaves or hair.

naked branch. **rama desnuda.** A branch without leaves.

naked bud. **yema desnuda.** A bud without scales.

naked flower. **flor desnuda.** A flower without a calyx or corolla.

naked seed. **semilla desnuda.** A seed not enclosed in a case or ovary; having no pericarp, as the seeds of a pine (**Pinus**).

naked stalk. **pedúnculo desnuda.** A stalk without leaves.

nanism. **enanismo. nanismo.** The state of being dwarfish or abnormally small; dwarfism.

nannandrium. **(e)nanandrio.** A dwarf male filament produced by some **Oedogoniales**.

nannocyte. **(e)nanocito.** A small, spore-like cell produced by some non-filamentous **Myxophyceae**. They are not true spores.

nano-. **(e)nano-.** A Greek prefix that means, "very small" or "dwarf".

nanofossil. **(e)nanofosil.** Very small, petrified, one-celled plant or animal remains.

nanophanerophyte. **(e)nanofanerofito.** A plant 25 centimeters to 2 meters in height with resting buds above the ground surface.

nanophyllous. **(e)nanófilo.** Having very small leaves.

nanus. **nanus.** Latin meaning "dwarf". napiform. **napiforme.** Shaped like a turnip (**Brassica**), large and round above, and slender below.

narrow. **angosto. estrecho.** Not wide from side to side.

narrowed. **angostada.** Less wide; tapering, especially downward.

nascent. **naciente.** Starting to grow but not yet fully developed.

nastic. **nástico.** The response of leaves to touch or other stimuli; also, pertains to the response or growth of cellular tissue on one surface at a greater rate than on another, as in the opening of flowers or leaves. nastic movement. **movimiento nástico.**

A non-directed movement of a flat organ, such as a petal or leaf, in which the organ alternately bends up and down; also, a response to a stimulus, independent of its direction, *e.g.* opening of buds under different light intensities.

nasty. **nastia**. The response of a plant to a non-directional stimulus, as the opening or closing of flowers in response to light intensity or temperature changes.

natant. **natante**. Floating on the surface of water, as the natant leaf of a water plant.

natans. **natans**. Latin meaning "swimming (under water)".

native. **nativo**. **indigen**. Species that occur naturally in an area; a species not introduced to an area by humans, either accidentally or intentionally.

native protein. **proteína nativa**. Protein in its naturally occurring state.

natural. **natural**. Not introduced to the area, as a community of natural or native plants.

natural classification. **clasificación natural**. A taxonomic placement of plants into groups or taxa on the basis of their evolutionary relationships.

natural history. **historia natural**. The study of plants, animals, minerals and other things of nature, especially in the field rather than in a laboratory.

natural resources. **recursos naturales**. Materials supplied by nature that are useful or necessary for life, as water, minerals, *etc.*

natural science. **ciencias naturales**. Any or all of the sciences dealing with nature or the laws of nature, as botany, zoology, geology, chem-

istry, *etc.*

natural selection. **selección natural**.

A process occurring in the environment that determines which members of a species survive, reproduce, and pass on their genes to the next generation; survival of the fittest; also, the mechanism of evolution put forth by Charles Darwin (1859). Within a population, individuals vary slightly. Certain variations are more favored by the environment and consequently survive and reproduce, thus propagating the variation.

natural woodland. **bosque natural**.

A forested area with trees that have not been planted and where no human interference has occurred.

naturalize. **naturalizar**. To introduce or establish plants in another area.

naturalized plant. **planta aclimatado**.

A plant introduced from one environment into another in which the plant has become established and more or less adapted to a given region by growing there for many generations.

naturalized. **naturalizado**. Species that behave as a native, but originally came from another area and now maintain themselves without human intervention.

nature reserve. **reserva natural**. A geographical area set aside for conservation and other scientific research with public access restricted, either partially or completely.

nautiloid. **nautiloide**. Spiral-shaped, like a Nautilus shell.

navicular. **navicular**. Shaped like a boat; boat-shaped.

near. **cercano**. **próximo**. Close in distance.

nebulous. **nebulose**. Clouded, dark.
 nebulose. **nebuloso**. Indistinct, as
 nebulose inflorescence occurring
 on some grasses (**Poaceae**).

neck. **cuello**. A narrowed section, as
 the neck of the hypanthium, be-
 tween the base and a flared limb;
 also, the upper tubular part on an
 archegonium and of a perianth; also,
 the lower part of the capsule of a
 moss (**Musci**), just above the junc-
 tion with the seta.

neck canal cell. **célula canal del cuello**.
 One of the central cells of the central
 canal in the neck of an archegon-
 ium.

neck initial. **inicial del cuello**. A cell
 derived from a jacket cell of the
 bryophyte and pteridophyte arche-
 gonium. It ultimately divides to
 give the neck of the archegonium.

necrogenic abortion. **aborto necrogen-
 ico**. The rapid death of the tis-
 sues of a plant just under the point
 of attack by a parasite, thus retarding
 or stopping the spread of the lat-
 ter.

necrosis. **necrosis**. A gradual decay
 of tissue, as in trees; associated with
 discoloration and dehydration of
 all or some plant parts; also, a dis-
 ease of plants, for example, tobacco
 necrosis, caused by a virus; death
 of a cell or group of cells, while
 still part of the living plant.

necrotic. **necrótico**. Showing necrosis.

necrotrophic. **necrotrófico**. A para-
 sitic organism that obtains nutri-
 ents from dead cells and tissues of
 the host.

nectar. **néctar**. A sweet, sticky liq-
 uid secreted by many flowers that
 attract insects and birds involved
 in the process of pollination; also,
 a similar solution produced by fungi

to attract insects to disperse spores.
 nectar guide. **guía del nectario. señal
 del néctar**. Lines or spots occur-
 ring on the petals of flowers, of-
 ten invisible, except with ultra violet
 light, that direct various pollinators
 to the nectaries.

nectariferous. **nectarífero**. Nectar pro-
 ducing.

nectary. **nectario**. The flower or plant
 gland that secretes nectar.

necton. **necton**. Nekton.

nectonic benthos. **bentos nectonico**.
 Small organisms floating at the
 bottom.

needle. **aguja**. A thin, elongated shape,
 as the pointed leaf on conifers, like
 a pine needle (**Pinus**); acicular.

needle-leaved. **aciculifolio**. Having
 needle-like leaves, as on softwood
 trees.

needle-like. **acicular**. Having the elon-
 gated appearance of a needle.

negative. **negativo**. The moving or
 turning away from any of a group
 of stimuli, as light, water, gravity
 or loud sounds, thereby exhibit-
 ing negative tropism.

negative chiasma interference. **inter-
 ferencia quiasmática negativa**.
See chiasma interference.

negative feedback mechanism. **mecan-
 ismo de retroacción negativa**. An
 organism's internal control which
 increases in some instance or in-
 hibits at other points, the very proc-
 esses leading to or allowing the
 increase. Ecologically the mecha-
 nism favors keeping an equilibrium
 in individuals, populations, and in
 ecosystems.

negative geotropism. **geotropismo
 negativo**. The movement of a plant
 part in the opposite direction of
 gravity, as the vertical growth of

primary shoots.

negative heteropycnosis. **heteropycnosis negativo**. A subnormal amount of nucleic acid in the heterochromatin in mitotic and premeiotic divisions.

negative reaction. **reacción negativo**.

A taxis or tropism in which an organism moves or a member grows from a region where the stimulus is stronger to one where it is weaker.

nekton. **necton**. Actively swimming aquatic organisms, in contrast to those which are primarily drifting, e.g. plankton.

nemathecium. **nematecio**. A sorus-like, fertile layer in the **Rhodophyceae**, containing carpogonia, spermatogonia, or sporangia.

nemoral. **nemoral**. In ecology, pertaining to living in woods or groves.

neo-. **neo-**. A Greek prefix that means, "new" or "recent".

neogenesis. **neogénesis**. The growth of new tissue.

neomorph. **neomorf**. An amorph having an effect apparently unrelated to that of the non-mutant allelomorph.

neoplasm. **neoplasma**. Newly formed tissue; also, a tumor.

neotropical region. **región neotrópica**. Of the "new world tropics"; pertaining to the tropical areas of the Americas.

neotype. **neotypic**. In taxonomy, a type specimen that has been selected to replace a holotype.

nephro-. **nefro-**. A Greek prefix that means, "kidney-shaped".

nephroid. **nefroide**. Reniform; kidney-shaped, either flat or solid.

neritic. **nerítico**. Living in the sea at a depth less than 200 meters.

nervate. **nervado**. Having ribs or veins,

as nervate leaves.

nervation. **nervadura**. The vein structure or arrangement of veins or ribs in leaves; venation.

nervature. **nervadura**. See nervation.

nerve. **nervio**. The midrib, or large vein in a leaf.

nerved. **nervio**. Having nerves or nerve-like structures.

nerveless. **enervio**. Having no nerves.

nervicolous. **nervicolo**. Said of a parasitic fungus which lives on the veins of leaves.

nerviform. **nerviforme**. Resembling a nerve.

nervose. **nervado**. Same as nerved; having distinctive nerves or nerve-shapes.

nervure. **nervio foliar**. The principal vein of a leaf.

net knot. **nudo neta**. A small accumulation of chromatin, particularly at the intersection of the nuclear reticulum.

netplasmodium. **netaplasmodio**. The plasmodium of the **Labyrinthulales**, which develops from the 4 naked cells that penetrate the cell walls of the host plant.

netrum. **netro**. A minute spindle which arises within the centrosome during the division of the centromere.

net venation. **venación neta**. A network of veins characteristic of a dicot leaf.

nettle. **ortiga**. Any species of the genus **Urtica** with sharp bristles on the leaves and stems that sting when touched.

net-veined. **nervadura reticulada**. In the form of a network; having veins running irregular courses; reticulate.

network. **interconectar**. A linkage of related parts, as in a network

of veins or net-veined.

neuromotor apparatus. **aparato de neuromotor**. An organelle found in the motile cells, probably including gametes and zoospore, of the **Chlorophyta**. It is closely associated with the nucleus, and is responsible for the production of flagella.

neurotoxin. **neurotoxina**. A substance that can damage or destroy animal or human nerve tissue.

neuston. **neuston**. The surface film of water characterized by growing microflora.

neuter. **neutro**. **neutra**. Apparently sexless, especially of strains of fungi which usually show sexuality; also, of flowers in which the andrecium and gynecium are functionless or absent.

neuter flower. **flor neutro**. Lacking or having underdeveloped stamens or pistils; functioning asexually.

neutral flower. **flor neutral**. Not developed sexually; neuter. *See* neuter flower.

neutral soil. **suelo neutro**. Soil with a pH value of 6.6–7.3, neither excessively acid or alkaline.

neutral spore. **espora neutra**. An asexual spore produced by some algae. They are produced in various ways but are never in sporangia.

neutralism. **neutralismo**. A population condition in which two different species coexist, with neither being affected by the association.

neutron. **neutrón**. Uncharged subatomic particles of essentially the same mass as protons.

neutrophilous. **neutrófilo**. Plants that prefer habitats that are neither acid nor alkaline.

niche. **nicho**. In ecology, the habi-

tat, function, and way of life of a plant within an ecosystem; its biotic and trophic relationship; also, the distinct set of environmental conditions for a given species.

nicotinamide adenine dinucleotide (NAD). **nicotinamida-adenina-inucleótide (NAD)**. A coenzyme that acts as an electron acceptor with an important function in respiration.

nicotinamide adenine dinucleotide phosphate (NADP). **nicotinamida-adenina-dinucleótido-fosfato (NADP)**. A coenzyme that acts as an electron acceptor with an important function in photosynthesis; together with ATP, a major coupling agent between degradative and biosynthetic pathways.

nicotine. **nicotina**. An alkaloid, 1 – 1methyl – 2(3pyridyl) – pyrrolidine, derived from tobacco (*Nicotiana tabacum*) leaves; used as an insecticide.

nicotinic acid. **ácido nicotínico**. Promotes growth of some bacteria; niacin.

nictonasty. **nictonastia**. A diurnal nastic movement, as the opening and closing of morning glory (**Convolvulaceae**) flowers.

nidose. **nidoso**. Having an unpleasant smell.

nidulant. **nidulante**. Lying loose or free, as seeds in a pulp; also, lying partially in a nest-like repository, as sporangia.

nidus. **nido**. A place where seeds or spores develop, as in the pulp of fruit.

niger. **niger**. Latin meaning “black”. nigrescent. **negruzco**. Blackish or changing to black.

nipple. **niple**. **anilla**. A projection

that has the appearance of a breast tip.

nitid. **nítido. lustroso.** Bright, shining, or lustrous; laevigate.

nitrate. **nitrato.** A form of nitrogen that can be assimilated by plants.

nitrification. **nitrificación.** The conversion of ammonium ions into nitrates through the activities of chemolithotrophic bacteria (**Nitrobacteraceae**), e.g. *Nitromonas* oxidizes ammonium ions to nitrites, and *Nitrobacter* oxidizes nitrites to nitrates.

nitrifier bacterium. **bacteria nitrificante.** See nitrobacteria.

nitrify. **nitrificar.** To oxidize ammonia compounds to nitrates or nitrites by bacterial action.

nitrifying bacteria. **bacterias nitrificantes.** Nitrobacteria.

nitrite. **nitrito.** A form of nitrogen that is toxic and can not be assimilated by plants.

nitrobacteria. **nitrobacterio. nitrobacteria.** Any of a variety of bacteria that live in the soil and participate in the nitrogen cycle, by changing ammonium compounds into nitrites or nitrites into nitrates.

nitrogen. **nitrógeno.** Identified by the chemical symbol N, nitrogen is an essential element in all plant life, especially in the protein and nucleic acid structures.

nitrogen assimilation. **asimilación de nitrógeno.** The process of taking in nitrogen and converting it to living matter.

nitrogen balance. **balance nitrogenado.** The difference between the amount of nitrogen taken into the plant or soil, and the amount lost.

nitrogen base. **base nitrogenada.** The basic composition of nucleic ac-

ids; made of a nitrogen-containing molecule of purine or pyrimidine.

nitrogen cycle. **ciclo del nitrógeno.** The circulation of nitrogen and nitrogen compounds by living organisms; as atmospheric nitrogen moving into the soil where it is changed into nitrates which are used by green plants, and then by animals.

nitrogen fixation. **fijación de nitrógeno.** The transformation of atmospheric nitrogen into nitrates by a variety of soil borne blue-green algae and bacteria in nodules on the roots of leguminous plants.

nitrogenase. **nitrogenasa.** An enzyme of nitrogen-fixing bacteria that activates the changing of nitrogen to ammonia in the process of nitrogen fixation.

nitrogenous base. **base nitrogenada.** A nitrogen compound found in DNA and RNA, that in sequence, designates defined genetic information.

nitrogenous. **nitrogenado.** Containing nitrogen or nitrogen compounds.

nitrophilous. **nitrófilo.** Said of plants characteristic of places with a high concentration of nitrogen compounds.

nitrous acid. **ácido nitroso.** A clear, liquid that is usually obtained by the oxidation of ammonia and used in organic synthesis.

nitrosation. **nitrosación.** The conversion of ammonium compounds to nitrites by bacteria.

nivalis. **nivalis.** Latin meaning "growing near snow".

niveus. **niveus.** Latin meaning "white, as snow".

nocturnal. **nocturno.** Having flow-

ers that open at night, as some *Datura*.

nodal analysis. **análisis de nodal**. A comparative statistical method used in plant ecology in which characteristics are grouped according to an analysis of individuals with or without those particular characteristics. These findings are then applied to the presence, absence, or abundance of those species at different sample sites. Data that has been analyzed using both normal analysis and inverse analysis is then compared by nodal analysis. If a high coincidence between the final groups is found, it is assumed that there exists an important type of community or nodum. The method is particularly useful to researchers using numerical classification systems.

nodal. **nodal**. Pertaining to plant nodes or having the function of nodes.

nodding. **péndulo**. Having the top bent downward.

node. **nudo**. The place or joint on a branch or stem where a leaf emerges; also, the zone on the thallus of the **Charales** where the lateral branches and cortex arise.

node cell. **célula nudo**. Hyphopodium.

nodiferous. **nodifero**. Having nodes.

nodose. **nodoso**. Knotty or with a node-like appearance or characterized by many nodes.

nodose-septum. **unión fibular**. Clamp-connection.

nodular. **nodular**. Having or occurring in the form of nodules or nodes.

nodulate. **nodulado**. To form nodular growth.

nodulation. **nodulación**. The process of becoming nodular.

nodule. **nódulo**. The small swelling

on the root of leguminous plants which contains nitrogen-fixing bacteria; also a swelling on a stem.

nodulose. **noduloso**. Having very small nodules or knots.

nodum. **nodo**. A characteristic vegetation unit employed in plant ecology in which similar sites are grouped together, using phytosociological techniques; also, refers to groups doubly defined in nodal analysis.

nomenclature. **nomenclatura**. The assignment of names to the kinds and groups of plants in a taxonomic classification, as the Linnaean system of binomial nomenclature.

nomen. **nomen**. Latin meaning "name".

non-. **non-**. A Latin prefix that means, "not".

non-articulate. **no articulado**. Not cut off by an absciss layer.

noncellular. **no celular**. Lacking cells; acellular.

non-conjunction. **no conjunción**. The complete failure of synapsis.

noncompetitive inhibition. **inhibición no competitiva**. The irrevocable restraint of enzyme activity produced by an inhibitor that is generally structurally unrelated to the normal substrate.

non-cyclic photophosphorylation. **non-cíclico fotofosforilación**. In higher plants, the part of photosynthesis that requires light obtained by using an electron donor, resulting in the production of oxygen as a waste product; the result is the formation of ATP and NADP.

nondegradable pollutant. **poluante no degradable**. Material not broken down by natural processes, for example lead and mercury.

nondisjunction. **nondisyunción**. **no**

- disyunción.** The failure of a pair of sex chromosomes to separate and go to different cells during male meiosis.
- non-essential organs. **orgános no esencial.** Sepals and petals.
- non-exchangeable ions. **ions no canjeable.** Ions in the cell or surrounding water, which cannot be exchanged for ions in the surrounding water or cell.
- non-homologous pairing. **no apareamiento homólogo.** The association of non-homologous segments of one or two chromosomes at pachytene.
- non-modified. **no modificar.** Not changed or altered to provide specialized functions.
- nonmotile. **nonmotil.** Unable to move on its own.
- non-polar. **no polar.** A molecule that shares equally the electrons between the nuclei, resulting in little attraction or reactivity.
- non-protein. **no protéico.** A substance that is not a protein nor does it contain a protein.
- non-reduction. **no reducción.** Ameiosis.
- nonsense codon. **códon sin sentido. códon absurdo.** A codon that does not code for an amino acid because there is no normal tRNA molecule. Three types are currently known: amber, ochre, and opal.
- nonsense mutation. **mutación sin sentido.** A mutation that alters a gene so that a nonsense codon is inserted resulting in the ending of translation or the end of the polypeptide chain.
- non-sensibility. **no sensibilidad.** The ability of a plant to support a parasite without showing marked signs of disease.
- nonsexual. **no sexual.** Having no sex, as in nonsexual or asexual reproduction.
- non-vascular. **no vascular. avascular.** A large and varied grouping of plant or plant-like organisms that do not reproduce from seed (spermatophytes and pteridophytes), and has no vascular system that conveys fluids throughout the body system; includes fungi, liverworts, algae, and molds. *See* thallophyte.
- NOR. **RON.** *See* nucleolus organizer region.
- non-viable. **no viable.** Incapable of survival.
- norm. **norma.** The value of a quantity or a state which is statistically most frequent.
- normal analysis. **análisis normal.** In plant ecology, groupings that are based on an analysis of the characteristics of individuals which are then used to group sample sites by species; sometimes used to referred to sample plots rather than species.
- normal curve. **curva normal.** The limit which is reached either by the binomial or the multinomial series, where the power is large and one of the summed quantities very small in relation to the power and to one another. This frequency distribution is expected from a series of observations on a variate whose magnitude is affected by a large number of agents having small independent effects.
- normal deviation. **desviación normal.** The ratio of an observed deviation to the appropriate, or corresponding standard deviation, as fixed by the hypothesis.
- notate. **notado.** Said of a surface marked

by straight or curved lines.

notch. **muesca (en fruto), escotadura (en lámina).** A slot or groove.

notched. **emarginado (en lámina).** A slotted leaf margin.

novem-. **novem-.** A Latin prefix that means, "nine".

nucellar. **nucelar.** Pertaining to or produced by the nucellus.

nucellar embryony. **embrionía nuclear.** A form of apomixis where the embryo arises directly from the nucellus.

nucellus. **nucela.** The female sporangium or mass of tissue in the ovule of a plant that contains the embryo sac; megasporangium in seed plants.

nuciferous. **nucifero.** Nut producing. nuciform. **nuciforme.** Resembling a nut.

nuclear. **nuclear.** Pertaining to the nuclei or a nucleus; also, of or pertaining to atoms.

nuclear budding. **gemación nuclear.** The production of two daughter nuclei of unequal size by constriction of the parent nucleus.

nuclear cap. **casquete nuclear.** Of the **Blastocladiaceae**, a body at one side of the nucleus of a zoospore or gamete.

nuclear division. **división nuclear.** Mitosis; meiosis; amitosis.

nuclear envelope. **envoltura nuclear.** The structure that divides the nucleus of eukaryotic cells from the cytoplasm; nuclear membrane.

nuclear fragmentation. **fragmentación nuclear.** The formation of two or more portions from a nucleus by direct break-up and not by mitosis.

nuclear genes. **gens nuclear.** Genes that occur in the nucleus, in con-

trast to plasmagenes.

nuclear membrane. **membrana nuclear.** The double layer of tissue enclosing the cell nucleus; nuclear envelope.

nuclear plate. **placa nuclear.** The aggregation of chromosomes in the equatorial plane during mitosis or meiosis.

nuclear pore. **poro nuclear.** Openings in the nuclear membrane that may be true openings or they may be filled or plugged.

nuclear reticulum. **retículo nuclear. redecilla nuclear.** A honeycomb or mesh of delicate threads of chromatin seen in stained preparations of metabolic nuclei.

nuclear sap. **jugo nuclear.** In the nucleus, a colorless liquid (nucleoplasm) other than the chromatin and nucleolus; karyolymph.

nuclear spindle. **huso nuclear.** The fusiform structure consisting of fine fibrils arranged longitudinally and converging at the poles, which appears in the cytoplasm of a cell surrounding the nucleus during mitosis and meiosis.

nuclear stain. **colorante nuclear.** A stain which will highlight the nuclei in a tissue or organism with a different color or shade.

nucleate. **nucleado.** To form a nucleus; also, to form around a nucleus.

nucleic acid. **ácido nucleico.** A group of acids occurring in organic nuclear material which is composed of phosphoric acid with a carbohydrate and a base. They have a high molecular weight and consist of alternate units of phosphate and a pentose sugar, which has a purine and pyrimidine base attached

to it. Also see DNA and RNA.

nucleochylema. **nucleoquilema**. Nuclear sap.

nucleo(cyto)plasmic ratio. **relación (cito)plasmática**. The ratio of nucleus volume to cytoplasm volume; alteration of this volume may be a cause of cell division.

nucleoid. **nucleoide**. The area in the prokaryotic cell containing the chromosomal DNA; also, in bacteria cells, the irregularly shaped area where DNA is concentrated but not bound by a membrane.

nucleolar. **nucleolar**. Pertaining to the nucleolus.

nucleolus. **núcleolo**. In the eukaryotic nucleus, a small, round, but conspicuous structure containing a high concentration of ribonucleic acid and protein; often, more than one nucleolus is present; also, a body not containing deoxyribose nucleotides and secreted by a specific organizer, gene or super-gene, in the resting nucleus.

nucleolus organizer region (NOR). **región del organizador nucleolar (RON)**. A secondary constriction on a spiralized chromosome, which organizes the production of the nucleolus.

nucleolate. **nucleolado**. Said of spore which contains one or more conspicuous oil drops.

nucleoline. **nucleolina**. Special particles occurring with the nucleosis which do not disappear during mitosis.

nucleolo-centrosome. **nucleolo-centrosoma**. A prominent deeply staining body found in the nucleus of some lower plants.

nucleome. **nucleoma**. The whole of the nuclear substance in a proto-

plast.

nucleoplasm. **nucleoplasma**. The protoplasm in the nucleus of a cell. It may appear granular or fibrils; nuclear sap.

nucleoprotein. **nucleoproteína. proteína nuclear**. A conjugated protein, consisting of a histone bound to a nucleic acid, the non-protein part. It is combined with or combinable with a nucleic acid.

nucleoside. **nucleósido**. A chemical group composed of a purine or pyrimidine base and a pentose sugar.

nucleotide. **nucleótida. nucleótido**. A chemical group composed of a purine or pyrimidine base, ribose or deoxyribose sugar, and phosphoric acid.

nucleosome. **nucleosoma**. The basic structural unit of chromatin, composed of DNA coiled around histones; karyosome.

nucleotide. **nucleótido. nucleótida**. The unit structure of nucleic acids (DNA and RNA) composed of a sugar, a phosphoric acid, and a purine or pyrimidine base.

nucleus (*pl.* nuclei) **núcleo**. The double-membrane-bound structure containing chromosomes found in most non-dividing eukaryotic cells; also, the minute center of an atom, containing one or more positively charged protons and one or more neutrons with no electrical charge, except for hydrogen-1 atom, which has one proton and no neutrons in its nucleus; also, an oil-drop.

nucule. **neucecilla. núcula**. A hard, one-seeded fruit; also, the female fruit body of the **Charales**; nutlet.

nudation. **nudación**. The initiation of a new plant succession by a major environmental disturbance, as a

flood or volcanic eruption; also, the formation of an area bare of plants, by natural or artificial means. *See* sere.

nude. **desnudo**. Naked.

nudi-. **nudi-**. A Latin prefix that means, "naked".

nudicaul. **nudicaule**. Leafless stems.

nulliplex. **nulliplexo**. A condition of a polyploid in which all the chromosomes of one homologous type carry the recessive allelomorph of a particular gene.

nullisomic. **nullisómico**. In a diploid individual or tissue, the condition where both members of a chromosome pair are missing; $2n-2$.

numerical hybrid. **híbrido numérico**. A hybrid whose parental gametes differ in respect to the number of chromosomes.

numerical mutation. **mutación numérico**. A change in the number of chromosomes, either balanced to give polyploid, or unbalanced to give aneuploidy.

numerical pyramid. **pirámide numérica**. *See* pyramid of numbers.

numerical taxonomy. **taxonomía numérica**. Any of the numerical description approaches to describing plants, plant communities, or comparisons of these, such as similarity indices, principal components analysis and classification.

numerous. **numeroso**. In botany, the term generally refers to more than ten.

nurse cell. **célula nutricia**. Any cell or tissue in contact with developing gametes, and concerned with their nutrition; also, in *Scleroderma*, hyphae giving food material to spores which have become detached from the basidia.

nut. **nuz. nuez**. A woody, one-seed, dry, indehiscent fruit, similar to an achene, but larger and with a thicker pericarp (shell), as an acorn (**Quercus**) or pecan (**Carya**); derived from a syncarpous ovary.

nutant. **nutante (ligeramente pédulo)**. Drooping or having the top bent downward.

nutaton. **nutación**. The spiraling or twisting of a stem, especially as it grows; caused by a variation in the rate of growth of the meristematic areas; also, the lateral swaying of the tip of a growing organ.

nutlet. **nuececilla. clusa. núculo**. A small nut or nut-like fruit, as in **Labiatae**; also, the pit or stone, as in a cherry (**Prunus**), peach (**Amygdalus**), or plum (**Prunus**).

nutrient absorption. **asimilación de nutrientes**. The process of taking in and assimilating nutrients through the root and leaf systems.

nutrient cycle. **ciclo de nutrientes**. *See* biogeochemical cycle.

nutrient. **nutriente**. A substance that provides nourishment; also, nourishing.

nutriment. **nutrimento**. Any element needed for organisms to live, grow, and reproduce; nourishment.

nutrition. **nutrición**. A series of processes when food is taken in and used by plants for growth, energy and reproducing.

nyctanthous. **nyctanto**. Night flowering.

nyctigamous. **nyctígamu**. Leaves or flowers that close or open at night, as leaflets of clover (**Trifolium**) closing at night.

nyctinasty. **nictinastia. movimiento nictinástico. movimiento de sueño**. The "sleep movements" of leaves

in response to change in turgor pressure of cells at the base of the petiole; the response of plant organs to the periodic alteration of day and night, *e.g.* opening and clos-

ing of flowers.

nyctitropic. **nyctitrópico**. Bending or changing at night, as nyctitropic leaves in response to light intensity, bend or change.

O

O. **O.** The chemical symbol for oxygen.

oak. **roble.** Any tree of the genus **Quercus**.

oak-moss. **roble-musgo.** The common name for a greenish-grey, lichen *Evernia prunastri* (**Lecanora**) used as a scent and fixative in the perfume industry.

oak-nut. **roble-nuez.** A common name for a gall that forms on an oak tree (**Quercus**).

oasis. **oasis.** An isolated area in arid regions where the water table lies close to the surface, making possible year-round support of water loving plants. In a strict consideration, an oasis is not part of the desert, as the climate is artificially altered.

ob-. **ob-.** A Latin prefix that means, "opposite the usual shape or position"; also, "to," "toward" or "against".

obclavate. **obclaviforme.** Club-shaped with a narrowing toward the apex and attached at the wider end; opposite of clavate.

obcompressed. **obcomprimido.** Flattened in the opposite shape or direction of the usual, as an obcompressed ovary or seed; also, compressed so that the two sutures of a fruit are brought together.

obconic. **obcónico.** Inversely conical; cone-shaped with the attachment at the narrow end.

obcordate. **obcordiforme.** Opposite

of cordate; heart-shaped with the attachment at the narrow point, as in obcordate leaves.

obcordiform. **obcordiforme.** See obcordate.

obdeltate. **obdeltado.** Having the shape of an inverse deltate or triangle with the attachment at the narrow point.

obdeltoid. **obdeltoide.** Inversely deltoid; having a triangle-shape with the attachment at the narrow end.

obdiplostemonous. **obdiplostémono.** Having stamens in two whorls with the inner whorl opposite the sepals and the outer whorl opposite the petals.

obelliptic. **obelíptico.** An almost elliptical shape, but the top is slightly larger than the bottom where it is attached, as an obelliptic leaf.

oblanceolate. **oblanceolado.** An inversely lanceolate or sword-shaped leaf which is attached to the leaf stalk at the narrow end.

oblanceoloid. **oblanceoloide. subblanceolado.** Having the shaped of a reverse lance with the tapering point or narrow end attached to the leaf stalk.

oblate. **oblato.** An elliptic shape with flattened poles, used to describe surface outlines, as leaf shapes.

obligate. **obligado.** Able to survive in only one type of environment, as a parasite that must have a host.

obligate anaerobe. **anaerobio obligado.** A microorganism that survives only in anaerobic conditions.

obligate parasite. **parásito obligado.**

An organism that must live as a parasite and cannot survive otherwise.

obligate saprophyte. **saprófita obligado.**

An organism that lives on non-living plant or animal tissue.

oblique. **oblicuo.** Having unequal sides, especially the basal portion of some leaves, as an oblique leaf.

oblique division. **división oblicuo.** The development of a septum which is neither parallel to the long axis of the cell, nor across it at right angles.

oblique plane. **plano oblicuo.** Any plane of a flower, other than the median and lateral plane.

obliteration. **obliterado.** The crushing and closing of tubular elements within a plant by the pressure set-up by new elements as they develop.

oblong. **oblongo.** Used in describing structures that have the widest axis at midpoint and the margins essentially parallel, as in certain leaves; elliptical, blunt at each end, having nearly parallel sides, and two to four times as long as broad.

obovate. **obovado.** Inversely ovate; egg-shaped in outline, as with some leaves which are attached at the narrow end.

obovoid. **obovoide.** Inversely ovoid; egg-shaped in form, as some fruit with the attachment at the narrow end.

obpiriform. **obpiriforme.** Knob-like or having the shape of a knob.

obpyramidal. **obpiramidal.** Inversely pyramidal; pyramid-shaped and attached at the narrow end.

obscure. **oscuro.** Said of venation which is poorly developed, so that little more than the midrib can be

seen.

obscurely. **inconspicuamente.** Inconspicuously located.

obsolescence. **obsolescencia.** The gradual disappearance of a part or organ.

obsolescent. **obsolescente.** Imperfectly or slightly developed, as an obsolescent structure.

obsolete. **obsoleto.** Imperfectly developed, sometimes dysfunctional, especially when compared to similar structures in other individual plants or related species; vestigial.

obtriangular. **obtriangular.** Inversely triangular.

obtrullate. **obtrulado.** Inversely trullate.

obtruncate. **obtruncado.** To cut or lop off the top, as to obtruncate trees.

obtuse. **obtuso.** A leaf that is blunt or rounded at the tip, margins straight to convex, and ending with a more than 90° angle.

obvolute. **margen sobrelapado.** Having overlapping petals, as with some poppy flowers (**Papaver**).

occasional species. **especie aislado.** A species found from time to time in a given plant community but is not a regular member.

occidentalis. **occidentalis.** Latin meaning "western".

occlusion. **oculsión.** The closure of a passageway or vessel; also, the absorption or retention of a gas or other substance; also, the blocking of a stoma by the ingrowth of parenchymatous cells into the sub-stomatal cavity.

occurs. **ocurrir.** Exists or can be found.

ocean. **océano.** The immense body of salt water that covers almost three

- fourths of the earth's surface; classified into four main divisions: Atlantic, Pacific, Indian, and Arctic oceans.
- ocean desert. **ocean de desierto**. A region in the ocean where a lack of nutrients produces a limited amount of plant life; a region of low biological productivity.
- oceanic. **oceánico**. Of or belonging to more than 200 meters below the sea, as oceanic plants or an oceanic climate; also, an ocean formation.
- oceanographer. **oceanógrafo**. A person who participates in the field of oceanography.
- oceanography. **oceanografía**. The study of the oceans and seas, including marine life, ocean waters, and the ocean floor.
- oceanology. **oceanología**. Oceanography.
- ocellated. **ocelado**. Having ocellus; spotted.
- ocellus. **ocelo**. An eye-like marking, made of two colors; an enlarged discolored cell in a leaf; also, a swelling on the sporangium of some fungi, which may be a light receptor.
- ocher. **ocre**. A dark yellow or reddish brown color.
- ochery. **ocheria**. A yellowish brown color.
- ochre. **ocre**. Same as ocher.
- ochrea. **ócrea**. A cup-shaped structure around a stem, formed from united stipules or united leaf bases. *See* ocrea.
- ochreate. **ocreado**. Sheathing. *See* ocreate.
- ochrocarous. **ocreocarp**. Bearing yellow fruit.
- ochroleucous. **blanco-amarillento**. Yellowish white in color.
- ochrosporous. **ochrosporo**. Having yellow or yellowish-brown spores.
- ocrea. **ócrea**. A tube-like stipule above the node and around the stem, as in buckwheat (**Polygonaceae**). *See* ochrea.
- ocreate. **ocreado**. Having a stipular tube surrounding the stem above the insertion of the petiole or blade; sheathed.
- ocreolate. **ocreolado**. The diminutive form of ocreate, commonly applied to bract bases.
- octamerous. **octamero**. Flowers with eight members in each whorl, sometimes written as 8-merous. Same as octomerous.
- octanoic acid. **ácido octanóico**. A fatty acid formed in coconut oil.
- octant division. **división octante**. The division of an embryonic cell by walls at right angles; giving eight cells.
- octapeptide. **octapéptido**. A polypeptide chain composed of eight amino acids.
- octo-. **octo-**. A Latin and Greek prefix that means, "eight".
- octoandrous. **octoandro**. Having eight stamens.
- octogynous. **octógino**. Having eight pistils or styles.
- octolocular. **octolocular**. Having eight locules.
- octomerous. **octomero**. Having eight members in each whorl.
- octopetalous. **octopetalario**. Having eight petals.
- octoploidy. **octoploidia**. A condition in which an individual has eight sets of homologous chromosomes, instead of the two sets in normal diploid organisms.
- octoradiate. **octoradio**. Having eight ray flowers.

octosepalous. **octosépalo**. Having eight sepals.

octosporous. **octosporo**. Containing eight spores.

odd-pinnate. **imparipinnado**. A compound pinnate leaf with a single terminal leaf; unevenly pinnate; imparipinnate.

odonto-. **odonto-**. A Greek prefix that means, "tooth-shaped".

odontoid. **odontoide**. Tooth-like.

odor. **olor**. Fragrance or discrete smell; also, perceptible to the sense of smell.

odoriferous. **olorifero**. Having a discrete odor or fragrance.

odorless. **inodoro**. Having no discrete fragrance or smell.

(o)ecology. **ecología**. Ecology.

(o)edema. **edema**. A large mass of unhealthy parenchyma (swollen tissue) due to an excess of water.

(o)edocephaloid. **edocefaloide**. Having a swelling at the end or tip.

officinales. **officinales**. Latin meaning "medicinal".

offset. **hijuelo**. A side shoot from the base of an offshoot that takes root and starts a new plant.

offshoot. **retoño**. A new stem growing laterally from the main stem.

offshore zone. **zona afuera de costa**. The zone that extends seaward from the point of low tide to the edge of the continental shelf.

offspring. **progenie**. **prole**. **descendencia**. **descendientes**. The young plant that is derived from breeding.

-oid. **-oide**. A suffix that means, the "shape" or "form" of a three-dimensional structure, as opposed to -ate, describing the surface shape or form.

oidiospore. **oidiosporo**. Oidium.

oidium. **oidia**. A thin-walled cell formed by the fragmentation of hypha which can function as a gamete or germinate to become a new hypha; also, a spore that is formed simultaneously throughout the length of a filament; also, spermatia formed on hyphal branches, especially in heterothallic **Hymenomyces**; arthrospore.

oil. **olesa**. A fat in a liquid state at normal atmospheric temperature. Essential oils have relatively low molecular weights and are volatile, many having a strong aroma.

oil body. **cuerpo oleoso**. A large single droplet of oil in isolated cells of some of the liverworts, especially the **Marchantiaceae**.

oil drop. **gota oleosa**. Any small droplet of oily material included in the cytoplasm.

old-growth forest. **selva virgen**. **bosque virgen**. An uncut, virgin forest with ancient trees, sometimes hundreds or thousands of years old; virgin forest.

oleaginous. **oleaginoso**. Oily or oil producing.

oleic acid. **ácido oleico**. A fatty acid found in both plant and animal fats.

oleiferus. **oleiferus**. Latin meaning "oil bearing".

olein. **oleína**. An ester of oleic acid and glycerin, which is derived from vegetable oils, such as cottonseed (**Malvaceae**) and olive oils (**Oleaceae**).

oleosome. **oleosoma**. A large fatty inclusion in the cytoplasm of a cell.

oligo-. **oligo-**. **olig-**. A Greek prefix that means, "few", "small", "less", or "lack of".

oligocarpous. **oliorcápico**. Having less than the usual number of fruit.

oligocarpy. **oliorcarpia**. The stage or condition of bearing few fruit.

oligogene. **oligogen**. See major gene.

oligohaline. **oligohalino. salobre**. A body of water that is saline but has less salt than seawater.

oligomeric. **oligómero**. With fewer members than the typical whorl; having few parts.

oligomictic. **oligomictico**. Describes lakes with high surface temperatures (20°–30° C), especially in the tropics, where the water is thermally stable, mixing only rarely.

oligonucleotide. **oligonucleótido. oligonucleótida**. A substance with relatively few nucleotides (two to ten) as compared to a polynucleotide.

oligopeptide. **oligopéptido**. A linear peptide with 2–10 amino acids.

oligopetalous. **oligopétalo**. Having few petals.

oligophyllous. **oligofilo**. Having few leaves.

oligosaccharide. **oligosacárido. oligósida**. A branched carbohydrate with 2–10 monosaccharides.

oligosepalous. **oligosépalo**. Having few sepals.

oligospermous. **oligospermo**. Having few seeds; few-seeded.

oligosporous. **oligosporo**. Having or containing few spores.

oligostemonous. **oligostémono**. Having few stamens.

oligotaxy. **oligotaxia**. A reduced number of whorls.

oligotrophic. **oligótrofo. oligotrófico**. Not adequate nutriment, as an oligotrophic lake with little vegetation due to few nutrients; nutrient-poor.

oligotrophication. **oligotroficación**.

In aquatic ecosystems, a nutrient-depletion process or a reduction in the rate of nutrient cycling.

oligotrophophyte. **oligotrofófito**. A plant growing in a soil poor in soluble mineral salts.

oligotrophy. **oligotrofia**. The condition of being oligotrophic.

olivaceous. **oliváceo**. Olive green color or olive-like.

ombrogenous peat bog. **turbera ombrógeno**. A vegetative, peat-forming community that lies above ground water, separated from ground flora and mineral soil, dependent on rainwater for minerals, is an area desirable for the growth of **Sphagnum** species.

ombrophil. **ombrófilo**. A plant which thrives in places that have abundant rainfalls; a rain-loving plant.

ombrophilous. **ombrófilo**. Rain-loving.

ombrophilous plant. **planta ombrófito. ombrófila**. Rain-loving plants

ombrophobe. **ombrófobo**. A plant that can not survive in continuous rain.

ombrophyte. **ombrófito**. A plant inhabiting rainy locations.

omnivore. **omnívoro**. An organism that feeds on both plants and animals.

omnivorous. **omnívoro**. Said of a parasitic fungus which attacks several or many species of host plants; pantophagous.

one-celled. **unicelular**. Having one cell; single-celled; unicellular

one-celled. **unilocular**. Having a single cavity or chamber, as in an ovary "cell" which contains the seed(s);

one-sided. **unilateral**. As leaves growing only on one side of the stem.

ontogenetic. **ontogenético**. Genetic characters that pertain to individual

development.

ontogenesis. **ontogénesis**. The history of the developmment of an individual. *See* ontogeny.

ontogeny. **ontogenia**. The life cycle of an individual organism; individual development from fertilization to adulthood.

oo-. **oo-**. A prefix that means, "egg" or "eggs".

ooblast. **ooblasto**. A primitive ovum or an ovum not yet developed into a true ovum. Found in the **Flori-deae**. A tubular outgrowth from the carpogonial base which connects the carpogonium and the auxillary cell.

oocyte. **oocito**. A cell with a diploid nucleus, which, during meiosis, gives four haploid nuclei that form female gametes, usually by further division; also, an ovum in the stage before maturation; a female gametocyte; an egg cell in which meiosis takes place.

oogamete. **oogameto**. Either one of two gametes which can unite with the other to form a zygote; heterogamete.

oogamous. **oógamo**. Reproducing by the joining of a large non-motile egg and a small, motile or non-motile sperm; heterogamous.

oogamy. **oogamia**. The fusion of a large, non-motile female gamete with a small, motile or non-motile male gamete, producing fertilization.

oogenesis. **oogénesis**. The formation of eggs and ova; in angiosperms, the formation of the embryo sac; ovogenesis.

oogenetic. **oogenético**. Of or pertaining to oogenesis; ovogenetic.

oogonium. **oogonia**. The female re-

productive organ of some algae and fungi, usually a rounded cell or sac containing one or more oospheres; a cell giving rise to oocytes, directly or by mitosis.

oolysis. **oolisis**. The conversion into leafy structures of carpels and ovules.

oophyte. **oofito**. In ferns (**Filicopsida**), mosses (**Musci**) and liverworts (**Hepaticae**), the generation that bears the reproductive organs in the alternation of generations.

ooplasm. **ooplasma**. The central plasma in the oogonium of some **Oomycetes**, representing a more or less undifferentiated egg.

oosphere. **oosfera**. The female gamete in the oogonium; also, the large non-motile fertile gamete of some algae and fungi; an ovum.

oospore. **oospora**. Following fertilization of an oosphere, a thick-wall resting oospore is formed.

ootid. **oótida**. **ovótida**. A haploid cell coming from the meiotic division of a secondary oocyte.

ooze. **cieno**. Mud or slime, especially at the bottom of an ocean, river, or lake.

opaque. **opaco**. Light not passing through; having a dull surface.

open aestivation. **estivación abierta**. Aestivation in which the perianth leaves neither overlap nor meet by their edge.

open bundle. **haz abierta**. A vascular bundle that has a cambium.

open canopy. **dosel abierta**. Tree crowns that do not touch because of the distance separating individual trees.

open community. **comunidad abierto**. A plant community which does not occupy the ground completely, so

that there are bare spaces visible.
open forest. **bosque abierto**. A forest in which individual tree crowns do not touch, leaving some ground areas open to direct sunlight.

open population. **población abierto**. A plant population that is freely exposed to gene flow, as opposed to a closed population in which there is a barrier to gene flow.

open vascular bundle. **has vascular abierto**. Open bundle.

open woodland. **bosque abierto**. Grassy ground with occasional trees here and there, often in clusters.

opening (flowers). **apertura (flor)**. The beginning or initial stage of the floral petals spreading to expose the reproductive organs. *See* nastic.

operator gene. **gen operador**. A gene responsible for the activation and deactivation of the structural genes.

operator. **operador**. A region of DNA at one end of an operon which serves as the binding site for a specific repressor protein, that controls the functioning of adjacent cistrons.

opercular cell. **célular opercular**. A lid cell by which some antheridia open.

operculate. **operculado**. Having an operculum; having or opening by a lid.

operculate capsule. **cápsula operculado**. A capsule that dehisces through pores, as in **Papaver**.

operculiform. **operculiforme**. Shaped like and operculum; operculum-shaped.

operculum. **opérculo**. A small lid, as on a pitcher-shaped leaf; the lid of spore cases in some mosses (**Musci**) or of types of sporangia;

a cap that protects the peristome of a moss sporangium.

operon. **operón**. A unit of gene activity composed of a series of genetic material that functions together by means of an operator, promoter, a set of structural genes, and a terminator; primarily involved in the control of gene transcription.

ophio-. **ofio-**. A Greek prefix that means, "snake-like".

opiothial aperture. **apertura opiothial**. The opening between the base of the stomatal pore and the sub-stomatal cavity.

opportunistic species. **especie oportunista**. Species common to unstable or periodically extreme conditions, such as deserts; generally small in size and can colonize an area rapidly during favorable conditions; fugitive species.

opposite. **opuesto**. An arrangement of leaves along a stem that occur in pairs, directly across from each other; not alternate; also, coming between an organ and its axis, as a stamen which lies next to the middle of a petal; also, inserted at the same level.

oppositifolious. **antifolio. folio opuesto**. With opposite leaves.

oppositipetalous. **antipétalo. pétalo opuesto**. Opposite a petal, used when describing the location of a stamen.

oppositisepalous. **antisépalo. sépalo opuesto**. Opposite a sepal, used when describing the location of a stamen.

-opsis. **-opsis**. A Greek suffix than means, "like".

opsis-form. **opsis-forma**. Said of heteroeocious or autoecious **Uredinales** that produce pycnidia, unredo-

spores and teleutospores.

orange (color). **naranja (color)**. A reddish-yellow color like the fruit of the orange tree (**Citrus**).

orangish (color). **anaranjado (color)**.

A shade of the color orange.

orbicular. **orbicular**. Round and flat body, as an orbicular leaf; disk-shaped.

orbiculate. **orbicular**. In the form of a circle. *See* orbicular.

orbital. **orbitario**. Discrete pathways surrounding an atom through which electrons move.

orchid. **orquídea**. Any plant of the orchid family (**Orchidaceae**); also a light bluish-red color.

orculiform. **orculiforma**. Said of a 2-celled spore having a thick septum pierced by a connecting tube between the two cells.

order. **orden**. In taxonomy, the group of related plants that rank below a class and above a family.

ordinal. **ordinal**. Pertaining to an order of organisms; the specific, generic, or ordinal names of organisms. *See* ordination method.

ordination method. **método de ordenación**. A systematic manner of arranging data along one or more lines; sometimes used by botanist, biologists, and most often, ecologists. A considerable body of ecological literature examines the method and its merit as opposed to classification.

oreo-. **oreo-**. A Greek prefix that means, "mountain."

orgadium. **orgadio**. An open woodland formation.

organ. **órgano**. Any part of a plant that is organized to perform a special function, as a leaf, stamen, or pistil.

organelle. **orgánulo**. **organela**. A

specialized part of a cell, as a vacuole, corresponding to an organ in multi-celled organism; a subcellular particle with a specialized function; cell organ.

organic. **orgánico**. Of or derived from living organisms, *e.g.* plants; also, compounds containing carbon.

organic acid. **ácido orgánico**. Any of the carbon compounds that display acidic properties, especially those containing the carboxyl radical -COOH .

organic axis. **eje orgánico**. The principle axis of a cell, passing through the centrosome and nucleus of the resiling cell.

organic chemistry. **química orgánica**. The branch of chemistry that deals with compounds of carbon.

organic compound. **compuesta orgánico**. A chemical substance containing carbon formed of two or more elements in definite proportions by weight.

organic fertilizer. **fertilizante orgánico**. Nutrient materials from organic matter, such as animal manure, green manure, and compost.

organic matter. **materia orgánico**. Decomposing plant or animal materials.

organic soil. **suelo orgánico**. A soil containing greater than 20% organic matter.

organism. **organismo**. A living plant, or other living things, made of separate parts such as ribosomes, cells, and tissues that work together to produce the processes of life; any form of life.

organization. **organización**. The manner in which parts of a plant are arranged to work together.

organize. **organizar**. To become liv-

ing tissue.

organized. **organizado**. Showing the characteristics of an organism; having the tissues and organs formed into a unified whole.

organism. **organismo**. A living plant or life-form.

organizer. **organizador**. Substances which exercise control over regions of the embryo adjoining them.

organogenesis. **organogénesis**. The differentiation of organs.

organogeny. **organogenia**. The study of the differentiation of organs.

organography. **organografía**. A descriptive study of the external form of plants and their relation to function.

organology. **organología**. The branch of biology that addresses the structure and function of plant and animal organs.

organotroph. **organótrofo**. An organism that obtains energy from organic compounds; not a synonym for heterotroph.

orientale. **orientale**. Latin meaning "eastern".

orientation. **orientación**. The position, or change of position, of a part or organ in relationship to the whole, or change of position of an organ under stimulus; also, the movement of the centromeres so that they lie axially with respect to the spindle, either as to their potential halves at mitosis or as to members of a pair or higher configuration at meiosis.

ornithine. **ornitina**. A precursor in the preparation of arginine; an essential amino acid.

ornitho-. **ornito-**. A Greek prefix that means, "bird".

ornithocoprophilous. **ornitocoprófilo**.

Plants that grow best in a habitat rich in bird droppings.

ornithophilous. **ornitófilo**. Pollinated by birds.

ornithophily. **ornitófilia**. Pollinated by birds.

orophilous. **orófilo**. Growing well in mountainous areas.

orophyte. **orófito**. Plants growing in or limited to mountainous areas.

orophytium. **orófitio**. A sub-alpine plant formation.

ortho-. **orto-**, **ort-**. A Greek prefix that means, "straight" or "upright".

orthocladous. **ortoclado**. Having straight branches.

orthogenesis. **ortogénesis**. An early theory of the nature of change; proposed successive generation evolution is directional and leads toward a new form. Later research has shown this to be improbable.

orthogeotropism. **ortogeotropismo**. Growth of a stem, vertically upwards, or of a root vertically downwards, in relation to gravity.

orthoselection. **ortoselección**. A directional selection pressure resulting in a self-perpetuating evolutionary trend.

orthostichies. **ortósticos**. A vertical rank of leaves on a stem.

orthotropic. **ortotrópo**. A tendency to grow straight up or straight down.

orthotropism. **ortotropismo**. The tendency of a tropism (growth response of a plant) to be in line with the stimulus, as a plant growing straight up or straight down in response to the stimulus of gravity.

orthotropic. **ortótropico**. A type of ovule having a straight nucellus with the chalaza at the base and the micropyle at the other end; also, said of an organ which shows a

sharp positive or negative tropism in respect to a given stimulus; atropous.

osculant. **osculante**. Intermediate between two or more groups, as genera or families, that link others together.

osculate. **ósculado**. To share characters of two or more groups; be intermediate.

oscule (*pl.* oscula). **ósculo**. A pore in a rust spore.

-ose. **-oide**. A suffix that means, "containing", "full-of" or "like".

-osis. **-osis**. A suffix that means, "condition of" or "state caused by".

osmophilic. **osmofílico**. Plants that grow best in high concentrations of salts or sugars, producing relatively high osmotic pressure.

osmoregulation. **osmoregulación**. An internal process that facilitates a plant's control over osmotic pressure, irrespective of variations in the environment.

osmosis. **ósmosis**. **osmosis**. The passage of water or other fluids through a semi-permeable membrane or porous partition that separates two solutions of different concentration; the chief means dissolved nutrients pass in and out of plants.

osmotic potential. **potencial osmótico**. The part of the water potential of a tissue that comes from the presence of solute particles; equivalent to osmotic pressure but opposite in sign; solute potential.

osmotic pressure. **presión osmótica**. The pressure required to stop the movement from a pure solvent into a solution, indicated by the symbol Π , occurring when the two solutions reach equal concentration or by applying pressure to the liquid

on the stronger solution side.

osmotic. **osmótico**. Pertaining to osmosis.

osmotrophic. **osmotrófico**. An organism that absorbs nutrients from a solution rather than by ingesting matter.

osseous. **óseo**. Having a bony texture, commonly used to describe the consistency of a part or organ.

ossiculus. **osículo**. The stone or pit in some fleshy fruits; pyrene.

ossiform. **osiforme**. Having the shape of a bone; bone-like.

osteosclereide. **osteosclereida**. A thick-walled idioblast which is shaped somewhat like a thigh bone.

ostiolate. **ostiólado**. Having an opening.

ostiole. **ostílo**. A general term for an opening; also, a fruit body opening (perithecium) where spores are discharged to the outside.

outbreeding. **exogamia**. **outbreeding**. The mating and union of gametes of different individual plants that are not closely related; resulting in cross-pollination in seeds.

outcrossing. **cruzamiento exógeno**. The transfer of pollen from the flower of one plant to the flower of another plant.

outer bark. **corteza exterior**. The outer skin of a tree trunk, outside the secondary vascular cambium. It is made of living phloem tissue and dead outer zones with the outer zone penetrated by periderms made from phelloderms; rhytidome.

outer perigone leaf. **hoja exterior del perigonio**. The exterior leaf that encloses reproductive organs, as the perianth in flowering plants or bracts in mosses (**Musci**); also, the walls of a spore cell in hydroids.

outgrowth. **brote. excrecencia.** An offshoot or projection growing from the main stem or some other part.

outlier. **outliera.** A plant that appears naturally at a considerable distance from its principal area of concentration.

outward. **hacia afuera.** In the direction away from the axis.

oval. **ovalado.** Shaped like an ellipse with margins curving and the width over one-half the length.

ovariolous. **ovarícolo.** Living in ovaries.

ovary. **ovario.** In flowering plants, the enlarged lower part of the pistil that contains the ovules and gives rise to the fruit.

ovate. **ovado.** Having a surface shape of an egg with the broader end being the point of attachment, as with an ovate leaf.

overdominance. **sobredominancia.** The occurrence when the character of the heterozygotes is expressed more distinctly in the phenotype than in that of either homozygote; superdominance.

overgrazing. **sobrepasto. pasto excesiva.** Destruction of plant life by too many grazing animals feeding too long and exceeding the carrying capacity of the area.

overpopulation. **exceso de población.** The condition in which the size of a species population temporarily exceeds the carrying capacity of its habitat, resulting in a sharp population reduction.

over-representation. **representación de sobre.** In palynology, an abundance of highly local pollen which may hide the overall pattern of changes in the regional pollen-rain record, *e.g.* pollen from bog plants

at a peat bog site.

overwinter. **sobreviven al invierno. invernación.** Remaining through the snow, ice, and cold of the winter, as dahlia tubers (**Compositae**) can overwinter in the ground.

ovi-. **ovi-**. A prefix that means, "egg," "ovum" or "egg-shaped".

oviform. **oviforme.** Having the shape of an egg.

ovisac. **ovisac.** A sac, cell, or capsule containing an ovum or ova.

ovogenesis. **ovogénesis.** *See* oogenesis.

ovogenetic. **ovogenético.** *See* oogenetic.

ovoid. **ovoid.** Having a three-dimensional shape of an egg.

ovular. **ovular.** Pertaining to or being an ovule, as an ovular membrane.

ovulate. **ovulado.** Producing and expelling ova or ovules from the ovary; also, pertains to the designing of specialized ovulate cones in conifers (**Coniferae**) that bear megasporangia rather than smaller, pollen-bearing cones.

ovule. **óvulo.** A structure that becomes a seed after fertilization; a megasporangium protected by an integument; the portion of the female reproductive structure of a flower enclosed by an ovary; a young seed in the course of development.

ovuliferous scale. **escama ovulífero.** A reproductive structure bearing ovules, which is a modified lateral branch in the axil of a leaf (bract), as in **Pinaceae**.

ovum (*pl.* ova). **huevo.** A non-motile female gamete.

oxalic acid. **ácido oxálico.** A dibasic acid occurring in many plants.

oxalacetic acid. **ácido oxalacético.** A dicarboxylic acid which serves

as an important intermediate in the citric acid cycle, by condensing to form citric acid and coenzyme A, thereby initiating the cycle.

oxidant. **oxidante**. A substance that oxidizes or causes another substance to oxidize.

oxidase. **oxidasa**. An enzyme that speeds the oxidation of a substrate using molecular oxygen as an electron acceptor. Several may be involved in oxidizing a substrate to its final form.

oxidation. **oxidación**. The removal of hydrogen from a compound or the loss of electrons from an atom or molecule; often, hydrogen is also transferred along with the electron or electrons.

β -oxidation. **β -oxidación**. An oxidation which occurs between No. 2 and No. 3 carbon atoms to form a double bond.

oxidation-reduction. **reducción-oxidación**. A chemical reaction involving the transfer of electrons from one atom or ion to another atom or ion.

oxidative decarboxylation. **descarboxilación oxidativa**. Oxidation by the removal of carbon dioxide.

oxidative phosphorylation. **fosforilación oxidativa**. The process in cell metabolism by which the mitochondria oxidizes organic molecules and stores the energy of respiration; with the release of energy through a series of cytochromes; three molecules of ATP are made; also, the formation of ATP from DPNH and oxygen, or TPNH and oxygen.

oxidize. **oxidar**. To unite with oxygen; also, to remove electrons from

an atom or ion; dehydrogenate; also to remove an electron from an atom or molecule.

oxidoreductase. **oxidoreductasa**. An enzyme that speeds the oxidation-reduction reaction.

oxodium. **oxodio**. A humus marsh formation.

oxy-. **oxi-**. A Greek prefix that means, "sharp".

oxychromatin. **oxicromatina**. A form of chromatin which lightly stains and contains little nucleic acid.

oxygen. **oxígeno**. A chemical element with the symbol of O; a colorless, odorless, and tasteless gas which is the by-product of photosynthesis.

oxygen cycle. **ciclo de oxígeno**. A cyclic movement of oxygen in various chemical forms from the environment, to organisms, and then back to the environment.

oxygen debt. **débito de oxígeno**. Oxygen consumed in excess of normal amounts, or when an organism, or part of an organism, has been respiring with an inadequate oxygen supply.

oxytaxis. **oxitaxis**. A response or reaction of an organism to an oxygen stimulus.

oxylophyte. **oxilófito**. A plant that thrives on acidic soil.

ozone layer. **capa del ozona**. A layer of gaseous ozone in the stratosphere that protect life on earth by filtering out harmful ultraviolet radiation from the sun; ozonosphere.

ozone. **ozona**. A molecular form of oxygen.

ozonosphere. **ozonósfera**. See ozone layer.

P

P. P. The symbol for the chemical element phosphorus.

pachy-. **paqui-**. A Greek prefix that means, "thick".

pachycarpous. **paquicarpo. crasicarpo.** Having a thick pericarp.

pachycaulous. **paquicaule. crasicaule.** Having a short, thick stem, as the succulent stems on some cacti (**Cactaceae**).

pachycladous. **paquiclado. crasiclado.** Having thick branches.

pachynema. **paquínemo.** Pachytene.

pachyphyllous. **paquífilo.** Having thick leaves.

pachypleurous. **paquípleuro.** Thick-walled.

pachytene. **paquíteno. paquiteno.** The third stage of the prophase of meiosis when the homologous chromosomes thicken and four chromatids become apparent. The five stages of prophase are: leptotene, zygotene, the pachytene, the diplotene, and diakinesis.

packing cell. **célula de relleno.** An individual parenchymatous cell.

p(a)edogenesis. **pedogénesis. paidogénesis.** Markedly precocious flowering.

pagina. **pagina.** Refers to the surface, as of a leaf; also, the thallus of a lichen; lamina.

paired. **pareado. yugado.** Coupled, as paired leaves, occurring opposite each other.

pairing of chromosomes. **apareamiento de cromasomas.** It is said to be

active when they come together, and passive when they stay together during the first metaphase; synapsis.

paleo-. **paleo-**. A Greek prefix that means, "old".

pal(a)eobotany. **paleobotánica.** The study of fossil plants.

pal(a)eoclimnology. **pal(a)eoclimnología.** The study of the history and development of freshwater ecosystems, with particular interest in lakes.

pal(a)eoecology. **pal(a)eoecología.** The study of the relationship of living things to the environment and each other in ancient times; the ecology of prehistoric life.

pal(a)eoflora. **pal(a)eoflora.** The fossil flora of a geological period or specific formation.

pal(a)eola. **pal(a)eola.** Very small palea; having small, membranous scales, as in the inflorescence of grasses (**Poaceae**). *See* lodicule.

pal(a)eolae. **pal(a)eolae.** Plural of pal(a)eola.

pal(a)eolate. **pal(a)eolado.** Having a lodicule.

pal(a)eomorphic. **pal(a)eomorfo.** Without symmetry, as paleomorphic flowers. *See* amorphous.

pal(a)eontology. **pal(a)eontología.** The science that studies pre-historic life forms represented by fossils, including plants.

pal(a)eophytology. **pal(a)eofitología.** *See* pal(a)eobotany.

pal(a)eospecies. **pal(a)eo especie.** A

group of organisms known from fossils, which differ in some respects from all other known organisms.

pal(a)eotropical. **pal(a)eotropical**. Belonging or in reference to the tropical and subtropical regions of the Eastern Hemisphere.

Palade's granules. **granos de Palade**. See ribosome.

palate. **paladar**. The convex base on the lower lip of the corolla which partially or in some species, completely closes the throat.

palea. **pálea**. One of the bracts at the base of each floret in many composite flowers; also, one of the two inner bracts (lemma and palea) enclosing the stamens and pistils in the flowers of grasses (**Poaceae**); also, the scales on the stems of some ferns (**Filicopsida**).

paleaceous. **palaéáceo**. Having or resembling palea; having chaffy scales.

paleo-. **paleo-**. A prefix that means, "ancient" or "prehistoric".

paleoa. **paleoa**. Lodicule.

paleobotanical. **paleobotánico**. Having to do with paleobotany.

paleobotany. **paleobotánica**. A branch of botany or paleontology which focuses on plant fossils.

paleochronology. **paleocronología**. The dating of fossil organisms by counting the ridges on fossil shells and corals.

paliform. **paliforma**. Having the form of a stake.

palingenesis. **palingénesis**. In the embryonic stage, the development of characteristics which repeats without change, ancestral characteristics.

palisade cell. **célula en empalizada**.

Any of the cells that compose the palisade layer; also, one of the terminal cells of the hyphae forming the cortex of a lichen thallus.

palisade fungi. **micófitas en empalizada**. **Basidiomycetae**.

palisade layer. **estrato en empalizada**.

In a leaf or thallus, a layer of elongated cells between the upper and lower epidermis that contains many chloroplasts and is involved in photosynthesis; found in dicots, but not in monocots.

palisade mesophyll. **mesófil en empalizada** See palisade layer.

palisade stereide. **stereida en empalizada**. A rod-shaped cell found in the testa of a seed. It is thick-walled, elongated, and lies at a right angle to the surface of the seed.

palisade tissue. **tejido en empalizada**. One or more layers of palisade cells beneath the epidermis of a leaf.

palisade parenchyma. **parénquima en empalizada**. See palisade layer.

pallens. **pallens**. Latin meaning "pale colored".

pallescent. **palescente**. Becoming lighter in color with age.

pallid. **pálido**. Light-colored.

palm. **palma**. **palmera**. Any of a group of tropical or subtropical trees included in the family of **Arecaceae** or **Palmae**.

palmate. **palmado**. Radiating lobes (5–7), veins, or leaves emerging from a common center, as fingers on a hand.

palmately compound leaf. **palmati-compuesta**. **hoja palmado compuesta**. Leaflets emerging from one point at the end of a petiole.

palmate-pinnate. **palmado-pinnado**. With the first order of leaflets palmately arranged and the second

order pinnately arranged.

palmatifid. **palmatífido**. Cut or lobed palmately.

palmatiform. **palmatiforme**. Having a palmate shape.

palmatisect. **palmatisecto**. Palmate with the cleft almost to the base.

palmella. **palmela**. The zooglea stage of bacteria, when forming a jelly-like mass.

palmelloid. **palmeloide**. An algal colony made up of an indefinite number of nonmotile cells in a gelatinous or mucilaginous matrix.

palmitic acid. **ácido palmítico**. A crystalline acid which is solid at room temperatures; a glyceride in palm oil (**Palmae**) and in most solid fats.

paludal. **palúdico**. **pantanososo**. Of or pertaining to a marsh; marshy.

paludicolous. **paludícola**. Living in ponds, streams, and marshes.

paludification. **empantanamiento**. The transformation into a swamp.

palustrine. **paludícola**. Growing in wet areas, such as in marshes or swamps.

palynology. **palinología**. The study of spores and pollen, especially in fossils.

pampinody. **pampinodia**. The change of leaves, or parts of leaves into tendrils.

pandurate. **pandurado**. Shaped like a violin; violin-shaped, as some leaves. *See* panduriform.

panduriform. **panduriforme**. Obovate shaped leaves with an indentation on each side near the base and with two small basal lobes. *See* pandurate.

pangenesis. **pangénesis**. The theory that the heredity of organisms is determined by the summation of influences from an indefinite num-

ber of particles (pangenes) derived from all parts of the body tissues and variably affected by variation in the environment.

panicle. **panícula**. A branching, compound raceme inflorescence with flowers growing from pedicles.

panicoid. **panicoide**. Having flowers that are borne on pedicles.

paniculate. **paniculado**. Having flowers that grow from panicles.

paniculiform. **paniculiforme**. Having the appearance of a branching inflorescence but not necessarily the structure of a true panicle.

panmixes. **panmixes**. **panmixia**. Unrestricted, random mating.

panniform. **panniform**. Having the appearance of felt.

pannose. **afelpado**. Covered with a layer of trichomes giving the appearance or texture of wool, matted, and felt-like.

pannosus. **pannosus**. Latin meaning "panniform".

panphotometric. **panfotométrico**. Said of a narrow leaf which stands nearly or quite erect.

panto-. **panto-**. A Greek prefix that means, "all".

pantophase. **pantófago**. An organism that feeds on both plants and animals; omnivore.

pantothenic acid. **ácido pantoténico**. A vitamin B, synthesized by green plants and microorganisms, that forms a part of the metabolic compound coenzyme A. It is needed for the growth of yeasts and some bacteria.

pantropical. **pantropical**. Plants common to the tropics or found in most tropical environments.

papain. **papaina**. An enzyme (or group of enzymes) found in the leaves and

- unripe fruit of paw-paw (papaya) *Carica papaya*. In neutral solution, it hydrolyses proteins to polypeptides.
- paper-like. **cartáceo**. Having the texture, feel, or consistency of paper.
- papery. **papiráceo**. Having the thinness or feel of paper.
- papilionaceous. **papilionácea**. Refers to an irregular corolla with a large posterior petal (banner-like), two lateral petals (wing-like), and usually two lower petals (keel-like), as in the **Fabaceae**; said of flowers that look like butterflies.
- papilla (*pl.* papillae). **papila**. A tiny protruding cell or nipple-like projection, especially on the surface of many flower petals.
- papillate. **papiloso**. Having papilla.
- papillose. **papiloso**. Having very small papillae or short protuberances.
- pappose. **comoso**. **paposo**. Covered with a pappus or a downy chaff, as dandelion (**Taraxacum**) seeds.
- pappus. **vilano**. **papo**. A ring of fine, sometimes feathery hairs, developed from the calyx, and covering the fruit. It acts as a parachute and aids in wind dispersal; also, having bristles, scales or awns at the apex of the achene in the calyx of an (**Asteraceae**); a downy chaff.
- papular. **papular**. Covered with or pertaining to papillae or pimples.
- papyraceous. **papiráceo**. Papery in texture. *See* papery.
- para-. **para-**. A Greek prefix that means, "near" or "beside".
- para-aminobenzoic acid (PABA). **ácido para(a)aminobenzoico**. A yellow, crystalline acid, a component of the vitamin B complex in yeast and bran.
- parabolic. **parabólico**. Having a broad base and gradually narrowing by curved sides to a blunt point.
- paracentric inversion. **inversión paracéntrico**. An inversion that does not include the centromere.
- paracorolla. **paracorola**. Corona.
- paradesmose. **paradesmosa**. A small transverse fibril of stainable material which connects the belepharoplasts at the base of the flagella of some **Chlorophyta**.
- paraffinic acid. **ácido parafínico**. One of the acids in humus.
- paragynous. **paragino**. Said of anthridium which is applied to the side of an oogonium.
- parallel. **paralelo**. Lines or planes equidistantly extending alongside one another, as with the surface patterns of some leaf veins.
- parallel evolution. **evolución paralela**. The manner of derivation of structure which are similar, but occur on plants not descended from an obvious common ancestor.
- parallel venation. **nervadura paralela**. Venation in which the major veins are more or less parallel to one another; characteristic of monocot leaves.
- parallelodromous. **paralelinervio**. **paralelódromo**. Refers to leaves with the main veins parallel to the leaf axis or to other veins parallel to each other.
- parallelotropic. **paralelotrópico**. Said of a plant member set along the direction of a stimulus.
- parameter. **parámetro**. A quantity necessary for the specification of a population.
- paramylum. **paramilo**. A starch-like food found in the chloroplast of some single-celled organisms, *e.g.*

Euglenophyta.

paranema. **paranema.** A sterile hair.

parapatric. **parapatrico.** Describes species whose habitats are separate but adjoining.

parapatric speciation. **especiación parapatrico.** A rapid speciation that occurs in some small breeding populations that are not completely isolated genetically or geographically; stasipatric speciation.

paraphototropic. **parafototrópico.** Diaphototropic.

paraphyllum. **paráfilo.** A leaf-like or filamentous appendage near a "leaf" in mosses (**Musci**), but they are not in any specific position.

paraphysis. **paráfisis.** Erect, sterile filaments occurring in the reproductive organs of some ferns (**Filicopsida**), mosses (**Musci**), and fungi (**Fungi**).

paraphysoid. **parafisoide.** A plate of cells occurring between the asci in some ascomycetes.

paraplast. **paraplasma.** The inactive vegetative part of the protoplast.

paraplectenchyma. **paraplecténquima.** Pseudoparenchyma.

parasite. **parasito.** An organism that lives on or in another organism, obtaining some or all of its nutritional needs from the host.

parasitic castration. **castración parásita.** The condition when a plant is unable to fruit due to the damage of the reproductive organs by a parasite.

parasitic plant. **planta parásita.** A plant that lives on another plant, obtaining nutrition from the host, and lives at the host's detriment, as mistletoe (**Loranthaceae**) on oak trees (**Quercus**).

parasporangium. **parasporangio.** A sporangium containing paraspores.

paraspore. **paraspora.** A spore produced on the tetrasporophyte of some **Rhodophyta**. They are likely to be diploid and always germinate to produce a new tetrasporophyte.

parastichies. **parásticos.** A spiral line passing once around a stem through the bases of successive leaves.

parasymbiosis. **parasimbiosis.** The condition when two organisms grow together without assisting or harming one another.

parasynopsis. **parasíndesis.** The side-by-side association of a pair of chromosomes, as in zygotene and pachytene; parasynapsis.

parathecium. **paratecio.** A layer of hyphae around the apothecium of a lichen or **Discomycete**.

paratonic. **paratónico.** Said of a plant movement induced by external stimulus.

paratracheal. **paratraqueal.** Said of xylem parenchyma which occurs at the edge of the annual ring, around the vessels, but nowhere else.

paratype. **paratipo.** A specimen, other than the type specimen, that is used by a botanist at the time of the original description, and designated as such; allotype.

parenchyma. **paréquima.** Thin-walled, unspecialized, living cells with large vacuoles that are active in photosynthesis, storage, or secretion; most of the soft tissue of leaves, the pulp of fruits, or the pith of stems is parenchyma.

parenchymatous. **parequimato.** Pertaining to or having the nature of parenchyma.

parent. **planta promogénitor. planta**

madre. A plant, organism, or cell that produces an offspring.

parent material. **roca madre.** The material form which a soil is formed by physical and chemical weathering.

parental generation. **generación paterna.** The generation composed of the immediate parents of the filial generation.

parichinos. **parimarca. parichinos.** In certain lower vascular plants, a pair of scars, one on each side of the leaf base; each scar marks the end of a strand of parenchyma passing into the stem.

parietal. **parietal.** Connected with cells (as ovules) or attached to the inner wall of hollow organs, as an ovary.

parietal placentation. **placentación parietal.** Having ovules attached to the walls of a unilocular syncarpous ovary; ovule attachment.

paripinnate. **paripinnado.** Even-pinnate with no terminal leaflet.

paroicous. **paroico.** Said of the **Bryophyta** in which the antheridia and archegonia occur on the same branches but are not mixed, the antheridia being lower on the stem than the archegonia.

part. **parte.** A portion of a plant, as stamens and pistils are floral parts.

parted. **partido.** Leaves that are deeply cleft, usually one half to three fourths distance to the base or midvein.

parthenoapogamy. **partenoapogamia.** The fusion of vegetative nuclei.

parthenocarpic. **partenocarpico.** Developing fruits from unfertilized ovaries; the resulting fruit is usually without seeds.

parthenocarpy. **partenocarpia.** The

development of fruit without seeds or fertilization.

parthenogenesis. **partenogénesis.** In many angiosperms, the development of one of the sexual cells without previous fusion with a cell of the opposite sex, often referred to as "beginning without fertilization"; the development of an embryo from a gamete without gametic union. *See* thelytoky.

parthenogenetic. **partenogénético.** Reproduction by the formation of egg cells capable of development without fertilization; exhibiting parthenogenesis.

parthenospore. **partenóspora.** Azygospore.

parthenote. **partenodo.** An individual developed from an egg containing only one nucleus which is haploid.

partial. **parcial.** Secondary; subsidiary; not complete.

partial dominance. **dominancia incompleta.** A type of incomplete dominance with the heterozygote resembling one homozygote more than the other; semi-dominance.

partial habitat. **hábitat parcial.** The habitat occupied by a plant during one stage in its life cycle.

partial parasite. **parásito parcial.** A plant that has some power of photosynthesis, but obtains from a host some material, mainly mineral salts and water.

partial umbel. **umbela parcial.** One of the smaller groups of flowers which altogether make-up a compound umbel.

partial veil. **velo parcial.** A membrane joining the edge of the pileus to the stipe in the immature fruit bodies of some agarics.

partially permeable. **permeable**

- parcialmente.** Denotes a membrane that only allows passage of solvent molecules; semi-permeable.
- particulate inheritance. **herencia mendeliana.** Inheritance occurring in one individual of distinctive characteristics from both parents.
- partim. **partim.** Latin meaning "partly".
- partition. **partición.** A wall dividing the loculi of a syncarpous ovary. *See* septum.
- part spore. **parte espora.** One of the one-celled spores resulting from the breaking up of a two-or-more-celled ascospore.
- parvi-. **parvi-.** A Latin prefix that means, "small".
- parviflorous. **parviflorus.** Latin meaning "small-flowered".
- parvifoliate. **parvifoliado.** Having leaves which are small in relation to the size of the stem.
- passage cell. **célula de paso.** The thin-walled cell of the endodermis of a root, found opposite the protoxylem element, through which solutions can diffuse in a transverse direction.
- passive absorption. **absorción pasivo.** The accumulation of a substance inside a cell by physical processes.
- passive transport. **transporte pasivo.** The movement of a substance across a cell membrane without any direct energy outlay.
- pasture. **potrero.** An area with grasses or similar herbage, usually improved; where animals are grazed.
- patch (*pl.* patches). **parche.** Growing in small, isolated spots; also, leaves that have zones of differing colors.
- patchily. **con parches.** Growing only in localized or isolated areas rather than plentifully.
- patchy. **parchada.** Forming or characterized by patches.
- patella. **patela.** A structure with the shape of a shallow pan, as the spore-bearing part of some lichens; a sessile apothecium with a distinct margin.
- patelliform. **pateliforme.** Having the shape of a knee-cap, shallow pan, or disk.
- patent. **patente.** Horizontal spreading, as the branches of a tree; divergent; divaricate.
- pathfinder. **explorador.** Honey-guide.
- pathogen. **patógeno.** Any agent capable of producing a disease, especially a living organism.
- pathogenic. **patogénico.** Producing or causing a disease.
- pathology. **patología.** The study of diseases, their effects on plants or animals, and their treatment.
- patroclinal. **patroclino.** Exhibiting the characteristics of the male parent more prominently than those of the female parent.
- patromorphic. **patromorfo.** Resembling the male parent.
- patulous. **patulo.** Spreading apart, as a patulous calyx or bearing flowers loosely, as a peduncle.
- pauci-. **pauci-.** A Latin prefix that means, "few".
- pauciflorous. **paucifloro.** Having few flowers.
- pauciflorous. **pauciflorus.** Latin meaning "few-flowered".
- pauciwhorls. **pauciverticilo.** Having few whorls.
- PCB. **PCB.** *See* polychlorinated biphenyls.
- pear-shaped. **piriforme.** Resembling a pear (*Pyrus*) in shape; pyriform.
- pea-shaped. **pisiforme.** Resembling a pea (*Pisum*) in shape.

peat. **turba**. A somewhat heavy, unconsolidated soil of semicar-bonized, only partially decomposed vegetable matter due to the lack of oxygen, *i.e.* waterlogging, which does not allow the bacteria to live which produces decomposition, such as in sphagnum moss (**Musci**).

peat bog. **turbera de esfagnales**. An area of wet, spongy ground in which peat has formed and accumulated through a partial decomposition of mosses (**Musci**), sedges, trees, and other organisms; bog.

peat moss. **musgo de turba**. **musgo de pantano**. The common name for a relatively sterile, inert medium consisting of partially decayed plants of the genus *Sphagnum* (**Musci**).

pectic substances. **sustancia p ctica**. Compounds composed primarily of polysaccharid acids found in the cell walls of unlignified tissue. They are soluble in water and form gels under certain conditions: A = arabinose; GA = galacturonic acid; G = galactose; MGA = methylated galacturonic acid.

pectic sheath. **vaina p ctica**. A layer of pectose formed on the outside of the cellulose cell wall of the **Chlorophyta**.

pectin. **pectina**. A group of water soluble substances related to carbohydrates; when combined with alcohol and sugar, they form a jelly which occurs in the rind of citrus and other fruits.

pectinase. **pectinasa**. An enzyme, produced by many parasitic fungi, which destroys the pectin of the middle lamella of cell walls.

pectinate. **pectinado**. Pinnatifid leaves with closely set segments, regularly

spaced, like the teeth of a comb; comb-like.

pedate. **pedato**. A leaf divided in a fan-like or palmate manner with the lower two lateral lobes sometimes redivided into smaller segments.

pedicel. **pedicelo**. The main stalk of a single flower.

pedicellate. **pedicelado**. Having a pedicle(s), as pedicellate flowers.

pedicle. **pediculo**. A small, secondary stalk, supporting a single flower when there are several attached to a peduncle in a branching inflorescence.

pediculate. **pediculado**. Supported by a pedicle, as a pediculate flower.

pedafid. **pedafido**. Having the lamina deeply cut in a pedate manner.

pedicel. **pedicelo**. A small stalk; also, the stalk of an individual flower in an inflorescence.

pedicle cell. **c lula pediculo**. A large basi-central cell in the globule of the **Charales**. It bears all the other structures of the globule which developed in a division of a cell at its apex.

pedicellate. **pedicelado**. Said of a flower or fruit having a stalk; also, having a stalk.

pedigree. **pedigree**. **registro geneal gico**. A table of ancestry.

pedogamy. **pedogamia**. Pseudomixis between young or immature organisms.

pedogenesis. **pedeog nesis**. Reproduction in young or immature organisms; also, the natural process of soil formation, including supplementary processes as humification, weathering, leaching, and calcification.

pedology. **pedolog a**. The study of soils; soil science.

peduncle. **pedúnculo**. The main stalk of a flower cluster; also, in some fungi, the stalk bearing the reproductive structure.

pedunculate. **pedunculado**. Having or growing on a peduncle.

peg. **estipite**. A ridge or line going down a stem below the point of attachment of a decurrent leaf, as on some thistles or conifers (**Conifer-ales**); also, an outgrowth from the hypocotyl of seedlings of some **Cucurbitaceae**, which plays some part in assisting the seedling to emerge from the testa; also, the spore-supporting filament in a fungus; sterigma.

peg-like. **estipitiforne**. Having the appearance of a peg.

pelagic. **pelágico**. Pertaining to the ocean.

pelagium. **pelágio**. A surface sea formation.

pelargonidin. **pelargonidina**. A red anthocyanidin pigment.

pellicle. **películo**. The outer layer of the upper surface of a pileus, when it can be stripped off as a delicate membrane; also, of bacteria, a growth on the surface of a liquid culture.

pellucid. **pelúcido**. Translucent or transparent, admitting the passage of light.

pelophile. **pelófilo**. A plant which occurs in clayey soil.

peloria. **peloria**. In flowers which are normally irregular or unsymmetrical, the bearing of regular or symmetrical flowers; flowers most often subject to peloria are those nearest to the stem.

peloton. **pelotón**. A type of endophytic mycorrhiza.

peltate. **peltado**. Shield-shaped; a flat

structure, as a leaf or fungus, attached to a stalk at the center of the lower surface; scutiform.

peltatiffid. **peltatífido**. Peltate and divided into sections.

peltiform. **peltiforme**. Shield-shaped, or rounded as peltiform venation.

pendent. **pendiente**. **péndulo**. Nodding.

pendulous. **colgante**. Hanging loosely or swinging; also, said of an ovule which is suspended from a point at or near the top of the ovary.

penetrance (genetic). **penetración (génica)**. The percentage of individuals of a specific genotype that express an expected phenotype.

penicil. **penicil**. A tuft of hair, as on an artist's paintbrush.

penicillate. **penicilado**. Having or forming a small tuft or tufts of hairs; brush-shaped.

penicillic acid. **ácido penicilínico**. An antibiotic produced by *Penicilium puberulum* and *P. cycloplum*.

penicillin. **peniclina**. An antibiotic produced by strains of *Penicillium notatum* and *P. chrysogenum*.

penicillipsin. **penicillipsina**. A yellow pigment produced by *Penicillium clavariformis*.

penicilliform. **penicilado**. Penicillate.

penni-. **penni-**. A prefix that means, "feather-like".

penniform. **penniforme**. Having the shape or form of a feather.

penninerved. **penninervado**. **pinnatinnervio**. Pinnately nerved or veined leaves; leaf veins arranged like a feather.

penta-. **penta-**. A Greek prefix that means, "five".

pentacarpellary. **pentacarpelar**. Having five carpels.

pentacocous. **pentacocco**. Having or

containing five seeds; also, having five united cells with one seed in each cell.

pentacyclic. **pentacíclico**. Having five whorls or whorls of five parts each.

pentadactylous. **pentadactilo**. Divided into five finger-like parts.

pentadelphous. **pentadelfo**. Having stamens arranged in groups of five or in five clusters.

pentagonal. **pentagonal**. Having five angles with convex surfaces between them.

pentagynous. **pentágino**. Having five pistils or styles.

pentamerous. **pentámero**. Having five parts or divisions in each whorl; sometimes written as 5-merous.

pentandrous. **pentandro**. Having five stamens.

pentapetalous. **pentapétalalo**. Having five petals.

pentaploid. **pentaploide**. Having five times the haploid number chromosomes characteristic of the species; having five complete sets of chromosomes.

pentasepalous. **pentasépalo**. Having five sepals.

pentosan. **pentosana**. Any of a group of sugars which form pentoses in hydrolysis; xylan.

pentose. **pentosa**. A class of monosaccharides containing five atoms of carbon.

pentose-phosphate cycle. **ciclo pentosa-fosfato**. An oxidation cycle similar to the citric acid cycle. This cycle results from the oxidation of glucose-6-phosphate by oxidized NADP, with the formation of pentose phosphates and the release of carbon dioxide. Some glucose-6-phosphate is reformed to: 6-glucose-6-phosphate + 12 NADP = 4-

glucose-6-phosphate + 2 triose phosphate + 12 NADPH (2). NADPH (2) is only oxidized in the presence of oxygen and the cycle does not occur anaerobically.

peonidin. **peonidina**. A magenta colored anthoxanthin pigment.

pepo. **pepónida**. A group of many-seeded, fleshy fruits with leathery, non-septate rinds, such as melons, gourds, or cucumbers (**Cumcurbitaceae**). It is a particular type of berry.

peptide. **peptido**. A compound of two or more amino acids with the carboxyl group of one amino linked by the peptide bonds of another amino group.

peptide bond. **vinculo peptideo**. A chemical connection formed by the removal of water from two adjacent molecules of amino acid.

peptone. **peptono**. One of the first derivatives of the digestion of protein.

per-. **per-**. A Latin prefix that means, "through".

perception. **percepción**. The first changes to occur when a plant is stimulated.

percolation. **percolación**. A gravity induced movement of water down through soil.

percurrent. **percurrente**. Extending the entire length, as with the midrib of a leaf extending from the margin to the apex.

perennate. **perennado**. To last or live through a number of years, as a perennial plant.

perennation. **perennidad**. Living from season to season, generally with a period of reduced activity between each season.

perennating bud. **yema invernante**.

The bulb or seed by which biennial and perennial plants survive periods of unfavorable conditions (winter cold) when the aerial parts die back and food for next year's growth is stored in an underground organ.

perennating organ. **órgano invernante.**

See perennating bud.

perennial. **perenne.** A plant with underground parts that lives for two or more seasons, and after an initial period produces flowers annually; a plant that grows from the root each year, and does not need to be replanted.

perfect. **perfecta.** Said of the stage in the life cycle of a fungus which produces spores by sexual fusion; also, said of a flower which has functional anthers and ovules.

perfect flower. **flor perfecta.** A flower having both stamens (male) and pistils (female) reproductive organs; also, indicates the stage in the life cycle when a fungus produces sexual spores; monoclinous.

perfoliate. **perfoliado.** A leaf with a base that completely surrounds the stem, giving the appearance of the stem passing through the leaf.

perforated. **perforado.** With holes.

perforation. **perforación.** Having many holes or rows of holes, as in a sieve cell; also, an interruption in the continuity of a stele, not due to a leaf gap.

pergamentaceous. **apergaminado.** Having the texture or feel of parchment.

pergelic. **pergelico.** Soils of the temperate regions and occurring in the lowest soil-temperature classes for family groupings of the USDA Soil Taxonomy system; thermic.

peri-. **peri-.** A Latin and Greek prefix that means, "around" or "encircling".

perianth. **perianto.** The flower envelope usually containing the greenish calyx and the colorful corolla; also, in liverwort, the tube-like sheath surrounding the archegonium.

periblem. **periblema.** At the end of stems and roots, the layer of meristem between the dematogen and plerome, from which the cortex develops.

pericambium. **pericámbo.** Pericycle.

pericarp. **pericarpio. pericarpo.** The walls of a ripened fruit of a flowering plant; also, a structure that holds the spores of some algae, such as red algae; also, the body of a fruit developed from the ovary wall and enclosing the seeds; also, the layer of vegetative tissue covering a fruit body, as in some fungi.

pericentral cell. **célula pericentral.** A cell cut off in a radial plane which occurs in the thalli of some **Rhodophyta.**

pericentral siphon. **sífon pericentral.** One of the tubular elements surrounding the central siphon in the thallus of some **Rhodophyta.**

pericentric inversion. **inversión pericéntrico.** The reversal of one segment of a chromosome that involves the centromere.

perichaetial bract. **bráctea pericaetial.** One of the "leaves" composing the perichaetium in a moss (**Musci**).

perichaetium. **pericaetio.** A cup-like sheath enclosing the archegonia in some liverworts; also, the group of "leaves" enclosing the sex organs of some mosses. They are closely packed and different in structure from the normal "leaves".

pericladial. **pericládico**. Having a sheathing base, as in the **Apiaceae**.

periclinal. **periclinal**. A flower surrounded by bracts. *See* involucre.

perichylous. **períciloso**. Having water storing tissue surrounding the chlorophyll-containing tissue.

periclinal. **periclinal**. Said of cell walls running parallel to the surface of the plant; also, curved in the direction of or parallel to the surface of a plant organ.

periclinal chim(a)era. **quimera periclinal**. A chimaera in which the distinct tissues are arranged concentrically.

pericycle. **pericielo**. A thin layer of living tissue that lies between the endodermis and the phloem, consisting mainly of parenchyma, where the lateral roots originate.

pericyclic fiber. **fibra pericíclica**. A strand of sclerenchyma in the pericycle.

periderm. **periderm**. The cork layers and cork-producing tissue of stems; also, a secondary protective tissue formed in secondarily thickened stems and roots, consisting of the phellogen (cork cambium), phellem (cork), and phelloderm (secondary cortex); also, the outer membrane that surrounds the spores in the fruit bodies of some fungi and slime molds.

peridermal. **peridermal**. Having to do with the periderm.

peridium. **peridio**. The outer envelope enclosing the sporophore of some fungi.

peridinín. **peridinina**. An alcohol-soluble reddish pigment in the chromatophores of the **Dionphyceae**.

peridiolum. **peridiólo**. A division of

the gleba having a separate wall and frequently acting as a unit of distribution, especially in the **Nidulariaceae**.

peridium. **perdio**. The outer wall of the fruit body of a fungus when it is constructed of sterile tissue and organized as a distinct layer.

perigamium. **perigamio**. Part of a reduced branchlet containing the achegonia of some mosses (**Musci**).

perigone. **perigonio**. The structure that encloses the reproductive organs, as the perianth in angiosperms or bracts in mosses (**Musci**); also, a perianth which is not clearly differentiated into calyx and corolla.

perigonal bract. **bráctea perigonal**. One "leaf" of the perigonium in mosses.

perigonium. **perigonio**. A group of "leaves" often forming a flat rosette around the base of the group of antheridia in mosses.

perigynium. **periginio**. A sac-like bract that surrounds the pistil, as in **Carex** or in some sedges; also, a disk or cup-shaped receptacle that surrounds the pistil.

perigynous. **perigino**. Stamens, sepals or petals located on the edge, but not attached to a cup-shaped receptacle (hypanthium) surrounding the pistil, as perigynous stamens, sepals, or petals. The receptacle remains distinct from the carpels.

perigynum. **perígino**. The "leaves" surrounding the group of archegonia in mosses; also, a tubular sheath surround the archegonia in liverworts.

perimedullary zone. **zona perimedular**. Medullary sheath.

perine. **perina**. An outer covering

of some fern spores, as the **Equisetum**, but with a different appearance than the exospore; perispore.

perinium. **perinio**. The outer coat of the spore wall in certain liverworts (**Hepaticae**), developed from the membrane of the special mother cells; episore.

periodicity. **periodicidad**. Rhythmic activity.

peripheral. **periférico**. On the outer edge or surface.

peripheral cell. **célula periférico**. One of the derivatives from the division of a periclinal cell in the tetrasporophytic generations of the **Ceramiales**.

peripheral cytoplasm. **citoplasma periférico**. The cytoplasm lining the cell membranes.

peripheral initial. **inicial periférico**. Peripheral cell.

periphery. **periferia**. The outside surface of a solid structure; also, the total margin.

periphyses. **perifises**. Short, thread-like filaments that line the opening of a perithecium in some fungi; also, thread-like extensions at the end of a hypha, forming with others, a pile-like lining in the ostiole of a globose structure containing reproductive organs.

periplasm. **periplasma**. The area near or immediately within the cell wall; also, the plasma lying just within the oogonial wall in some **Oomycetes**, enclosing the egg cell and containing degenerating nuclei. It contributes to the formation of the wall of the oosphere.

periplasmodium. **periplasmodia**. A fluid enclosing developing microspores; also, the material formed

by the disintegration of the tapetum in sporangia of **Pteridophyta** and **Phanerogamae**. It helps in the nutrition of the developing spores and pollen grains.

periplast. **periplasto**. A cell wall or cell membrane.

periplastic. **periplastico**. Of or occurring within a periplast.

perisperm. **perisperma**. **perispermo**. A food storage tissue derived from the nucellus, occurring in plants where the endosperm does not replace the nucellus completely.

perispermous. **perispermado**. Having food reserves in the perisperm, derived from a diploid nucellus of the ovule.

perispore. **perispora**. The remains of the contents of the cells of the tapetum, forming a deposit on the outside of the walls of the spores of ferns; also, perine; episore.

peristomate. **peristomado**. Having a peristome.

peristome. **peristoma**. The fringe or appendages around the mouth of the capsule or theca in mosses; the fringe is sensitive to changes in humidity and facilitates the release of spores; also, a fringe of hyphae around the opening of the fruit body of some **Gasteromycetes**; also, a form of lip arising as an outgrowth in some **Protophyta**, which assists in the ingestion of solid food.

peristromium. **peristromio**. The bounding membrane of a chloroplast.

perithecium. **peritecio**. The fruiting body of some ascomycetes and lichens. They have an internal hymenium of asci and paraphyses and with an apical pore (ostiole), through which the ascospores are discharged.

peritrichous. **peritrico**. Said of bacteria when there are flagella distributed over the whole surface the cell.

permafrost. **permafrost**. A layer of subsoil that remains permanently frozen; occurs throughout the arctic regions.

permanent collenchyma. **colénquima permanente**. Functional collenchyma found in the stems and petioles of herbaceous plants.

permanent hybrid. **híbrido permanente**. A hybrid which breeds true because some types of possible offsprings are prevented from developing by the operation of lethal factors.

permanent tissue. **tejido permanente**. A tissue made of cells that have assumed a variety of shapes and sizes related to their functions as they matured.

permanent wilting. **marchitez permanente**. Wilting from which a plant does not recover if placed in a saturated atmosphere.

permanent wilting point. **punto de marchitez permanente**. The soil moisture content at the point when a specific plant's roots can no longer absorb water.

permeability. **permeabilidad**. The extent to which underground rock and soil pores are interconnected and thus a measure of the capacity of water to flow from one pore to another; also, the extent to which molecules of a given kind can pass through a membrane.

permeable. **permeable**. Giving passage or entrance freely; pervious.

permeable soil. **suelo permeable**. Soil that allows a free passage of water and nutrients to vegetation.

permease. **permeasa**. One of a class of proteins that serve as carrier molecules in cells, making possible the active or passive transport of a variety of substances across membranes.

peronate. **peronadio**. Having a stipe covered by a thick, felted sheath, particularly at the base.

pernicious. **pernicioso**. Highly destructive or deadly to the environment.

peroxidase. **peroxidasa**. An enzyme that speeds the oxidation of some compounds by using hydrogen peroxide as an electron acceptor to remove the hydrogen.

peroxisome. **peroxisoma**. A cellular microbe containing enzymes involved with photorespiration and photosynthesis.

perpetual flowering. **floración continua**. The characteristic of producing flowers continuously.

perpetual resource. **recurso continua**. Resources that are essentially inexhaustible (from a human perspective), as solar energy.

perpusillus. **perpusillus**. Latin meaning "very small".

perrumpent. **perumpente**. Breaking through.

persistent. **persistente**. Pertains to parts that remain attached after similar parts have been shed on completing their function, as persistent leaves or styles.

persistent perianth. **perianto persistente**. A perianth which remains unwithered and often enlarged around the fruit.

personate. **personado**. A single-petaled, two-lipped flower with the upper lip arched and the lower lip protruding into the throat with a con-

- spicuous projection emerging; sometimes has a likeness to a mask or face of an animal.
- perthecia. **pertecia**. Plural of perithecium.
- perthophyte. **pertófito**. A plant-parasitic fungus which lives on dead tissue in a living host.
- pertusate. **pertusato**. Perforated; also, pierced by slits.
- perulate. **perulado**. Having scales or a leaf bud.
- perule. **perulo**. A leaf bud or scales; also, in some orchids, the sac in the perianth.
- pervious. **permeable**. Same as permeable.
- petal. **pétalo**. One of the leaves, often showy and colored, of a corolla or segments of an angiospermous flower; attached just inside the sepals.
- petalantherous. **petalantero**. Having a terminal anther and a clearly petaloid filament, as in *Saxifraga*.
- petaliferous. **petaláceo**. Having petals.
- petal-like. **petaloide**. *See* petaloid and petalode.
- petalode. **petalodio**. An organ which resembles a petal, most often stamens.
- petalody. **petalodia**. The transformation of stamens into petals.
- petaloid. **petaloide**. Like a petal; petal-like or having the color or texture of petals, as some modified, flattened bracts or stamens without a distinct anther or filament.
- petalomania. **petalomania**. Abnormal in the number of petals.
- petalostemonous. **petalostémmono**. Having filaments fused to the corollas and the anthers free.
- petalous. **petalo**. Petaled or having petals.
- petaly. **petalia**. The normal perianth structure of flowers with petals.
- petiolar. **peciolar**. Attached to or supported by the petiole, as petiolar buds or a petiolar sheath.
- petiolate. **peciulado**. Having a petiole, as a petiolate leaf.
- petiole. **peciolo**. The thin stalk by which the leaf is attached to the stem; leafstalk.
- petiolulate. **peciolulado**. Having petiolule.
- petiolule. **peciolulo**. A small or reduced petiole (stalk) that attaches the leaflets to a compound leaf; a leaflet stalk.
- petraeus. **petraeus**. Latin meaning "growing on rocks".
- petrifaction. **petrifación**. A fossil formed when plant parts are infiltrated by mineral substances so that the structure is preserved but the fossil is actually rock.
- petrified. **petrificado**. Organic materials, such as plant or plant parts, which have turned into rock by the replacement of organic material with minerals.
- petrium. **petrio**. A rock formation.
- petrodium. **petrodio**. A formation of boulders.
- petrophilous. **rupícola**. Rock-loving; used to describe plants that grow best in rocky environments.
- petrophyte. **planta rupestre**. **planta rupícola**. A rupicolous plant.
- pezizoid. **pezizoide**. Resembling a cup-shaped apothecium.
- PGA. **AFG**. Phosphoglyceric acid.
- pH (hydrogen ion concentration). **pH (potencial de hidrógeno)**. The negative logarithm of the hydrogen ion concentration in grams per liter; thus, pH7 is neutral, less than 7 is acid and more than 7 is alkali.

line.

pH. **pH**. A numerical scale used to measure the acidity or alkalinity of a solution in terms of the relative concentration of hydrogen ions in the solution. The pH scale ranges between pH 0 to pH 14; pH 6 to pH 0 are increasingly acid and pH 8 to pH 14 are increasingly alkaline; most soils range between pH 3 and pH 10.

phaenanthrous. **faenantéro**. Having protruding stamens.

phaenocarpous. **faenócarpo**. Having the carpel free from the other floral parts.

phaenogamous. **faenógamo**. Pertaining to flowering plants.

phaenology. **faeneología**. The study of the periodic phenomena of vegetation.

phaeo-. **faeo-**. A prefix that means, "dark colored" or "swarthy".

phaeophytin. **faeofitina**. A grayish pigment in chlorophyll.

phaeoplast. **faeoplasto**. The chromatophore in the **Phaeophyceae**.

phaeosporous. **faeospora**. Having dark colored, one-celled spores.

phage. **fago**. A shortened form of bacteriophage; bacteriophage.

phagocytosis. **fagocitosis**. The method by which a cell membrane invaginates and encloses externally obtained food within a vacuole, without disturbing the continuity of the cell surface.

phagotroph. **fagótrofo**. In its broadest usage, a heterotrophic organism that feeds on living or dead organic material, as some bacteria and fungi. In its narrow usage, the term applies mostly to animal herbivores, carnivores, and detritivores.

phagotrophic. **fagotrófico**. Obtaining food by ingesting solid organic particles.

phailide. **failido**. A one-cell, flask-like structure from the end of which conidia (phailospores) are abstricted.

phailospore. **failospora**. See phailide.

phalange. **falange**. Two or more stamens joined by their filaments.

phanero-. **fanero-**. A Greek prefix that means, "easily seen" or "visible".

phanerocotylar. **epigeo**. A seedling with the emergent cotyledons usually appearing above ground; epigeous.

phanerogam. **fanerógamia**. Flowering, seed-producing plants with clearly developed pistils and stamens, that differ from the cryptogam algae, mosses, and ferns; the term has generally been replaced with spermatophytes.

phanerophyte. **fanerófito**. A perennial plant with buds high enough above ground to project freely into the air; also, one of Raunkiaer's life form categories of a plant with perennating buds or shoot apices borne on aerial shoots occurring in a moderate environment.

pharyngeal rod. **abastonado faríngeo**. One of a pair of rod-like organs running along side the gullet of the **Euglenales**, supporting the distended gullet.

phase. **fase**. One of the distinct stages in meiosis or mitosis.

phaseoliform. **faseolíforme**. Shaped like a bean.

phellem. **felem**. An outer layer of cork cells of the periderm, formed by the phellogen.

phellium. **felio**. A rock-field forma-

tion.

phelloderm. **feloderma**. A layer of parenchymatous cells, commonly containing starch and sometimes chlorophyll, formed in stems and roots from the inner cells of cork cambium. It is considered by some, a secondary cortex.

phellogen. **felógeno**. **suberofelodérmica**. The secondary cambium giving rise to cork tissue and in some plants, internally to phelloderm; also, a layer of meristematic cells lying in the cortex of a stem or root, forming cork on its outer surface and phelloderm on the inside; cambium cork.

phellandrene. **fellandrena**. A terpene found in *Eucalyptus* spp.

pelloic. **feloide**. A crust of non-suberized or slightly suberized cells on the surface of some plants, replacing true cork.

phenetic classification. **clasificación fenético**. A taxonomic system of grouping plants based on overall similarities regardless of their being symplesiomorphous. *Compare* phylogenetic classification.

phenocopy. **fenocopia**. An environmentally induced phenotype that mimics the phenotype produced by a specific genotype.

phenol. **fenol**. An aromatic compound of one or more hydroxyl groups.

phenology. **fenología**. The study of the timing of periodic phenomena such a growth cessation, flowering, and growth initiation, especially seasonal changes in temperature and amounts of available light.

phenotype. **fenotipo**. The external appearance of a plant resulting from the interaction of its genotype and its environment.

phenotypic. **fenotípico**. Caused or produced by environmental factors.

phenotypic adaptation. **adaptación fenotípico**. A change that facilitates fitting into different conditions.

phenotypic variation. **variación fenotípico**. A morphological or physiological change produced by the action of different environments on one or more genotypes.

phenylalanine. **fenilalanina**. An aromatic, non-polar amino acid occurring in proteins.

phenylpropane. **fenilpropano**. The repetitive unit recurring in lignin.

pheromone. **feromona**. A substance produced by an organism that facilitates chemical communication with another organism.

phialid(e). **fialide**. A bottle-shaped sterigma.

phialiform. **fialiforme**. Having the shape of a saucer or cup.

phialomeristem spore. **espora fialomeristema**. Phialospore.

phialopore. **fialopora**. A small hole in the cynobium of the **Volvocaceae**, found at the posterior end.

philopatry. **fidelidad**. A tendency for organisms to remain at the site where they were born or bred; site-attachment.

-philous. **-filo**. A Greek suffix that means, "loving" or "dwelling in".

phlobahene. **flobáfeno**. A yellow-brown substance occurring in cork cells from the decomposition of tannins.

phloem. **floema**. The tissue in vascular plants through which the sap, containing dissolved food, passes downward to the stem and roots. It is characterized by the presence of sieve tubes and in some plants

companion cells, fibers, and parenchyma; bast. *Compare* xylem.
 phlem fiber. **fibra floema**. An element of sclerenchyma (or a strand of such elements) present in the phloem, helping to support the sieve tubes.

phloem island. **isla floema**. A patch of phloem surrounded by secondary wood.

phloem parenchyma. **parénquima floema**. The unspecialized cells occurring in the phloem.

phloem ray. **rayo floema**. The part of a vascular ray that passes through the phloem.

phloem sap. **savia descendente**. **savia elaborado**. The dissolved substances from the soil, chiefly mineral salts and nutrients, previously stored in the roots and stem passing through the xylem.

phobotaxis. **fobotaxia**. **fobotactismo**. In motile microorganisms or cells, a random change in locomotive direction in response to a stimulus.

phloeoterma. **floeoterma**. An endodermis in which the radial walls and the inner tangential walls are heavily suberized.

phoeniceus. **phoeniceus**. Latin meaning "scarlet".

phenocin. **foenocina**. A dye produced by some fungi.

-phore. **-foro**. A suffix that means, "bears" or "carries".

phosphatase. **fosfatasa**. An enzyme that speeds reactions involving the hydrolysis of esters of phosphoric acid.

phosphatide. **fosfátido**. A glycerol triester resembling fats, but only two fatty acids are involved. The third glycerol -OH group is combined

with a nitrogen-containing base through a molecule of orthophosphoric acid. *See* phospholipid.

phosphatidic acid. **ácido fosfatídico**. An intermediary in a carrier mechanism across a cell membrane, formed from, and producing lecithin in a cyclic mechanism.

phosphilipine. **fosfilipina**. Phosphatide.

phosphoenolpyruvic acid. **ácido fosfoenolpirúvico**. A carbon dioxide acceptor during photosynthesis, resulting in the production of pyruvic acid and phosphate.

phosphoglyceric acid (GPA). **ácido fosfoglicérico (AFG)**. The product formed from ribulose-diphosphate by combination with carbon dioxide during the dark phase of photosynthesis. It is then reduced by NADH (3). It is also an intermediate product in the anerobic respiration of hexosediphosphate to pyruvic acid.

phospholipid. **fosfolípido**. A specialized lipid molecule in which glycerol is attached to two fatty acids plus a phosphate group; particularly important in the functioning and structure of plant membranes; phosphatide.

phosphonucleotide. **fosfononucleótido**. A nucleotide combined with phosphoric acid.

phosphoroglyceric acid. **ácido fosfoglicérico**. Phosphoglyceric acid.

phosphorescence. **fosforescencia**. The process of emitting light without burning; also, light emitted as a result of the absorption of certain rays, such as X-rays or ultraviolet rays which continue for some time after exposure; bioluminescence.

phosphorescent. **fosforescente**. Being luminous; exhibiting phosphorescence.

phosphoric acid. **ácido fosfórico**. A colorless, odorless acid containing phosphorus, obtained by the decomposition of phosphates.

phosphorus. **fósforo**. A chemical element with the symbol P that is essential to plant development, commonly obtained from phosphates in the soil. Plants deficient in phosphate may experience a reduction in growth, detectable by the leaves becoming dark green or blue green.

phosphorus cycle. **fósfor ciclo**. A cyclic movement of phosphorus in various chemical forms from the environment, to organisms and then back to the environment.

phosphorylase. **fosforilasa**. An enzyme which catalyses the conversion of glucose 1-phosphate to amylose, or, more commonly, it brings about a combination with phosphoric acid.

phosphorylation. **fosforilación**. Conversion into a phosphorus compound. Generally a combination with phosphoric acid but more specifically, the accumulation of energy by ATP and the release of the energy by the back reaction to ADP. *See* oxidative phosphorylation.

phosphoserine. **fosfoserina**. The amino acid serine combined with phosphoric acid.

photo-. **foto-**. A Greek prefix that means, "light".

photic. **fótic**. Pertaining to light, especially as it affects or stimulates plant growth.

photic zone. **zona fótica**. The area of water where organisms are exposed

to sunlight.

photoautotroph. **fotoautótro**. Plants that obtain energy and nourishment from light, as most blue-green algae; also, a phototroph that obtains most or all of its carbon from carbon dioxide.

photoautotrophic. **fotoautotrófico**. Able to use light energy in synthesizing protoplasm from inorganic compounds.

photobotany. **fotobotánica**. The branch of botany dealing with the effect on plants of light or radiant energy.

photochemical reaction. **reacción fotoquímico**. A chemical change produced by light.

photodissociation. **fotodisociación**. The splitting of a molecule into atoms or other molecules from absorbing radiation.

photodynamic. **fotodinámico**. Pertaining to or involving toxic responses to light, especially ultraviolet light.

photogenic. **fotogénico**. Emitting light or producing light; luminescent; phosphorescent.

photoheterotroph. **fotoheterótrofo**. A phototroph that used organic compounds as its only or main source of carbon.

photoinhibition. **fotoinhibición**. The slowing or stopping of plant processes with light, as occurs in the germination of seeds.

photokinesis. **fotocinesis**. In a motile organism or cell, the change in locomotive speed in response to the intensity of the light.

photolithotroph. **fotolitotótrofo**. A phototroph associated with the oxidation of an inorganic compound, as green plants gaining en-

ergy from sunlight by photosynthesis during which water is oxidized to yield oxygen.

photolysis. **fotólisis. fotolisis.** The grouping of the chloroplasts in response to the amount of light falling on the plant; also, the decomposition or dis-association of a molecule as the result of the absorption of light; this is brought about by the destruction of an O-H bond by its excitation with photons of light; also, the breaking down of water with the use of light during photosynthesis; it occurs in non-cyclic photophosphorylation; Hill reaction.

photomorphogenesis. **fotomorfo-génesis.** The effect of light in regulating plant development.

photomorphosis. **fotomorfosis.** A change in the structure of a plant after exposure to strong light.

photon. **fotón.** An elementary particle of light; also, a discrete unit of light energy; also, quantum of electromagnetic energy having both particle and wave behavior; it has no charge or mass but possesses momentum: the energy of light, X rays, gamma rays, *etc.* is carried by photons; light quantum.

photonasty. **fotonastia.** Response to a general, non-directional light stimulus, *e.g.* the opening and closing of flowers at night.

photonegative. **fotonegativo.** Plants that avoid light or prefer deep shade.

photo-organotroph. **foto-organótrofo.** A phototroph associated with the oxidation of organic compounds; some photosynthetic bacteria are photo-organotrophic.

photooxidation. **fotooxidación.** A structural change that occurs in a mol-

ecule when exposed to light; sometimes called bleaching.

photopathy. **fotopatía.** Negative phototaxis.

photoperiod. **fotoperíodo.** The length of time each day a plant is exposed to light with particular reference to the effect on growth and development.

photoperiodism. **fotoperiodismo. fotoperiodicidad.** The induction of flowering and other vegetative activities in response to relative lengths of day and night.

photoperiod responsive. **responsivo al fotoperíodo.** The response of a plant to the length of its daily exposure to light as shown by changes in developmental processes.

photophilous. **fotófilo.** Flourishing in strong light, especially sunlight; said of plants that flourish in sunlight.

photophosphorylation. **fotofosforilación.** Phosphorylation induced by the presence of radiant energy in the form of visible or nonvisible light; the formation of ATP using the light energy in photosynthesis; also, the formation of ADP and ATP in the presence of inorganic phosphate during the light phase of photosynthesis.

photopositive. **fotopositivo.** Attracted to light; photophilous.

photoreception. **fotorecepción.** The detection and absorption of light by plant cells sensitive to radiant energy, a process essential to photosynthesis and phototropism.

photo(re)ceptor. **foto(rre)ceptor.** A light-absorbing pigment used in developmental processes.

photoreduction. **fotoreducción.** Anaer-

obic reduction in the presence of light by molecular hydrogen

photorespiration. **fotorespiración.** A light-activated respiration that occurs in the chloroplasts of some plants.

photosensitivity. **fotosensibilidad.** The quality of being stimulated to action by light or other radiant energy.

photostage. **fotoéstató.** The stage in photosynthesis in which light is necessary. In this stage PGA is converted into triose-phosphate; also, an early stage in the growth of a seedling when light is required.

photosynthesis. **fotosíntesis.** The process plant cells use to make carbohydrates by combining carbon dioxide and water in the presence of chlorophyll and light, releasing oxygen as a by-product; thereby transforming electromagnetic energy into chemical energy.

photosynthetic. **fotosintético.** A stipule or stipel that is blade-like and green.

photosynthetic autotroph. **autótrofo fotosintético.** An organism capable of building all of the organic molecules it requires using carbon dioxide as the carbon source and sunlight as the energy source.

photosynthetic capacity. **capacidad de fotosintético.** The efficiency of a plant cell or a chloroplast in carrying out photosynthesis.

photosynthetic efficiency. **eficiencia fotosintético.** The ratio of light-energy absorbed by the chloroplasts of a tissue in unit time to the amount of energy fixed per unit time.

photosynthetic number. **numero fotosintético.** The ratio between the number of grams of carbon dioxide absorbed per hour by a unit of

a leaf to the number of grams of chlorophyll which that unit contains.

photosynthetic quotient. **coeficiente fotosintético.** The volume of oxygen released in photosynthesis as a proportion of the volume of carbon dioxide used in the process.

photosynthetic unit. **unidad fotosintético.** In chloroplasts, 250 to 400 pigment molecules group together as a light-harvesting complex in each granum.

photo system I. **sistema de foto I.** In photosynthesis, there are two kinds of photo systems which begin the chain reaction on the central chlorophyll molecule, culminating in sugar formation. Photo system I absorbs light most efficiently at a red wavelength of 700 nm. It is the second part of the Z-scheme.

photo system II. **sistema de foto II.** In photosynthesis, there are two kinds of photo systems which begin the chain reaction on the central chlorophyll molecule, culminating in sugar formation. Photo system II absorbs light most efficiently at a red wavelength of 680 nm. It is the first part of the Z-scheme.

phototactic. **fototáctica.** Having to do with or characterized by phototaxis.

phototaxis. **fototaxis. fototaxia.** The proclivity of a plant to bend or move in response to light.

phototroph. **fotótrofo.** Any organism that takes energy from sunlight with the most common occurrence in photosynthesis.

phototropic. **fotótrópico.** A plant that grows in the direction of light; heliotropic.

phototropic conduction. **conducción fototrópico**. The differential conduction of auxin down either side of a shoot which is unilaterally illuminated so that growth is towards the light.

phototropic induction. **inducción fototrópico**. The effect of light on the apex of the plant affects the growth of the stem below it, *i.e.* the tip, under the influence of light, induces growth lower down.

phototropism. **fototropismo**. Plants which tend to turn or change direction in response to light; heliotropism.

phragmobasidium. **fragmobasidio**. A basidium which becomes septate and is then divided into four cells.

phragmoplast. **fragmoplasto**. The cytoplasmic mechanism in cell division responsible for the formation of the cell plate; also, the region between the daughter nuclei of a dividing plant cell.

phragmospore. **fragmospora**. A spore having two or more transverse septa.

phreatophyte. **freatofito**. Plants that obtain water by a deep penetration of their roots into the water table.

phycobilins. **ficobilinas**. Red and blue pigments occurring in some photosynthetic organisms.

phycobilosomes. **ficobilosomas**. Groups of pigmented cells containing phycocyanin and phycoerythrin.

phycobiont. **filocobionte**. The principal algal or cyanobacterial symbiont in a lichen.

phycochrysin. **ficocrisina**. The golden brown pigment of the **Chrysohyceae**; chrysochrome.

phycocyanin. **ficocianina**. A blue photosynthetic pigment occurring in cyanobacteria and red algae.

phycoerythrin. **ficoeritrina**. A red photosynthetic pigment occurring in cyanobacteria and red algae.

phycology. **ficología**. The branch of botany which specializes in the study of algae; algology.

phycomycetes. **ficomicetos. ficomicetes**. The lower fungi.

phycopyrrin. **ficopirina**. A red-brown water soluble pigment in the chromatophores of the **Dinophyceae**.

phyletic. **filético**. Pertaining to phylum.

phyletic classification. **clasificación filética**. A systematic organization of plants based on their presumed evolutionary descent.

phyletic evolution. **evolución filética**. An evolutionary change within a lineage produced by a gradual adjustment to environmental conditions.

phyletic gradualism. **gradualismo filético**. A view of evolution that over long periods of time small changes occur in organisms, accumulating to the point at which descendants of the ancestral population diverge into separate species or higher level taxa. *See* evolutionary species.

phyllary. **filaria**. One of the involucre bracts on the outside of a capitulum.

phyllo-. **filo-**. A Greek prefix that means, "pertaining to a leaf".

phyllocarpic movement. **movimiento filócarpo**. A curvature of the fruit stalk bringing the young fruit under the protection of the leaves.

phyllochlorin. **filóclorina**. A chloroplast pigment containing chromoprotein molecules, lipoid molecules, and molecules of carotinoids.

phylloclade. **filócladio**. Flattened or

enlarged stems or branches that function as leaves, as in cacti; cladophyll.

phyllocladium. **filocladio**. One of many small scale-like protuberances on the podetium of some lichens.

phyllode. **filodio**. An expanded, often flattened petiole, resembling a leaf and having leaf functions, but the true leaf blade is absent or at least greatly reduced in size, as in the **Acaciae**.

phyllodial. **filodial**. The condition of being flattened and blade-like.

phyllodium. **filodio**. *See* phyllode.

phyllody. **filodia**. A disease condition, when parts of a flower are replaced by leaf-like structures.

phylloid. **filoide**. Leaf-like.

phyllomania. **filomania**. Producing leaves in abnormal numbers or places.

phyllome. **filoma**. A general term for leaves and leaf-like structures.

phyllopodic. **filópodico**. With the lower leaves well developed rather than being reduced to scales, as in aphyllopodic leaves.

phyllopodium. **filopodio**. **filópodo**. The petiole and rachis of a fern frond.

phyllosphonic. **filosifiónico**. Said of a siphonostele which has both leaf gaps and branch gaps.

phyllotaxis. **filotaxis**. The arrangement of leaves on the stem, as opposite pairs, whorls, alternate, or other configurations.

phyllotaxy. **filotaxia**. The arrangement or distribution of appendages on a stem, such as leaves or flowers.

phylogenesis. **filogénesis**. The history of the development of race.

phylogenetic classification. **clasific-**

ación filogenético. A taxonomic method of grouping plants by their shared features based on common evolutionary descent. *Compare* phenetic classification.

phylogenetic systematics. **sistemático filogenético**. *See* phylogenetic classification.

phylogeny. **filogenia**. Evolutionary relationships between and within taxonomic groups, particularly aspects related to descent.

phylon. **filón**. A line of descent.

phylum (*pl.* phyla). **filum** (*pl.* **filums**, **fila**). **filo**. In taxonomy, a primary division of the plant kingdom, ranking above class; the term division is preferred to phylum by many botanists.

physical factor. **factor físico**. A component in the abiotic environment that affects the growth and development of organisms or communities.

physcion. **fisción**. A lichen acid.

physiological balance. **equilibrio fisiológico**. The balance between the ions in a culture solution so that none can have an adverse effect on the growth of a plant.

physical barrier. **barrera físico**. Any material impediment, *e.g.* a sea or mountain range which can have an adverse effect on the migration of plants or other organism.

physiognomy. **fis(i)ogonomía**. The form and structure of natural communities by which they can be recognized.

physiographic climax. **clímax fisiográfico**. A plant community maintained in particular stage of development by some natural features of the habitat.

physiologic form. **foma fisiológico**.

- A race showing physiological speciation.
- physiologic variety. **variedad fisiológico**. Biologic form.
- physiologic(al). **fisiológico**. Having to do with the healthy functioning of plants.
- physiological anatomy. **anatomía fisiología**. The study of the relationship between structure and function.
- physiological drought. **sequía fisiológica**. The condition when a plant is unable to take in water because of the low ground temperature or because it holds substances in solution which hinder the absorption of water by the plant.
- physiological ecology. **ecología fisiología**. The study of the functioning of organisms in their relation to the environment.
- physiological race. **raza fisiología**. Physiologic form.
- physiological specialization. **especialización fisiológico**. Within a species, the occurrence of several forms that appear identical but differ in physiology.
- physiological speciation. **especiación fisiología**. Existence within a particular species of a number of races or forms which are indistinguishable in structure but show physiological, biochemical, or pathogenic characters.
- physiological zero. **cero fisiología**. The threshold temperature below which the metabolism of a cell, organ, or organism ceases.
- physiology. **fisiología**. In plants, the study of normal plant functions.
- phytase. **fitasa**. An enzyme capable of hydrolysing phytin, releasing phosphate.
- phyte-. **fito-**. A Greek prefix that means, "plant".
- phyte. **-fito**. A suffix that means, "growth" or "plant", as in epiphyte.
- phytic acid. **ácido fitico**. In some seeds, a hexaphosphoric ester of inositol, that stores phosphate.
- phytin. **fitina**. An acid, calcium and magnesium salt of inositolhexaphosphoric acid, found in certain seeds.
- phyto-. **fito-**. A Greek prefix that means, "pertaining to a plant" or "plants", as in phytotoxic.
- phytoalexin. **fitoalexina**. An antifungal substance produced by a plant in response to damage or infection.
- phytobenthon. **fitobentón**. Plant benthon.
- phytochemistry. **fitoquímica**. A branch of botany or chemistry dealing with the growth, metabolism, and products of plants.
- phytochrome. **fitocromo**. A light-sensitive, growth controlling pigment which absorbs red or infra red rays, acting as an enzyme in its influence on photoperiod responses.
- phytocoenosis. **fitocenosis**. See plant community.
- phytogeography. **fitogeografía**. The study of plants in their geographic setting with particular emphasis on their distribution at different taxonomic levels, patterns of climatic and anthropogenic influences, migration routes, and continental configurations; plant geography.
- phytography. **fitografía**. The description of plants; also, the special branch of botany that addresses the question of plant names, descriptions and the rules that apply to

the process.

phytohormone. **fitohormona**. A compound produced in plants (or manufactured) which is not a nutrient, but regulates growth and other physiological processes of all or part of the plant; plant hormone.

phytol. **fitol**. An alcohol chain that makes up the major side-chain of chlorophyll.

phytolithology. **fitolitología**. The branch of botany with a special interest in fossilized plants; paleobotany.

phytology. **fitología**. The scientific study of plants; botany.

phytomorphology. **fitomorfología**. *See* plant morphology.

phytomitogens. **fitomitógenos**. Materials of vegetable origin which induce mitosis.

phytoncide. **fitoncida**. A substance produced by a normal plant that is thought to have some form of antimicrobial activity.

phytopathology. **fitopatología**. The scientific study of plant diseases, especially of plants in relation to parasites.

phytophage. **fitófago**. Plant-eater.

phytophagous. **fitófago**. Plant-eating.

phytophilous. **fitófilo**. Attracted to plants, as some insects.

phytoplankton. **fitoplancton**. Small, drifting plant-like organisms, mostly algae and bacteria, occurring in aquatic ecosystems.

phytoremediation. **fitoremediación**. The use of plants to reduce or degrade pollutants, industrial wastes, and household garbage. *See* bioremediation.

phytosociology. **fitosociología**. The description and classification of plant communities based on floristic

rather than life-form considerations; referred to as the Braun–Blanquet Scheme.

phytosterol. **fitosterol**. **fitosterina**. A steroid found in plants.

phytotomy. **fitotomía**. *See* plant anatomy.

phytotoxic. **fitotóxico**. Anything that is injurious to plants; poisonous to plants.

phytotoxin. **fitotoxina**. Any substance that is poisonous to plants that is produced by a plant pathogen.

picro-. **picro-**. A Greek prefix than means, "bitter".

pictus. **pictus**. Latin meaning "colored".

pigment. **pigmento**. Any of a number of natural substances occurring in tissues which provides color.

pigmentation. **pigmentación**. The deposit of pigment in the tissues causing coloration of the plant or plant parts.

pigmentosa. **pigmentosa**. The pigmented part of an eye-spot.

pileate. **pileado**. Having a pileus; also, cup-shaped.

pileus. **sombbrero**. An umbrella-shaped cap, as on some fungi; also, the cap of an agaric, bearing the hymenium on its lower surface.

piliferous. **pilifero**. Producing flexuous or curly hair; also, tipped with a fine hair-like structure.

piliferous layer. **capa pilífera**. The part of a root epidermis which bears the root hairs; root hair zone.

piliform. **piliforme**. Hair-like.

pilocystidium. **pilocistidio**. A cystidium on the pileus surface.

pilose. **piloso**. Covered with long, fine, shaggy trichomes (hair).

pilus (*pl.* pili). **pilo**. A bacteria cell extension that makes contact with

- another cell in the exchange of genetic material; also, a fringe or fringed border. *See* fimbria.
- pinimelic acid. **ácido pimélico**. An acid promoting the growth of various bacteria.
- pincer-like. **queliforme**. *See* cheliform.
- pinching. **despuntado**. The removal of the terminal bud or apical meristematic growth to stimulate branching.
- pine barrens. **pinares de sabanas**. A stretch of poor land covered with pine (**Pinus**) trees.
- pine cone. **piña**. The fruit of the pine (**Pinus**) tree.
- pine forest. **pinar**. An extensive area of pine (**Pinus**) trees.
- pine needle. **hoja de pino**. The long, green, needle-like leaves of the pine (**Pinus**) tree.
- pine. **pino**. Any evergreen tree of the genus **Pinus** having fruit cones and clusters of needle-shaped leaves.
- pink (color). **rosado (color)**. A pale red color.
- pinkish (color). **rosado (color)**. *See* pink.
- pinna (*pl.* pinnae). **pinna (pl. pinnas)**. One of the leaflets or primarily divisions of a pinnate leaf, especially in ferns (**Filicopsida**); also, a branch of a thallus, when arranged in opposite rows.
- pinnate. **pinnado**. A type of leaf having a series of leaflets arranged as opposites or alternates on two sides of an elongated, central stalk; also said of a thallus having branches arranged on each side of a middle axis.
- pinnately compound leaf. **hoja pinnado compuesta**. A leaf completely separated into two or more leaflets arranged as odd or even on two sides of an elongated stalk.
- pinnatifid. **pinnatifido**. A leaf pinnately lobed, cut, or cleft more than halfway but not completely to the midrib.
- pinnatilobate. **pinnatilobado**. Lobed in a pinnate manner, as a pinnatilobate leaf.
- pinnation. **pinnación**. The state or condition of being pinnate.
- pinnatisect. **pinnatisecto**. A leaf pinnately lobed, cut, or cleft to the midrib, but not forming separate leaflets. *Compare* pinnatifid.
- pinnule. **pinnula**. Any of the leaflets of a pinna in a bipinnate compound leaf, especially in ferns (**Filicopsida**).
- pinocytosis. **pinocitosis**. The process of a cell taking in fluids by being absorbed on the plasma membrane; transferred inside by the membrane folding back into itself to engulf the fluid and then becoming a vesicle by closing.
- pioneer community. **comunidad pionera**. The first integrated group of plants, animals, and decomposers found in a location involved in primary ecological succession.
- pioneer organism. **organismo pionera**. An organism that first colonizes soil or bare rock.
- pioneer species. **especie pionera**. In the sequential vegetative changes in plant succession, pioneer species are the initial colonizers that modify the environment, paving the way for new species to join or replace the pioneers or initial colonizers. Most often, these are microbes, mosses, and lichens.
- pionnate. **pionnado**. Having a continuous layer of fungus spores,

which are often slimy.

pip. **pepita**. A small seed from a fleshy fruit.

pipe. **pipa**. Any one of many types of tubular or cylindrical shapes, such as a plant stem.

piperidine. **piperidina**. A heterocyclic secondary amine; a reduction product of pyridine.

piriform. **piriforme**. Pear-shaped (**Pyrus**). Same as pyriform

pisaceous (color). **pisáceo (color)**. Pea-green.

pisiferous. **pisífero**. Having or bearing peas (**Pisum**).

pisiform. **pisiforme**. Having the form of a pea (**Pisum**); pea-shaped.

pistil. **pistilo**. In flowers, the female, seed-producing reproductive organ that is made up of an ovary, a style, and a stigma, when complete; also, each separate carpel of an apocarpous gynecium; also, the gynecium as a whole, whether it is apocarpous or syncarpous.

pistillate. **pistilado**. Flowers having a pistil or pistils; also, flowers having a pistil or pistils but no stamens.

pistillate flower. **flor pistilada**. A plant with only pistillate flowers; said of a flower which has carpels but no anthers. Same as carpellate.

pistillidium. **pistilidio**. Archegonium.

pistillode. **pistiloidio**. An abortive or non-functional pistil.

pit. **hueso**. A hard seed in fleshy fruit, as a cherry (**Prunus**) or plum (**Prunus**).

pit(ted). **fóvea**. **foveolado**. **punto (eado)**. Marked with small depressions, pits, or holes; also, a small sharply defined area of a plant cell wall which remains unthickened when the rest of the wall thickens;

also, the two opposite thin areas in the walls of two cells or vessels in contact; also, a local thin spot in the wall of the oogonium of some **Oomycetes**.

pit cavity. **cavidad punteadura**. The excavation in a cell wall where the thinning is apparent.

pit membrane. **membrana de la punteadura**. The thin sheet of unbroken wall between two opposite pit cavities.

pitted vessel. **vaso punteado**. A vessel with pits in the wall.

pitcher (leaf). **ascidio**. A leaf shaped like a pitcher that attracts insects, as in **Sarracenia**; ascidium.

pith. **médula**. The spongy, centermost parenchymal tissue in the stems of most herbaceous plants and some trees and occasionally in roots, but lacking in most roots of dicotyledonous plants.

pith ray. **rayo médula**. Vascular ray. pithy. **medulado**. Of or like pith; medullated.

placenta (*pl. placentae*). **placenta**. The interior tissue of the ovary of flowering plants to which the ovules are attached; also, usually the structure that bears the sporangia in ferns (**Filicopsida**).

placental cell. **célula placentaria**. A food-supporting cell for the developing carposporophyte of some red algae; produced by the fusion of the carpogonial filament cells with the inferior daughter cell of the carpogonium.

placentation. **placentación**. The arrangement of the placenta or placentae in a syncarpous ovary. a) parietal—the carpels are fused only by their margins so that the placentas then appear as internal ridges

on the ovary wall, b) axile – the margins of the carpel fold inwards fusing together in the center of the ovary, forming a single central placenta, c) free central – the placenta is a central upgrowth from the base of the ovary.

placentiferous. **placentífero**. Having or bearing a placenta.

placentiform. **placentiforme**. Formed or shaped like a flat cake or cushion.

placodiod. **placodiode**. Refers to a circular, crustose thallus with a determinate margin and radiating peripheral lobes.

placodiomorph. **placodiomorf**. A polarilocular lichen spore.

placodium. **placodio**. A hardened hyphal layer surrounding the openings of the perithecial ostiole, when the perithecium is embedded in stroma.

plagio-. **plagio-**. A Greek prefix that means, “slanted” or “oblique”.

plagioclimax. **plagióclimax**. A stable vegetation community arising from a succession that has been arrested by some form of direct or indirect human activity. Many consider the term synonymous with biotic climax.

plagiogeotropism. **geotropismo transversal**. A growth response to gravity so that the axis of the plant organ makes an angle other than 90° with the line of the gravitational field. It may be used to mean that the organ makes any constant angle with the axis and would thus include diageotropism as a special term.

plagiotropic. **plagiótropico**. Pertaining to or exhibiting plagiotropism.

plagiotropism. **plagiotropismo**. The tendency of a plant or plant part to grow away from the vertical line,

as a branch, root, or stem, influenced by light, gravity or other external factors.

plagiotropous. **plagiótropo**. The tendency of some plant organs to grow away from a vertical line, as the result of reacting to the influences of light, gravity, and other external forces.

plait. **trenza**. Having a longitudinal folding or fluting, as in some corolla; plicate.

plakea. **placea**. A curved plate of eight cells formed during the early stages in the development of a colony of the **Volvocaceae**.

planate. **aplanado**. Having a flat surface.

plane. **planado**. With an even or flat surface.

plane of section. **plano de sección**. The direction in which a plant member is cut, or assumed to be cut, in ascertaining its structure.

planetism. **planetismo**. Of **Oomycetes**, the condition of having motile spores.

plankton. **plancton**. Free-floating, mostly microscopic, aquatic organisms, generally, living near the surface of the sea or lake.

plank root. **ráiz tabla**. A root which is markedly flattened so that it stands out from the base of a stem like a plank set on edge, giving additional support to the plant.

plano-. **plano-**. A prefix that means, “motile”.

planocyte. **planocito**. A motile cell; wandering cell.

planogamete. **planogameto**. A motile gamete; zoogamete.

planosome. **planosoma**. An odd chromosome resulting from the non-disjunction of a pair during meio-

sis.

planospore. **planoespora**. A motile spore.

planont. **espora móvil**. Zoospore

planozygote. **planocigoto**. **planozigoto**. A motile zygote.

plant. **planta**. Any member of the kingdom **Plantae**, which manufactures carbohydrates by photosynthesis, converting simple inorganic substances into organic compounds. When living organism were classified either as plant or animal, animals were distinguished (in general) from plants by their autonomous movement and their heterotrophic nutrition. Bacteria, algae, fungi, and autotrophs were grouped with plants, however, in the present-day five-kingdom system, the term "plant" is confined (in general) to multicellular photosynthetic organisms; also, sometimes it is reserved for soft-stemmed organisms, as distinct from woody trees or shrubs.

plant. **sembrar**. To sow seeds or set plants.

plant anatomy. **anatomía vegetal**. The branch of botany that addresses the internal structure of plants; phytotomy.

plant association. **asociación vegetal**. A loosely used term but most commonly understood to be a basic vegetation unit, floristically defined from field data; each association supports a distinctive faithful species and a group of constant species.

plant community. **comunidad vegetal**. A group of different plant species living together in a particular environment; phytocoenosis.

plant ecology. **ecología vegetal**.

fitoecología. The study of the relationships and interactions between plants and their environment.

plant geography. **geografía botánica**. *See* phytogeography.

plant growth regulator. **regulador de crecimiento vegetal**. Any molecule that has hormone-like effects in a plant, whether synthesized or naturally occurring.

plant hormone. **fitohormona**. **hormona vegetal**. Anyone of a group of organic compounds produced by plants that regulate growth and other functions.

Plant Kingdom. **reino vegetal**. **Plantae**, the primary division of living things that includes all multicellular plants with the capacity to manufacture carbohydrates by photosynthesis; vegetable kingdom.

plantlet. **plantón**. A young plant.

plant morphology. **morfología vegetal**. The study of plant form and development; phytomorphology.

plant pathology. **patología vegetal**. *See* phytopathology

plant physiology. **fisiología vegetal**. The study of the functions and life processes of plants.

plant succession. **sucesión vegetal**. *See* succession.

plant systematics. **botánica sistemática**. **fítotaxonomía**. *See* plant taxonomy.

plant taxonomy. **taxonomía vegetal**. **taxonomía botánica**. The botanical disciple that addresses classification, naming, and identification of plants.

plantule. **plántula**. A plant embryo.
 plaque. **placa**. A clear area caused by a bacteriophage in a bacterial colony.

plasm(a). **plasma**. Protoplasm.

plasma membrane. **membrana plasma.**

A sheet of selectively permeable tissue that encloses the cytoplasmic contents of a cell while allowing water molecules to pass freely but limiting the passage of most others; cell membrane.

plasmagel. **plasmagel.** The outer, clear cytoplasm lying against the cell wall; ecotplasm.

plasmagene. **plasmagen(e).** A self-producing particle in the cytoplasm of a cell, affecting the characteristics of the cell bearing it. Being outside the nucleus, it is usually transmitted only in the female gamete. *See* plasmid.

plasmalemma. **plasmalema.** A thin membrane consisting of fat and protein, surrounding the protoplasm or a cell organelle. It is responsible for the restricted penetration of many substances into the cell. Severe damage to it kills the cell. In plants it is in contact with the cell wall and around vacuoles; plasma membrane.

plasma membrane. **membrana plasmática.** *See* plasmalemma.

plasmasol. **plasmasol.** Endoplasm.

plasmatoogosis. **plasmatoogosis.** Said of the **Pythiaceae** which produce a bud-like outgrowth in the host tissue.

plasmatoparous. **plasmatóparo.** Said of a spore which germinates to produce a naked protoplast which then forms a wall and produces a germ tube.

plasmid. **plásmido.** A very small genetic unit of DNA that replicates in a cell, independent of the chromosomal DNA, occurring particularly in the cytoplasm of bacteria.

plasmoderm. **plasmoderma.** A fine

thread of protoplasm passing through fine pores in the cell wall, thus forming a connection between the cytoplasms of adjacent cells.

plasmodesma. **plasmodesma. plasmodesmo.** Singular of plasmodesmata.

plasmodesmata. **plasmodesmata.** Strands of cytoplasm which extend through cell walls and form connections between the plasma membranes of adjacent cells; cytoplasmic threads.

plasmodic granule. **gránulo plasmódico.** A very small dark colored particle on the surface of the periderm and commonly on the spores of the **Cribariaceae**.

plasmodiocarp. **plasmodiocarpo.** An irregular body that produces spores of some fungi; also, a sporangium formed by some myxomycetes which is irregular or sinuous in shape.

plasmodium (*pl.* plasmodia). **plasmódio.** A mass of protoplasm formed by fusion or some other form of joining, as in slime molds, which have an animal-like movement when food is ingested; also, a multinucleate, naked amoeboid organism as found in **Myxothallophyta** and some **Chrysophyta**.

plasmolysis. **plasmólisis.** The shrinking or movement of protoplasm away from the cell wall due to liquid loss by osmosis.

plasogamy. **plasogamia.** The fusion of the cytoplasm between two or more cells, in contrast to the nucleoplasm; also, the fusion of two sexual cells.

plasmon. **plasmón.** The cytoplasm of an individual cell considered as a single hereditary unit. The sum of the plasmagenes; plasmotype.

plasmosome. **plasmosoma**. A small cytoplasmic granule. A type of nucleolus which stains with acidic dyes and disappears during mitosis without mingling with the chromosomes; nucleolus.

-plast. **-plasto**. A suffix that means, "a small structure of living matter", as in chloroplast.

plastic. **plástico**. Having the capacity to become or be organized into living tissue.

plasticity. **plasticidad**. The ability of a material to change shape continuously under applied stress and retain the impression after the removal of the stress. The plasticity of a soil gives an indication of its moisture content.

plastid. **plastido**. **plasto**. Any of a group of small, often pigmented organelles in the cytoplasm of a cell such as a chloroplast or chromoplast; involved mainly in the formation and storage of carbohydrates.

plastid inheritance. **herencia plastídica**. Inheritance determined by plastogenes.

plastid mutation. **mutación plastídica**. **mutación plastidial**. A change in a chloroplast affecting its ability to produce chlorophyll.

plastidome. **plastidoma**. The total compliment of plastid in a cell.

plastin. **plastina**. A acidophillic substance occurring in masses in the nuclei of cells.

plastrochrone. **plastocrona**. The period of time that elapses between the formation of one leaf primodium and the next, on a shoot which has a stable spiral phyllotaxy.

plastocont. **plastoconte**. Chondriosome.

plastocyanin. **plastocianina**. A protein with two copper atoms per molecule that serves as an electron carrier linking photosystems I and II during photosynthesis.

plastogene. **plastógeno**. A gene attached to a plastid which determines the likeness of the daughter palstid to the parent.

plastonema. **plastonema**. The deeply staining peripheral material in the sporogenous tissue of mosses (**Musci**).

plastoquinone. **plastoquinona**. A derivative of quinone that serves as an electron carrier linking photosystems I and II during photosynthesis.

plastosome. **plastosoma**. The lightly staining internal cytoplasm in the sporogenous tissue of mosses (**Musci**). See mitochondrion.

platy-. **plati-**. A Greek prefix that means, "broad".

platycarpous. **platicarpico**. Broad fruited.

platyform. **platiforme**. Flattened.

platyphyllous. **platifilo**. Broadly lobed; also, having wide leaves.

platysperm. **platisperma**. A seed which is flattened in transverse section.

plates. **escama**. Thin, flat, overlapping structures that form protective coverings, as on buds.

pleated. **plegado**. See plait or plicate.

plectenchyma. **plecténquima**. A thick tissue formed by hyphae becoming twisted and fused together.

plectostele. **plectostela**. A dissection of the protostele, the central tube-like structure in stems and roots where food and liquid pass, showing the connecting network of veins (anastomosing); an actionstele in

which the xylem is divided into a number of longitudinal plates.

pleiandrous. **pleiandro**. Having a large and indefinite number of stamens.

pleio-. **pleio**-. A prefix that means, "many" or "multiple".

pleiochasium. **ple(i)ócasio**. A cymose inflorescence having multiple cymules, each producing three or more lateral branches.

pleiomerous. **ple(i)ómero**. A condition where there are an increasing number of members within a whorl of floral parts, leaves, or stems; having a large number of parts or organs.

pleiomorphy. **ple(i)omorfo**. The changing of a flower, normally irregular, into a regular flower by the growth of some previously incomplete part or parts.

pleiopetalous. **ple(i)opétalo**. Having an unusually large number of petals.

pleiophyllous. **ple(i)ofilo**. Having an abnormally large number of leaflets in a compound leaf; also, an unusually large number of leaves starting from one point.

pleiosepalous. **ple(i)osépalo**. Having an unusually large number of sepals.

pleiosporous. **pleiospora**. Having many spores.

pleiotaxy. **pleyotaxis**. A condition where there is more than usual or an increasing number of whorls of floral parts, leaves, or stems.

pleiotomy. **pleiotomia**. Multiple apical division with the production of multiplets.

pleiotropic. **ple(i)otrópico**. A gene that is responsible for a number of phenotypic effects that appear to be unrelated.

pleiotropy. **ple(i)otropia**. A single gene action that affects the expression of several traits.

pleiotropism. **pleiotropismo**. The condition when one factor has an effect simultaneously on more than one character in the progeny.

pleomorphic. **ple(i)omórfico**. An actinomorphic flower with the number of parts reduced, as in the **Tripogandra**; also, having more than one independent spore stage or form in the life cycle; also, of dermatophytes, changes due to degeneration in culture.

pleomorphism. **pleomorfismo**. The capacity for an organism to exist in different forms or shapes.

pleophagous. **pleófago**. Said of a parasite which attacks several species of host plants.

plerome. **pleroma**. The soft, inmost tissue of the apical meristem made of actively dividing cells; procambium.

plerotic. **plerótico**. Said of the oospores of the **Pythiaceae** which fill the oogonium.

plethysmothallus. **pletismotalo**. A dwarf stage produced by some brown algae which bear reproductive organs that produce unilocular or neutral spores.

plesiomorph. **ple(i)ómorf**. A primitive or old-featured character. The opposite of apomorph. *See* plesiomorphic.

plesiomorphic. **plesiomorfo**. Characters that are shared by different organisms inherited from a common ancestor; means "old-featured", formerly referred to as "primitive".

pleur(o)-. **pleur(o)**-. A Greek prefix that means, "side-".

pleuracrogynous. **pleuracrógino**. Produced at the tip and at the sides.

pleurocarpous. **pleurocárpico**. A type of moss (**Musci**) in which fruit is borne on short, lateral branches and not at the tips of stems and branches; also, having fruit in a lateral position.

pleurogenous. **pleurógeno**. Borne in a lateral position.

pleurorhizal. **pleurorizal**. Said of the embryo of a flowering plant when the radical is placed against the edges of the cotyledons.

pleurosporous. **pleurospora**. Bearing the spores on the sides.

pleurotropic (dorsal). **pleurótropo (dorsal)**. An ovule that is horizontal with the micropyle toward the ventral bundle and the raphe above.

pleurotropic (ventral). **pleurótropo (ventral)**. An ovule that is horizontal with the micropyle toward the ventral bundle and the raphe below.

plexiform. **plexiforme**. In the form or shape of a network.

plicate. **plegado**. Having a series of fluted, longitudinal folds, as birch leaves (**Betulaceae**); also, folded like a fan; plait.

plicate aestivation. **estivación plegado**. A type of valvate aestivation in which the perianth segments are plicate.

plococarpium. **plococarpia**. A fruit with follicles around an axis.

plumbeous. **plumbeus**. Latin meaning "lead-colored".

plume. **pluma**. A light, hairy or feathery appendage on a seed or fruit which aids in wind dispersal.

plumed disseminule. **disemínulo con plumas**. A fruit or seed bearing a

plume.

plumose. **plumoso**. Hairy on both sides of an axis; feathery, as a plumose stigma.

plumule. **plúmula**. The stem and leaf producing structure in the terminal bud of the embryo of a seed which is located at the end of the hypocotyl and enclosed by cotyledon(s); epicotyl.

pluri-. **pluri-**. A Latin prefix that means, "many" or "several".

pluricelled. **pluricélula**. Having many cells.

pluricellular. **pluricelular**. Composed of two or more cells.

plurilocular. **plurilocular**. Having many cells with each cubical cell producing a single reproductive cell; said of a sporangium or ovary which is divided by septa into several compartments.

pluripotent. **pluripotente**. Capable of developing, growing, or producing in a number of ways, as pluripotent cells.

pluriseriate. **pluriseriado**. Occurring in many series or rows.

plurisporous. **plurisporo**. Having two or more spores.

plurivalent. **plurivalente**. In some types of cell division, said of compound chromatin rods formed of more than two chromosomes.

plurivorous. **plurivoro**. Attacking a number of hosts, or living on a number of substrates.

+ strain. **variedad +**. One of the two strains of a heterothallic mold, commonly distinguished from the corresponding -strain by its stronger growth.

PMC. **CMP**. Pollen mother cell.

pneumathode. **neumátodo**. The outlet of a plant's ventilating system,

usually having some loosely packed cells on the surface through which gas exchanges occur.

pneumatophore. **neumatóforo**. A specialized "breathing" root providing a channel for air; arising from the roots of various trees that grow in swampy places; also, a specialized root which grows vertically into the air from roots embedded in mud, providing gaseous exchanges for submerged roots.

pneumotaxis. **neumotaxis**. The response of an organism to carbon dioxide in solution; also, the response to the stimulus of any type of gases.

pneumotropism. **neumotropismo**. Pneumotaxis.

poculiform. **poculiforme**. Cup-shaped.

pod. **vaina**. **legumbre (en leguminosas)**. **baya**. **mazorca (del cacao)**. A dry, bivalve, dehiscent fruit case, that usually opens along two sutures at maturity and most commonly found in legumes.

podetium. **podetio**. In some lichens, a stalk or shrub-like part of the thallus which supports the fruiting body.

podium. **podio**. A footstalk or other supporting part.

podo-. **podo-**. A Greek prefix that means, "of a foot" or "stalk".

podocarp. **podocarp**. A stipe supporting a fruit; also, a stalk to a carpel.

podogyne. **podogyne**. A basal stalk; stipe; carpopodium.

point mutation. **mutación puntual**. **mutación puntiforme**. A change in the genetic composition of a cell due to a change in a single triplet of the DNA template; also, deletion and inversion can be the cause

of point mutation. A mutation that can be mapped to one location (locus); gene mutation.

poison. **veneno**. A substance causing illness or death. *See* toxin.

poisonous fungi. **hongos venenosos**. **hongos venenosas**. A group of fungi, commonly referred to as toadstools, that produce a toxic substance which is harmful to humans and some animals.

poisonous. **venenosa**. Containing or having the effect of poison. *See* toxic.

poium. **poio**. A meadow formation.

polar (sperm). **polar**. Pertaining to the poles of an ovum or nerve cell; at the end, especially of spores, bacteria etc.

polar body. **corpúsculo polar**. One product of oogenesis; extruded as a small, nonfunctional haploid product with little cytoplasm; polocyte.

polar cap. **casquete polar**. A group of fine protoplasmic strands formed early in division at the pole of a dividing nucleus which contribute to the formation of the spindle.

polar cell. **célular polar**. During meiotic division, a small cell that comes from an oocyte; a binucleate cell in the center of an embryo sac containing the two haploid polar nuclei; central cell.

polar cleft. **bisulco polar**. A linear expansion of the outer tissue of the raphe of some **Chrysophyta**.

polarilocular. **polarilocular**. A type of lichen spore with two cells separated by a perforated partition; orculiform.

polarilocular spore. **espora polarilocular**. A two-celled spore with a very thick median septum traversed by a canal; blasteniospire.

polarinucleate. **polarinucleado**. Said of a spore with an oil-droplet at each end.

polarity. **polaridad**. The establishment of poles or areas of specialization at opposite ends of a cell, tissue, organ, or organism which serve to differentiate, as roots from shoots.

polarization. **polarización**. Of chromosomes at telophase of mitosis and later, the maintenance of their proximal parts on the polar side of the nucleus; also, of chromosomes at zygotene, the movements of their ends towards the part or parts of the nuclear surface where the centrosomes lie; also, of centromeres, the initiation of orientated division during mitotic metaphase.

polarized light. **lus polrizada**. Light in which the waves oscillate in one plane only.

polar molecule. **molécular polar**. A molecule without a net electric charge, instead, the electrons are unequally shared between the nuclei. In molecules such as water, this results in the pull of the oxygen nucleus on the shared neutrons being greater than the pull of the hydrogen nuclei, resulting in the oxygen end having a slightly negative charge and the hydrogen ends having a slightly positive charge.

polar nodule. **nódulo polar**. A swelling at the the end of the raphe of the **Chrsophyta**; also, button-like thickening of wall material, filling the pores between heterocysts of the **Cyanophyta**.

polar nuclei. **nuclei polar**. The two haploid nuclei of the angiosperm female gametophyte that migrate to the center from the poles of the gametophyte.

polar nucleus. **núcleo polar**. The nucleus formed in the embryo sac by the union of the two polar nuclei, later it fuses with a male nucleus to give rise to the first endosperm nucleus.

polar pyrenoid. **pirenoide polar**. A pyrenoid which is not wholly enveloped in a sheath of starch grains.

polar transport. **transporte polar**. The directed movement of compounds (usually hormones) within plants, mostly in one direction, by a mechanism which requires metabolic energy, which overcomes the tendency for diffusion in all directions; does not need intact xylem or phloem streams.

pole. **polo**. The extreme axis, especially an elongated spore or of an egg cell; also, the extremity of the achromatic spindle which is formed during mitosis and where the spindle fibers come together.

polioplasm. **polioplasma**. Granular protoplasm.

politus. **politus**. Latin meaning "polished".

pollen. **polen**. In seed plants, fine, yellowish powder-like grains (microspores), each containing a male gametophyte, that are produced in the microsporangium of gymnosperm or in the anther of angiosperm; microspore of **Gyno-sperms** and **Angiosperms**.

pollen chamber. **cámara polínica**. The cavity formed in the apex of the nucellus of **Gymnosperms** in which pollen grains lodge after pollination has occurred. The pollen grains slowly develop there and ultimately bring about fertilization.

pollen flower. **flor polínica**. A flower which produces no nectar but lib-

erates large amounts of pollen which attracts insects.

pollen grain. **grano de polen. grano polínico.** A microspore containing a mature or young male gametophyte.

pollen mother cell. **célula madre del polen.** A $2n$ cell that divides (once by meiosis and once by mitosis) to form a tetrad of four pollen grains; microsporocyte.

pollen rain. **lluvia polen.** Pollen grains and spores that fall on a specific site.

pollen sac. **saco polínico.** A bag-like structure in the anther where the pollen is produced; male sporangium.

pollen tube. **tubo polínico.** A tube that grows from a pollen grain which provides a passage for male reproductive cells into the ovule; a tube formed on germination of a pollen grain that carries male gametes to the egg, and one to the central fusion nucleus with which it fuses to form the endosperm nucleus from which arise the endosperms.

polleniferous. **polinífero.** Pollen carrying or bearing.

pollinate. **polinizar.** To convey pollen from the anther to the stigma.

pollination. **polinización.** In flowering plants (angiosperms), the conveyance of pollen either by wind or insects from the anthers to the stigma for fertilization; also, in gymnosperms, the transfer of pollen from the microsporangium to the micropyle of the ovule.

pollinator. **agente polinizador. polinizante.** Any organism that effects pollination.

pollinium (*pl.* pollinia). **polinio.** Grains of pollen in uniform, coherent, waxy

masses, common in many species of orchids (**Orchidaceae**) and milkweeds (**Asclepias**).

pollinodium. **polinodio.** Antheridium.

pollutant. **polutante. agente de polución.** A substance introduced into the environment, usually by man, which contaminates the air, water, or soil. *See* contaminant.

pollute. **polucionar. contaminar. poluar. impurificar.** To contaminate or introduce an impure substance into the environment.

pollution. **polución. contaminación. impurificación.** The contamination of air, water, or soil with undesirable amounts of material or heat which may be natural, such as phosphate in excessive amounts, or it may be small quantities of a synthetic compound such as dioxin that is highly toxic.

pollution carpet. **alfombra de polución.** In a stagnant and polluted water, a slimy layer occurring on the bottom, usually composed of bacteria, detritus feeding protozoa, and fungi.

polocyte. **polocito.** *See* polar body.
poly-. **poli-.** A Greek prefix that means, "many".

polyad. **poliad.** Pollen grains occurring in groups of more than four.

polyadelphous. **poliadelfo.** Having stamens united in three or more groups in one flower; also, said of an andrecium when several of the stamens are joined by their filaments to form several bundles.

polyandrous. **poliandro.** Having many groups of stamens in one flower.

polyandry. **poliandria.** Having more than twenty groups of stamens in one flower; also, of oospores formed when more than one functional

antheridium is present.

polyanthous. **polianto**. Having many small flowers on a single head.

polyascus. **poliasco**. **poliasca**. Having many asci, especially when they are in one hymenium and not separated by sterile bands.

polycarpellary. **policarpelar**. Having many carpels, as the lemon.

polycarpic. **policárpico**. Bearing fruit year after year; perennial.

polycarpous. **policarpo**. Having two or more carpels in the ovary or fruit; also, having a gynecium made up of several free carpels.

polycarpy. **policarpia**. The stage or condition of bearing two or more carpels in the fruit perennially.

polycentric. **policéntrico**. A thallus that forms several reproductive centers; also, of a chromosome or chromatid which has several centromeres.

polycephalous. **policefálo**. A single plant with many flower heads.

polychasium. **policásio**. A cymose in which each axis bears more than two lateral axes.

polychateous. **policáteo**. Having many setae or bristles, as **Polychaeta**.

polychlamydeous chim(a)era. **quimera policlamideo**. A periclinal chimera in which the skin is more than two layers of cells thick.

polychlorinated biphenyls (PCBs). **bifenils policlorinado (BPCs)**. A group of 209 different toxic, oily, synthetic chlorinated hydrocarbon compounds that can be biologically amplified in food chains and webs.

polychrome. **policromo**. Multicolor. polyclimax. **policlimax**. A successional climax model proposed by A.G. Tansley, 1916 and 1920. *See* also monoclimax.

polycormic. **policormico**. Said of a wood plant which has several strong vertical trunks.

polycotyledon. **policotiledón**. A plant with two or more cotyledons in the embryo, as most cone-bearing species.

polycotyledonous. **policotiledóno**. Having more than two cotyledons.

polycyclic. **policíclico**. Having many whorls; many-whorled; also, said of a stele in which there are two or more concentric rings of vascular tissue.

polyeder. **polieder**. A solitary resting cell which develops from a zoospore of some of the **Hydrodictyaceae**. They grow and form zoospores which remain within a vesicle, ultimately forming a vegetative colony.

polyembrony. **poliembrionia**. The producing of more than one embryo within the testa of one seed of a flowering plant, either from one or several zygotes, the extra zygotes being sexual or parthenogenic, from reduced or unreduced eggs. The extra eggs may be derived from vegetative nucellar cells, sister mother-cells, sister spores, or sister nuclei within one embryo sac.

polyembryonate. **poliembriónado**. Having many embryos.

polyenergid. **polienégida**. Coenocyte. polyenergid nucleus. **núcleo polienégida**. A nucleus which contains several sets of chromosomes.

polyfactorial. **polifactorial**. *See* multifactorial.

polygamodioecious. **poligamodioico**. A sexual condition where two types of plants occur: one with some perfect and some staminate flowers, the other with some perfect and

some pistillate flowers.

polygamomonoecious. **poligamomonoico**. A sexual condition where some perfect and some staminate flowers are made on the same plant.

polygamous. **polígamo**. Producing some perfect and some unisexual flowers on the same plant; having the antheridia and archegonia variously disposed in the same species.

polygene. **poligen(e)**. One of a group of genes that collectively control a quantitative character, such as height; also, members of a polygenic system.

polygenic balance. **equilibrio poligénico**. A condition produced by the adjustment of the proportions of polygenes having opposite effects. A balanced set of polygenes within a chromosome is a balanced polygenic combination. Where the balance is achieved with a single representative of the chromosome, and is displayed by a homozygote, it is an internal balance, and where the balance is achieved by two homoogous chromosomes acting together, and displayed by a heterozygote, it is a relational balance.

polygenic character. **carácter poligénico**. A quantitatively variable character (phenotype), such as height, which is dependent on the interaction of a group of genes.

polygenic system. **sistema poligénico**. Pertaining to genes having effects similar and supplementary to each other, and small in comparison to the total variation. The members of such a system are replaceable in their effects.

polygenic. **poligénico**. Determined by many genes at different loci, with small additive effects; multifactorial.

rial.

polygonal. **poligonal**. Having more than four sides and angles.

polygynous. **poligino**. Said of a flower having many distinct styles.

polyhaline. **polihalino**. Refers to a highly salt-tolerant species not usually seen outside very saline environments; also, in the Venice brackish water classification system, the second most saline zone.

polyhaploid. **polihaploide**. Haplo-polyloid.

polymer. **polímero**. A large molecule formed by the linkage of a number of smaller, identical molecules. The combination is usually brought about by a simple condensation and the polymer has the same empirical formula as the individual unit.

polymeric genes. **gens polímero**. Genes that are not allelomorphic but have the same cumulative effect on the phenotype.

polymerase. **polimerasa**. An enzyme that catalyses the replication and repair of nucleic acids.

polymerous. **polímero**. Having many members in each whorl, as a polymerous floral whorl.

polymery. **polimeria**. The condition when a whorl consists of many members.

polymictic. **polímictico**. Refers to high altitude tropical lakes with continuously circulating water.

polymitosis. **polimitosis**. The intercalation of rapid supernumerary mitosis in the life cycle immediately after meiosis, with or without division of the chromosomes.

polymorphic. **polimorfo**. Having many forms, as in a species or genus.

polymorphism. **polimorfismo**. In a population, the continuance of two

or more forms of a trait, at a regularity that is greater than can be maintained by newly arising mutations alone; if changed, will return to its former value over several generations; also, of a fungus having more than one spore form.

polynucleate. **polinucleado.** Multi-nucleate.

polynucleotide chain. **cadena polinucleotídica.** The attachment of one nucleotide to another in a linear manner.

polynucleus. **polinucleolus.** Having several nuclei.

polyoicium. **polioicio.** Said of a bryophyte in which antheridia and archegonia may occur on the same plant or on separate plants.

polypeptide chain. **cadena polipeptica.** Ten or more amino acids linked by peptide bonds.

polypeptide. **polipéptido.** A chain of covalent-linked amino acids joined by peptide bonds; a condensation product of dipeptides.

polypetalous. **polipétalo.** A corolla with separate petals; pertaining to a flower which has the petals free from each other; dialypetalous.

polyphagy. **polifagia.** Said of a parasitic fungus which has the thallus branching through while attacking several host cells at the same time.

polyphore. **políforo.** Having a receptacle bearing many ovaries, as in **Rosa**.

polyphenol. **polifenol.** A compound composed of several phenol units.

polyphenol oxidase. **oxidasa polifenol.** An enzyme bringing about the oxidation of polyphenols.

polyphyletic. **polifilético.** Having its origin from more than one ancestral type.

polyphyletism. **polifiletismo.** The occurrence in taxa of species or groups that have descended from different ancestral lineages; some phyletic taxonomists hold that these are unnatural, and are therefore errors of classification rather species or groups that have originated as a result of convergent or parallel evolution.

polyphyllous. **polifilo.** With many leaves, as a polyphyllous perianth; also, having separate or distinct leaves; multifoliate.

polyplanetism. **poliplanetismo.** Said of zoospore when they have resting and motile phases alternating.

polyploid. **poliploide.** Having three or more complete sets of chromosomes in each cell; euploid.

polyploidy. **poliloidia.** A condition in which a plant has somatic cells with more than 2n chromosomes per nucleus. This condition comes from the replication within a nucleus of complete chromosome sets without later nuclear division.

polypodiaceous. **polipodiáceo.** Refers to a family of ferns, **Polypodiaceae**, having erect and creeping rootstock and an elastic ring enclosing the spore cases.

polyribosome. **poliribosoma.** Groups of ribosomes linked by a strand of messenger RNA functioning as a unit in synthesizing protein.

polysaccharide. **polisacárido. poliósido. poliholósido.** A carbohydrate composed of many simple sugars united in a large molecule that can be decomposed into two or more monosaccharides by hydrolysis.

polysaprobe. **polisaprobio.** An organism capable of living in highly polluted water.

polysepalous. **polisépalo**. Having many separate and distinct sepals; chori-sepalous; dialysepalous.

polysiphonous. **polisifono**. Pertaining to an algal tallus consisting of a central row of elongated cells surrounded by one or more layers of peripheral cells.

polysome. **polisoma**. See polyribosome.

polysomic. **polisómico**. Having more than the normal number of chromosomes; also, a polysomic organism or cell.

polyspermous. **polispermo**. Producing many seeds.

polyspermy. **polispermia**. The entrance of more than one antherozoid into any egg.

polysporangium. **poliesporangio**. A sporangium with many spores.

polyspore. **poliespora**. A many-celled spore; also, pertains to **Rhodophyta**, an asexual spore, more than one of which is produced in a sporangium.

polystemonous. **polistémono**. Having many stamens, usually more than twice the number of petals and sepals; polyandrous.

polystichous. **polístico**. Arranged in more than one row, as polystichous leaves.

polystylous. **poliestilo**. With many styles.

polysymmetrical. **polisimétrico**. In regular flowers, capable of being divided into similar parts at more than one plane.

polythetic. **politético**. Using many criteria as the basis for a subdivision of a sample population or for the grouping of individuals.

polytomous. **polítomo**. Having several branches arising at the same

level.

polytopism. **politopismo**. A type of monophyletism where a new taxon occurs in more than one place from conspecific parents.

polytypic. **politípico**. Having several variant forms, as subspecies or varieties.

polytypism. **politipismo**. The occurrence of several variant forms, especially in geographically separate areas.

pomaceous. **pomáceo**. Having a core with many seeds and a fleshy outer portion, as a pomaceous fruit.

pome. **pomo**. An inferior, indehiscent, many-seeded fruit coming from a compound ovary in which the receptacle forms the outer, fleshy portion, as in apples (**Malus**).

pomiform. **pomiforme**. Apple-shaped.

pomology. **pomología**. The branch of botany that pertains to fruit and growing fruit.

population. **población**. A group of individual plants of one species living in a specific area (usually separated from other similar groups); also, genetically a mating group, limited for special consideration, either by environment or breeding.

population density. **densidad de (la) población**. The number of individuals in a particular population found in a specific area.

population dispersion. **dispersión de la población**. The general pattern in which the individual members of the population are arranged throughout the habitat.

population distribution. **distribución de la población**. The variation of a population's density over a specific area.

population dynamics. **dinámica de las poblaciones.** Major biotic and abiotic factors that tend to increase or decrease the population physical characteristics.

population ecology. **ecología de poblaciones.** The study of the interaction of a specific species or other taxon with its environment.

population explosion. **explosión demográfica.** The sudden and rapid increase in the population size of a species or other taxon, commonly occurring when a species is introduced into a new locality with the necessary life support resources.

population genetics. **genética de (las) poblaciones.** The study of inherited variations in populations and its modulation in time and space; generally involving gene frequency, selection, mutation, and migration studies.

population size. **tamaño de la población.** The number of individuals that make up the gene pool.

porandrous. **porandro.** Having anthers that open with pores, and not slits.

pore. **poro.** A small opening in the tissue, as in leaves, allowing for the passage of water and carbon dioxide; also, in soil, a crack or space not filled by a soil particle; also, the aperture of a stoma; also, one of the tubular cavities lined by basidia in the pore-bearing fungi; also, a minute vertical canal running through the areola of some of the centric diatoms.

poricidal. **poricida.** In capsules, one that opens through pores, as in **Triodanis**; also, an anther that opens through a pore at the apex of the pollen sac.

poriform. **poriforme.** Having the ap-

pearance of a pore.

porogamy. **porogamia.** The entry of the pollen tube through the micropyle.

porophyllous. **porofilo.** Having leaves covered with pores or transparent dots.

poroid. **poroide.** Having distinct pores; also, a fine, incomplete canal running through the areola of some centric diatoms.

porose. **poroso.** Pertaining to cells which are pierced by pores.

porosity. **porosidad.** Having a porous quality or condition.

porous. **poroso.** Having tiny holes in tissue which allows the passage of liquids, air, or light; also, a soil with abundant air space between soil particles.

porous dehiscence. **dehiscencia poroso.** The liberation of pollen from anthers, or seeds from fruits through pores in the wall of the containing structure.

porphin. **porfina.** The parent compound of the porphyrins.

porphyrin. **porfirina.** A derivative of a porphin which forms part of the structure of many important botanical structures, including chlorophyll and cytochromes.

porrect. **porrecto.** Pointing outward or extending horizontally outward, as a parrot beak.

position. **posición.** In plant taxonomy, the position of a taxon refers to its place as an element of a taxon of the next higher rank; for example, the position of **Quercus** is a genus in the family **Fagaceae**.

position effect. **efecto de posición.** The change in the expression of a gene when its position is changed with respect to adjacent genes; can

be induced through inversions and translocations.

positioned. **situado**. Refers to the placement or attachment of plant organs to other dissimilar organs or major parts; also, refers to the plant's relationship to its environment.

positive. **positivo**. Describes the moving or turning toward any of a group of stimuli, as light, water or gravity, thereby exhibiting positive tropism.

positive chiasma interference. **interferencia quiasmática positivo**. See chiasma interference.

positive feedback. **realimentación positivo**. In the operation of a system, the mechanism that intensifies the process as each cycle establishes conditions favorable to repetition. See negative feedback mechanism.

positive reaction. **reacción positivo**. A taxis or tropism from a region where the stimulus is weaker to one where the stimulus is stronger.

postclimax. **postclímax**. In the monoclinal model of climax vegetation, the term describing communities that differ from the climatic climax resulting from cooler and/or moister conditions than are characteristic of the area; common to higher elevations, especially on the windward slopes of mountains.

posterior. **posterior**. Located on the side nearest the axis, as the posterior or upper lip of a bilabiate corolla; also, inserted on the back of another organ; also, the rear; adaxial; superior.

postcingular plate. **placa postcingular**. One of a series of plates next to the girdle in the hypotheca of the **Peridinales**.

post-fertilization stages. **estados de los postfertilización**. The developmental processes which go on between the union of the gametic nuclei in the embryo sac and the maturity of the seed.

post-floral movement. **movimiento postfloral**. A change in the position of the flower stalk or inflorescence stalk after fertilization has occurred, so as to bring the fruit into a more favorable position for development, or placing the seeds in good conditions for germination.

postical. **postical**. Relating to or belonging to the back or lower part of a leaf or stem.

posticous. **postico**. Outward or behind.

postmeiotic division. **división postmeiotic**. The first nuclear division after meiosis has been completed.

post-reduction. **postreducción**. As opposed to pre-reduction, the segregation of differences between partners at the second, as opposed to the first meiotic division.

postventitious. **postventitio**. Delayed in development.

potamium. **potamio**. A river formation.

potamoplankton. **potamoplacton**. The plankton living in rivers and streams.

potamous. **potamo**. Living in rivers and streams

potassium (K). **potasio (K)**. An element with the chemical symbol of K which is essential to control in the water potential of cells. A potassium deficiency reduces plant growth, detectable by dark or blue-green leaf colors.

potence. **potencialidad**. The property of a group of polygenes, corresponding to the degree of dominance of

the major gene.

potential energy. **energía potencial.**

Available energy, not yet expressed.

potometer. **po(te)tómetro.** An instrument used to measure a plant's water uptake and to estimate transpiration rates.

pouch. **bolsa.** A bag-like cavity or cyst.

poussieroid. **pousieroide.** Said of a stage of meiotic division, prior to prophase in which the chromatin is distributed as fine granules.

powdered. **pulverulento.** Dust-like particles, as with certain fungus or mildew.

prae-. **prae-.** A Latin prefix that means, "before" or "very".

praecox. **praecox.** Latin meaning "appearing early".

praemorse. **premorso.** Same as pre-morse.

prairie. **pradera. llanura.** A broad, flat grassy plain, characterized by tall grasses (**Poaceae**) and occasional shrubby plants and trees.

pratral. **pratral.** Growing in meadows.

pratensis. **pratensis.** Latin meaning "of meadows".

pre- **pre-.** A prefix that means, "before (time)" or "earlier".

prebiotic. **prebiótico.** Before the existence of living things.

precingular plate. **placa precingular.** One of the series of plates adjoining the girdle in the epitheca of the **Peridinales**.

precipitation. **precipitación.** The presence of moisture in the form of dew, rain, snow, or any other form of water that falls from the atmosphere onto the ground or into bodies of water.

preclimax. **preclímax.** The community that develops immediately before the climax; also, in the mono-

climax model, the name given to communities that differ from the climatic climax due to a hotter and/or drier environment than associated with the regional climate.

precocious. **precoz.** Developing unusually early, as flowers or fruits occurring before the leaves.

precocity. **precocidad.** The property in the nucleus at meiosis of beginning prophase before the chromosomes have divided. Differential precocity is when some chromosomes, or their parts, condense, divide, or pair before the rest of the chromosomes during prophase.

precocity theory. **teoría de precocidad.** That meiosis is primarily distinguished from mitosis by showing a precocity of prophase, which successively determines pairing, crossing-over, chiasma formation, and non-division of the centromeres. A second division is inserted together with the reduction of chromosome number and the segregation of differences.

preferential species. **especie preferente.** In phytosociology, a species growing in a number of communities but especially abundant in one particular location.

prefloration. **prefloración.** The arrangement of the flower petals in the bud before it opens; aestivation.

prefoliation. **prefoliación.** Vernation.

prehensile. **prensil.** Adapted for grasping, as tendrils on certain vines.

prelamellar chamber. **cámara prelaminar.** A transverse chamber in the lower surface of the pileus of agarics where the gills and hymenium develop.

premeiotic mitosis. **mitosis premeiót-**

ico. The nuclear division immediately preceding the organization of nuclei which will divide by meiosis.

premature sprouting. **retoño prematuro.** An early or abnormal emergence of leaves or buds.

premature. **prematuro.** Occurring before the regular or normal time, as premature sprouting.

premore. **premorso.** Ending abruptly, as a root or leaf that appears to have been bitten off.

prepotency. **prepotencia.** The ability of some pollen to bring about fertilization more readily than other pollen.

prereduction. **prereducion.** Disjunction in the heterotype division.

presence and absence theory. **teoría de la presencia-ausencia.** That the dominance of an allelomorph is due to the presence of something in it which is absent from its alternative.

presentation time. **tiempo de presentación.** The minimum time that an organism has to be exposed to a stimulus before there is a perceptible response.

pressure potential. **presión potencial.** The quality of water potential produced by the force created by real pressure (turgor pressure) against a membrane.

prevailing climax. **climax predominante.** The most common, stable, undisturbed community in a specific region.

preventitious bud. **botón preventivo.** A dormant bud which will produce an epicormic bud under suitable conditions.

prevernal. **prevernal.** In the early springtime; also, flowering early in the year; also, used in reference

to the six part division of the year: prevernal, aestival, autumnal, hibernal, serotinal, and vernal.

prickle. **aguijón.** A small, slender, sharp-pointed outgrowth from the cortex or epidermis of an organ; a hard pointed dermal appendage that does not contain a vascular bundle.

prickly. **aguijonoso. aguijonado.** Having prickles; echinate.

primary. **primario.** First, as the first part to emerge or to be formed; also, the most important.

primary air pollutant. **polutante del aire primaria.** The harmful chemicals emitted into the air as direct by products of combustion or other processes as opposed to those that form as a result of various chemical reactions occurring in the atmosphere (secondary air pollutants).

primary axis. **eje primaria.** The main shoot of a plant; also, the main stalk of an inflorescence.

primary body. **corpúsculo primaria.** The part of the plant formed directly from cells cut off from the apical meristem.

primary branch. **rama primario.** Branch emerging directly from the main inflorescence axis.

primary cell wall. **pared celular primario.** The cellulose wall of all plant cells which develop at the time of mitosis and cytokinesis; the cell wall surrounds the protoplast until it is nearly mature and fully grown. It is thin, usually non-stratified and contains less cellulose and more pectin than the mature wall. It later persists as the middle lamella.

primary constriction. **constricción primaria.** Centromere.

primary consumer. **consumidor pri-**

- mario.** Any organism that consumes a producer organism as a food source; a herbivore.
- primary ecological succession. **sucesión ecológica primario.** A serial development of communities in a bare area that has never been occupied by a community or organisms.
- primary growth. **crecimiento primario.** Following seed germination, the cell divisions, elongation, and differentiation that give rise to the primary plant body.
- primary increase. **aumentación primario.** The increase in the size of a stem or root brought about by the addition of cells from the cambium.
- primary lamella. **laminilla primario.** The first formed layer of the wall of a spore.
- primary leaf. **hoja primaria.** The first leaf to emerge from the embryo; juvenile leaf.
- primary medullary ray. **rayo medular primario. radio medular primario.** A vascular ray passing radially from the pith to the cortex.
- primary meristem. **meristemo primario.** The meristem that remains growing from the time of its development in the embryo within the seed.
- primary mycelium. **micelio primario.** The haploid mycelium produced by the germination of a basidiospore, as in a mushroom.
- primary node. **nudo primario.** The node at which the cotyledons are inserted.
- primary phloem. **floema primario.** The phloem formed from a procambial strand and present in a primary vascular bundle. It consists of proto-phloem and metaphloem.
- primary pigments. **pigmentos primaria.** Pigments that emit electrons which directly drive photosynthetic reactions.
- primary production. **producción primaria.** An ecosystem's capture and storage of chemical energy.
- primary productivity. **productividad primaria.** The rate at which an ecosystem's producers capture and store a specified amount of chemical energy as biomass in a specific amount of time.
- primary root. **raíz primario.** The one root that grows from the embryo.
- primary sere. **sere primario.** A plant succession beginning on land which has never borne vegetation in recent geological time.
- primary structure. **estructura primaria.** The composition of the polypeptide chain, including the type, number, and sequence of amino acids or nucleotides in the chain.
- primary succession. **sucesión primario.** Plant successional events occurring in a virginial or new forming habitat; primary ecological succession.
- primary thickening. **engrosamiento primario.** The first layers of wall material to be laid down on the very young cell wall, often rich in pectic material.
- primary tissue. **tejidos primario.** A tissue that has differentiated from a primary meristem.
- primary trisomic. **trisómico primario.** A plant which has the ordinary diploid chromosome complement, together with one extra chromosome.
- primary universal veil. **velo universal primario.** Protoblem.
- primary uredo. **uredo primario.** Uredium.

primary wall. **pared primario**. A thin membranous enclosure around a growing cell.

primary wood. **leña temprano**. **leña de primavera**. Early or spring wood.

primary xylem. **xilema primario**. The xylem formed from a procambial strand and present in a primary vascular strand. It consists of protoxylem and metaxylem.

prime type. **tipo primo**. In *Datura*, one of the homologous types of chromosome structures, as distinguished from other types by interchange, and used as a basis of reference.

primine. **primino**. The outer covering (integument) of an ovule.

primitive. **primitivo**. Preserving the character of an ancestral developmental stage; original; first formed.

primordial. **primordial**. Primitive.

primordial cell. **célula primordial**. A cell which has not yet formed a cell wall.

primordial germ cell. **célula germinal primaria**. Sex cell.

primordial leaf. **hoja primordial**. Embryonic leaf.

primordial meristem. **meristema primordial**. Promeristem.

primordium (*pl.* primordia). **primordio**. The early cells that are the precursors of an organ.

primospore. **primospora**. A spore very like a cell of a thallus.

prisere. **priser(i)e**. **presere**. Primary succession.

prismatic. **prismático**. Having sharp angles and flat sides.

pristine. **pristino**. A natural, virginal, or undisturbed site.

pro-. **pro-**. A Latin prefix that means, "before" or "coming earlier".

proanthesis. **proantesis**. Flowering before the normal or usual time.

probasidium. **probasidio**. A teliospore, or the basidium from nuclear fusion to the start of the epibasidium, sterigma, or spore development in any basidiomycete; hypobasidium.

probe. **sonda**. A defined segment of DNA or RNA, commonly carrying a radioactive label, used to identify a specific segment of DNA that carries the complementary base sequence.

procambium. **procambio**. A group of elongated cells at the growing apex of roots and stems which become vascular bundles as the plant continues its growth.

procarp. **procarpo**. A multicellular, female reproductive organ in red algae (**Rhodophyta**), consisting of an archcarp and trichogyne.

procaryotes. **procariotas**. *See* prokaryote.

procerus. **procerus**. Latin meaning "lofty".

process. **protuberancia**. A projecting part or appendage.

prochromosome. **procromosoma**. A body of heterochromatin seen in the resting stage of a nucleus.

procumbent. **procumbente**. A plant that trails or lies on the ground but does not send out roots from the nodes. *See* prostrate.

prodiploidization hypha. **hifa prodiploidización**. A hypha which may be diploidized.

producer. **productor**. Any organism that uses solar energy (green plants) or chemical energy (some bacteria) to create the organic compounds needed as nutrients from simple inorganic compounds from the environment.

production ecology. **ecología de la producción**. The division of ecology that addresses energy flow and nutrient cycling within ecosystems.

productivity. **productividad**. *See* primary productivity.

proembryo. **proembrión**. The group of cells, few in number, formed as the zygote begins to divide, and from one or some of which, the embryo is formed.

proenzyme. **proenzima**. Zymogen.

profile position. **posición perfil**. A position assumed by chloroplasts and by leaves when the edge of the structure is turned towards the position from which the light is coming.

profoundly. **profundamente**. Growing deep below the surface.

profundal zone. **zona profunda**. The bottom or deepwater area of freshwater ecosystems where light does not penetrate; may not be present in shallow ponds and lakes.

progametangia. **progametangia**. Enlarged fungi hyphae that join at the point of contact and eventually form gametangia.

progametangium. **progametangio**. A short side branch developed in the **Mucorales** from which a gametangium is cut off by a transverse septum.

progeny test(ing). **prueba de descendencia**. **prueba de progenie**. The method of assessing the genetic character of an individual by the performance of its progeny.

progressive cleavage. **división progresiva**. The cleavage of the nucleus or cells, to give 2, 4, 8, *etc.* daughter cells, one after the other.

progressive succession. **sucesión progresiva**. In a particular setting, the consecutive development from a

simple community with few species to an optimum sustainable community.

prohybrid. **prohíbrido**. A mycelium having additional nuclei from hyphal fusions.

prolamine. **prolamina**. A simple protein, insoluble in water and saline solutions, but soluble in 70 % ethanol.

projected. **saliente proyectado**. Growing outward, as projected branches; salient; porrect.

projection. **prominencia**. A bump or protuberance.

prokaryote. **procaríoto**. A cell or organism without a distinct nucleus, as blue-green algae (**Cyanophyta**). *See* cyanobacteria.

prokaryotic. **procaríótico**. Lacking a membrane-bounded nuclei, plastids, Golgi apparatus, and mitochondria.

prolate. **prolado**. Somewhat globular, but flattened equatorially.

proleptic. **proléptico**. Developing abnormally late, as proleptic shoots developing from lateral buds directly underneath the terminal.

proletarian. **proletario**. A plant having little or no reserves of food material.

proliferous. **prolífico**. Multiplying by producing bulblets or plantlets from buds, or side branches, or leafy shoots growing from flowers or fruits.

proliferation. **proliferación**. Producing outgrowths, as a second flower from the substance of the first, either from the center of a simple flower or from the side of an aggregate flower; also, a renewal of growth in a mature organ after a period of inactivity; also, the formation

of a sporangium inside the empty walls of a previously discharged sporangium; also, the production of off-shoots which may become detached and establish themselves as new plants.

proline. **prolina**. A heterocyclic, non-polar amino acid, formed by the decomposition of proteins.

promeristem. **promeristemo**. Apical tissue growth that develops into other bud parts.

prometaphase. **prometafase**. The stage between the dissolution of the nuclear membrane and the aggregation of the chromosomes on the metaphase plate.

prominently. **prominente**. Noticeably raised from the surface, as prominently veined.

promitosis. **promitosis**. The special type of nuclear division during the growth stage in the **Plasmodiophoraceae**.

promoter. **promotor**. **promotora**. A segment of DNA that directs a group of structural genes.

promycelium. **promicelio**. A short filament that bears sporidia, developed in spore germination; a short germ tube put out by some fungal spores, on which other spores of different types develop.

propagate. **propagar**. To reproduce or multiply.

propagation. **propagación**. The process of reproducing or multiplying, commonly used with vegetative reproduction.

propagule. **propágulo**. A bud, seed, spore, or any other structure able to develop into a new plant.

prophage. **profágo**. The genome of a bacteriophage whose host bacterium responds to its presence

lysogenically.

propagulum. **propágulo**. A small reproductive branch which becomes detached from the parent and grows into a new plant; referred especially to structures occurring in brown alga.

prophase. **prófasa**. **profase**. The first stage of mitosis when chromatin is formed into the chromosomes and they become visible; also, the first stage in meiosis, from the point when chromosomes appear (leptotene) to the point when chromatids contract (diakinesis). The stages of meiotic prophase are leptotene, zygotene, the pachytene, the diplotene, and the diakinesis; also, the stage in mitosis or meiosis when the chromosomes appear within the nucleus, and in meiosis when undergoing pairing.

prophyll. **profilo**. One of two bracteoles subtending the flowers of some species, as **Juncus**; bracteole.

proplastid. **proplastido**. An immature or new structure that precedes the plastid and generally describes the plastids in the meristematic cells which give rise to the other plastid forms during differentiation.

proplectenchyma. **proplecténquima**. A false tissue of elongated fungal hyphae.

prop root. **raíz fúlcrea**. **raíz zanco**. **raíz de apoyo**. **raíz aérea de sostén**. **raíz sesentativa**. Adventitious roots, usually emerging from the lower nodes, that help support the stem, as on mangrove trees.

prosenchyma. **prosénquima**. Long, narrow cells with pointed ends that form ducts or vessels that are characteristic of the woody and bast portions of plants; also, plecten-

chyma in which the hyphae are evident and distinct.

prosorus. **prosoro**. In the **Chytridiales**, a cell giving rise to a group of sporangia.

prosporangium. **prosporangio**. Of **Phycomycetes**, a sporangium-like body which puts out a vesicle (sporangium) in which zoospores may develop and from which they are freed.

prospory. **prosporia**. The formation of sporangia on a very young plant.

prostheca. **prosteca**. In some bacteria, a narrow, stem-like projection from the cell.

prosthetic group. **grupo prostético**. A non-protein component of a conjugated protein or the cofactor of an enzyme.

prostrate. **postrado**. *See* procumbent.

protamine. **protamina**. Any of a group of globular proteins of low molecular weight containing large amounts of the amino acid arginine, but no sulfur; associated with nucleic acids.

protandrous. **protandro**. Stamens or anthers (male) developing before carpels or stigma (female); opposite of proterogynous.

protandry. **protandria**. The maturation of anthers (male) before carpels (female), as in dandelions (**Asteraceae**).

protantherous. **proteranto**. With leaves appearing before flowers.

protease. **proteasa**. An enzyme that speeds the hydrolysis of the peptide bonds of proteins and peptides.

protective color. **color protectora**. A color some plants display that provides protection from predators by allowing them to blend with their environment.

protective tissue. **tejido protector**. A layer of suberized cells lying across

the place where a leaf comes away at leaf-fall. It checks a water loss and the entry of parasites.

protein. **proteína**. Organic compounds containing carbon, hydrogen, oxygen, nitrogen and frequently sulphur and phosphorus, found in the protoplasm of plant cells. They are synthesized from amino acids and are one of the main constituents of protoplasm. They are mainly amino acid residues joined by peptide linkages.

protein molecule. **molécula proteína**. **molécula prote(in)ica**. A large molecule composed of many amino acids, and the most important class of compounds in the cell. They are divided structurally into two groups, globular and fibrous proteins. Functionally, they act variously as enzymes, hormones, structural elements, respiratory pigments, contractile elements, antibodies, and as genes.

proteinase. **proteinasas**. Proteases.

proteolysis. **proteólisis**. **proteolisis**. The breaking down of proteins into their component amino acids by proteolytic enzymes, as in digestion.

proteolytic enzyme. **enzima proteolítica**. An enzyme that breaks down proteins; protease.

protease. **proteosa**. These are protein derivatives, soluble in water, and not coagulated by heat. They are precipitated by saturation with ammonium or zinc sulphate, and condense to form protein.

proterandrous. **protándrico**. Characterized by the male reproductive organ maturing before the female.

proterandry. **proterandria**. Proterandrous.

proterogynous. **proterógino**. In hermaphrodite flowers, the stigma (female) matures before anthers (male) release the pollen; opposite of protandrous.

prothallium. **protálio**. See prothallus.

prothallus. **protálo**. In ferns (**Filicopsida**) and mosses (**Musci**), the structure that bears the sex organs; as an independent gametophyte plant of the **Pteridophyta**, it is a small green parenchymatous thallus bearing antheridia and archegonia. It shows little differentiation, and is usually prostrate on the soil surface, to which it is attached by rhizoids. It may be subterranean and mycotrophic; also, the similar life cycle of gymnosperms; also, the earliest stages in the development of a lichen thallus; protonema; gametophyte.

Protista. **protistas**. In some taxonomic classification systems, Protista is a separate kingdom and in others, a super phylum or phylum. In either usage, it is a grouping of simple, undifferentiated, unicellular or multicellular organisms that includes algae, bacteria, fungi, and protozoans or various combinations of these groups.

protists. **protistos**. **protistas**. Eukaryotic, generally single-celled organisms, such as diatoms, amoebas, some algae (golden brown and yellow-green), protozoans, and slime molds. Some produce their own nutrients through photosynthesis, while others are decomposers feeding on bacteria, other protists or multi-celled organisms.

proto-. **proto-**. A prefix that means, "first in time, first in formation",

or, "primordial", as in protoplasm.

protoaecium. **protoecidio**. A haploid structure which, after diploidization, becomes a fruiting structure.

protobasidium. **protobasidio**. A primitive basidium.

protoblemmatogen. **protoblematógono**. A loose flocculent layer covering the universal veil.

protoconidium. **protoconidio**. Hemispore.

protocooperation. **protocooperación**. A population interaction where both populations benefit but neither is dependent on the relationship; alliance.

protocorm. **protocormo**. A tuber-like structure formed in the early stages of the development of club mosses and some other plants which appear to live in close association with fungi when young. In the culb mosses, it develops from the distal 4 cells of the eight-celled embryo and produces rhizoids and conical protophylls which are leaf-like in function.

protoderm. **protoderma**. A thin layer of tissue out of which the epidermis develops; dermatogen.

protogamy. **protogamia**. The union of gametes without the fusion of their nuclei.

protogonidium. **protogonidio**. **protogonidia**. The first of a series of gonidia.

protogynous. **protógino**. Characterized by carpels or stigma maturing before stamens or anthers.

protogyny. **protoginia**. A condition in which the female organs develop first.

protohymenial. **protohimenial**. Having a primitive hymenium.

protolysis. **protolisis.** The decomposition of chlorophyll by light.

proton. **protón.** A positively charged particle in the nuclei of all atoms with a relative mass of 1 and a single positive charge.

protonema (*pl.* protonemata). **protonema.** The product of spore germination in mosses (**Musci**) and some liverworts (**Hepaticae**); also, thread-like structures from which the leafy portions grow; also one of the initial branches produced from a germinating spore of the **Charales**, one branch ultimately producing the new plant.

protopectin. **protopectina.** A substance similar to pectin, but consisting of longer chains, which occurs in cell walls, especially of algae.

protoperithecium. **protoperitécio.** *See* protoaecium

protophloem. **protopfloema.** Elongated, narrow cells (procambial strands) forming the first phloem tissue, which lies closest to the outer piece of the stem. It may be generalized in structure with poorly formed sieve tubes and no companion cells.

protophyll. **protófil.** A sterile leaf. *See* protocorm.

protophyte. **protófito.** The gametophyte in an alteration of generations, when the two generations are unlike; also, a unicellular plant.

protoplasm. **protoplasma.** The living substance of a cell which includes the cytoplasm and nucleus, but excludes vacuoles and cell wall mass secretions.

protoplasmic respiration. **respiración plasmática.** Respiration proceeding at the expense of protein materials in a starved plant

protoplasmic streaming. **corriente**

plasmática. flujo plasmático. The streaming motion that may occur in the protoplasm of living cells.

protoplast. **protoplasto.** The living protoplasm within a cell that has a cell wall and composed of the nucleus, cytoplasm, and plasma membrane; the protoplasm, as distinct from the cell wall.

protoplast fusion. **fusión del protoplasto.** A hybridizing method of using enzymes to digest the cell wall of two distinctly different cells, then treating the plasma membrane so that the protoplasts of the two cells fuse. The result is generally not possible with traditional plant breeding methods.

protosome. **protosoma.** A hypothetical central body in a gene.

protospore. **protospora.** Said of the **Synchytriaceae** when a uninucleate piece of protoplasm becomes the sporangium.

protostele. **protostela.** In the plant axis, a solid core of xylem surrounded by phloem. The most simple and primitive form of stele, made of a rod of xylem surrounded by a cylinder of phloem. It is present in the stems of some ferns and lycopods and is universally present in roots.

prothallus. **prototalo.** The first stage in the formation of a lichen thallus, often before the fungus and alga have become associated. The term is sometimes applied to the fringe of hyphae growing out from the edges of a mature thallus.

prototroph. **prototrofo.** A microorganism that has the nutritional requirements and capabilities characteristic of a non-mutant type.

prototype. **prototipo.** A primitive or

original form of a species; archetype.

protouredium. **protouredinio**. *See* protoaecium.

protoxylem. **protoxilema**. The first xylem tissue to develop; located closest to the pith. It is derived from the apical growing point, and begins to thicken before elongation is complete.

protozoa. **protozoario**. **protozoo**. Any of a phylum or subkingdom of mostly microscopic, single-celled, animal-like organisms that reproduce by budding, dividing into spores, or by fission. *See* Protista.

protruding. **sobresaliendo**. Projecting or bulging outward, as a bump.

protrusion. **protuberancia**. **prominencia**. An outward swelling or bulging.

protuberance. **protuberancia**. An outward projection, swelling or bulging that may give the appearance of being a special part.

provascular tissue. **tejido provascular**. The procambium.

provenance. **procedencia**. The natural origin of a tree or stand of trees.

proviral state. **estado provírica**. The condition of a host cell after transformation.

provirus. **provirus**. A plasmagene which may develop into a virus.

proximal. **proximal**. The point of attachment of an organ, near the base; also, the part of a chromosome arm which is nearer to the centromere than another part.

proximate. **próximo**. Near or nearest.

pruinose. **pruinoso**. Covered with white, powdery granules, somewhat waxy, as a pruinose stem; sebiferous or frosted.

prulaurasin. **prulaurasina**. Mandelo-

nitrile.

prune. **podar**. To reduce the number of lateral branches or roots by cutting.

pruina. **pruina**. A powdery bloom or secretion on the surface of a plant.

pruinose. **pruinoso**. Covered with a waxy or powdery bloom; also, covered with minute points that give the appearance of frost.

prunasin. **prunasina**. A glucoside, d-mandelonitrile, in the bark of wild cherry.

pruniform. **pruniforme**. Shaped like a plum.

pruning. **poda**. The selective removal of parts of a plant, usually woody shrubs or trees; for improving quality and size of fruits or flowers, or for eliminating diseased tissue.

pruriens. **pruriens**. Latin meaning "causing itching".

psammon. **psa(m)mon**. Microscopic flora and fauna living in the spaces between grains of sea and lake shore sand.

psammophile. **(p)samófil**. A plant which lives in sandy soil.

psammophilous. **(p)samófilo**. **arenícola**. Living or growing in sand or in a sandy environment; ammobilous.

psammophytes. **psamófitas**. Sand plants.

psammosere. **psa(m)mosere**. The successional sequence of changes characteristic of plant life on sand-dunes.

pseud-. **seud-**. A Greek prefix that means, "closely similar," "fictitious," or "false".

pseudanthium. **seudantio**. A compact floral head composed of many small, individual flowers which gives the appearance of being a single, simple

flower.

pseudoaethalium. **seudoaetalio**. Of the myxomycetes, a group of separate sporangia looking like an aethalium.

pseudoamitosis. **seudoamitosis**. An irregular nuclear division caused by treating the cells with poison.

pseudoapogamy. **seudoapogamia**. The replacement of the normal fusion of sexual nuclei by the fusion of two female nuclei, a female nucleus with a vegetative nucleus, or two vegetative nuclei.

pseudoapospory. **seudoaposporia**. The formation of a diploid spore without meiosis first taking place.

pseudoaquatic. **seudoacuático**. Not a true aquatic plant, but living in wet places.

pseud(o)axis. **seudeje**. A false stem or axis; sympodium; monochasium.

pseudoberry. **seudobaya**. A fleshy fruit which looks like a berry, but in which some of the fleshy parts are derived from an enlarged perianth.

pseudobubil. **seudobulbilo**. In some ferns (**Filicopsida**), a prothallus that replaces the sporangia.

pseudobulb. **seudobulbo**. In many orchids (**Orchidaceae**), a swollen, aerial internode storing food.

pseudocapillitium. **seudocapilicio**. In the myxomycetes, a sterile structure in the fruit body which has no connection with the sporogenous protoplasm.

pseudocarp. **seudocarpo**. A fleshy fruit that is also an aggregation of achenes, as strawberries (**Arbutus**); also, a fruit having more than a ripened ovary, as an apple (**Rosaceae**), pineapple (**Bromeliaceae**), and many others; false fruit.

pseudocilium. **seudocilio**. A long im-

mobile cytoplasmic process produced by the cells near the edge of the colonies of the **Tetrasporales**.

pseudocolumella. **seudocolumela**. Of the **Physaraceae**, lime-knots massed like a columella in the center of the sporangium.

pseudocyphella. **seudocifela**. A cavity like a cyphella on the under side of the thallus of some lichens.

pseudodrupe. **seudodrupa**. A two to four-celled nut, enclosed by a fleshy involucre, as in **Juglans**.

pseudo-epithecium. **seudoepitecio**. In the fruiting bodies of some ascomycetes, a layer above the hymenium made of the tips of paraphyses in an amorphous matrix.

pseudogamy. **seudogamia**. A union between two vegetative cells that are not closely related; also, the development of an egg cell into a new individual from the stimulus of a male gamete, but without nuclear fusion.

pseudogene. **seudogen**. Genes that no longer have any function having been switched off at some time during the evolutionary process.

pseudoidium. **seudoidio**. A separated hyphal cell capable of germination.

pseudomarine. **seudomarina**. Applied to fresh water forms bearing a resemblance to marine types but not necessarily closely related.

pseudomixis. **seudomixis**. Fusion between two vegetative cell or between cells which are not differentiated as gametes.

pseudomonomerous. **seudomonómero**. A whorl that appears to have one member that is actually a fusion of two or more parts.

pseudomorph. **seudomorf**. A stroma composed of plants parts kept to-

gether by plectenchyma.

pseudomycelium. **seudomicelio**. Said of yeasts and others, when the cells are loosely united in chains.

pseudomycorrhiza. **seudomicorriza**. An association between a fungus and a higher plant in which the fungus is distinctly parasitic.

pseudonucleolus. **seudonucléolo**. A net knot.

pseudoparaphysis. **seudoparáfisis**. Paraphysoids.

pseudoparenchyma. **seudoparénquima**. A mass of loosely interwoven filaments which look like parenchyma in section.

pseudoperianth. **seudoperianto**. A cylindrical upgrowth, one cell thick, around a archegonium of the **Marchantiaceae**.

pseudopercidium. **seudoperidio**. A sheath of sterile hyphae surrounding the aecidium of the **Uredinales**.

pseudoperithecium. **seudoperitecio**. Of the **Laboulbeiales**, a perithecium-like structure in which asci and spores become free; also, the perithecium-like fruit body characteristic of the **Pseudosphaeriles**; proto-perithecium.

pseudophysis. **seudofisis**. A paraphysoid structure in the **Cyphellaceae**, which is thin-walled, smooth, swollen at the end and moniliform.

pseudoplasmodium. **seudoplasmodio**. A mass of closely associated uninucleate myxamoebae which retain their identity; also, in cellular slime molds, a plasmodium-like structure composed of many separate amoeboid cells.

pseudopodium. **seudopodio**. A mobile and variable extension of the protoplasm; also, a leafless stalk of the gametophyte of the **Sphagn-**

aceae. It bears the sporophyte and remains short until the sporophyte is mature, then elongates; also, a leafless branch formed by some mosses (**Musci**), and bearing gemmae.

pseudopycnidium. **seudopicnidio**. A pycnidium-like structure of hyal tissue, as in certain Fungi-Imperfecti.

pseudoramulus. **seudoramulo**. A false filament occurring in some algae.

pseudoraphe. **seudorafe**. A longitudinal strip running the length of a valve of the **Pennales**. It lacks a longitudinal slit.

pseudorhiza. **seudoriza**. A "rooting" base, as in the fungus *Collybia radicata*.

pseudoscape. **seudoescapo**. A false scape, where some leaves are not basal but only appear to be.

pseudoseptate. **seudoseptado**. A false partition or division.

pseudoseptum. **seudosepto**. A septum which is perforated by one or more pores; found in the lower fungi.

pseudosperm. **seudoespermio**. A small indehiscent fruit which looks like a seed.

pseudospore. **seudospora**. An ecysted myxamoeba; also, an obsolete term for basidiospore.

pseudostem. **seudotalo**. A false stem made from swollen leaf bases, as with bananas (**Musa**).

pseudostipule. **seudostípula**. An appendage at the base of a leaf stalk which looks like a stipule but is really part of the lamina.

pseudoterminal bud. **yema pseudoterminal**. A bud that appears apical but is actually lateral near the apex, developing when the terminal bud fails to emerge.

pseudoverticillate. **seudoverticilado.**

Only appearing to be whorled.

pseudowhorl. **seudoverticilo.** An arrangement of leaves that rise close enough together as to appear to rise at the same level, although in fact do not do so.

pseudozygospore. **seudozoospora.** Azygospore.

psilium. **psilio.** A prairie formation. psilophilous. **psilófilo.** Pertaining to the primitive pteridophytes, the earliest vascular plants with scale-bearing stems occurring in the Palaeozoic Era.

psychrophile. **psicrófilo.** An organism that grows best at temperatures of 15° C or lower; cryophil.

psychrophilic. **psicrófilo.** Growing best at low temperatures.

psychrophyte. **psicrófito.** Plants that thrive in cold temperatures (15°C or lower).

psychrotroph. **psicrótrofo.** An organism that can grow at 15° C, however, it grows better at higher temperatures.

pterate. **pterado.** Having wings.

pteridology. **pteridología.** The branch of botany that deals with ferns (**Filicopsida**).

pteridophyte. **pteridofita.** Belonging to the fern (**Filicopsida**) or related family having no seeds and included in the **Pteridophyta**, the highest type of flowerless plants.

pteridosperms. **pteridospermas.** Seed ferns.

ptero-. **ptero-.** A Greek prefix that means, "winged" or "feathered".

pterocarpous. **pterocarpo.** Having winged fruit.

ptero caulous. **ptero caulo.** Having winged stems.

pteroid. **pteroide.** Fern-like.

pteropsida. **pterópsidos.** The vascular plants which have leaf gaps in the stele, including ferns, gymnosperms, and angiosperms.

pterospermous. **pterospermo.** Having winged seeds.

ptyxis. **ptixis.** The way an individual leaf is folded in the bud.

puberulent. **puberulento.** Covered with a minutely straight, slender, almost invisible hair; diminutive of pubescent.

pubescent. **peloso (en general). pubescente (en particular).** Having or covered with soft, slender trichomes, as pubescent leaves.

puffball. **bejin. abombado. abullonado.** The common name for a fruit body in some fungi (**Gasteromycetes**) which are more or less spherical and the spores inside are released through pores in the peridium.

puffing. **formación de puffs.** The simultaneous and violent discharge of ascospores from many asci at the same time.

pulchellus. **pulchellus.** Latin meaning "beautiful".

pullulate. **pululado.** The sprouting or germination of a seed; also, reproduction by budding.

pullulate. **pulular.** To multiply greatly or rapidly.

pullulation. **pululación.** Budding or sprouting.

pulp. **pulpa.** The soft pith in the interior of a stem; also, the soft, succulent part of a fruit or vegetable, as the pulp of a grapefruit (**Citrus**).

pulpous. **pulpo.** Pulpy; having pulp. pulse. **pulso.** Edible seeds of any of the legumes; also the bloom of algae.

pulsule. **pulsulo**. A vacuole in the protoplast of the **Dinophyceae** which looks like a contractile vacuole, but on careful examination, has a distinct wall and does not contract.

pulverulent. **pulverulento**. Covered with fine, waxy granules like powder.

pulvinar. **pulvinular**. Resembling or like a cushion or pillow; cushion-like.

pulvinate. **pulvinado**. Swollen like a pillow, as in a pulvinate leaf, a leaf stalk, swollen at the base.

pulviniform. **pulvinforme**. Same as pulvinar.

pulvinule. **pulvinulo**. The small pulvinus of a leaflet.

pulvinus. **pulvínulo**. An enlargement on the stem below the leaf; also an enlargement of the base of the petiole.

pumilus. **pumilus**. Latin meaning "low" or "small".

punctate. **punteado**. Having pores or point-like, small depressions.

puncticulate. **puncticulado**. Diminutive of punctate.

punctiform. **punctiforme**. Having the shape or form of a point, as bacterial colonies which are very small but can be seen without a lens; about a millimeter or smaller in diameter.

punctum vegetationis. **punctum vegetationis**. Latin meaning "growing point".

pungent tip. **ápice punzante**. Ending in a sharp point; sharp-pointed, as pungent leaves.

pungent. **punzante**. Having a sharp point; also, having a penetrating odor or taste.

puniceus. **puniceus**. Latin meaning "bright carmine".

pure culture. **cultivo puro**. A culture of pure stock of one species of plant. The term is used especially for bacteria and fungi; axenic culture.

pure line. **línea pura**. Plants which have descended by self-fertilization from a single homozygous individual; also, an inbred homozygous strain.

purine. **purina**. A colorless, crystalline compound from which adenine and guanine, nucleic acid components are derived; also, an organic nitrogenous base, slightly soluble in water, that is a major component in DNA and RNA.

purine group. **grupo purina**. A group of cyclic diureides derived from one molecule of dibasic hydroxyacid and two molecules of urea. The simplest is purine.

purple (color). **púrpura (color)**. A dark color that is a blend of red and blue.

purplish. **purpúreo**. Somewhat purple.

purpureus. **purpureus**. Latin meaning "purple".

pusillus. **pusillus**. Latin meaning "small", "weak", or "slender".

pustulate. **pustulado**. Having scattered blister-like swellings or eruptions.

pustule. **pústula**. A small elevation or pimple-like swelling; also, a mass of fungal spores and the hyphae bearing them.

pustulose. **pustuloso**. Having prominent, blister-like swellings.

pusule. **pusulo**. A small vacuole present in the protoplast of some lower plants, which is able to expand and contract.

putamen. **pireno**. The hard endocarp

- or stone of some fruits, as a peach (**Amygdalus**) which is a hollow endocarp surrounding the seed.
- putrefaction. **putrefacción**. Anaerobic digestion by bacteria of protein material, as meat.
- pycnidiophore. **picnóforo**. A fruit body having pycnidia.
- pycnidiospore. **picnóspora**. A conidium formed inside a pycnidium; a spore formed inside a pycnidium; also, of **Uredinales**, a spore from a pycnium.
- pycnidium. **picnidio**. A spherical or flask-shaped fruiting body in which conidia are formed and released by some basidiomycetous fungi.
- pycnium. **picnio**. Spermatogonium.
- pycnocondium. **picnocondio**. A conidium formed inside a pycnidium.
- pycnogonidium. **picnogonidio**. Stylospore.
- pycnosis. **picnosis**. Contraction of the nucleus as the cell dies. It forms a compact, strongly-staining mass.
- pycnospore. **picnóspora**. A spore formed inside a pycnidium; spermatium.
- pycnothecium. **picnotecio**. A fruit body formed by pycnosis.
- pycnoxylic wood. **leña picnoxilico**. A compact wood which contains little or no parenchyma.
- pygmaeus. **pygmaeus**. Latin meaning "dwarf".
- pyramid of biomass. **pirámide de la biomasa**. A diagram representing the biomass at different trophic levels in an ecosystem, by indicating dry matter or calorific value per unit area or volume.
- pyramid of energy. **pirámide de la energía**. A diagram showing the flow rate of energy through the different trophic levels in the ecosystem; reflecting the rates of photosynthesis, respiration, and others, but not as a standing crop, as in the pyramid of biomass.
- pyramid of numbers. **pirámide de los números**. A diagram depicting the number of organisms of a particular type than can be supported at each trophic level from a specified input of solar energy at the producer trophic level in a food chain or food web; numerical pyramid.
- pyramidal. **piramidal**. Cone-like and pointed, as with some prickles; triangular-shaped, like a pyramid.
- pyran. **pirano**. The ring form of a hexose sugar.
- pyrene. **pireno**. A fleshy fruit, with each seed enclosed in a bony endocarp, as the seed of apples (**Malus**) and pears (**Pyrus**), also A small hard body containing a single seed, rather like the stone of a drupe, but many pyrenes may occur in a single fruit.
- pyrenocarp. **pirenocarpo**. **drupa**. The pit of drupes or drupelets, as cherries (**Prunus**) or raspberries (**Rubus**); perithecium.
- pyrenoid. **pirenoide**. The starch forming and storing area in the chloroplasts of some algae and bryophytes.
- pyrenomycetes. **pirenomicetos**. A group of ascomycetes including those which produce true perithecia with ostioles, or stromata containing cavities within which the asci are developed. The orders of this group are not necessarily related.
- pyrenium. **pirenio**. An obsolete term for the sporocarp of the **Sphaeriales**.
- pyriform. **piriforme**. Having the shape of a pear (**Pyrus**); pear-shaped.

pyrimidine. **pirimidina**. A liquid or crystalline organic base, six-membered ring, containing nitrogen; also, any of a group of compounds naturally derived from pyrimidine, a major nucleic acid component of DNA and RNA.

pyro-. **piro-**. A Greek prefix that means, "fiery".

pyrophilous. **pirófilo**. Fire-loving; describes a plant that can withstand conditions created by fire.

pyrophyte. **pirofito**. A plant able to withstand or gain competitive ad-

vantage from fire.

pyruvic acid. **ácido pirúvico**. A 3-carbon acid that is central to cell metabolism and is the final product of glycolysis in aerobic respiration.

pyxidate. **pixidado**. Having a pyxis.

pyxidium. **pixidio**. A circumscissile seed that opens transversely into a top and bottom part, with the top acting as a lid, as in **Plantago**; diminutive of pyxis.

pyxis. **pixidio**. Same as pyxidium, but larger.

Q

Q₁₀. **Q₁₀**. The rate of increase of a chemical process (expressed as a multiple of the initial rate) produced by raising the temperature 10° C. For biological processes, as with many chemical ones it is often between 2 and 3.

quadrangular. **cuadrangular**. Having four angles, as a quadrangular stem.

quadrat. **cuadrate**. A basic sampling unit for studying the relative abundance of species, especially non-woody plant communities; traditionally, plots are 1 m².

quadrata. **cuadrado**. Square or nearly square; a square of vegetation usually one square meter) selected at random for the examination of the vegetation of a given area.

quadri-. **cuadri-**. A Latin prefix that means, "four" or "having four".

quadricapsular. **cuadricápsular**. Having four capsules.

quadrifarious. **cuadrifario**. Arranged in four rows or ranks.

quadrifid. **cuadrifido**. Divided into four parts, as a leaf or petal.

quadrifoliate. **cuadrifoliado**. Having four leaves attached laterally to a stem; also, having leaves in whorls of four.

quadrifoliolate. **cuadrifoliolado**. A compound leaf with four leaflets.

quadrifurcate. **cuadrifurcado**. Doubly dichotomous.

quadrijugate. **cuadriyugado**. Bearing four pairs of leaflets, as the petiole of a pinnate leaf.

quadrilateral. **cuadrilateral**. With four

sides.

quadrilobate. **cuadrilobado**. Having four lobes, as a quadrilobate leaf.

quadrilocular. **cuadrilocular**. Having four cells or parts resembling cells, as a quadrilocular pericarp.

quadrupartition. **cuadripartición**. The division of a spore mother cell into four spores.

quadriphyllous. **cuadrifilo**. Having four leaves.

quadripinnatifid. **cuadripinnatífido**. Four times pinnately cleft.

quadruplex. **cuadriplexo**. Having four dominant genes.

quadrivalent. **cuadrivalente**. An association of four chromosomes held together between diplotene and metaphase of the first meiotic division, usually by chiasmata; also, a nucleus having two pairs of homologous chromosomes, or an individual containing such nuclei.

quadruplex. **cuadrupelexo**. A polyploid in which a particular dominant allelomorph is present four times.

qualitative characters. **carácter cualitativo**. Inherited characteristics that relate to form, structure, behavior, or function.

qualitative inheritance. **herencia cualitativo**. The acquisition of a character that is distinctively different in its expression from other individuals of the species; the variation is not continuous.

quantasome. **cuantasoma**. The fundamental unit of organization of

the chloroplast; also, one of the granules containing chlorophyll inside the chloroplast.

quantitative biology. **biología cuantitativo**. Biometry.

quantitative characters. **carácter cuantitativo**. Characteristics that describe the species in terms of number and size, as spore production in ferns (**Filicopsida**), height of trees, and nectar production in clover (**Trifolium**).

quantitative inheritance. **herencia cuantitativo**. The acquisition of a character that is produced by the cumulative action of many genes, each producing only a small effect, as spore production in ferns (**Filicopsida**) or the height of trees.

quantum evolution. **evolución del cuanto**. **evolución cuántica**. In an evolutionary lineage, the sudden spurt of diversification.

quantum. **cuanto**. **cuántum**. A "packet" of energy; a fixed elemental unit, as energy.

quantum speciation. **especiación cuanto**. Describes a rapid change that can take place in species that are isolated from their large ancestral population.

quartet. **cuarteto**. The group of four related cells or nuclei formed as a result of meiosis.

quasi-sympatric speciation. **especiación casisimpátrico**. The separation of one species into two by the adaptation of different subpopulations.

quaternary structure. **estructura cuaternaria**. The structure of a protein resulting from the interaction of two or more individual polypeptides to give large functional molecules.

quaternate. **cuaternado**. Arranged in sets of four, as a quaternate leaf.

quercitin. **cuercetina**. A flavonal occurring in the free state or combined in glycosidal forms in a wide range of flowers and leaves.

quiescence. **quiescencia**. The condition in which a seed or other plant part will not germinate or grow without the appropriate environmental factors being present.

quill-like. **púa**. More or less tapering, usually hollow; terete.

quinary. **quinaria**. In fives.

quinate. **quinado**. With five similar structures, as leaflets from a common point.

quincuncial aestivation. **estivación quincuncial**. A particular type of imbricate aestivation in a five-petalled corolla. Two petals overlap their neighbors by both edges, two are overlapped on their edges, and one overlaps one neighbor, and is overlapped by the other.

quincuncial phyllotaxy. **filotaxia quincuncial**. A spiral arrangement of leaves on a stem in which five leaves make up one turn of the spiral and the angular distance between any two consecutive leaves is two fifths of the circumference.

quincuncial. **quincuncial**. Having an arrangement of five leaves or petals with two parts outside, two parts inside and one both inside and outside, as with buds.

quincunx. **quincuncial**. An overlapping arrangement of five petals or leaves, with two inside, two outside, and the other, only partially outside.

quinone. **quinona**. A yellowish, crystalline compound of benzene with two hydrogen atoms replaced by

two oxygen atoms that act as electron carriers in mitochondria and chloroplasts.

quinque-. **quinque-**. A Latin prefix that means, "having five" or "five times", as quinquefoliate, having five leaves.

quinquecostate. **quinqueacostillado**. Having five ribs.

quinquefarious. **quinquefario**. Arranged in five ranks, as quinquefarious scales.

quinquefid. **quinquefido**. Five-cleft; about halfway from the margin to the base with the linear sinuses and straight margins, as a leaf.

quinquefoliate. **quinquefoliado**. Having five leaves or leaflets; also, having leaves in whorls of five.

quinquejugate. **quinqueyugado**. Arranged in five pairs.

quinquelobate. **quinquelobado**. Having five lobes; divided almost to the middle into five distinguish- ing parts with convex margins, as a leaf.

quinquelocular. **quinquelocular**. With five cells or locules.

quinquenerved. **quinquenervio**. Hav- ing five main nerves.

quinquepartite. **quinquepartitia**. Di- vided into five parts almost to the base.

quintuplinerved. **quintuplinervio**. Having five nerves, all proceed- ing from above the base of the lamina, as quintuplinerved leaves.

R

race. **raza. estirpe.** A term occasionally used to indicate any interbreeding subvariety species, as a breed or strain.

racemation. **racemación.** A cluster of grapes (**Vitaceae**).

raceme. **racimo.** An unbranched, elongated inflorescence with pedicellate flowers which matures from the bottom upwards, as lily of the valley (**Convallaria**); also, a group of sporangia maturing in a similar manner.

racemiferous. **racemífero.** Bearing racemes.

racemiform. **racemiforme.** Raceme-like or growing in the shape of raceme, but not necessarily the structure of a true raceme.

racemose. **racemoso.** Bearing raceme; also, flowers borne on racemes; racemous.

racemous. **racemoso.** Same as racemose.

racemule. **racemula.** A small raceme.

rachilla (inflorescence). **raquilla (inflorescencia).** The central axis of a grass or sedge; a spikelet.

rachilla (leaf). **raquilla (foliar).** The secondary axis of a compound leaf; also, the axis in the center of a grass spikelet.

rachis (inflorescence). **raquis (inflorescencia).** The major axis within an inflorescence; the axis that bears the flower.

rachis (leaf). **raquis (foliar).** The main axis of a pinnately compound leaf

or frond.

racket cell. **célula raqueta.** Of dermatophytes, a hyphal cell having a swelling at one end.

radial. **radiado. radial.** With floral parts radiating from a central point, as spokes on a wheel; also, the lateral spines of a cactus; actinomorphic.

radial bundle. **haz radial.** A vascular bundle, commonly occurring in roots, with the primary xylem and phloem lying on alternate radii.

radial dot. **punto radial.** The Casparian Strip, when it is cut in a transverse section, or in certain longitudinal sections, it appears as a dot on the wall of the endodermis.

radial symmetry. **radial simetría. simetría radiada.** If an organ or organism can be split down any radius longitudinally to give two identical halves, it is radially symmetrical.

radial wall. **pared radial.** An anticlinal wall placed on or across the radius of an organ.

radiant. **radiante.** Radiate.

radiant energy. **energía radiante.** Energy in the form of waves.

radiant umbel. **umbela radiante.** An umbel in which the outer flowers are larger than those in the middle.

radiate (whorled). **radiado (verticilado).** With three or more parts spreading from a central point, as in the **Asteraceae**; also, said of a

stigma in which the receptive surface radiates outward from the center; said of a capitulum which has ray florets.

radiate-veined. **radiado-vena**. Having palmate veining.

radiatiform. **radiatiforme**. Appearing to radiate, as the heads of a *Centaurea cyanus* (*Asteraceae*).

radiation ecology. **radioecología**. See radioecology.

radiation. **radiación**. Energy in the form of waves or particles, especially electromagnetic waves. X rays and visible light are forms of radiation.

radical (basal). **radical (basal)**. At the bottom or base of a structure; pertaining to a leaf arising from a rhizome or from the base of a stem.

radicant. **radicante**. The root growing on a prostrate stem.

radicate. **arraigado**. Rooted.

radication. **radicación, enraizamiento**. Rooting; also, the general characteristic of the root system of a plant.

radicel. **raicilla, radicela**. A rootlet or the branch-like extension of a root.

radicellose. **radicelosa**. Bearing rhizoids.

radi(c)icolous. **radicícola**. Said of a parasite which attacks roots.

radiciferous. **radicífero**. Bearing roots.

radiciflorous. **radicifloro**. With the flower emerging directly from the root crown.

radiciform. **radiciforme**. Appearing or shaped like a root.

radicle. **radícula**. The lower part of the axis of an embryonic seedling which develops into a root; the primary or rudimentary root; also, the rhizoid of a moss; also, any small root.

radicular. **radicular**. Relating to roots. radiculose. **radiculoso**. Having many rootlets; also, said of the "stem" of a moss which bears many rhizoids at the base.

radioactive carbon-14. **carbono 14 radiactivo, radiocarbono**. A radioactive isotope of carbon.

radioactive tracer. **trazador radiactivo**. A radioactive isotope whose movement is or can be traced through organisms, living systems, or the abiotic environment.

radioactive. **radiactivo**. Giving off or capable of giving off radiant energy in the form of particles or rays.

radioactivity. **radioactividad**. Nuclear change where unstable nuclei of atoms spontaneously shoot out chunks of mass, energy, or both, at a fixed rate. There are three principal types: gamma rays, beta particles, and alpha particles.

radiobiology. **radiobiología**. The branch of biology which studies the effects of radiation on living cells and organisms.

radiocarbon dating. **radiocronometria, datación de radiocarbónica**. Carbon dating is based on the fact that radioactive carbon-14 decays at a fairly regular rate. By measuring the amount of radioactive carbon-14 which remains in preserved organic materials, scientists can tell within a margin of error, when the organism died.

radioecology. **radioecología**. A branch of ecology that studies the effects of radioactive material on living systems and on the avenues by which they are diffused through the ecosystem, including the abiotic environment.

radiosperm. **radiosperma**. A seed which

- is approximately circular in cross section; also, a plant, especially fossil forms, bearing such seeds.
- radioisotopes. **radioisótopo**. Unstable isotopes of certain elements that emit particles of radioactive decay. Used to date the age of fossil materials based on the rate of disintegration of the radioisotopes.
- radius. **radio**. The group of ray florets in a capitulum.
- radula spore. **espora rádula**. A spore on a sterigma which has no relation to the growing point of the hypha.
- radix. **raíz**. The root of a plant, especially one used for medicine.
- raffinose. **rafínosa**. A trisaccharide sugar made of a galatose residue, a glucose residue, and a fructose residue.
- rain. **lluvia**. **precipitación pluvial**. Water falling to earth from condensed moisture in the atmosphere.
- rain factor. **factor de lluvia**. An expression of the humidity as a function of rainfall and temperature. The ratio of the mean annual rainfall in mm. to the mean annual temperature in degrees centigrade.
- rain forest. **selva alta perennifolia**. **selva tropical**. **bosque pluvial**. **pluv(i)selva**. **bosque lluvioso**. A perennial tropical forest, the oldest of all vegetative types, which occurs in the equatorial lowlands and is characterized by plants that flower, fruit and leaf continuously throughout the year; also found occasionally in northern areas, such as southeastern Alaska.
- rain-loving. **ombrófilo**. Plants that thrive on large amounts of rain.
- rain shadow. **sombra de lluvia**. A condition of relatively little rain-fall occurring on the downwind side of mountainous areas, as a result of the warm air moving downslope, which usually prevents atmospheric condensation.
- rainy. **lluvioso**. **pluvioso**. Characterized by much rain.
- rainy season. **estación de lluviosa**. **época de lluvia**. A regular, systematically occurring period of rain.
- raise. **cultivar**. **aporcar**. To grow or cultivate.
- ramal. **rameal**. Pertaining to or resembling a branch or a ramus, as a ramal leaf of the *Crescentia cujete* (**Bigoniaceae**), which is attached directly to a branch.
- rambler. **callejero**. A weak-stemmed plant that leans on and scrambles over the surrounding vegetation.
- rameal sheath. **vaina de la rameal**. A leaf sheath on the stem joints, as on horsetails (**Equisetum**).
- ramentaceous. **ramentáceo**. **ramentoso**. Covered with ramentum.
- ramentum. **ramento**. A thin, flat, membranous scale formed on the leaves, petioles, and stems of certain ferns (**Filicopsida**).
- rameous. **rameal**. Growing on or coming out of a branch.
- ramet. **rameto**. The individual member of a clone, as a leaf of a clover (**Trifolium**).
- rami-. **rami-**. A Latin prefix that means, "pertaining to branches".
- ramiferous. **ramífero**. Producing branches.
- ramificated. **ramificarse**. Branched or branched out.
- ramification. **ramificación**. The arrangement of branches or offshoots on a stem; branching.
- ramiflorous. **ramifloro**. Borne on the branches.

ramiform. **ramiforme**. Branched or resembling a branch.

ramify. **ramifia**. To be divided or subdivided, as the branching of a stem.

ramoconidium. **ramoconidio**. A spore derived from a part or branch of conidiophore.

ramose. **ramoso. ramificada**. Branched or bearing many branches.

ramulose. **ramuloso**. Having many small branches or ramuli.

ramular. **ramular**. Pertaining to a branch.

ramular trace. **traza ramular**. *See* branch trace.

ramulus. **ramula**. A very small branch or branchlet.

ramus (ramuli, *pl.*). **rama**. A branch. ramuscule. **ramuscule**. A little ramus or branchlet; a ramulus.

random. **azar**. Pertaining to or involving the same or equal chances or probability of occurrence for each member of a group.

random branching. **ramificación al azar**. Branches emerging from buds without relation to leaves.

random drift. **desviación al azar**. The chance fluctuations of gene frequencies in a population so that the genes among the offsprings are not perfectly representative of the parental genes.

random mating. **apareamiento al azar**. The situation within a population where each individual has an equal chance of mating with any other individual, including itself; subject to any known restrictions, *e.g.* dioecy or incompatibility.

random sample. **muestra al azar. muestra aleatoria**. A method of selection from a group that is drawn from the total group in a manner so that every item has an equal

chance of being chosen.

randomization. **randomización**. The process of arriving at a random combination of event types.

range. **zona. pradera**. The area of distribution of a species; also, extensive open grazing land with native vegetation that is predominantly composed of grasses (**Poaceae**) or shrubs suitable for grazing animals.

rank. **serie. categoria**. A vertical row; for example leaves that are 2-ranked are in two rows along the stem; also, the level within a taxonomic hierarchy or the location of a category of a taxon in a classification hierarchy, as family, genus, and species.

raphal. **rafal**. Pertaining to the raphe.

raphe. **rafe**. In some ovules, the longitudinal cord of vascular tissue connecting the hilum with the chalaza; also, on seeds, the ridge formed from adnate funiculus; also, a rib on a valve of a diatom.

raphides. **rafidios**. Very small, needle-shaped crystals of calcium oxalate which are present in many plant cells.

rareripe. **raramaduro**. Early maturing or ripening, as certain fruits or vegetables.

Raunkiaer categorization. **Categorización de Raunkiaer**. A plant classification system of the Danish botanist C. Raunkiaer (1876–1960), based on the position of perennating buds in relation the soil surface. *See* chamaecophyte, epiphyte, geophyte, hemicryptophyte, phanerophyte, and therophyte.

ravenelin. **raveneline**. A metabolic product of *Helminthosporium ravenelii* and *H. turcicu*.

ravine. **barranca**. In the earth's surface, a long, deep, narrow valley which is larger than a gully but smaller than a canyon, and has been formed by a stream or a rushing flood.

raw humus. **humus bruto**. Mor.

ray. **rayo**. The branch of an umbel or a similar inflorescence; also, the strap-like part of a ligulate flower in the **Asteraceae**, especially used to refer to the marginal flowers that differ from the regular flowers in the center; also, one of the vertical bands of tissue between the pith and the bark of a tree or other plant; also, the non-vascular tissue developed in a stele. The material between the primary vascular bundles is the interfascicular ray, and that developed in the secondary vascular tissue, by division of the cambium, the vascular ray.

ray floret. **flósculo radial**. **flor radial**. Any of the flowers around the margin of the head of certain **Asteraceae**, as a daisy; also, one of the small flowers radiating out from the margin of a capitulum or other dense inflorescence.

ray flower. **floreccilla radial**. Same as ray floret.

ray initial. **inicial radial**. One of the cells of the cambium which takes part in the formation of a ray.

raylets. **rayuelos**. Minute or very small ray.

ray tracheid(e). **traqueida radial**. A thick walled cell which occurs in the vascular rays of pines (**Pinaceae**). It has bordered pits and conducts aqueous solution horizontally.

RDP. **RDF**. Ribulose diphosphate.

re-. **re-**. A Latin prefix that means, "back".

reactant. **reactante**. An element or compound that is involved in a chemical reaction.

reaction. **reacción**. The fifth step in a six step process of plant succession, in which the species or plant community modifies the physical location to such a degree as to enhance further successional development; for example, a reduction in water run-off with a resulting increase in silt accumulation that provides adequate soil for the growth of shallow-root species; also, in biochemistry, a rearrangement of one or more of the molecular components resulting in the formation of one or more additional substances that may have different properties; also, the degree of soil acidity or alkalinity expressed as a pH value; also, any change in the activity of an organism in response to a stimulus. *See* sere.

reaction center. **centro de reacción**. In a photosynthetic unit, the hypothetical site where energy coming from the absorption of light is used to transport electrons for photophosphorylation.

reaction time. **tiempo de reacción**. The time interval between the application of a stimulus and the appropriate reaction.

reafforestation. **repoblación forestal**. *See* reforestation.

recalcitrant seed. **semilla recalcitrante**. A seed that is viable for only a short time, commonly for one year or less; especially true for many tropical genera.

recapitulation theory. **teoría de la recapitulación**. The theory that the ancestral characters are reflected in the development of an individual.

recedent. **recedente**. A term applied either to the genom or the pasmon when they are of subsidiary importance in heredity.???????

receptacle. **receptáculo**. The enlarged area at the end of the pedicel that bears the flower bracts and florets, as in the **Asteraceae**; also, in ferns (**Filicopsida**), the axis of the theca; the torus; in some algae, such as **Fucus**, a swollen part of the thallus; also, in fungi, a spore-bearing structure, especially if it is more or less concave; in liverworts, a cup containing gemmae; thalamous.

receptacular. **receptaculares**. Pertaining to or growing on the receptacle.

receptaculum. **receptaculo**. A fleshy part below the seed which is formed from the bases of bracts and the swollen receptacle or cone axis, as in the **Podocarpaceae**.

receptive body. **cuerpo receptivo**. A small branched or unbranched process from the stroma, capable of being "spermatized" by microcondia.

receptive hypha. **hifa receptivo**. Flexuous hypha; trichogyne.

receptive papilla. **papila receptivo**. In some phycomycetes, a small outgrowth from the oogonium into the antheridium, where the antheridium become attached.

receptive spot. **lugar receptivo**. The clear area in the female gametes of some fungi and algae, through which the male gamete enters.

receptiveness. **receptividad**. The condition of a stigma when effective pollination and fertilization is possible.

receptor cell. **célula receptora**. A sensory cell or cell part that can be

activated by a stimulus in the internal or external environment.

recessive. **recesivo**. The allele in a pair of contrasting alleles that is latent or subordinate when both are present in the germ plasma; also, the relationship of two allelomorphs where the single gene heterozygote does not resemble one of the the two homozygous parents because its effect is masked by the dominant allelomorph.

recessive allele. **alógeno**. In the heterozygous state, an allele whose expression is fully or partially hidden by its partner's expression, but can be fully expressed in the homozygous state.

recessive gene. **gen recesivo**. A gene that is masked by a dominant allelic partner, with the recessive phenotype expressed only when both alleles for a specific trait are recessive.

reciprocal cross. **cruzamiento recíproco**. **cruce recíproco**. In genetics, one of a pair of crosses where the male parent in one cross is of the same kind as the female parent in the other, *i.e.* where the sources of male and female gametes are reversed.

reciprocal gene. **gen recíproco**. A non-allelic gene that reciprocates or complements another. *See* complementary gene.

reciprocal translocation. **tra(n)slocación de recíproca**. Mutual exchange of segments between non-homologous chromosomes; interchange.

reclinate. **reclinado**. Bent or turning abruptly downward, as a leaf in a bud.

reclining. **reclinado**. Bent or turn-

ing downward; also, lying on or being supported by something; procumbent.

recognition surface. **superficie de reconocimiento**. A three-dimensional structure of a membrane surface that provides distinctiveness due to macromolecules of various sizes and shapes extending above the lipid bilayer.

recolonization. **recolonización**. The reestablishment of a natural plant community following a natural or unnatural event that removed the existing community.

recombinant DNA. **DNA recombinante**. Whole molecules or segments that incorporate parts of different parent DNA molecules, formed by natural recombination or by recombinant DNA technology.

recombinant. **recombinante**. An individual with a genotype produced by an exchange of chromosomes; cross over.

recombinase. **recombinasa**. An enzyme that catalyzes genetic recombination.

recombination (genes). **recombinación (gene)**. During meiosis in sexually reproducing organisms, any one of several processes that gives rise to a new combination of hereditary characteristics that produce new genotypes; also, any method that generates new gene or chromosome combinations not present in either parent; meiosis generates recombinants through the independent assortment of chromosomes and crossing over.

recombination frequency. **frecuencia de recombinación**. The number of recombinants divided by the total

number of progeny, expressed as a percentage or fraction; which shows the relative distances between loci on a genetic map.

recombine. **recombinar**. To form new genetic combinations; to undergo or cause recombination.

recon. **recón**. The smallest unit of DNA capable of recombination.

recreation ecology. **ecología entretenimiento**. The study of the effects of recreational activities on ecosystems.

rectangular speciation. **especiación rectangular**. The sudden appearance of species after long periods of little change in the lineage.

rectangular. **rectangular**. Box-like, longer than wide, used to describe both plane and solid shapes.

rectinerved. **rectinerviado**. Having straight or parallel veins.

rectipetaly. **rectipetalía**. The tendency of plant members to grow in a straight line.

rectiseral. **rectiseral**. Arranged in straight rows.

recumbent. **recostado**. **reclinado**. Leaning or resting on the ground, as a recumbent plant; prostrate.

recurrent. **recurrente**. Said of the small veins of a leaf when they bend back towards the midrib.

recurvate. **recurvado**. To recurve or bend backwards, downwards, or outwards.

recurved. **recurvo**. Describes the end of a structure in relation to the axis, as curved outward, downward, or backward.

red (color). **rojo (color)**. A primary color or pigment.

red alga. **alga rojo**. Any of the red or purplish, marine algae (**Rhodophyta**).

redox potential. **potencial redox.** A scale expressed in potential millivolts, which shows the reduction (gaining of electrons) and oxidation (loss of electrons) for a material. A reading requires a pH sample.

redox reaction. **reacción redox.** Producing or containing the processes of reduction (addition of electrons) and oxidation (removal of electrons).

redox system. **sistema redox.** An oxidation–reduction system in which one substance is oxidized and another reduced.

red snow. **nieve rojo.** In the alpine and arctic, a red-pigmented (haematochrome), unicellular green algae that produces a light red sheen when growing on snow;

red tide. **marea roja.** A reddish color appearing on the surface of seawater produced by a sudden clustering of billions of one-celled organisms that are toxic to fish.

red violet color. **color roja-violeta.** A reddish color with a strong presence of purple.

reddish. **rojizo.** One of the many hues of red.

reduced. **reducido.** Diminished in size or shape; also, simplified in structure, as compared with some probable ancestral form.

reduced apogamy. **apogamia reducido.** The development of a sporophyte from a cell or cells of a gametophyte without the fusion of gametes. This produces a plant which has the gametic number of chromosomes; meiotic euapogamy.

reduced fertilization. **fertilización reducido.** The substitution for a normal sexual fusion between male

and female gametes or nuclei of some other nuclei, *e.g.* the fusion of two female nuclei.

reducing agent. **agente reductor.** Any of a number of substances that diminishes a compound, by donating an electron or electrons.

reducing center. **centro reductor.** The –Ch.OH group in the C₁ position of a monosaccharide or disaccharide sugar. This causes the positive reaction with the Fehling's Test.

reductant. **reductante.** A reducing agent, as chlorophyll which can act both as an oxidant and as a reductant.

reductases. **reductasas.** Flavoproteins which are enzymes that bring about reductions, *e.g.* of nitrate (NO₃) ions to ammonium ion. They are also important in the oxidation of NAD and NADP.

reduction. **reducción.** Diminished in size or number, as a chemical reaction involving atoms or molecules that lose oxygen or gain hydrogen; also, the gaining of one or more electrons by an atom; also, the halving of the number of chromosomes at meiosis.

reduction(al) division. **división reductora. división reduccional.** A nuclear division in which the chromosomes are reduced from the diploid to the haploid number; the first division of meiosis including prophase, metaphase I and anaphase I. It results in a haploid number of chromosomes gathering at each end of the nuclear spindle. *See* meiosis.

reduction separation. **separación reductora.** The separation of homologous parts of non-sister chromatids at anaphase of one or other

meiotic division.

reductive amination. **aminación reductiva**. The reduction of a substance by the addition of an NH_2 , e.g. a ketoglutaric acid is transformed to glutamic acid.

redundant cistron. **cistrón redundante**. A section of a DNA molecule that is present in many copies on one chromosome, all but one being superfluous.

reduplicate. **reduplicado**. Having the margins of the sepals or petals folded back so that they project or are turned outward.

reduplication. **reduplicación**. The occurrence of a segment of a chromosome twice in a haploid set.

reed sedge peat. **turba de caña juncia**. A sedge peat, especially of the **Phragmites** or **Carex** species.

reed. **caña**. A group of tall, broad-leaved grasses (**Poaceae**) with jointed, hollow stems; specifically, plants of the genera **Arundo**, **Ammophila**, and **Phragmites**.

reed-like. **calamiforme**. Having the form or shape of a reed.

reflexed. **reflexo**. Bent backwards or downward at a sharp angle.

refoliate. **refoliado**. To bear leaves again, as after a loss from wind, rain, or disease.

reflorescence. **reflorescencia**. Double flowering.

reforestation. **reforestación**. **repoblación forestal**. The renewal or replacement of trees and other vegetation with seeds from nearby trees or by artificially planting seedlings on land where the trees have been removed; also, the replacement of one type of tree crop for another by planting into an existing but different type of forest.

refracted. **refracto**. Bent backwards from the base, as a refracted corolla.

refrangent. **refringente**. Refracted.

refuge. **refugio**. **zona de refugio**. **área reliquia**. A small isolated area which has not undergone the extensive changes of the surrounding region. Plants and animals formerly characteristic of the region have found sanctuary from the new unfavorable conditions. Also referred to as refugium.

refugia. **refugios**. Plural of refuge.

regenerate. **regenerar**. To grow or renew a part that has been lost; also, to develop an entire new plant from existing parts, as from a root or a leaf.

regeneration. **regeneración**. The renewal or replacement of any lost part or organ with another; also, a form of asexual, vegetative reproduction in which an entire new plant can be produced from parts of an existing plant; also, in bryophytes, the growth of a diplid gametophyte directly from a sporophyte after injury.

region. **región**. **zona**. A division of the earth according to plant or animal life.

regma. **regma**. A dry fruit of three or more carpels that separates from the axis at maturity, as in the **Eurphorbia**; also, a fruit which breaks up into rounded one-seeded portions when ripe.

regression. **régression**. A reversion to a less developed form; in genetics, the tendency of offspring to exhibit physical characteristics of an earlier type than those of their parents; also, the dependence of one variate, the dependent, on an-

other, the independent; also, a tendency to return from an extreme to an average condition, as when a tall parent gives rise to plants of average stature. *See* Galton's Law.

regression coefficient. **coeficiente de regresión.** The rate of change of the dependent variate.

regression line. **recta de regresión.** A straight line or curve showing a regression in a co-ordinate representation.

regular. **regular.** Having floral parts within a whorl that are similar or the same in shape and size; actinomorphic.

regular distribution. **distribución regular.** *See* underdispersion.

regular flower. **flor regular.** *See* regular.

regularly. **regularidad. regularmente.** Uniformly

regular sample. **muestra regular.** One of a number of samples taken systematically by the use of regularly spaced quadrats along a randomly selected site; systematic sample.

regulatory gene. **gen regulador.** A gene that participates in the switching on or off of the transcription of structural genes at other loci. The regulatory gene is not part of the operon

rehetropism. **rehetropismo.** The growth orientation of plants in response to air or water currents.

rejuvenescence. **rejuvenecimiento.** A process where the contents of a cell break the cell wall and form a new cell with a new wall; also, the renewal of vigor by the exchange of material between two different cells, as during conjugation.

relational coiling. **arrollamiento recíproco.** The loose coiling of two

chromatids during despiraling.

relative humidity. **humedad relativa.**

The relationship between the amount of water vapor in the air and the greatest amount the air could contain at the same temperature.

relative sexuality. **sexualidad relativa.**

The occurrence in a species of strains giving gametes able to fuse with those produced by either of the normal strains.

releasing factors. **factors de liberación.**

factors liberador. In genetics, proteins that connect with the growing polypeptide when a termination codon is met during transcription, and then mediate the discharge of the finished polypeptide from the ribosome.

relic(t) community. **comunidad reliquial.**

A community that had a much wider distribution at one time but now can be found only on very local sites, such as communities widespread during glacial times may now be restricted to mountain tops.

relic(t). **relictio.** A plant that has survived from a previous geologic period while other related ones have become extinct.

remote. **remoto.** Distantly spaced; also, said of the gills of agarics which do not reach the stipe but leave a free space around it.

renewable resource. **recursos renovable.**

Natural assets that theoretically can last indefinitely without reducing the available supply because they are replaced more rapidly through natural processes than are non-renewable resources, *e.g.* trees, grasses (**Poaceae**), and water in lakes and rivers.

renewal cycle. **círculo de renovación.**

círculo de renuevo. A biogeo-

chemical cycle.

reniform. **reniforme**. Having the shape of a kidney; kidney-shaped, as a reniform leaf; usually attached at the center of the incurved side.

r-enzyme. **r-enzima**. One of the enzymes that breaks down the 1:6 starch linkages.

repand. **repando**. A slightly wavy or sinuate leaf margin with very small indentations; serrulate; undulate.

repent. **rastrero**. Prostrate or creeping, rooting at the nodes.

repeated emergence. **salida repetido**. A condition in fungi which the zoospores after swimming for some time, encyst and then emerge from the cysts without any change in morphology.

repetition. **repetición**. A method of spore germination where a new spore is produced like the first.

replicate. **replicado**. Folded backwards; also, to duplicate or reproduce by genetic processes.

replicate septum. **septo replicado**. A septum in some algae which bears a collar-like appendage projecting into the cavity of the cell.

replication. **replicación**. A doubling or folding over of a surface; a fold; also, in research, the repeating or copying of a study; also, in cell division, the production of a second molecule of DNA exactly like the first molecule.

replum. **repleo**. A partition, septum, or frame that remains after the valves or silicles have fallen off, as in the **Brassicaceae (Cruciferae)**.

repressible enzyme. **enzima represible**. Enzymes whose production can be inhibited by a corepressor.

repressor. **represor**. A protein pro-

duced by a regulatory gene whose function is to curb the action of an operating gene which switches off an operon.

reproduce. **reproducirse**. To produce offspring.

reproducer. **reproductor**. That which reproduces.

reproduction. **reproducción**. The sexual or asexual process by which plants produce other plants like themselves. Sexual reproduction in flowering plants takes place with pollination. Asexual reproduction in plants occurs through budding and sporulation.

reproductive. **reproductivo. reproductor**. For or concerned with reproduction.

reproductive capacity. **capacidad reproductora**. Procreative ability.

reproductive isolating mechanism. **mecanismo aislante reproductivo**.

Any factor relating to structure or functioning that prevents successful interbreeding (gene flow) between populations or within a population.

reproductive isolation. **aislamiento reproductivo**. Long term geographical separation of members of a specific sexually reproducing species.

reproductive maturity. **madurez reproductiva**. Sexual maturity.

reproductive method. **modo reproducción**. Mode of reproduction.

reproductive phase. **fase reproductora**. The stage in the growth of a plant when it changes from purely vegetative growth to producing reproductive bodies.

reproductocenter. **reproductocentro**. Of the **Chytridiales**, having the development of one or more repro-

ductive bodies at the center of gravity of the thallus.

reptant. **reptante**. Prostrate and rooting.

repulsion. **repulsión**. The presence of two given genes in different homologous chromosomes; also, the tendency shown by dominant characters to separate.

research. **investigación**. An organized scientific investigation to address and solve problems, test hypotheses, or develop or invent new approaches or products.

researcher. **investigador científico**. A scientist who examines a specific area of interest.

research team. **equipo investigador**.

A group of scientists and technicians working together on a project.

reserve cellulose. **célulosa de reserva**. Cellulose present in endosperm or other storage tissue and subsequently used in the nutrition of the plant.

reservoir. **reservorio. cavidad**. The part of the plant which collects or retains a fluid or secretion.

residual shrinkage. **encogimiento residual**. The shrinkage that occurs when a soil dries, with the loss of volume, directly proportional to the loss of water.

resilient. **elástico**. Returning or springing back into shape or position.

resilience. **elasticidad**. The quality or ability to spring back into shape or position after being touched; also, the ability of a living system to restore itself to its original condition after being exposed to an outside disturbance.

resin. **resina**. A transparent or translucent liquid exudate from some tree barks and other plants, which becomes solid on exposure to air;

composed mostly of esters and organic acid derivatives that are sticky and yellow, occasionally brown, differing from gums in chemical composition and solubility.

resinaceous. **resináceo**. Having resin.

resin canal. **canal resinífero**. See resin duct.

resin duct. **conducto resinoso**. In trees, especially conifers (**Coniferales**) and some angiosperms, a tubular duct or canal through which resin is secreted and conducted; adjacent parenchymal cells secrete the resin into the canals.

resiniferous. **resinofero**. Yielding resin, as a resiniferous tree.

resiniform. **resinoforme**. Having the nature of resin.

resinogenic. **resinogenico**. Giving rise to resin.

resinous. **resinoso**. Exuding a yellow or brown sticky substance from the bark of various trees such as pines or firs (**Pinaceae**).

resistance. **resistencia**. The ability of an organism to withstand more than the normally lethal dose of a toxic substance; also, the ability of a plant to remain productive if attacked by a parasite which would normally kill it, or reduce its productivity below an expected level.

respiration. **respiración**. Internal and external process in which organic substances are reduced to simple products with a release of energy used in various other metabolic processes. In most plants, oxygen is required with carbon dioxide as an end product; oxygen enters through pores on the plant surface and is then diffused through tissues via intercellular spaces or is dissolved. The taking in of oxy-

gen and the subsequent release of carbon dioxide is referred to as a gaseous exchange.

respiratory chain. **cadena respiratorio.** See electron-transport chain.

respiratory chromogen. **cromogeno respiratorio.** A colorless substance which gives rise to a colored one on oxidation or reduction.

respiratory enzyme. **enzima respiratorio.** Any of the enzymes that aid in bringing about respiration in cells, such as oxidase; an enzyme which catalyses oxidation-reduction reactions.

respiratory index. **indice de respiratorio.** The number of milligrams of carbon dioxide released from one gram of plant material (dry weight) at 10° C, when the amount of respirable material is unlimited, and when the oxygen is in the same proportion as it is in the ordinary atmosphere.

respiratory pigment. **pigmento respiratorio.** Any of the proteins that carry oxygen in cellular respiration.

respiratory quotient (RQ). **cociente respiratorio (CR).** The ratio of the amount of carbon dioxide expired to the amount of oxygen consumed during a specific time period. $RQ = \text{carbon dioxide consumed} / \text{oxygen utilized}$.

response. **respuesta. reacción de respuesta.** A change in an organism, organ, or cell resulting from the application of a stimulus.

response curve. **curva de respuesta.** A graph showing the relationship between the amount of a stimulus or substance applied, and the response (reaction). The term is commonly used in relation to experi-

ments, as fertilizer trials etc.

restans. **restans.** Latin meaning "persistent".

resting bud. **yema en reposo.** Dormant.

resting cell. **célula en reposo.** A cell which is not undergoing or preparing to undergo division; dormant cell.

resting nucleus. **núcleo en reposo.** A nucleus which is not dividing; metabolic nucleus.

rest(ing) period. **periodode de latencia.** An endogenous physiological condition of viable seeds, buds, or bulbs that prevents growth even in the presence of favorable environmental conditions; latent period.

resting period. **período de reposo.** Any time in the life of plant or plant organ when no growth or activity appears to be in progress.

resting spore. **espora en reposo.** A spore which germinates after a resting period; also, a thick-walled spore which can survive adverse conditions, remaining dormant for some time before it germinates; dormant.

resting stage. **fase de reposo.** Said of a nucleus, when the chromosomes are not clearly visible as individuals.

restitution. **restitución.** The formation of the original chromosome after breakage, especially by X-ray.

restitution nucleus. **núcleo restitución.** The single nucleus found instead of two due to the failure of the first or second division of meiosis.

restraint. **limitación.** A limitation of the random arrangement of combinations in an experimental design, so that error variations, while still capable of being estimated without bias, is reduced or potentially

reduced.

restriction enzyme. **enzima de restricción**. An enzyme that separates DNA strands of an organism at a particular site, matching the DNA fragment of another organism cut by the same enzyme, thereby enabling segments of DNA from different sources to be linked in new combinations.

resultant. **resultante**. The product or substances produced in a chemical reaction.

resupinate. **resupinado**. The twisting or turning of parts so that the naturally occurring upper parts become the under parts, and visa versa, as a resupinate corolla or resupinate leaf; appearing as up side down; also, reversed in position, usually through 180°, *e.g.* the hymenium of some fungi being on the upper surface, or the twisting of the flowers, as some orchids.

resupination. **resupinación**. Inversion of parts or appearing upside down.

reticular. **reticular**. Having the form of a net or being net-like, as reticular tissue.

reticulate evolution. **evolución reticulada**. The rise of a network of closely related taxa within and at the species level, by chromosome doubling or polyploidy.

reticulate. **reticulado**. In the form of a network of threads; net-veined, as a reticulate leaf or reticulate venation; also, having the surface marked by a network of fine up-standing ridges.

reticulate venation. **engrosamiento reticulado**. Netted venation; a system of leaf veins that are net-like.

reticulation. **reticulación**. A networked

or patterned arrangement.

reticulum. **retículo**. Any of a number of network-like structures; commonly used to describe the web at the base of palm frond **Palmae**.

retiform. **retiforme**. Appearing netted.

retinacular. **retinacular**. Of or pertaining to a retinaculum.

retinaculum. **retináculo**. The viscid gland connected to the stigma that holds pollen in orchids (**Orchidaceae**) and members of the milkweed family (**Asclepiadaceae**).

retinerved. **retnervio**. Net-veined.

retal. **retal**. At the back; posterior.

retro-. **retro-**. A prefix that means, "backward" or "back behind".

retroculture. **retrocultura**. The re-isolation of a pathogen from a host into which it has been introduced experimentally.

retrocurved. **retrocurvado**. Bent backwards. *See* recurved.

retroflexed. **retroflexo**. *See* reflexed.

retrogress. **retroceder**. A return to a lower or less complex form.

retrogression. **retrogradación**. A successional change, usually from a climax community, moving downward to a less diverse, less productive, and less structurally complex community; often by negative environmental factors, such as pollution.

retorse. **retorso**. Bent or turned downward or backward; also, pointing in a direction contrary to normal.

retrorsely barbellate. **retrobarbado**. Backward bending bristles.

retrorsely crenate. **retrocrenado**. A backwardly notched, round toothed leaf margin.

retrorsely serrate. **retroserrado**. Shar-

- ply barbed teeth directed backward or toward the base of the leaf.
- retrorsely. **retromente**. In a backward direction.
- retroserrate. **retroserrado**. Having marginal teeth strongly directed backwards.
- retuse. **retuso**. Terminating in a round end, with a depressed center, as in a retuse leaf.
- revegetate. **revegetar**. The replacement of plants into a cleared area; also, the recurrence of the same plant community which had existed prior to clearing.
- reverse. **reverso**. The underside.
- reverse mutation. **mutación reversiva**. By the further mutation of a mutant gene, the reappearance of an ancestral character. Same as reversion.
- reverse transcriptase. **transcriptasa reversa**. The enzyme that synthesizes DNA from an RNA intermediate.
- reversion. **reversión**. The reappearance of an ancestral character. Same as reverse mutation; atavism.
- revertant. **revertante**. A mutant that returns to an earlier or normal condition, commonly by a second mutation.
- revolute. **revoluto**. With margins rolled back and under, as a revolute leaf.
- rhabdocarpous. **rabdocarpo**. Having long, rod-shaped fruits.
- rhachilla. **raquillar**. *See* rachilla.
- rhachis. **raquis**. *See* rachis.
- rhagadiose. **ragadioso**. Deeply marked with cracks or fissures.
- rhamnose. **ramnosa**. A non-nutritive sugar found in combination with glycoside in many plants; amethyl pentose.
- rhaphe. **rafe**. *See* raphe.
- rheotaxis. **reotaxis**. **reotaxia**. The movement of a cell or plant in response to air or water currents.
- rheotropism. **reotropismo**. A tropism in response to water.
- rhexigenous. **rexígeno**. Lysigenic.
- rhipidate. **ripidado**. Having the shape of a fan; flabelliform.
- rhipidium. **ripidio**. A monochasial cyme in which the branches lie in one plane, so that the whole is fan-shaped; a flattened, fan-shaped cyme.
- rhiz(o)-. **rizo-**. A Greek prefix that means, "pertaining to roots"; rhiz- is used before a vowel.
- rhizanthous. **rizanto**. Producing a flower or flowers almost directly from the root.
- rhizine. **rizino**. A rhizoid-like outgrowth from the underside of a lichen thallus. It may be single, or a strand of rhizoids.
- rhizobium. **rizobio**. Any of a genus of nitrogen-fixing bacteria found in root nodules of certain plants, as beans (**Phaseolus**) and clover (**Trifolium**).
- rhizoblast. **rizoblasto**. Of zoospores, the thread joining the belepharoplast and the nucleus.
- rhizocaline. **rizocalina**. Caline.
- rhizocarpic. **rizocárpico**. Plants that have roots which live for many years but stems that die back annually, as perennial herbs.
- rhizocarpous. **rizocarpo**. Producing flowers underground as well as in the normal position.
- rhizocorm. **rizocormo**. A stout fleshy rhizome.
- rhizodermis. **rizodermis**. Piliferous layer.
- rhizoflora. **rizoflora**. The microflora growing in the rhizosphere.

rhizogen. **rizógeno**. A group of plants that live parasitically on the roots of other plants.

rhizogenic. **rizogénico**. Having the capacity to produce roots, as rhizogenic cells.

rhizoid. **rizoide**. In mosses (**Musci**) and ferns (**Felicopsida**), the unicellular or multicellular root-like, anchoring and absorbing filaments which lack vascular tissue and a root cap; also, a short hypha which attaches a fungus to the substrate and collects nutrients.

rhizoidal cell. **célula rizoidal**. Basal cell.

rhizomatous. **rizomatoso**. Having rhizomes, or structures that resemble rhizomes; also, having rhizomes that reproduce when a leaf is removed and put in soil.

rhizome. **rizoma**. Elongated, usually fleshy, but occasionally wiry, horizontal stems, most often growing underground, and serves for perennation and vegetative propagation.

rhizomorph. **rizomorfo**. A mycelia that attaches to the roots of plants; also, a root-like hypha in some fungi.

rhizomorphous. **rizomorfo**. Root-like.

rhizomycelium. **rizomicelio**. In some **Chytridiales**, a gradually attenuated system of rhizoidal branches in which fertile areas develop at various points on the branching system.

rhizophilous. **rizófilo**. Growing on roots.

rhizophore. **rizóforo**. Root-bearing structure or area.

rhizophorous. **rizóforo**. Root-bearing. rhizophyllous. **rizófilo**. Roots growing out from leaves.

rhizopin. **rizópino**. A growth substance increasing the carbon dioxide pro-

duction by yeasts.

rhizoplane. **rizoplana**. The interface between the roots and the soil.

rhizoplast. **rizoplasto**. A delicate fiber connecting the paradesmome of the neuromotor apparatus to a small, intranuclear centrosome; rhizobast.

rhizopod(ium). **rizopodo**. The mycelium of a fungus.

rhizopodal stage. **estada rizopodal**. An amoeboid stage formed by some algal macrozoospores before they develop into filaments.

rhizosphere. **rizosfera**. The soil immediately surrounding a plant root that is being changed by the plant's respiration, growth, and use of nutrients.

rhizotaxis. **rizotaxis**. **rizotaxia**. The type of root arrangement.

rhizotaxy. **rizotaxia**. See rhizotaxis.

rhodo-. **rodo-**. A Greek prefix that means, "rose-red".

rhodoplast. **ródoplasto**. One of the chromatophores which contain the red coloring in the cells of red algae (**Rhodophyta**).

rhodosporous. **rodósporo**. Having pink spores.

rhoium. **roio**. A creek formation.

rhombic. **rómbico**. Used to describe leaves having the widest axis at the midpoint of the structure and with straight margins.

rhomboid. **rómboide**. A solid part that is rhombic in outline.

rhynchosporous. **rincosporógeno**. Having beaked spores.

rhynchosporous fruit. **fruto rincosporógeno**. Fruit which ends in a beak.

rhytido-. **ritido-**. A Greek prefix that means, "wrinkled" or "rumpled".

rhytidome. **ritidoma**. A tissue cut-off outside a periderm. The cells die

leaving a crust composed of alternate layers of cork and dead phloem or cortex. *See* outer bark.

rib. **costilla**. The thick, main vein of a leaf.

ribbed. **acostillado**. **costato**. **costillado**. **nervado**. With prominent, longitudinal nerves or veins.

ribitol. **ribitol**. A 5-carbon sugar alcohol forming a part of the flavins; a sugar alcohol found in riboflavin and flavin-adenine-nucleotide, and possibly in all plant cells.

riboflavin. **riboflavina**. A vitamin B₂ composed of an organic base connected to a ribitol; common in plants and functioning as an integral part of the coenzymes flavin adenine dinucleotide and flavin mononucleotide, which are involved in cellular oxidation.

ribonuclease. **ribonucleasa**. An enzyme that speeds the hydrolysis of RNA, resulting in the production of mono- and oligonucleotides.

ribonucleic acid (RNA). **ácido ribonucleico** (ARN). One of two nucleic acids found in plant and animal cells and occurring in three main forms, all of which are involved in the synthesis of protein and genetic transmission. It is found on the nucleus, ribosomes, endoplasmic reticulum, and free in the cytoplasm. That on the ribosomes and endoplasmic reticulum is messenger RNA, the template for protein synthesis, and that in the cytoplasm is transfer RNA, which convey amino acids to the correct site on the messenger RNA.

ribose. **ribosa**. A five carbon sugar important in RNA and other compounds; a pentose which exists naturally in the furanose form.

ribosomal RNA (rRNA). **ARN ribosómico**. A type of RNA that is little understood in its structural and functional relationship to ribosomes.

ribosome. **ribosoma**. A subcellular granule made of RNA and protein which is found in the cytoplasm of living cells and is the site of protein synthesis; sometimes referred to as Palade's granules. It is seen as a dense particle in electron micrographs.

ribulose diphosphate. **ribulosa difosfato**. Ribulose 1,5-diphosphate is a carbon dioxide receptor during photosynthesis. Each molecule is formed into two molecules of phosphoglyceric acid.

ricinus. **ricito**. The mouth of a bilabiate corolla.

ridge. **cresta**. **costilla**. *See* ribbed.

ridged. **estriado**. Having a narrow, raised crest.

rigens. **rigens**. Latin meaning "gaping".

rigescent. **rigescente**. Becoming rigid.

rigid. **rigido**. Stiff, inflexible.

rigidity. **rigidez**. Being stiff or inflexible.

rigor. **rigor**. An inert condition assumed by a plant when conditions for growth are unfavorable.

rim. **borde**. Outer edge.

rima. **rímula**. A long, narrow opening or crack; fissures, as in the bark of an old tree.

rimose. **remoso**. Having many cracks or openings, as in the bark of old trees.

rimous. **rimo**. Same as rimose.

rimulose. **rimuloso**. Having small cracks.

rind. **cáscara**. **corteza**. The thick, outer covering of a pepo, as a melon

(**Cucurbitaceae**); cortex.

ring (annual). **anillo (annual)**. The concentric circles of xylem in stem of a tree or shrub, generally noting one year of growth.

ring. **anillo**. Bacteria growth at the surface of a liquid culture which sticks to the container.

ring (chemical). **anillo químico**. A closed chain of atoms linked by bonds, graphically depicted in a circular form.

ring bark. **ritidoma anular**. Bark which splits off in more or less complete rings.

ring chromosome. **cromosoma anular**. A structurally abnormal chromosome whose ends or tips have been deleted and the broken arms united to form a ring; also, in meiosis, chromosomes associated in rings, usually by terminal chiasmata, and in twos, fours, sixes, *etc.*

ringed bark. **corteza anillado**. A tree bark with circular cracks or splits.

ring cell. **célula circular**. One of two cells lying one above the other, cut off during the early stages of development of the most advanced **Leptosporangiatæ** antheridia. Each cell completely surrounds the antheridium and with the apical cap cell, completely enclose the large central cell.

ringed. **anillado**. Having old bud-scale scar rings.

ringent. **ringente**. Having widely separated lips, as a ringent corolla.

ring-like. **anular**. Having a circular appearance.

ring-porous. **anillo-poroso. de poros anillados. de poros en círculos**. In trees, the annual circular rings with pores which differ in size and distribution, being larger and more

numerous in spring growth than in summer growth, so that it is marked in cross section by rings or portions of rings of small holes; common in oak (**Quercus**), hack-berry (**Ulmaceae**), ash (**Oleaceae**).

riparian forest. **bosque ribereño**. A forest growing along the bank of a river.

riparian. **ribereño**. Plants that grow well along the banks of moving water, as rivers and streams.

riparious. **ribereño**. Growing along the bank of moving water.

ripe. **maduro**. Fully developed, as a ripe fruit.

ripeness. **madurez**. The state of being fully developed or mature.

ripening. **maduración**. Chemical and physical changes in a fruit that follow maturation, characterized by the softening, coloring, and sweetening of the tissue, and a decrease in acidity; also, approaching maturity or becoming mature.

rivalis. **rivalis**. Latin meaning "growing by brooks".

river. **rio**. A flowing body of surface water, larger than a creek that empties into an ocean, lake, or another river.

riverbank. **ribera. margen**. The land area immediately along side a river; sometimes rising steeply above the river due to erosion.

riverbed. **lecho de un rio**. The bottom or bed of a river.

riverside. **ripario**. The environment along a river.

rivulose. **rivuloso**. Marked by lines or gully-like channels.

RNA. **ARN**. An abbreviation for ribonucleic acid, a genetic material occurring in all plants and many viruses.

RNA polymerase. **polimerasa ARN.**

The enzyme responsible for forming mRNA during transcription.

roadside. **borde de camino.** The environment along the side of a road or highway.

robust. **robusto.** Vigorous, hardy, or sturdy, as a robust stand of trees.

roesteloid. **roesteloide.** Of an aecium which is long and tube-like.

roestelia. **roestelia.** A type of aecium with an elongated cylindrical periderm, split into segments.

rogue. **picaro.** An individual plant that varies from the established standard; to remove such variants and plants infected by disease from a crop.

rolled. **enrollado.** Sides enrolled, usually loosely, over upper or lower surfaces.

root. **raíz.** The downward growing plant part, often covered with hairs but without nodes or internodes, that absorbs and stores nutrients while providing support.

root bud. **yema radical.** An immature vegetative or floral shoot, often covered by scales.

root cap. **cofia. caliptra. ápice de la raíz.** The cone-shaped parenchymatous protective covering over the apical meristem of the root. It is formed from the promeristem, dermatogen, or from the calyptra; calyptra.

root collar. **cuello de la raíz.** The location at the base of a plant where the swelling and spreading of roots begin.

root exudation. **exudado radical.** A liquid substance discharged from some roots. *See* root pressure.

root frequency. **frecuencias de raíz.** In vegetative frequency studies,

records based on the species rooted in a quadrat, as distinct from shoot frequency, which also includes those species rooted outside the quadrat, but with foliage overhanging into the quadrat.

root fungus. **hongo de la raíz.** A fungus growing in a symbiotic association with the roots of a plant; mycorrhiza.

root hairs. **pelo absorbente. pelo radicular. pelo radical.** The lateral, unicellular, nutrient absorbing outgrowths of the epidermal cells. They have thin walls and are in close contact with the soil particles so that they can absorb water and dissolved materials. They occur in greatest abundance just behind the root tip.

root leaf. **hoja radical.** A leaf growing from or appearing to grow from the roots.

root mass. **masa radical.** A collective term for the root system.

root nodule. **nódulo radical.** A small growth on the roots of leguminous plants as a result of nitrogen-fixing activities of certain bacteria (**Rhizobium** or **Bradyrhizobium**); actinorrhiza.

root penetration. **penetración radical.** The process of roots piercing or entering the soil.

root pressure. **presión radical.** The pressure under which aqueous solutions from the living cells in the root are transported to the xylem. The force developed in the roots of some species can cause fluid to exude when the shoot is cut off. *See* root exudation.

root sheath. **vaina radical.** One of the epidermal coverings that surround some rudimentary aerial and grass

- roots; coleorhiza.
- root stock. **rizoma**. Rhizome.
- root symbiosis. **simbiosis radical**. A symbiotic relationship between certain types of fungi, bacteria, and roots of higher plant forms.
- root tip. **ápice de la raíz**. **punta radicular**. **ápice radical**. The apical meristem of a root.
- root tuber. **tubérculo radicular**. A fleshy, underground rhizome bearing nodes and buds.
- root tubercle. **tubérculo radical**. A small root-like nodule produced on the roots of leguminous plants by nitrogen-fixing bacteria.
- rootbound. **atado de raíces**. A restricted root system caused by excess growth in too small a volume of soil; sometimes referred to as potbound.
- rooting medium. **medio de enraizamiento**. Materials such as peat, sand, perlite, or vermiculite in which the basal ends of cuttings are placed vertically during the development of roots.
- rooting. **enraizando**. Vegetative propagation with the use of rootstock.
- rootless. **arrizo**. Having no roots; arrhizal.
- rootlet. **raicilla**. A small root, often used to describe aerial supporting roots on vines.
- rootstock. **portainjerto**. **pie**. **patrón**. A trunk or root material in which buds or scions are inserted in grafts; also, a general term describing various underground plant parts; rhizome.
- roridous. **rórico**. Dewy.
- roridulate. **roridulado**. Covered by waxy platelets, which gives a moist or dewy appearance.
- rosellate. **roselado**. Leaves arranged like the petals of a rose (**Rosa**).
- rosette. **roseta**. A dense cluster of leaves or other organs, especially when surrounding the base of a plant, as a dandelion (**Taraxacum**); also, the four cells in the embryo of a pine, which lie just above the suspensor.
- rosin. **colofonia**. See resin.
- rostellate. **rostelado**. Having a very small, short, terminal beak, as a rostellate fruit; beaked.
- rostelliform. **rostilliforme**. Having the shape of a rostellum.
- rostellum. **rostelo**. A small beak-like shape on certain fruit; also, a projection from the upper edge of the stigma in some orchids (**Orchidaceae**).
- rostrate. **rostrado**. Having a beak, as a rostrate fruit; also ending in a long, and usually hard point; also, of the lid of a moss, when elongated.
- rostriform. **rostriforme**. Beaked or resembling a beak in shape.
- rostrum. **rostro**. A beak-like projection, as on the stigma of some **Asclepiadaceae**.
- rosulate. **arrosetado**. Arranged in rose-like clusters, or rosettes, as rosulate leaves. Same as rosellate.
- rotate. **rotáceo**. A flat, circular spreading out in the manner of a wheel; used to describe a sympetalous corolla with a short tube and spreading lobes.
- rotation. **rotación**. The movement of the protoplasm in a cell in a constant direction.
- rotund. **rotundi**. An unbroken curve, as a rotund leaf; approximately circular.
- rotundate. **redondeado**. Rounded, as rotund; orbicular.
- rotundifolious. **rotundifolio**. Hav-

ing round leaves.

rounded. **redondeado**. A curved edge, as a rounded leaf.

RQ. **CR**. See respiratory quotient.

rRNA. **ARN ribosómico**. An abbreviation for ribosomal RNA.

rubens. **rubens**. Latin meaning "bluish-red".

rubescens. **ruborizarse**. Becoming red; reddening or pinkish.

rubiginose. **rubiginoso**. See rubiginous

rubiginous. **ladrillo**. **herrumbre**.

rojizo. Rust colored.

ruderal. **ruderal**. Growing in disturbed environments, as in residential or agriculturally developed areas, indicating "weeds"; also, plants that grow on rubbish or garbage dumps or other waste areas; ruderal plants.

rudiment. **rudimento**. An incompletely developed part; an embryonic or vestigial organ.

rudimentary. **rudimentario**. Imperfectly developed; vestigial.

rudimentary embryo. **embrión rudimentario**. A type of embryo that is a small, basal, in a relatively large seed and undifferentiated.

rufescent. **refescente**. Reddish-brown or tinged with red color.

rufous. **rojo-pardusco**. A reddish-brown color.

rug. **arruga**. A fold, a wrinkle, or a ridge.

rugose. **arrugoso**. Wrinkled or having many ridges.

rugulate. **arrugulado**. Wrinkled, folded, or having ridges.

rugulose. **arruguloso**. Slightly wrinkled, folded, or with small ridges.

ruminate. **ruminado**. Greatly wrinkled,

pale, with dark lines, having a chewed appearance, as with an endosperm; also, an endosperm with a mottled coloration.

runcinate. **runcinado**. Pinnatifid or with course tooth-like serration pointing backwards, as a runcinate dandelion leaf (**Taraxacum**).

runner. **estolón**. A stolon with a bud at the end, growing along or beneath the ground, which produces a new plant by taking root; also, a plant that spreads in this manner.

rupestral. **rupestro**. Living or growing on rocks or in rocky areas, as a rupestral plant; also, rupestrine.

rupicolous. **rupícola**. **planta rupestre**. Growing on or among rocks or walls; epilithic plant.

ruptile. **ráptil**. Dehiscing irregularly.

ruralis. **ruralis**. Latin meaning "living in rustic places".

rush. **junco**. Any of a number of species in the **Juncaceae** family, which are tufted, usually perennial, display entire leaves, open leaf sheaths, and brown bisexual flowers.

rush-like. **juncoide**. Rush or grass-like in appearance.

rust fungi. **micofitos roya**. **Uredinales**. rust (color). **herrumbre (color)**. A brownish-red color.

rust (disease). **roya (enfermedad)**. A plant disease caused by a fungus of the class **Urediniomycetes**, which is characterized by spots of powdery yellow, brown or rust-colored spores, and sometimes gall-like swellings.

rusty (color). **ladrillo (color)**. Having a brick-red color.

S

sabulose. **sabuloso**. Growing in sandy places.

sac. **cavidad**. A bag-shaped enclosure or structure, as the cavity of an anther.

sac fungi. **ascomicetes**. **ascomicetos**. Ascomycete.

saccate. **sacciforme**. **sacular**. Sac-shaped, as a saccate corolla.

saccate fruit. **fruto sacciforme**. A fruit having bag-like envelope around it.

saccharase. **sucrasa**. Invertase; sucrose.

saccharide. **sacárido**. Carbohydrates composed of carbon, oxygen, and hydrogen atoms; a sugar in its simplest functional unit.

saccharine. **sacárin**. Covered with sparkling grains, like grains of sugar; not to be confused with saccharin, a coal tar-derived, white crystal, chemical substitute for sugar.

saccharobiose. **sacarobiosa**. Sucrose.

saccharolytic. **sacarolítico**. Said of bacteria which use simple carbohydrates and starches as sources of energy.

saccharomyces. **sacaromices**. Any member of the genus *Saccharomyces*, single-celled yeasts producing alcoholic fermentation in sugary fluids.

sacciferous. **saccífero**. Sacciform

sacciform. **sacciforme**. Having the form or shape of a bag or sac; saccate.

sacculate. **saculado**. With the shape

of a saccule.

saccule. **sáculo**. Having a very small sac or cavity.

sagittate. **sagitado**. Shaped like an arrowhead with the basal lobes directed downward, as sagittate leaves.

sagittiform. **sagitado**. **aflechado**. Having the form or shape of an arrowhead. *See* sagittate.

sack-pustule. **pústula bolsa**. Pustule.

salic horizon. **horizonte sálico**. A soil horizon, usually below the surface, that has no less than a 2% salt content.

salicylic acid. **ácido salicílico**. A compound in willow bark (**Salicaceae**) and other plants that has pain relieving characteristics; basic ingredient of aspirin.

salient. **saliente**. **proyectado**. **porrecto**. Pointing or jutting outward, as a salient thorn.

salina. **salina**. A salt marsh or salt lake.

salination. **salinación**. The process of accumulating soluble salts in soil, usually by an upward capillary movement from an underground saline source. Also spelled salinization.

saline. **salino**. Of salt or pertaining to an aqueous solution of sodium chloride.

saline-sodic soil. **suelo salino-sodico**. Soil with more than 15% exchangeable sodium and a pH of 8.5 or less which interferes with the growth of most plants.

saline soil. **suelo salino**. Soil with enough soluble salt to reduce its fertility; developed in an area of waterlogging and high evaporation, so that there is a high acculation of salts, expecially calcium carbonate, gypsum, and sodium salts.

salinity. **salinidad**. The saline quality or quantity, which is a major determinant in the structure and type of plant life found in a particular environment.

salinization. **salinización**. An accumulation of salts in soil that can eventually make the soil unable to support plant life. Also spelled salination.

salsuginosus. **salsuginosus**. Latin meaning "growing in a salt marsh".

salsuginous. **salsugino**. Growing in a salt marsh.

salt. **sal**. A white crystalline substance composed of sodium chloride (NaCl) found in natural deposits and in seawater.

saltant. **saltante**. A mutation of a fungus or bacterium in culture.

saltation. **saltación**. The movment of medium sized soil particles by wind. Sand particles are picked up by eddy winds into the horizontal air streams. The vertical lift is dissipated and the particle falls back to the ground, throwing up more particles; also, saltant.

salt gland. **glándula salífera**. A hydathode which exudes a saline solution that evaporates and leaves a salt deposit on the leaf; salt-secreting gland.

salt lake. **lago salobre**. **lago salino**. A lake with a high concentration of salts, some saltier than oceans.

salt marsh. **saladar ó marisma**. **marisma**. **terreno salobreño**. **pan-**

tano salada. A marsh or swamp with a high concentration of sodium chloride (salt) in the water; also, grassland subject to the overflow of salt water.

salt-marsh vegetation. **vegetación marisma**. A type of plant life found on mud banks at river mouths which has adapted to a brackish or salty environment. *See* halophytes.

salt stress. **tensión salada**. Osmotic pressure exerted on plants caused by growing in salt marshes or in other elevated saline conditions.

saltwater. **agua salada**. **salobre**. Seawater or water with a high saline content.

saltwater intrusion. **intrusión de agua salada**. The movement of saltwater into freshwater aquifers in coastal and inland areas, as groundwater is withdrawn faster than it is recharged by precipitation.

saltwort. **sosa**. **barrilla**. Glasswort; also, any of a number of related plants used in making soda ash.

salverform. **hipocraterimorfo**. Trumpet-shaped, as a corolla with a long, slender tube, flaring sharply into a circular limb.

samara. **sámara**. A winged, dry, indehiscent achene, as in the ash (**Fraxinus**) and elm (**Ulmus**) fruits; a single-seeded, dry indehiscent fruit with a wing-like extension of the pericarp.

samaracetum. **plurisámara**. A group or aggregation of samaras, as in the tulip poplar (**Liriodendron**).

samariform. **samariforme**. Shaped like a samara.

samaroid. **samaroide**. Samara-like.

sample. **muestra**. A finte series of observations or individuals taken at random from the hypothetical in-

- finitely large population of potential observations or individuals.
- sampling error. **error muestral. error de muestreo.** The variance of a statistic arising from, and a function of, the limited size of samples.
- sand. **arena.** Grains of disintegrated mineral particles, mainly of silica; also, a class of soil with particles between 0.05 and 2.0 mm in diameter.
- sand culture. **cultura de arena.** An experimental method for determining the elements required for the healthy growth of a plant. The plants are grown in purified sand and supplied with solutions of known constitution.
- sand-dwelling. **arenícola.** Arenicolous.
- sand plants. **psamófilas.** Psammo-phytes.
- sandy soil. **suelo arenoso.** Soil containing up to 85% sand and no more than 10% clay.
- sanguineous. **sanguineo.** Blood-red color.
- sanguineus. **sanguineus.** Latin meaning "blood-red"
- Sanio's band. **crásula.** Crassula.
- sap. **savia.** A fluid or juice that moves through the vascular system of plants carrying water and minerals upward and water and dissolved food downward; an aqueous solution of mineral salts, sugars, and other organic substances present in the xylem.
- sap cavity. **cavidad savia.** A large, fluid-filled vacuole in the middle of an adult cell.
- sap flow. **flujo de savia.** Circulation of sap. *See* sap.
- sapid. **sapido.** Having an agreeable taste.
- sapidus. **sapidus.** Latin meaning "with a pleasant taste".
- sapling. **árbol joven.** A young tree, especially one less than four inches in diameter.
- saponaceous. **saponaceo.** Having a slippery quality, as soap; slippery, as covered with sap.
- sapor. **saporo.** The quality in a plant that produces its taste.
- sapro-. **sapró-**. A Greek prefix that means, "rotten," "dead," "as feeding on dead matter."
- saprobe. **saprobio.** An organism that obtains food directly from non-living organic matter; also, a plant growing in foul water; saprophyte; saprobiont.
- saprobiotic. **saprobiótico.** Feeding on dead or decaying organic matter.
- saprogenous. **saprógeno.** Growing on decaying matter.
- saprophage. **saprófajo.** A heterotrophic plant or plant-like organism that consumes dead material; saprovore.
- saprophyllous. **saprófilo.** Saprogenous.
- saprophyte. **saprófito.** Fungus or bacteria that live on dead, decaying material; also, a plant or plant-like organism lacking chlorophyll; saprotroph; saprophage; saprovore.
- saprophytic plant. **saprófitico. planta saprófita.** Pertaining to or having the practices of saprophytes, as obtaining food by absorbing soluble, non-living organic material.
- saprop plankton. **saproplancton.** Plankton growing in polluted water.
- saprotroph. **saprotrof.** Any organism that absorbs soluble organic material from inanimate sources, as a dead plant. If the organism is a plant or plant-like, it is called a saprophyte.
- saprovore. **sapróvoros.** *See* saprophage.

saprozoic. **saprozoico**. Feeding on dead or decaying organic material.

sapwood. **albura**. The soft, living wood (xylem) between the cambium and the heartwood. It contains living cells and functional water-conducting and food-storage tissue; alburnum.

sarciniform. **sarciniforme**. Formed in small packets.

sarco-. **sarco-**. A Greek prefix that means, "flesh" or "fleshy", as sarcocarp.

sarcocarp. **sarocarp**. The fleshy mesocarp of some fruits, as peaches (**Amygdalus**) and plums (**Prunus**).

sarcocaulous. **crasicaule**, **sarcocaul**. With a fleshy stem.

sarcocauly. **sarcocaulmente**. A type of stem that is fleshy.

sarcody. **sarcodia**. Conversion, so as to have a fleshy texture.

sarcotesta. **sarcotesta**. A sheet of edible pulp with one or more embedded seeds, as in the genus *Calospatha*; a fleshy layer in the testa.

sarcous. **car noso**. Fleshy, as a sarcous leaf or sarcous seed coat.

sarment. **sarmiento**. A long, slender runner.

sarmentose. **sarmentoso**. Having a stem which arises as a small arch from the roots and then becomes prostrate; producing slender runners or stolons, as strawberries (**Fragaria**).

satellite. **satélite**. A short segment of a chromosome separated from the rest by one long constriction, if terminal, or two if intercalary, which typically occurs during the formation of a nucleolus.

sativus. **sativus**. Latin meaning "cultivated" or "planted".

saturate. **saturar**. To cause to become completely soaked, as soil saturated

with water.

saturated soil. **suelo saturado**. Soaked through with moisture or water; waterlogged.

saturnine. **saturnino**. Said of acrospores which have a flat edge around the middle.

sausage-shaped. **botuliforme**. A thin, tubular shape; botuliform.

savannah. **sabana**. An extensive tropical grassland with an occasional shrub and a few trees.

savannah woodland. **bosque sabana**. A savannah that supports deciduous and evergreen trees and shrubs; providing a light canopy.

saxatiles. **saxatiles**. Latin meaning "growing on rocks or stones".

saxicolous. **saxícola**. Living on or among rocks and stones.

scab. **costra**, **roña**. A fungal disease (**Sphaceloma**) affecting certain plants.

scaberlulent. **escaberluyente**. An epidermal outgrowth that is almost scabrous.

scaberulous. **escaberúoso**. Slightly scabrous or rough to the touch from epidermal outgrowths.

scabious. **escabiosa**. Rough; also, any plant of the genus *Scabiosa*.

scabrid. **escábrido**. Slightly roughened; scaberulous.

scabridulous. **escabrióoso**. Minutely scabrous.

scabrous. **escabroso**, **áspero**, **rugoso**. Having a harsh, wart-like surface; scruffy.

scalariform. **escalariforme**. Having the shape of a ladder, as scalariform cells or markings of the rungs of a ladder; also, any plant of the genus *Scalaria*.

scalariform thickening. **engrosamiento escalariforme**. Internal lignific-

- ation of the wall of a xylem, vessel, or tracheid, laid down transversely like the rungs of a ladder.
- scale. **escama**. Rudimentary leaves on leaf buds of most perennial deciduous plants that cover and protect the bud during winter; also, a thin, flat plant member, which may be green when very young and usually small; also, the hardened, usually non-green bract of a catkin; squama.
- scale bark. **ritidoma escamoso**. Rytidome; also, bark which becomes detached in irregular patches; scaly bark.
- scale hair. **pelo escamoso**. A multicellular flattened hair.
- scale leaf. **escama hoja**. A small vegetative structure, usually appressed and imbricated, as on the **Juni-perus**; also, a membranous tough leaf, commonly smaller than the normal leaf, and usually protective.
- scale-like hair. **escamiforme**. Same as scale hair.
- scaly. **escamoso**. Scruffy or flaky.
- scalloped. **festoneado**. Said of a margin bearing rounded teeth.
- scalpelliform. **scalpeliforme**. Shaped like a scapel or the blade of a penknife.
- scaly bulb. **bulbo escamiforme**. A bulb in which the swollen leaf bases do not form a complete circle in a cross-section.
- scandens. **scandens**. Latin meaning "climbing".
- scandent. **escandente**. **trepador**. Growing mostly erect by twining or leaning on another structure for support; climbing.
- scape. **escapo**. A leafless flower stem rising from the crown of the root, surrounded most often by a basal rosette, as a dandelion (**Taraxacum**).
- scaphoid. **scafoide**. Boat-shaped.
- scapiform. **scapiforme**. Scape-like but not completely leafless.
- scapigerous. **scapigero**. Having a scape or scapes.
- scapose. **escapifero**. A single flower on a leafless peduncle or scape emerging from a basal rosette.
- scar. **cicatriz**. A blemish, as on a stem where a leaf was attached; also, the mark on a seed after detachment from the placenta.
- scarification. **escarificación**. A process to shorten germination performed by scratching or making cuts on seeds so that oxygen and water can penetrate the hard layers.
- scarify. **escarificar**. Scratching or cutting seed coats to shorten the period of germination.
- scarious. **escarioso**. Having a dry, thin, somewhat membranous appearance, usually at the tips and edges, as a perianth.
- scarlet (color). **escarlata (color)**. A bright red color.
- scarred. **cicatricoso**. Indicates a blemished surface area, as on a branch or stem.
- scattered. **esparcido**. Irregular; lacking any regular pattern, as scattered branches.
- scent. **esencia**. **fragancia**. **aroma**. **olor**. Odor, smell, or fragrance.
- scented flower. **flor con aroma**. A flower with a distinct or discrete odor or fragrance.
- scented foliage. **follaje aromático**. Plants, especially leaves, that emit a distinct or discrete odor or fragrance.
- scented. **perfumado**. **oloroso**. Having a distinct or discrete fragrance

or odor.

scentless. **inodoro**. Having no odor.

schisto- **esquisto-**. A Greek prefix that means, "split" or "cleft".

schizo-. **esquizo-**. A Greek prefix that means, "deeply divided".

schizocarp. **esquizocarpo**. A dry fruit, intermediate between dehiscent and indehiscent types, with two or more carpels, that at maturity splits into two or more one-seeded units, which remain closed, as carrots (**Dacus**).

schizocarpic achene. **aquenio esquizocarpico**. A separating, dry, indehiscent, one-seeded fruit with the seed attached to the fruit wall and derived from a superior ovary, as in **Sidalcea**.

schizocarpic berry. **baya esquizocarpico**. A separating fruit with a fleshy pericarp, as in **Phytolacca**.

schizocarpic carcerule. **carcérulo esquizocarpico**. A separating fruit that is dry, few-seeded, and with indehiscent locules, as in **Althaea**.

schizocarpic follicle. **folículo esquizocarpico**. A dry, separating, dehiscent fruit derived from one carpel, that splits along one suture, as in **Apocynaceae**.

schizocarpic mericarp. **mericarpo esquizocarpico**. A dry, separating, seed-like fruit, derived from an inferior ovary, as in the **Apiaceae**.

schizocarpic nutlet. **nuececilla esquizocarpico**. A dry, separating, indehiscent, four parted fruit with a hard pericarp around a gynobasic style, as in the **Lamiaceae**.

schizocarpic samara. **sámara esquizocarpico**. A dry, separating fruit that has wings, as in **Acer**.

schizocarpeous. **esquizocarpo**. Pertaining to or resembling a schizocarp.

schizocotly. **esquizocotilia**. A forking of the cotyledons.

schizogenic. **esquizogenico**. *See* schizogoneous.

schizogenous. **esquizogeno**. Formed by tissue that separates or splits; also, said of a secretory, intercellular cavity which is formed by the separation of the cells.

schizogony. **esquizogonia**. Reproduction by fission or budding; the division of a schizont.

schizomycetous. **esquizomicetos**. Pertaining to a class of vegetable-like microorganisms comprising the bacteria (**Schizomycetes**).

schizont. **esquizonte**. A vegetative thallus which has no wall and undergoes simple or multiple division.

schizopetalous. **esquizopétalo**. Having petals that are cut.

schizophyta. **esquizófito**. An artificial group of plants containing **Bacteria** and **Myxophyceae**.

schizophyte. **esquizófito**. Any of the plants **Schizophyta**, which include a single cell, or a chain or colony of cells, and reproduce only by simple division or by asexual spores.

scia-. **scia-**. A prefix that means, "shade" or "darkness".

sciaphilic. **sciafilico**. Shade-loving.

scientific method. **métado científico**.

An approach to a problem that consists of stating the problem, establishing one or more hypotheses as solutions to the problem, testing these hypotheses by experimentation or observation, and accepting or rejecting the hypotheses.

scientific name. **nombre científico**.

Latin or Greek names for plants that are derived from a systematic method of classifying and labeling according to the rules and recom-

mendations of the **International Code for Botanical Nomenclature**.

The system is binomial providing a genus and species for each identified organism, unique to each.

scion. **púa de injerto**. A bud, stem, branch, or some other plant part which is inserted into a rootstock in grafting; also, a young plant formed at the end of, or along the course of, a runner; a stolon.

sciophilous. **umbrófilo**. Growing or living in the shade; shade-loving.

sciophyte. **sciófito**. A group of plants that require or prefer shade or partial darkness.

sciophytium. **sciofitio**. A shade formation.

scissile. **escísil**. Capable of splitting easily; also, said of the flesh of a pileus which can be separated into horizontal layers.

sciuroid. **sciuroide**. Having the appearance of a squirrel's tail, as with barley (**Hordeum**) and other grass (**Poaceae**) inflorescences.

scler-. **escler-**. A Greek prefix that means, "hard" or "tough".

scleranthium. **esclerantio**. An achene encircled by a hardened calyx tube.

sclereid. **esclereido**. A lignified sclerenchyma cell, short and often pitted, found in seed coats and some fruits, as a pear (**Pyrus**); also called stone cells.

sclerenchyma. **esclerencima**. Short-celled, hardened, thick-walled plant cells, as occur in nutshells and palm stems; mechanical tissue composed of cells with thick lignified walls and small lumens. If the cells are elongated, they are called fibers and have pointed ends, commonly occurring in bundles. When the cells are oval or rounded, they are called

sclerides. These occur singly or in groups. *See* sclerotic parenchyma.

scleride. **esclerido**. A thick-walled cell mixed with the photosynthetic cells of a leaf, giving them mechanical support; also, a stone cell. *See* esclerenchyma.

sclerocaulous. **esclerocaule**. Plant stems that have become slender, hard, and dry.

scleroid. **escleroide**. Hard and thick in texture, as a nutshell.

sclerophyll. **esclerofil**. A stiff, firm, leathery leaf that remains firm even when wilted.

sclerophyllous. **esclerófilo**. Having tough, leathery leaves that protect against moisture loss; having sclerophylls; hard-leaved.

sclerophyllous forest. **bosque esclerófilo**. *See* sclerophyllous vegetation.

sclerophyte. **esclerófito**. *See* sclerophyll.

sclerophyllous vegetation. **vegetación esclerófilo**. Commonly scrub vegetation where the leaves of trees and shrubs are evergreen, small, hard, thick, and leathery from hot, dry seasons.

sclerosis. **sclerosis**. The hardening of cell walls or tissues, usually by thickening and lignification.

sclerotesta. **esclerotesta**. A hardened, outside seed coat.

sclerotic. **esclerosado. esclerótico. escleroso. esclerocio**. Hardened or thickened; having hard, usually lignified walls.

sclerotic cell. **célula esclerótico**. Scleride; stone cell.

sclerotic parenchyma. **esclerótico paréquima**. Hardened but not thickened cell walls. *See* sclerenchyma.

sclerotium. **esclerocio**. A fungal resting

body that can remain dormant for long periods awaiting favorable environmental conditions; also, of **Myxomycete**, the firm, resting condition of a plasmodium; also, a compact mass of fungal hyphae often with a thickened rind, varying in size from a pin-head to a man's head. They are organs of perennation and may give rise to fruit bodies.

sclerous. **escleroso**. Hardened or thickened due to lignification.

scobiform. **scobiforme**. Having a sawdust or raspings appearance.

scobina. **escobina**. The zigzag axis on some grass spikelets.

scobinate. **escobinado**. Having a rough surface, giving the appearance of having been filed or rasped.

scolecite. **scolécito**. Archicarp; also, a loosely coiled hyphae at the center of a perithecium which later gives rise to ascogenous hyphae.

scolecospore. **scolecospora**. A long, thread-like spore.

scopiferous. **scopífero**. Having tufts of hair.

scolecosporous. **scolecósporo**. Having thread-shaped spores.

scopiform. **scopiforme**. Having the appearance of a brush or broom.

scopulate. **scopulado**. Having the shape of a broom or brush; brush-like.

scorpioid. **escorpioide**. Rolled or coiled, as the tail of a scorpion.

scorpioid cyme. **cima escorpioide**. A type of unbranched, determinate inflorescence with pedicellate flowers which branch alternately on opposite sides of the rachis. The bud, the axis of the inflorescence is coiled; cincinnus.

scotophil. **scotófile**. Having an affinity for or requiring darkness.

scotophyte. **scotófito**. A plant that lives in the dark.

scrambler. **trepador**. A climber; a plant which has long, weak shoots, and grows over and above other plants.

scrobiculate. **escrobiculado**. Having many shallow depressions; pitted.

scrotiform. **escrotiforme**. Having the appearance of a scrotum; like a bladder.

scrub vegetation. **vegetación matorrales**. A general term for the low lying, woody plant life that dominates in an intermediate community between grass and high forest.

scrub. **matorral**. Land that is overgrown with stunted trees and shrubs.

scrupose. **scruposo**. Roughened with very small hard points.

scum. **capa**. Green slime as occurs on a pond; spumeous.

scurf. **escamosa**. Scales or bran-like particles on the leaves of some plants.

scutate. **escutado**. Having a small shield-like shape, especially used to describe leaves joined to the stalk at about the center of the lower surface instead of at the base; scutiform.

scutelliform. **escuteliforme**. Having the shape of a small shield.

scutellar epithelium. **epitelio scutelar**. A layer of elongated cells covering the scutellum, lying against the endosperm, and producing enzymes which assist in the utilization of the substances stored there.

scutellate. **escutelado**. Having a scutellum; also, shaped like a shield or round platter.

scutellum. **escutelo**. Having a rudimentary, leaf-like covering at the first node of an embryonic stem

(culm), as a cotyledon of some grasses; also, the single cotyledon of a monocotyledonous seedling; also, a shield-like cover, as in some ascoma.

scutiform. **escutiforme**. Having a shield or saucer shape.

scutum. **scuto**. An enlarged style tip, as in **Asclepia**.

scyphi-. **scifi-**. A Greek and Latin prefix that means, "cup-like".

scyphiferous. **sciffifero**. Having scyphi.

scyphiform. **sciffiforme**. Cup-shaped.

scyphiphorous. **sciffiforo**. Cup-bearing.

scyphus. **scifus**. Having a cup or funnel shaped part, as a floral corolla or the structure at the apex of some lichen fruit stems (**Cladonia**). Sometimes spelled scypha.

Se. **Se**. The symbol for the chemical element selenium.

seacoast. **costa litoral**. Land that is adjacent to the sea.

seafloor. **fondo marino**. **lecho marino**. **fondo del mar**. The floor or bottom of a sea or ocean.

sea ice. **hielo marino**. Frozen seawater.

sea level. **nivel del mar**. The surface of the sea, especially halfway between mean high and low tide. Plant communities are measured or located as so many meters above or below sea level.

seashore. **orilla del mar**. The area between the lines of ordinary high and low tide; seacoast.

season. **estación**. One of various regularly recurring periods of the year, as spring, summer, autumn, or winter which relates to meteorological or climatic conditions; in tropical region reference is to rainy and dry seasons; also, a time or special part of the year during which a plant performs specific functions,

such as blooming.

seasonal. **estacional**. Pertaining to the season or happening at regular intervals of the year.

seasonal isolation. **aislamiento estacional**. A mechanism that prevents gene exchange between species by having different times of the year when pollination can occur for each species.

seawater. **agua de mar**. The saltwater of the sea or ocean.

seaweed. **alga marina**. A common name for large, multicellular plant-like organisms that grow in the sea or the intertidal zone, especially marine algae.

seaweed. **varec**. Algae living in, or in close promimity to the sea.

sebaceous. **sebáceo**. Tallowy or fatty.

sebiferous. **sebífero**. Having a heavy waxy coat; frosty in appearance; pruinose.

second growth. **crecimiento secundar**. A growth of vegetation replacing one that has been previously cut or destroyed.

secondary air pollutant. **poluntate del aire secundario**. Harmful chemical(s) formed in the atmosphere when a primary air pollutant reacts with normal air components or with other air pollutants.

secondary association. **asociación secundario**. The coming together of bivalent chromosomes during meiosis.

secondary cell wall. **pared celular secundario**. A cellulose wall, usually containing lignin, occurring inside the primary cell wall of many woody species. The amount of cellulose is usually higher than in the primary wall, and the amount of pectin less.

- secondary compounds. **compuesto secundario**. Organic molecules produced by some species of plants but generally believed not directly involved in essential metabolism.
- secondary consumer. **consumidor secundario**. An organism that feeds only on primary consumers, mostly animals, but some are plants.
- secondary contraction. **contracción secundario**. Shortening and thickening of the chromatid threads in diplonema stage of meiosis, as diakinesis comes on.
- secondary cortex. **cortex secundario**. **corteza secundario**. Phelloderm.
- secondary forest. **bosque secundario**. Stands of trees occurring from secondary succession.
- secondary growth. **crecimiento secundario**. An increase in the thickness of shoots and roots through growth in the vascular cambium and cork cambium which occurs in dicotyledons and gymnosperms but not in monocotyledons; secondary thickening.
- secondary leaflet. **folíolo secundario**. The leaflet just below the terminal leaf.
- secondary meristem. **meristema secundario**. A region of active cell division that has arisen from permanent tissue.
- secondary mycelium. **micelio secundario**. The mycelium of the binucleate segments, bearing clamp-connections, found in many **Basidiomycetes**; also, hyphae which grow down from the developing fruit body of a fungus, absorbing food material from the substratum.
- secondary nucleus. **núcleo secundario**. The nucleus formed in the embryo sac by the union of two polar nuclei.
- secondary peduncle. **pedúnculo secundario**. The branch of an inflorescence.
- secondary petiole. **pecíolo secundario**. The petiole of a leaflet of a compound leaf.
- secondary phloem. **floema secundario**. Phloem cells formed by activity of the vascular cambium that occurs in biennials and perennials, but uncommon in annuals.
- secondary pollutant. **polutante secundaria**. Air pollutants that form as a result of various chemical reactions occurring in the atmosphere.
- secondary root. **raíz secundaria**. Any root that comes off the primary root.
- secondary segregation. **segregación secundario**. The segregation in an allopolyploid of differences between its ultimate diploid parents.
- secondary spore. **espora secundario**. Spores, other than basidiospores, formed by basidiomycetes.
- secondary succession. **sucesión secundario**. The change in vegetation caused by a disruption of a previous seral or climax community by a major environmental disturbance, as a fire or cultivation.
- secondary thickening. **engrosamiento secundario**. The formation of new tissue by repeated lateral cell division in the cambium of a woody plant, adding successive layers of new growth. *See* secondary growth.
- secondary tissue. **tejido secundario**. Tissue formed by secondary thickening.
- secondary wall. **pared secundario**. A cell wall which is often rich in lignin and formed after elongation has ceased.
- secondary xylem. **xilema secundario**.

Xylem cells formed by activity of the vascular cambium which form the annual tree rings.

second division. **división segundo.** The second of two divisions of meiosis.

secrete. **secretar.** To produce and discharge a substance.

secretion. **secreción.** The act of producing or the material discharged from cells, as resin.

secretory canal. **canal secretorio. canal secretífero.** An intercellular space, usually elongated, in which secretions accumulate.

secretory cell. **célula secretora.** A cell producing a substance or substances that are moved outside the cells.

secretory tissue. **tejido secretora.** A tissue producing a substance or substances that are moved outside the area; a group of secretory cells.

section. **corte transversal. sección.** A thin slice of tissue that has been removed for microscopic examination; also, a division of a genus containing a number of closely related species.

sectorial chim(a)era. **quimera sectorial.** A chim(a)era in which a plant with two or more types of tissue is arranged in a cross section as sectors of a circle.

seculate. **esculado.** Sickle-shaped; falcate.

second. **unilateral.** Curved to one side or arranged on only one side of the axis, as the flowers of the Lily of the Valley (*Convallaria*); unilateral.

secundine. **secundino.** The second or inner integument of the ovule that will become the seed coat.

sedentary. **sedentario.** Inactive.

sedge. **juncia. junco. cañavera.** Any

of a group of grass-like plants (*Carex* and *Cladium*) with non-jointed stems, growing in clumps or tufts in marshes or swamps.

sedge peat. **turba de juncia.** Decomposed sedges, occurring in beds.

sedohepulose. **sedohepuloso.** A seven carbon sugar involved in photosynthesis.

seed. **semilla. simiente.** In **Spermatophyta** (seed plants), a fertilized, mature ovule capable of germination into a plant similar to that from which it came; also, the mature ovule of a flowering plant composed of an embryo, an endosperm (sometimes), and a seed coat.

seed bank. **banco de semillas.** An institutional location where seed varieties are collected, identified, and stored for research and development activities.

seed breeder. **criador de semillas. mejorador de semillas.** The originator that controls and provides the seed or vegetative material for the initial increases of foundation seed.

seed bud. **yema testa.** An ovule that develops into a seed; plumule.

seed capsule. **cápsula seminal. cápsula de semilla.** Pericarp. Same as seed vessel.

seed cavity. **lóculo de semilla.** *See* locule.

seed coat. **testa. tegumento.** The outer protective covering of a seed that develops from the integuments around a maturing ovule.

seed leaf. **cotiledón. hoja de semilla.** The primary leaf of the cotyledon.

seed plant. **plantas de semilla.** Any seed bearing plant.

seed stalk. **pedículo de semilla.** The structure that connects the ovule to the placenta; funicle.

seed vessel. **vasco de semilla**. The pericarp; any dry, hollow fruit pod that contains the plant seeds; seed capsule.

seedbed. **semillero. plantel. plantío. cama de siembra**. Soil that has been prepared for planting seeds or transplants.

seedless. **sin semillas. sin pepitas**. Having no seeds.

seedling. **sementera. plántula**. A young plant, especially one grown from seed; a young shoot and root axis.

segetalis. **segetalis**. Latin meaning "growing in grain fields".

segment. **gajo**. A section of a citrus (**Rutaceae**) fruit.

segment. **segmento**. A section or division of an organ or structure, as a portion of the lamina of a leaf, when it is deeply lobed, but not divided into leaflets.; also, a daughter cell cut off from a single apical cell; also, the free part when a calyx or a corolla consists of partially fused lobes; also, a multinucleate portion of a filament or hypha which is cut off by a cross wall.

segment half-cell. **semicélula de segmento**. One of the two smaller cells cut off from the pialac cells of most **Acrogynae**, which ultimately gives rise to a "leaf".

segmental interchange. **intercambio de segmentos**. The exchange of pieces between two chromosomes which are not homologous.

segmentation. **segmentación**. The progressive growth and division of a single cell into many others to form a new plant; cleavage.

segmented. **segmenado**. Jointed.

segregable. **segregable**. Capable of undergoing segregation, as segreg-

able characters.

segregant. **segregante**. An organism resulting from segregation.

segregate. **segregar**. To undergo segregation; to keep separate; also, in taxonomy, a group which is based on part of an earlier group.

segregation. **segregación**. The separation of opposing (allelic) pairs of genes, occurring during meiosis.

seismonasty. **s(e)ismonastía**. A nastic movement in response to a touching stimulation or a non-directional mechanical stimulus.

sejugous. **seyugo**. With six pairs of leaflets.

selection. **selección**. In natural selection, refers to a process during evolution that preserves variants best adapted to their competitive environment; also, in statistics, discrimination in sampling or arrangement, as opposed to randomness; also, in biology, any non-random process which will lead to individuals of different genotype being represented unequally by their progeny in later generations of a population of self-propagating units. Selections can be natural or artificial.

selection coefficient. **coeficiente de selección**. A measure of the relative excess or deficiency of fitness of a genotype compared with another genotype in the population. *e.g.* If $s = 100$ then 1 out of a 100 individuals of a specific genotype fails to reproduce.

selection differential. **diferencial de selección**. The difference between the average value of a quantitative character in the whole population and the average value of those se-

lected to reproduce the next generation.

selection pressure. **presión selección.**

In evolution, the force exerted by the environment during natural selection; strong selection pressure producing significant change and weak selection pressure producing little evolutionary change.

selective absorption. **absorción selectivo.** The ability of a cell, or the cells of an organ, to accumulate a particular ion in a higher concentration in its vacuole, than it is in the surrounding medium; or alternatively not to accumulate a substance which is present in the surrounding medium, and would normally pass into it by diffusion.

selective advantage. **ventaja selectiva.** The genotypic condition of a cell, individual, or genetic class of individuals which increases its chances relative to others, of representation in later generations of cells or individuals.

selective cutting. **esqueje selectivo.** The cutting of intermediate aged, mature, or diseased trees in an uneven aged forest, either singly or in small groups, to encourage the growth of younger trees and to maintain an uneven aged tree stand.

selective fertilization. **fecundación selectiva. fertilización selectiva.** The fusion of gametes of different sexes in a non-random manner.

selective species. **especie selectivo.** A species of plants common to a particular type of environment but occasionally found growing in other conditions.

selective transport. **transporte selectivo.** The preferential move-

ment of a particular ion from one part of a plant to another so that the ion appears in higher concentration in some parts than others.

selective value. **valor selectivo.** The balance of genetic advantages and disadvantages that determines the capacity of an individual organism or genotype to survive and reproduce in a specific environment; fitness.

seleniferous. **selenífero.** Bearing the chemical selenium, as seleniferous soils.

selenium. **selenio.** A non-metallic element with the chemical symbol Se which is found in gypsum and sulfur-laden soils.

selenophyte. **selenófito.** Species that thrive on seleniferous soils.

self. **auto.** Said of a flower with the same color throughout; also, to pollinate with its own pollen.

self-adaptation. **autoadaptación.** The change in structure, function, or form of a plant in response to new conditions.

self-branching. **autoramificación.** In horticulture, plants that have axillary buds that initiate new growth without the necessity of pinching.

self-colored. **autocolor.** Having the same color all over.

self-compatibility. **autocompatibilidad.** Self-fertility.

self-fertility. **autofertilidad.** The ability to fertilize and produce viable seed after self-pollination.

self-fertilization. **autofecundación.** The combining of male and female gametes from the same individual, as opposed to cross-fertilization in which the gametes come from different individuals; self-pollination.

self-incompatibility. **autoincompati-**

- bilidad.** A genetically controlled process that prevents self-pollination, and facilitates promotes cross-breeding, as in various species of day lilies (**Hemerocallis**); self-sterile.
- self-pollination. **autopolinización.** The transfer of pollen from the anther to the stigma in the same flower or from a different flower, but on the same plant; self-fertilization.
- self-propagation. **autopropagación.** Reproduction.
- self-replication. **autoreplicación.** The ability to reproduce oneself or itself, as a DNA molecule is self-replicating.
- self-sterile. **autoestéril.** Unable to pollinate itself, as the sweet cherry (**Prunus**) because the pollen from one tree can not pollinate itself or any tree of the same variety; also, the inability of gametes of opposite sex, but produced by the same individual, to fuse.
- selfing. **autofecundación.** Self-pollination; autogamy.
- selva. **selva.** A tropical rainforest.
- semataxis. **semátaxis.** The arrangement of the petals, sepals and tepals, which function as an attraction to pollinators.
- semen. **semen.** A seed.
- semi-. **semi-.** A Latin prefix that means, "half" or "partially".
- semiamplexicaul. **semiamplexicaule.** Said of a leaf base which half clasps the stem.
- semiannual. **semianual.** Occurring twice a year.
- semiapogamy. **semiapogamia.** The fertilization of one cell by another when the cells are not of opposite sexes, but at least one of them is semigametic, e.g. can function as a gamete.
- semiaquatic. **semiacuática.** Plants that grow close to or partly in water.
- semi-arid. **semiárido.** A transition zone between a true desert and a humid climate where evaporation exceeds precipitation; also, a geographical area that is marginally arid, with sufficient rainfall to support short grasses (**Poaceae**) and shrubs.
- semicarpous. **paracárpico.** With the ovaries of nearby carpels partly fused, and the styles and stigmas separate.
- semicell. **semicélula.** One of two halves of a cell of a desmid.
- semiconservative replication. **replicación semiconservativa.** Designating a kind of replication in which the original molecular strands are conserved individually rather than together.
- semicraspedodromous. **semicraspedódromo.** A venation system where the nerves of the leaf run to and almost reach the leaf margin. *See* craspedodromous.
- semi-dominance. **semidominancia.** *See* partial dominance.
- semidouble. **semidoble.** With the outer stamens converted into petals and the inner ones remaining perfect, as with roses (**Rosaceae**) and poppies (**Papaveraceae**).
- semi-evergreen seasonal forest. **selva alta o mediana subcaducifolia.** A distinct type of forest dominated by both evergreen and deciduous broad-leaved trees, along side a rainforest in a region marked by regular dry seasons.
- semievergreen. **semisiempreverde.** Plants with foliage that become partially latent in the autumn and drop all their foliage only if there

are temperature extremes.

semilunar. **semilunar**. Shaped like a half-moon.

seminal leaf. **hoja semilla. cortiledón**. Seed leaf.

seminal. **seminal**. The first stage in development.

seminiferous. **seminífero**. Seed bearing.

semi-parasite. **semiparásita**. Living on a host but containing chlorophyll, as a mistletoe (**Loranthaceae**); hemiparasite.

semi-permeable membrane. **membrana semipermeable**. A membrane which only allows the passage of solvent molecules; partially permeable.

semi-species. **semiespecie**. A group of organisms taxonomically between a race and a species with limited outbreeding and gene flow; possibly the advanced stage in speciation.

semi-spherical. **semiesférico**. Having the shape of half a sphere.

semisterile. **semiestéril**. Said of a gene heterozygote of structural hybrid in which approximately half the male and female gametes are inviable.

semiterete. **semiterete. semirrollizo**. Half-round or half-cylindrical in shape.

semiterrestrial. **semiterrestre**. Not growing or living entirely on land.

semitropical. **semitropical**. Having some of the characteristics of tropical; *See* subtropical.

semper-. **semper-**. A Latin prefix that means, "always".

sempervirens. **sempervirens**. Latin meaning "evergreen".

sempervirent. **sempervirente**. Evergreen.

semperflorous. **semperfloro**. Flowering

throughout the year.

senescence. **senescencia**. The changes that occur between maturity and death, as in deciduous trees the shedding of senescent leaves in the Fall is a normal physiological process; also the ending of a cycle associated with fruiting and flowering; aging.

senescent. **senescente. viejo**. Growing old; aging.

senility. **senilidad**. Senescence in an individual or race.

sense. **detectar**. To automatically detect or to react to stimuli, as light, gravity, or touch.

sense organ. **órgano sensorial**. Any organ or cell adapted for the reception of stimuli.

sense organelle. **orgánulo sensorial. organela sensorial**. A specialized part of a cell functioning as a sense organ.

sense triplet. **trillizo sensorial**. Three adjacent nucleotides on RNA, necessary for the production of an amino acid. Theoretically, thought to be the smallest number which will code the production of an amino acid.

sensibility. **sensibilidad**. The degree of reaction of a plant attacked by a parasite.

sensible. **sensible**. Young plants that can not survive excessively hot temperatures; tender.

sensitive. **sensitivo**. Rapidly responsive to external stimuli, as leaves that close when touched.

sensitive period. **período de sensitivo. período crítico. período sensible**. The period of development during which the action of a gene is sensitive to the influence of external conditions.

sensitivity. **sensibilidad.** Sensibility; physical responsiveness.

sepal. **sépalo.** One of the outermost leaf-like floral parts, usually green, located at the base of a flower, that collectively make up the calyx.

sepaline. **sepalino.** Like a sepal.

sepalody. **sepalodia.** An abnormal condition when some members of a flower are converted to sepals.

sepaloid. **sepaloides.** Resembling a sepal or calyx in color and texture; sepaline.

separate. **separado.** Occurring singly or apart from others of the same species; sporadic.

separation. **separación.** The freeing of a reproductive body from the parent plant.

separation disk. **disco de separación.** A biconcave disk of intercellular material found occasionally between the cells of a filament of the blue-green algae which aids in the break-up of the filament into hormogones.

separation layer. **estrato de separación.** The region of cell weakness in which there is cell separation and rupture during the abscission of a leaf, flower, or other deciduous organ; abscission layer.

septa. **septa.** Cross walls, as in the hyphae of some fungi; plural of septum.

septal. **septal.** Of or pertaining to a septum; also, of a row of bushes or shrubs.

septate. **septado.** Divided by one or more partitions or septa; also, said of the ovary of flowering plants when it is divided into chambers by partitions.

septate fiber. **fibra septado.** A fiber in which the lumen is divided by transverse walls.

septem-. **septem-.** A Latin prefix that means, "seven" or "seventh".

septem(i)fid. **septem(i)fido.** Deeply divided into seven parts.

septentate. **septentado.** With parts in sevens.

septicidal. **septicida.** One of the three types of dehiscence: septicidal, loculicidal, and septifragal with septicidal meaning to burst open along the septa; said of a fruit which opens by the loculi splitting through the middle, forming several compartments.

septifolious. **septifolio.** Having seven leaves or leaflets.

septifragal. **septifrago.** One of the three types of dehiscence: septicidal, loculicidal, and septifragal with the latter characterized by the valves breaking away from the septa; said of the dehiscence of a fruit when the outer wall breaks away from the walls of the loculi.

septulate. **septulado.** Fruit with imperfect septa.

septum (*pl.* septa). **septo.** A dividing cross-wall or partition, as the septum that separates the chambers of an ovary; also, a wall between two adjoining cells; also, a transverse wall in a fungal hypha, an algal filament, or a spore.

sequence hypothesis. **hipótesis de secuencia.** A concept how RNA codes the production of a protein, which holds that a particular sequence of nucleotides on the RNA molecule is responsible for the manufacture of a particular amino acid.

sequential analysis. **análisis secuencial.** In biochemistry, the working out of the order of bases or other subunits in a molecule, compound, *etc.*;

also, in genetics, the "reading" of the genetic code that is stored in the DNA.

seral community. **comunidad seral.**

A stage in the succession of the development of a plant community towards its climax.

seral stage. **etapa seral.** One stage of the communities in an ecological succession.

sere. **sere.** The characteristic sequence of vegetative change (succession) that occurs in six stages: nudation, migration, ecesis, competition, reaction, and stabilization.

serial bud. **yema serie.** A supernumerary bud beside an axillary bud.

seriate. **seriado.** Arranged in rows or series.

sericeous. **seríceo.** Having long, silky trichomes, which usually are appressed, as sericeous leaves; silky.

serine. **serina.** A colorless amino acid present in many proteins and of particular importance in bacterial metabolism.

serology. **serología.** A method of identifying microorganism and viruses, their chemical components, and their relations to one another. One acts as an antigen in blood serum, against which the activities of another can be examined. *See* serotaxonomy.

serotaxonomy. **serotaxonomía.** The classification of similar plants by grouping their differences in protein composition and from the number and type of antibodies produced in animals injected with plant proteins which serve as antigens.

serotinal. **serótino.** Opening late or appearing late in the summer season; also, used in reference to a six part division of the year: serotinal, aestival, autumnal, hiber-

nal, prevernal, and vernal.

serotinous. **serótino.** Late flowering or leafing.

serotonin. **serotonina.** A derivative of tryptophan and found in nettles (**Urtica**), bananas (**Musa**), and tomatoes (**Lycopersicon**). In mammals, an important vasoconstrictor, especially in the brain; also, found in some snake and toad venoms.

serra. **serra.** A tooth of a serrated leaf margin.

serrate. **serrado.** Having sharp notches along the margin, all pointing toward the apex, as a serrate leaf.

serration. **borde dentado.** Having a serrate edge; also, a single tooth or notch in a serrate leaf margin. *See* serra.

serriferous. **serrífero.** Having a serra or a serrate structure.

serriform. **serriforme.** Having teeth, like a saw.

serrulate. **serrulado.** Having diminutive, forward-pointing teeth or notches along the margin.

serrulation. **serrulación.** Being serrulate; also, a single tooth or notch.

sesamoid. **sesamoide.** Granular.

sessile-. **sesil-.** A Latin prefix that means, "sessile".

sessile. **sésil.** Lacking a petiole or petiolule; leaf blade attached directly to a shoot, non-motile; also, fixed and stationary.

sessile benthos. **bentos sésil.** Plants growing attached to the bottom, below water.

seta(e). **seta. seda.** A bristle-like extension of the leaf, as in homophyllous species of *Selaginella* (**Selaginellaceae**); also, in liverwort (**Hepaticae**) and moss (**Musci**) sporophytes, the stem-like region

between the foot and the capsule; also, a long hollow outgrowth from a cell wall; also, a thick unicellular structure found among the asci of some acomycetes; also, a single elongated cell, or row of cells with scanty colorless contents occurring in some algae; bristle; chaeta.

setaceous. **setáceo**. Having bristles, as a setaceous leaf or leaflet; setose.

setiferous. **setífero**. Producing bristles.

setiform. **setiforme**. Having the form of a bristle.

set of chromosomes. **juego de cromosomas**. A group of chromosomes consisting of one of each kind contained in the nucleus of a gamete.

setose. **setoso**. Bristly. *See* setaceous.

setula. **setula**. A diminutive bristle; also, the stipe of some fungi.

setulose. **setuloso**. Being covered with setula.

sex. **sexo**. Organisms having male or female parts and functions.

sex-. **sex-**. A Latin prefix that means, "six".

sexangular. **sexangular**. Having six angles.

sex cell. **gameto. gámeta. célula sexual**. An egg cell or sperm cell; also called gamete, germ cell.

sex chromosome. **cromosoma sexual**. A pair of thread-like bodies in the cell nucleus which, in combination with each other, determine sex and sex-linked characteristics.

sex determination. **determinación del sexo**. The mechanism by which sex is determined; currently it is unclear whether sexual determination is a direct genetic determination or an indirect determination dependent on a hormone balance for es-

tablishing maleness or femaleness.

sex differentiation. **diferenciación sexual**. The production by an individual or group of individuals, of gametes of two types, differing in size and mobility (male and female gametes) such that the one type can only fuse with the other type.

sexfarious. **sexfario**. In six rows.

sex-intergrade. **sexintergrado**. A plant bearing staminate and pistilate flowers but belonging to a species which is normally dioecious.

sexless. **asexual**. Without sex; neuter.

sex-limited. **limitado por el sexo. sexual-limitado**. Capable of phenotypic development in one sex but not in the other; said of the inheritance of differences which are expressed in one sex only, or if in the two sexes, then differently.

sex-linkage. **ligamiento al sexo. sexual-connexión**. An organism whose sex and other traits are determined by chromosomes.

sex-linked. **ligado al sexo**. Located in a sex chromosome; also, designating a character transmitted by genes located in the sex chromosome.

sexpartite. **sexpartito**. Divided deeply into six lobes or segments.

sex ratio. **proporción de (los) sexos. proporción sexual**. The frequency of males to females in a given population, commonly stated as the number of males per 100 females.

sexual. **sexual**. Plants are generally divided into two major divisions, Sexual and Asexual, in which reproduction by seed is sexual and reproduction by budding, sporulation, or regeneration is asexual;

also, separated into two sexes, male and female.

sexual diamorphism. **diamorfismo sexual.** Structural differences between the males and females of a species, especially if the differences are superficial.

sexual generation. **generación sexual. generación sexuada.** The sexual phase in the alternation of generations; gametophyte.

sexual isolation. **isolación sexual.** Genetic isolation by a sexual mechanism.

sexual reproduction. **reproducción sexual.** The propagation of plants through the medium of seeds; also, the fusion of male and female gametes, or their nuclei, to form a zygote which develops in to a new individual.

shade. **sombra.** To screen from light or heat, as a tree provides shade in the garden; also, a location that is screened or darkened from direct light, especially sun light.

shade chromophore. **cromóforo de sombra.** A plant living in a shaded rock crevice.

shade plant. **planta de sombra.** A plant that grows best in shade; also, a plant grown to shade a crop plant.

shade-loving. **umbrófilo.** Plants that require or thrive best in shade; sciophilous.

shady. **umbroso. sombreado.** Screened from the sun and heat, as a shady location.

shaggy. **enmarañado.** Covered with long, weak hairs.

shallow. **superficial. poco profundo. bajo.** Not deeply growing, as shallow roots.

Shannon–Wiener index of diversity. **índice de diversidad Shannon–**

Wiener. An ecological measure derived from the 1949 information theories of Claude E. Shannon and Norbert Wiener. A small sample is taken and indexed in ecosystems with too many individuals for each to be identified and examined. The index is the ratio of the number of species to their importance values within a trophic level or community.

shape. **forma.** In botany, shape pertains to plant and plant part form, figure or outline, as two or three dimensional structures as well as the configuration of apices, bases, and margins of flat structures or portions of solid figures.

sheath. **vaina.** A tubular portion of the leaf that rolls around or partly surrounds the stem or culm of a sedge (**Cyperaceae**) or grass (**Poaceae**); also, the outer layer of the cell in cyanobacteria; also, a cup of tubular cells without protoplasts formed around the base of the ligule of the **Lycopodinae**.

sheathing. **envainador.** Having a tubular structure that surrounds the blade or petiole.

sheathing stipel. **estipela envainador.** A tubular, amplexicaul structure that encloses the base of a leaflet.

sheathing stipule. **estípula envainador.** A tubular, amplexicaul structure that encloses a bud or flower.

shed(ding). **desprendimiento abscisión de las hojas.** See leaf abscission.

shed. **mudar.** To cast off natural growth, as trees that shed leaves in the Fall.

shelf fungus. **hongo estante.** A common name for any basidiomycete fungi, saprophytic, or parasitic, growing horizontally out from a tree

trunk or log.

shelf ice. **hielo estante**. A ledge of ice protruding out into the sea from an ice sheet; some species of marine plants thrive in the lightless waters under the ice shelf.

shell. **cáscara**. The hard, wood-like outside covering of a nut, seed, or fruit, as a coconut shell.

shell bark. **corteza cáscara**. Rhytidome.

shelterbelt. **faja de protección. banda de protección**. See windbreak.

shifting cultivation. **cambio de cultivo**.

A traditional agricultural system of semi-nomadic peoples, in which a small area of forest is cut, cleared by burning, and cultivated for 1–5 years, then abandoned as soil fertility and crop production falters and weeds encroach. In low human population areas, plant climax communities return to the area; slash and burn agriculture.

shikimic acid. **ácido siquímico**. A cyclic compound formed from an aromatic unit, and intermediary in the synthesis of lignin.

shining. **brillante**. Polished or lustrous; nitid; laevigate.

shoot. **vástago. retoño. rebrote. brote**. A young stem or branch; also, the aerial part of a vascular plant that develops from the plumule, composed of a stem, supporting leaves, buds and flowers.

shoot axis. **eje caulinar**. See caulome.

shoreline. **costa. ribera**. The line where land and water meet.

short shoot. **brevibrote**. Very short internodes with little growth (indeterminate), as *Ginkgo biloba* (**Ginkgoaceae**) or no growth (determinate), as *Pinus fascicle* (**Pinaceae**).

short-day plant. **planta de día corto**.

planta microhémera. planta brevidiurna. Plants that flower or can be induced to flower with less than twelve hours of light, as strawberries (**Rosaceae**); also, flowers that bloom only when the amount of daily light is relatively short, as in the spring or late fall, e.g. sugar cane (**Saccharum**).

shortly. **brevemente**. Briefly.

short-night plant. **planta de noche-corta**. Plants that respond or can be induced to flower with long periods of light and short periods of darkness; the opposite of short-day plant.

shred. **desmenuzar**. To flake or crumble; also, in forestry, to remove branches from a mature or stand-ard tree.

shreddy bark. **corteza** Bark that is coarse, fibrous and often shallowly fissured.

shrive (fruit). **resecarse (fruto). arrugarse**. Wrinkling or drying up of a fruit.

shrive (leaf). **marchitarse (hoja). secarse**. Withering or wrinkling of a leaf.

shrub. **arbusto**. A perennial woody plant, deciduous or evergreen, less than ten meters tall, with many separate stems starting from the ground or near the ground; frutex.

shrubby. **arbusivo**. Resembling a shrub or covered with shrubs, as a shrubby plain.

Si. **Si**. The symbol for the chemical element silicon.

siccus. **siccus**. Latin meaning “dry, juiceless”.

sickle-like. **drepaniforme. falciforme**. Having a crescent shape.

sieve. **cribar**. To sift or the process

- of selecting.
- sieve area. **área cribosa**. A limited area on the longitudinal wall of a sieve tube, perforated by many small pores through which material may pass.
- sieve cell. **célula cribosa**. An elongated, organic solute-conducting, thin-walled cell with perforations forming the phloem of gymnosperms, ferns (**Filicopsida**) and other lower vascular plants.
- sieve field. **área cribosa**. One of the perforated areas into which a sieve plate may be divided by a network of thick strands of wall material.
- sieve-like. **cribforme**. Resembling a sieve in appearance or function.
- sieve plate. **placa cribosa**. One of the thin, perforated walls, usually at the end, of a sieve-tube member.
- sieve tissue. **tejido cribosa**. Tissue composed of sieve cells or sieve tubes.
- sieve tube. **tubo criboso**. A tube within the phloem tissue composed of a series of sieve cells that lie end to end, to form the tube. It translocates food materials synthesized into the plant. The cells are living, thin-walled and in longitudinal rows. They are connected by perforations in their transverse walls, through which pass strands of cytoplasm. The perforated walls are called sieve plates. Sieve areas may be present in the longitudinal walls.
- sieve-tube element. **elemento de tubo criboso**. One of the tube-like cells that compose sieve tubes which are associated with parenchyma cells that contain all the components found in living plant cells.
- sigma factor. **factor sigma**. A protein which activates the synthesis of chains of ribonucleic acid.
- sigmoid. **sigmoidea**. Having the doubly curved shape of an "s".
- sikyotic. **siquiótico**. Parasitic by the fusion of the protoplasm of the host and parasite.
- silage. **ensilaje**. **ensilado**. Food for livestock prepared from green crops, especially grasses (**Poaceae**); the crop is cut and stored in pits or silos with bacteria on the plants facilitating fermentation, with the by-product preserved from further decay and loss of nutrients.
- silent allele. **allela silencioso**. An allele that does not have a detectable product, therefore is not expressed in a phenotype.
- silent mutation. **mutación silencioso**. A permanent genetic change, but one not expressed by the phenotype.
- silica. **silice**. A hard, glassy material occurring in a variety of forms, as in sand, quartz, and opals.
- siliceous. **silíceo**. Same as silicious.
- silicified. **silicificado**. Having become converted into or impregnated with silica, as wood.
- silicious. **silíceo**. Growing or thriving in soil containing a great deal of silica; also, containing silica, as some woods.
- silicle. **silícula**. A specialized longitudinally flattened and divided lengthwise, two-cavity capsule made from a bicarpellary ovary that is broader than a silique, as the fruits of *Alyssum* (**Brassicaceae**).
- silicolous. **silicólo**. Growing on rocks which contain much silica.
- silicon. **silicio**. An abundant, non-metallic chemical element with the symbol Si, when combined with oxygen forms silica; helpful in small

quantities to some plants by collecting in the walls of epidermal and vascular tissue with the effect of reducing water loss and retarding fungal infections.

silique. **silicua**. The long, narrow pod, typically more than twice as long as wide, with two valves which fall away from the frame (replum) bearing the seeds, as plants of the mustard family (**Brassicaceae**). The fruit is formed from a superior ovary of two united carpels and divided by a septum between the carpels into two loculi. Dehiscence is by the separation of the carpels from below upwards, leaving the seeds exposed on the septum. A silicle is similar, but short and broad, never more than four times as long as broad.

silk. **seda**. Hair-like styles, as in corn (**Zea**).

silky. **sedoso**. Soft, straight appressed hair; the appearance or texture of soft appressed hair; sericeous.

silt. **cieno**. Very fine particles of soil, sand, and clay that are carried by moving water and deposited as sediment. A soil textural class composed of particles between 0.05 and 0.02 mm in diameter.

silvery. **argénteo**. Having the appearance of silver, either in color or luster.

silviculture. **silvicultura**. The cultivation, development, and care of forest trees used in the timber production industry; also, the science of forest management to produce renewable supplies of timber; forestry.

similar. **semejante**. **similar**. Having a general resemblance but not the same, as having the same shape but

not the same size or position.

simple. **simple**. **sencilla**. Not divided into several like parts, as a leaf not divided into leaflets (although the leaf may be lobed); also, a pistil with one carpel; also, as having an unbranched stem.

simple cyme. **cima simple**. A type of unbranched inflorescence with pedicellate flowers that are determinate, dichotomous, and have pedicels of equal length; dichasium.

simple fruit. **fruto simple**. A fruit derived from the ovary of a single pistil (single or compound) of a single flower.

simple leaf. **hoja simple**. A leaf with a single, undivided blade, but one that may be lobed, as an oak leaf (**Quercus**).

simple sorus. **soro simple**. See gradate sorus containing one sporangium.

simple sugar. **azúcar simple**. Any of the monosaccharides, such as glucose.

simple tissue. **tejido simple**. A tissue composed of all the same kind of cells.

simple venation. **venación simple**. A type of venation in which only the midrib is clearly visible.

simple umbel. **umbela simple**. An umbel in which the flower stalks arise directly from the top of the main stalk.

simplex. **simplejo**. The condition of a polyploid in which all the chromosomes of one homologous type carry the dominant allelomorph of a particular gene once.

single. **sencilla**. **solo**. Solitary; plants that produce only one stem, one flower, or one set of petals rather than double petals, as in many

cultivated varieties.

single celled. **unicelular**. Having one cell.

single flower. **flor singular**. A flower which has one set of petals with no sign of doubling. It is referred loosely to the flower head of the **Asteraceae**, when it is like a daisy.

single stemmed. **tallo sencillo**. Having one, unbranched stem.

sinistrorse. **levovoluble**. **sinistrorso**. Rising spirally from right to left, as the sinistrorse stem of a vine; opposite to dextrorse.

sinkhole. **cenote**. A natural, funnel-shaped cavity or well occurring in friable limestone through the action of rain or running water.

sinuate. **sinuado**. Having a margin that is distinctly wavy, as a sinuate leaf; also, said of the gills of agarics which curve suddenly on reaching the stipe.

sinuous. **sinuoso**. **serpenteante**. Winding, twisting, or undulating.

sinus. **seno**. A rounded depression or recess between two consecutive lobes, as a leaf sinus.

siphon. **sifón**. An elongated cell which extends the whole length of a joint in some red algae.

siphonous. **sifoneo**. Tubular.

siphonaceous. **sifonáceo**. Used to describe algae when the thallus is not divided by the septa or the numerous nuclei are not separated into cells.

siphonostele. **sifonostela**. Vascular tissue in the shape of a hollow tube, with the pith in the center, found in some stems, as ferns (**Filicopsida**).

sister cell. **célula hermana**. One of two cells formed by the division of a pre-exiting cell. ??????

sister chromatid. **cromátida hermana**.

Either of a pair of genetically identical chromatids.

sister chromatid exchange. **cromátida hermana de cambio**. An occurrence similar to crossing over, that can take place between sister chromatids at mitosis and meiosis, detectable in harlequin chromosomes.

sister group. **grupo de hermana**. Twin products of cladogenesis. In phylogenetic systematics, sister groups are classified at the same taxonomic rank.

sister nucleus. **núcleo hermana**. One of the two nuclei formed by the division of a pre-exiting nucleus.

site. **sitio**. The position within a cistron occupied by a mutation.

size. **tamaño**. Refers to the spatial dimensions of a plant or plant structure, expressed as a number in reference to length, width, and depth, or as a comparative amount.

skein. **mazo**. The nuclear reticulum.

skin. **piel**. Epidermis; also, the outer tissue of the periclinal chimaera.

skiophyll. **hoja de sombra**. Shade leaf or a leaf that prefers shade; also spelled skiophyll.

skiophyte. **planta esciófila**. **planta de sombra**. Sciophyte.

slash and burn agriculture. **cortar y quemar agricultura**. See shifting cultivation.

sleep movement. **movimiento de sueño**. **movimiento nictinástico**. The folding of the leaflets of a compound leaf at night time. This brings the stomatal surfaces together; nyctinasty.

slender grass. **zacate delgado**. Any of a group of grasses (**Poaceae**) with slender spikes that are classified in the genus *Lepiochloa*.

slender. **delgado**. Long and slender in size; thin.

sliding carrier. **portadora deslizante**.

A hypothetical carrier of ions across membranes. It is suppose to slide along the membrane surface, pick up the ion, and slide through a pore in the membrane, depositing the ion on the other side. The carrier stays in contact with the membrane all the while.

sliding growth. **crecimiento deslizante**.

The movement of developing tracheids and vessels along their mutually touching longitudinal walls as the cells elongate.

slime flux. **flujo de mucus**. An exudation of a watery solution of sugars and other substances from trees which are wounded or attacked by parasites.

slime plug. **tapón de mucus**. A mass of slimy material which blocks the pores in a sieve-plate.

slight. **reducido**. Limited in size or amount; small.

slightly. **escasamente**. Barely; small in size or amount.

slime fungus. **hongo viscoso**. *See* slime mold.

slime mo(u)lds. **mohoes mucosos**.

mixomicetos. moho viscoso. A type of eukaryotic microorganism that shows amoeboid movement and ingests small particles of food but reproduces by means of spores; sometimes included in mycological classifications and at other times in zoological classifications, as they exhibit characteristics of both simple plants and simple animals; also sometimes referred to a slime fungus; **Myxomycophyta**.

slimy. **mucoso**. A moist, gummy substance occurring in some plants;

mucous.

slippery zone. **zona resbaloso**. A shiny surface a little below the rim of a pitcher on which insects slip and fall to the bottom of the pitcher.

slit. **hendidura**. A lengthwise fissure or opening.

slope. **ladera**. An inclined surface, as a hill or mountainside.

small. **pequeña**. Little in size, number, or amount.

smaller. **menor**. Less in size, number, or amount when compared with others of the same kind.

smaragdine. **smaragdino**. Emerald or dark bluish-green color.

smog. **niebla tóxica**. Combinations of chemical pollutants, smoke, and fog in the air; commonly found in and around large urban and industrial areas.

smoke. **humo**. Solid particles in a gaseous form; as smoke from wood, cigarettes, gasoline engines, and industrial exhausts.

smooth. **liso**. Having an even surface, without configuration; not rough to the touch; also, used to indicate an absence of hair or appendages.

smooth bark. **corteza liso**. A bark without fissures.

smuts. **tizón. añublo**. A group of basidiomycete fungi, often seen on the ears of cereal plants as a mass of dark spores; **Ustilaginales**.

snail plant. **planta caracol**. A plant pollinated by snails.

snow-line. **línea de nieve**. The lower limit of permanent snow cover, which varies locally with latitude, prevailing winds, snow-types, and summer temperatures.

sobol(e). **renuevo. sobole**. A shoot or elongated caudex branch near the ground which emerges from the

base of a stem or from the rhizome.
soboliferous. **sobolífero**. Forming
shoots or soboles near the ground.

sociability scale. **escala de sociabilidad**. A 5 point visual, vegetative
analysis measure used to indicate
the degree of clumping or gregariousness of individual plant species;
1 on the scale denotes a shoot growing
singly and 5 indicates shoots
growing in large groups.

social (botany). **social (botánica)**.
Growing in patches or clumps.

social plants. **plantas social**. Species
which grow in large groups
and occupy wide areas.

society. **sociedad**. A group of plants,
especially a single species, is considered
a unit in an ecological community;
also, a minor community
within a consociation, arising as
a result of local variation in the
environment, and dominated by
species other than the consociation
dominant.

sod. **cubrir de césped**. The top 3 to
7 cm of soil held together with grass
roots or grass-legume roots.

sodic soil. **suelo sodico**. Soil with a
sodium content of more than 15%
exchangeable sodium; sufficient to
interfere with plant growth.

sodication. **sodicación**. In soils, an
increase in the percentage of sodium
which can affect its permeability to
the extent of rendering it impermeable
to water.

sodium chloride. **cloruro sódico**.
cloruro de sodio. A chemical compound
of sodium and chloride, common
table salt, which occurs along sea
shores or in salt marshes; especially
in tropical regions.

sodium. **sodio**. An element with the
chemical symbol of Na found in

all terrestrial plants and essential
to the water conserving capacity
of succulents and other drought
resistant plants.

soft. **suave**. Smooth to the touch.

soft bast. **suave liber**. The sieve tubes
and phloem parenchyma.

softwood. **semileñoso**. Refers to conifer
(**Coniferae**) trees or wood, as
distinguished from hardwood trees
or wood (somewhat inaccurately).

soil air. **suelo del aire**. Gases below
ground occupying the pore space
of the soil and occurring in the same
forms but in different proportions
as the gases above ground.

soil classification. **clasificación del
suelo**. An organization of soil profiles
contained in the United States
Department of Agriculture (USDA)
Soil Taxonomy system.

soil conservation. **conservación del
suelo**. A combination of soil management
and land use methods that
safeguard the soil against depletion
or deterioration by natural or
human interventions.

soil erosion. **erosión del suelo**. The
movement of soil components,
especially topsoil, from one place
to another through the action of
wind and water.

soil fertilization. **fertilización del
suelo**. The application of fertilizers
to the soil.

soil flora. **flora del suelo**. The plants,
chiefly fungi, living in the soil.

soil formation. **formación del suelo**.
The action of weathering and
humification to alter or rearrange
mineral and organic materials to
form soil; pedogenesis.

soil horizon. **horizonte edáfico**. A horizontal
zone that makes up a particular
mature soil. Each horizon

has a distinct texture and composition that varies with different types of soil.

soil management. **manejo del suelo.**

The total tillage operation, cropping practices, fertilizing, liming, and other treatments conducted on or applied to a soil for the production of plants.

soil pasteurization. **paste(u)rización**

del suelo. Treating soil with heat, commonly steam at 60°C to 70°C, to destroy most of the harmful pathogens, nematodes, and weed seeds; not as severe as soil sterilization.

soil permeability. **permeabilidad del**

suelo. The rate at which water and air move from upper to lower soil layers.

soil porosity. **porosidad del suelo.**

The cracks and spaces (pores) in soil or the amount of the soil's volume not occupied by the soil itself.

soil profile. **perfil del suelo.** A cross-sectional view of a soil horizon.

soil salinity. **salinidad del suelo.** The amount of soluble salts in a soil, expressed as parts per million or by some other useful ratio.

soil science. **ciencia del suelo.** An academic discipline directed toward the study of the composition, distribution, and formation of soils, as they occur naturally; pedology.

soil series. **serie del suelo.** The basic unit of soil classification; also, a subdivision of a family, composed of soils that are essentially alike in all major soil profile characteristics.

soil solution. **solución del suelo.** The aqueous liquid phase of the soil and its solutes composed of ions

dissociated from the surfaces of the soil particles and other soluble materials.

soil sterilization. **esterilización del**

suelo. Treating soil by gaseous fumigation, chemicals, or heat (commonly steam at 100°C), to destroy all living organisms.

soil structure. **estructura del suelo.**

The particle make-up of a soil.

soil texture. **textura del suelo.** The relative percentages of sand, silt, and clay in a soil.

soil type. **tipo de suelo.** The lowest unit in the natural system of soil classification; also, a subdivision of a soil series.

soil water. **agua del suelo.** Underground water that partially fills the pores between soil particles and rocks within the upper soil and rock layers of the earth's crust but above the water table.

soil. **suelo.** The top layer of the earth's surface composed of animal and vegetable matter, rock and mineral particles, which, when mixed in varying proportions, provide nutrients and water to plants.

sol. **sol.** A colloidal solution.

sola. **solo.** *See* solum.

solar energy. **energía solar.** Direct radiant energy from the sun and a number of indirect forms of energy produced by the direct input, such as wind, falling and flowing water, and biomass.

solarization. **solarización.** The temporary stopping of photosynthesis in a leaf which is exposed to strong light for a long time.

sole. **sole.** The bottom end of the carpel.

solenostele. **solenostela.** The type of vascular cylinder, a siphonostele,

in which there is a central stem and an outer cortex, as found in many ferns (**Filicopsida**), with phloem both on the inside and outside of the xylem.

soliflucation. **soliflucación**. A downflow, or slip of surface soil material.

solitary. **solitario**. One-flowered, not an inflorescence; occurring singly and not on a cluster; alone.

solopathogenic. **solopatogénico**. Of a smut, a pathogenic monosporidial strain.

soluble RNA (s-RNA). **ARN soluble**. Transfer-RNAs which are quite small molecules and more soluble in acid than other RNAs.

soluble. **soluble**. The relative capacity of a solute to be dissolved.

solum. **solo**. In a soil profile, the upper part where soil formation occurs and where plant roots are found.

solute potential. **potencial de soluto**. The water potential component produced by solutes in the water.

solute. **soluto**. Any substance dissolved in a solvent.

solution. **solución**. A homogeneous mixture with the molecules of the dissolved substance (solute) are dispersed among the molecules of the solvent; also, the abnormal separation of parts which are normally united.

solvent. **solvente**. The liquid in which a solute is dissolved.

soma (*pl.* somata). **soma**. All the tissues of a plant except the germ cells.

somatic. **somático**. Pertains to all the cells of a plant other than those that are reproductive (germ mother cells and gametes); vegetative; not reproductive or germinal.

somatic apogamy. **apogamia somática**.

The development of the sporophyte from the tissues of a gametophyte, without the fusion of nuclei. It therefore has the same chromosome number as the gametophyte.

somatic cell hybrid. **híbrido de célula somática**. A hybrid cell coming from the union of two somatic cells.

somatic cell. **célula somática**. A cell not destined to become a gamete and whose genes are not inheritable.

somatic crossing-over. **entrecruzamiento somática**. The crossing-over during mitosis of somatic cells, such that heterozygous parent cells for a given allele, instead of giving two identical heterozygous daughter cells, results in a homozygous daughter cell for each of the two alleles.

somatic doubling. **duplicación somático**. The doubling of the number of chromosomes in the nuclei of somatic cells.

somatic mitosis. **mitosis somática**. The division of a metabolic nucleus.

somatic mutation. **mutación somática**. A mutation in a somatic cell, rather than in a germ cell; a non-inheritable mutation.

somatic segregation. **segregación somática**. The formation by mitosis of cells differing from one another, either through mutation, or by somatic crossing over in the nucleus, or by an unequal assortment of cytoplasmic determinants.

somatic tissue. **tejido somático**. Non-productive vegetative tissue produced through mitosis that will not undergo meiosis.

somatotropism. **somatotropismo**. A directed growth movement in a plant so that the members come to be

placed in a definite position in relation to the substratum.

sooty mold. **moho cubierto de hollín.**

A dark, soot-like, fungal growth appearing on plants covered with sap-sucking aphids or scales; these insects produce a sugary substance which enhances their continued growth and development.

soralium (*pl.* soralia). **soralio.** A mass of soredia surrounded by a distinct margin formed from the thallus of a lichen. *See* soredium.

soral membrane. **membrana de soral.** The wall surrounding the sorus in some lower fungi.

sorbitol. **sorbitol.** The sugar alcohol of glucose.

sordid. **sórdido.** Dirty or muddy in color.

sordidus. **sordidus.** Latin meaning "dirty-colored".

soredia. **soredia.** Reproductive bodies in some lichen, that are groups of hyphae with a few entwined algal cells, forming in the thallus and reaching the surface through cracks in the cortex.

sorediate. **sorediado.** Having small patches on the surface.

soredium. **soredio.** A powder-like, microscopic structure composed of fungal hypha and a few cells of the phycobiont that is formed by some lichen to achieve vegetative reproduction.

sori. **soros.** Plural of sorus.

soriferous. **sorífero.** Bearing sori.

sorocarp. **sorocarpo.** In a few slime molds, a fruiting structure composed of an unenclosed mass of spores at the tip of a stalk; the fruiting structure of the **Acrasiales**.

sorophore. **soróforo.** The sorus stalk.

sorose. **sorosa.** Having sori.

sorosis. **sorosis.** A type of collective fruit composed of a spike or raceme modified into a fleshy fruit by the cohesion of a single mass of the ovaries and the floral envelopes, as the mulberry (**Moraceae**) or pineapple (**Bromeliaceae**).

sorosphere. **soroesfera.** A hollow ball of spores formed by some of the lower plants

sorus. **soro.** A cluster of plant reproductive, spore-producing bodies on the under surface of a fern frond (**Filicopsida**), which are seen as rows of small brown dots (sporangia); also, a reproductive area on the thallus of some algae; also, spore-producing structures in some fungi, especially the spore mass of rusts and smuts; also, a group of fruit bodies in the **Synchytriaceae**.

spaced. **espaciado.** Occurring at intervals.

space parasite. **parásito espacial.** A plant which lives in the intercellular spaces in another plant, obtaining shelter, but possibly nothing else.

spadiceous. **espadiceo.** Having a spadix or the appearance of a spadix, as a spadiceous flower; also, chestnut colored.

spadix. **espádice.** A fleshy spike of tiny flowers, usually enclosed in a spathe. *See* spathe.

sparingly. **escasamente.** Scanty or limited.

sparsely. **esparcidamente.** Not opposite, alternate, nor in any regular order, as peduncles, branches or leaves.

spathaceous. **espatáceo.** Having a spathe or the appearance of a spathe.

spathal. **espatal.** Having a spathe.

spathe. **espata.** A large bract or pair

of bracts that encloses a flower cluster, especially a spadix, as the calla lily (**Liliaceae**).

spathella. **espatela**. A grass flower glume.

spathellula. **espatelula**. A grass flower palea.

spathiform. **espatiforme**. Having the shape of a spathe.

spatulate. **espatulado**. Having a broad, rounded end and a long, narrow base, as a spatulate leaf; spoon-shaped.

spatulate embryo. **embrión espatulado**. A type of foliate embryo that is erect, with variable cotyledons, ranging in shape from thin to thick and slightly expanded to broad.

spatulate. **espatulado**. Same as spatulate.

spawn. **generar. producir**. Mushrooms are said to spawn from mycelium, the perennial, vegetative part of fungus that remains in the soil producing fruit annually.

spawn. **micelio**. The perennial, vegetative part of a fungus. *See* mycelium.

special Creation. **Creación especial**. The belief that the origin and diversity of life is from acts of God with each species created separately. Evolution is implicitly rejected as the explanation of these phenomena and classified as a theory.

specialist species. **especie especialista**. Species that occupy a narrow ecological niche; only able to live in one type of habitat, tolerate a narrow climate range and other environmental factors.

specialization. **especialización**. A degree of adaptation of a plant or plant structure to its environment with a high degree of specialization sug-

gesting a narrow habitat or niche. specialize. **especializarse**. To adapt to a different mode of life by the changing of a structure's function, shape, size or color.

specialized (modified). **especializado (modificar)**. Adapted or modified to meet the conditions of an altered environment; also, the tendency of a parasite to attack only one species or variety of a host plant.

speciate. **especiado**. To form of one or more species from an existing species through evolutionary processes.

speciation. **especiación**. The formation of new species of freely interbreeding plants, adapted to their environment and reproductively isolated from other such populations, through evolutionary processes.

species. **especie**. A category used in the taxonomic classification of plants composed of a one or more groups (populations) that resemble each other, breed among themselves, and produce fertile offspring. A species ranks just below a genus in taxonomic classification and may be divided into varieties, races, or breeds, which can also be subdivided into smaller groups known as geographic varieties, races or breeds.

species diversity. **diversidad de especies**. The number of different species and their relative abundances in a given area.

species group. **grupo especie**. Sometimes called "superspecies", as it refers to a complex of morphologically related species that when crossed can sometimes produce hybrids.

species-specific. **especie-específico.**

Describes a reaction that is limited to the effect on one species.

specific. **específico.** Pertaining to or related to a species. In the binomial naming system, every plant belongs to a species which is assigned two Latin names and together they represent the plant's specific name, as Wild Sage, *Lantana camara*; with *Lantana* representing the genus name and *camara* the specific name or kind of *Lantana*.

specific character. **carácter específico.**

In taxonomy, diagnostic characters used in delimiting species.

specific epithet. **epíteto específico.**

In taxonomy, the Latinized scientific name of an organism which makes use of a binary system with the genus (generic name) first and the specific epithet (species) second, as *Quercus alba*.

specific name. **nombre específico.** Epithet.

speciosus. **speciosus.** Latin meaning "handsome".

specimen. **especimen.** Samples of plant populations and taxa taken from nature or gardens.

speckled. **manchado. moteado.** Having or being marked with small spots of color; spotted

speckled. **manchado. moteado. mosqueado.** Having or being marked with small spots of color; spotted.

spectabilis. **spectabilis.** Latin meaning "remarkable".

spectaus. **spectaus.** Latin meaning "opposite".

speiranthy. **speirantia.** Having twisted flowers or flower parts.

sperm. **spermatozoide. anterozoide. espermio.** In angiosperms, the reproductive male gamete, which is

smaller than the female gamete.

spermagonium. **espermagonio.** In some lichen and fungi, a cup-shaped cavity where the spermatia, single-celled, male reproductive cells are produced.

spermaphytic. **espermáfítico.** Seed-bearing, as gymnosperms and angiosperms.

spermatophore. **espermatóforo.** A hypha that bears a spermatium.

spermatium (*pl.* spermatia). **espermatio.** In some fungi and lichen, spermatium are the single-celled male reproductive organs which are produced like spores; also, a non-motile gamete that fuses with the carpogonium in some algae; also, a non-motile male sex cell, present in red algae, in some ascomycetes and basidiomycetes, and some lichens.

spermatocyte. **espermatócito.** A cell that becomes an antherozoid without further division; antherocyte.

spermatogenous cell. **célula espermátógeno.** One of two cells formed by the division of the generative cell; the other is known as the sterile cell.

spermatophyte. **espermatófito.** Any of the angiosperm or gymnosperm plants that produce seed.

spermatozoid. **spermatozoide.** One of the motile male gametes produced in the antheridium that fertilizes female organs; antherozoid.

spermatozoon (*pl.* spermatozoa). **espermatozoo.** The male gamete, usually referred to as antherozoid.

Sperma(to)phyta. **esperma(tó)fitos. esperma(tó)fitas.** Seed plants.

spermatoplast. **espermátóplasto.** A male gamete.

spermatozoid. **spermatozoide.** Anth-

erozoid.

spermium. **espermio**. *See* spermatozoon.

spermogonium. **espermogonio**. Of fungi, a flask-shaped, or flattened hollow, structure in which spermatia are formed.

sperm nucleus. **núcleo espermático**.

Each pollen grain produces two sperm nuclei, which effects double fertilization in angiosperms.

spermophyte. **espermófito**. *See* spermatophyte.

sphacelate. **esfacelado**. Dark and shrunken.

sphaerocarpous. **esfaerocárpico**. Having a globular fruit.

sphaerocrystal. **esfaerocrystal**. A rounded crystalline mass of calcium oxalate found in the cells of some plants.

sphaerocyst. **esfaeroquiste**. A spherically shaped cell, clustered and present in the fleshy fruit of some fungi (**Russulaceae**).

sphaerraphide. **esfaeráfido**. A rounded spiky mass of calcium oxalate found, usually singly, in the cells of many plants.

sphagnum moss. **musgo esfágneo**. One or more aquatic mosses (**Musci**) of the genus **Sphagnum**, widely diffused in temperate climates, especially in bogs and swamps, and easily recognized by their pale gray color, fasciculate branches and sessile globose capsules.

spheno-. **esfeno-**. A Greek prefix that means, "wedge-shaped".

sphenoid. **esfenoide**. Having a wedge shape; cuneate.

sphere. **esfera**. Any round shape with the center equally distant from the center at all points.

spherical. **esférico**. Shaped like a

sphere; having multidimensional radial symmetry; globular.

spherical bacterium. **bacteria esférico**. Coccus.

spheridium. **esféridio**. Capitulum.

spheroid. **esferoide**. A body that is almost spherical or round, but not quite.

spheroidal. **esferoidal**. Having the form of a spheroid; almost spherical.

spherome. **esferoma**. A cell inclusion which gives rise to globules of fats and oils.

spheroplast. **esferoplasto**. Mitochondria.

spherule. **esferulo**. A chlamydospore-like structure.

spherosome. **esferosoma**. Cytoplasmic particles which move rapidly through the cytoplasm and may be involved in fat synthesis and storage.

spicate. **espigado**, **espiciforme**. Having the form of a spike or arranged in a spike, as a spicate flower.

spice. **especia**. An aromatic substance used to flavor or season food or drink.

spiciform. **espiciforme**. An inflorescence with the appearance of a spike but without the structure of a true spike.

spicose. **espicoso**. *See* spicous.

spicous. **espico**. Having ears or spikes, as corn (**Zea**).

spicula. **espicula**. A small spike or spikelet; also, a pointed, fleshy appendage.

spicular. **espicular**. Having, composed of, or covered with spicules.

spiculate. **espiculado**, **espiculífero**. Having the shape of a spicule; bearing spicules; also, a crystalline excrescence in or on the surface.

- spicule. **espiculo**. A small spike of flowers; also, a short, pointed projection, as a needle or spine; also, an obsolete term of sterigma.
- spiculisporic acid. **ácido espiculispórico**. A metabolic product of *Penicillium spiculisporum*.
- spiculose. **espiculoso**. See spiculate.
- spiculous. **espicule**. Having spicules.
- spiculum. **espiculo**. A spicule; a small spine.
- spike. **espiga**. An unbranched, indeterminate inflorescence with sessile flowers; like a raceme but the flowers are attached directly to the stem; also, an ear of grain.
- spikelet. **espiguilla**. A small spike, common to the grasses, sedges, and some reeds. It consists of a central rachis bearing one or more sterile glumes at the base, followed by one or more flowers, each enclosed between a flowering glume and palea. All the parts are crowded together.
- spike-like. **espiciforme**. Having the general appearance of a spike but not the structure of a true spike.
- spinaceous. **espinaceo**. Having the characteristics of spinach (**Spinachia**) or other members of the goosefoot family (**Chenopodiaceae**).
- spindle. **fusus**. The set or collection of tiny fibers, each composed of microtubular that extend the centromeres to the opposite ends of the region of the cell occupied by the nucleus; appearing to move the chromosomes of eukaryotes during mitosis and meiosis in cell division.
- spindle attachment. **acoplamiento fusus**. The point of attachment on a chromosome which ties the chromosome to the spindle during mitosis or meiosis.
- spindle fiber. **fibra del huso**. Protein fibers which are formed during prophase; chromosomes attach to these fibers at the centromere.
- spindle-shaped. **fusiforme**. A rounded shape that is broad near the middle and tapers toward each end; fusiform.
- spine. **espina**. A modified leaf or stipule with a stiff, slender, midrib, vein, or sharp-pointed petiole, as on cactus (**Cactaceae**) and hawthorn (**Crataegus**); also, the end of a branch or leaf which has become rounded in section, and is hard and sharply pointed.
- spineless. **sin espina**. Without spines or sharp-pointed processes, as spineless cactus (**Cactaceae**).
- spinescent. **espinesciente**. Having spines; with spine-like point at the tip, as on some holly (**Aquifoliaceae**) leaves.
- spinicarpous. **espinícarpico**. Having spiny fruit.
- spiniferous. **espinífero**. Bearing spines or thorns.
- spiniform. **espiniforme**. Thorn-like.
- spinigerous. **espinigero**. Producing thorns.
- spinose. **espinoso**. Sharp-pointed, as spinose leaves; pungent.
- spinous. **espinoso**. Covered with spines; thorny.
- spinule. **espinula**. A small spine.
- spinulescent. **espinulescente**. Bearing small spines.
- spinulose. **espinuloso**. Bearing spinules.
- spiny. **espinoso**. Thorny; spine-shaped.
- spiral. **espiral**. Winding about a fixed area, as a corkscrew; also, a coil of the chromosome, chromatid, or chromosome-thread at mitosis or

meiosis; helix.

spiral tracheid(e). **traqueida espiralada**. The tracheid in which the secondary wall is laid down.

spiral flower. **flor espiralada**. A flower having its members arranged in spirals.

spiral hypha. **hifa espiralada**. A hypha ending in a flat or helical coil.

spiralled. **espiralado**. Curved or wound around a fixed area.

spire. **aguja**. A young shoot or blade of grass; also, a young tree grown for timber with the lowest branches at a considerable height above the ground.

spireme. **espirema**. The tangle of thread-like chromosomes at the beginning of prophase of mitosis.

spiricle. **espirículo**. One of the thin, coiled threads (uncoiled when wet) on the surface of some seeds and fruits which assist in germination.

spirillum (*pl.* spirilla). **espirilio**. Cork-screw shaped bacterium, some of which are motile with terminal flagella.

spiroch(a)ete. **espiroqueta. espiroqueto**. A bacterium of the order **Spirochaetales**. These are elongated, spirally twisted organism, which move by flexing the body and not by flagella. Some are free-living and others are parasitic in animals and man. They are classified with the **Bacteria**.

spirogyra. **espirógira**. Any one of the green algae from the genus **Spirogyra** with ribbon-like chloroplasts winding to the right which have the appearance of scum on freshwater ponds.

spirolobal. **espirólobos**. Having lobes arranged in a spiral form.

spirolobous. **espirólobo**. Said of an

embryo having spirally rolled cotyledons.

splendens. **splendens**. Latin meaning "glittering".

splice. **coser. ayustar**. To join a gene or DNA segment of one organism to that of another; also, recombine strands of DNA molecules from different organisms to form new genetic combinations; also, to insert a new or altered gene or DNA segment into another organism so as to alter its genetic composition, especially to enable it to produce some specific chemical substance.

split gene. **escisión gen(e)**. A segment of DNA with one or more non-coding sectors.

spodogram. **espodograma**. A preparation of the ashes of a plant, especially a woody portion, used in the investigation of the structure.

spongioplasm. **spongioplasma**. The more viscid components of cytoplasm, forming a threadwork.

spongiouse. **esponjoso**. Full of small cavities.

spongy cell. **célula esponjoso**. One of the cells that form the spongy layer.

spongy layer. **capa esponjoso**. A layer of irregularly shaped cells occurring below the palisade layer in a leaf.

spongy mesophyll. **mesófilo esponjoso**. Mesophyll with loosely arranged cells and numerous air spaces, often found in the lower portion of the interior of a leaf just above the lower epidermis.

spongy parenchyma. **paréquima esponjoso**. The tissue formed by a layer of spongy cells extending from the palisade parenchyma to the lower epidermis of a leaf.

spongy pith. **médula esponjoso**. A pith that is porous and easily compressed.

spongy. **esponjoso**. Porous; sponge-like; full of holes.

spontaneous generation. **generación espontáneo**. Abiogenesis.

spontaneous movement. **movimiento espontáneo**. The movements of a plant which do not depend on an external stimulus.

spontaneous mutation. **mutación espontáneo**. A naturally occurring mutation, usually due a change in the functioning of cellular enzymes, as distinguished from an artificially induced mutation from the use of chemicals or irradiation.

spontaneous. **espontáneo**. Growing without being planted; indigenous.

spoon-shaped. **coclear**. Having the hollowed out shape of a spoon bowl.

sporobola. **esporabola**. The curve made by a basidiospore after discharge from its sterigma, as it falls under the force of gravity.

sporeaceous. **esporáceo**. Pertaining to spores.

sporadic. **esporádico**. Occurring singly or in a scattered distribution; scattered over a wide area; separate.

sporangia. **esporangios**. Plural of sporangium.

sporangial. **esporangial**. Pertaining to the sporangium, as the sporangial layer.

sporangial vesicle. **vesicula esporangial**. A very thin-walled, commonly evanescent outgrowth from the sporangium of many lower fungi, in which the zoospores complete their development and from which they are set free.

sporangiferous. **esporangífero**. Bearing sporangia.

sporangiocyst. **esporangiocist**. A thick-walled sporangium which is able to remain alive but inert under unfavorable conditions.

sporangiod. **esporangioide**. Having the appearance or characteristics of a sporangium.

sporangiogenic band. **banda de esporangiogénico**. A strip of cells, 2-3 cells broad and several cells tall, in the fertile spike of *Osmundaceae*. Ultimately, it becomes differentiated into blocks of archesporial cells and sterile cells.

sporangiole. **esporangiólico**. A small sized sporangium; also, a sporangium which contains one, or a very few spores.

sporangioliferous head. **capítulo esporangiolífero**. A rounded group of sporangia.

sporangiolum. **esporangiólico**. A sporangiole.

sporangiphore. **esporangióforo**. In some molds, a hypha bearing a sporangium at the apex; the axis, stalk, or columella on a sporangia-bearing structure; also, the umbrella-shaped, sporangium-bearing portion of the strobilus, as horsetails (*Equisetum*).

sporangiospore. **esporangióspora**. Any spore produced from sporangium, but especially a non-motile spore formed within a sporangium.

sporangium. **esporangio**. A spore case or sac; also, same as capsule in mosses (*Musci*); also, the structure containing asexual spores. sporation. **esporación**. See sporulation.

spore. **espora**. A type of reproductive structure, usually single-celled, resulting from meiotic cell division, which becomes free (the first

- cell of the gametophyte generation), and is capable of growing into a new plant, as ferns (**Filicopsida**) and mo(u)lds (**Hyphomycetes**).
- spore ball. **bola espora**. A globular mass of spore, either hollow or solid.
- spore case. **estuche de espora**. A receptacle which contains spores; sporangium.
- spore fruit. **fruta espora**. Any plant part that produces spores, as an ascocarp.
- spore group. **grupo de esporas**. A multicellular spore, each cell of which is capable of independent germination.
- spore membrane. **membrana espora**. The firm membrane surrounding the contents of a spore.
- spore Mother Cell. **madra del espora celular**. A diploid plant cell that gives rise to four haploid spores during meiosis. *See* sporocyte.
- spore print. **grabado espora**. The pattern of spores obtained on a sheet of paper when the cap of a fungal fruit is placed gills down and left for a period of time.
- spore sac. **cavidad espora**. The sac which lines the cavity of sporangium; part of a moss sporangium which contains the spores.
- spore tetrad. **tétrade espora**. A group of four spores formed from a spore-Mother Cell.
- spori-. **espori-**. A Greek prefix that means, "seed".
- sporid. **esporido**. Same as sporidium.
- sporidesm. **esporidesmo**. A cellular structure whose cells are each capable of germination.
- sporidia. **esporidios**. Plural of sporidium.
- sporidiferous. **esporidífero**. Bearing sporidia.
- sporidole. **esporidolo**. A small spore.
- sporidium. **esporidio**. A small spore; also, a case containing small spores; also, a spore formed from a promycelium.
- sporiferous. **esporífero**. Spore-producing; bearing spores.
- sporification. **esporificación**. The production or formation of spores.
- sporiparity. **esporiарidad**. Reproduction by the means of spores.
- sporiparous. **esporiparo**. Reproducing by spores.
- sporo-. **esporo-**. A Greek prefix that means, "spore" or "spores", as sporocarp.
- sporoblast. **esporoblasto**. A one cell segment of a spore group.
- sporocarp. **esporocarpio**. A multicellular structure for the formation of spores, as in red algae and ascomycetous fungi; also, a sorus completely enclosed by the indusium, as with some water ferns; also, in mosses (**Musci**), a sporangium; in heterosporous ferns (**Filicopsida**), a hard, nut-like structure containing sporangia.
- sporocladia. **esporocladia**. The special sporogenous branches in the **Kickxellaceae**.
- sporocyst. **esporoquiste**. A resting cell giving rise to asexual spore, as in algae.
- sporocyte. **esporocita**. A cell from which a tetrad of spores are derived meiotically; a spore Mother Cell.
- sporoderm. **esporoderma**. The skin or wall of a spore.
- sporodochium. **esporodochio**. A cushion-like mass of fungal tissue densely covered with conidiophores; acervulus.

- sporogen. **esporógena**. A spore-producing plant.
- sporogenesis. **esporogénesis**. The formation of spores; also, reproducing by means of spores.
- sporogenic. **esporógenico**. Sporogenous.
- sporogenous. **esporógeno**. Producing spores; also, reproducing by means of spores, as sporogenous plants.
- sporogenous cell. **célula esporógeno**. Spore Mother Cell.
- sporogenous layer. **capa de esporógeno**. Hymenium.
- sporogenous tissue. **tejido de esporógeno**. A layer or group of cells from which spore mother cells are formed.
- sporogonium. **esporogonio**. The sporangium in mosses (**Musci**) and liverworts (**Hepaticae**); also, a spore bearing capsule on a stalk; also, the sporophyte generation of these plants.
- sporogony. **esporogonia**. A type of reproduction in which a zygote experiences multiple fission.
- sporoid. **esporoide**. Having the appearance of a spore.
- sporont. **sporonte**. A thallus on which spores will be produced.
- sporophore. **esporóforo**. An organ or structure that bears spore; the spore-bearing part (umbrella), which is the stalk that has emerged from the mycelium, commonly referred to as the "mushroom".
- sporophorous. **esporóforoso**. Pertaining to a sporophore; spore-bearing.
- sporophyll. **esporófilo**. A sporangium-bearing leaf or leaf-like structure bearing spore or sporangia.
- sporophyta. **esporófita**. Plants that do not produce seeds; cryptogamia.
- sporophyte. **esporófito**. The diploid, spore-producing form that bears asexual spores in plants that have alternating generations. *Compare* gametophyte.
- sporophytic. **esporofítico**. Characteristic of a sporophyte.
- sporoplasm. **esporoplasma**. The spore producing protoplasm within the epiplasm of a sporangium or ascus.
- sporopollenin. **esporopolenin**. A highly chemical and temperature resistant substance that makes up the outer wall of pollen grains, except those of aquatic plants.
- sporosac. **esporosaco**. A sporocyst.
- sporous. **esporo**. Resembling or pertaining to a spore.
- sport. **sport**. **mutación de brotes**. **mutación de yema**. **mutante**. An organism that is sharply varied from the normal type; a mutant. *See* bud variation and bud mutation.
- sporulation. **esporulación**. The process of spore formation.
- spot. **mácula**. **salpicado**. A small area that is different, as in color or texture.
- spotted. **maculado**. **moteado**. **salpicado**. Having color disposed in small spots.
- sprawling. **desparramado**. Lying on or being supported by something; curving or bending in a downward direction.
- spray. **ramillete**. A slender branch with flowers, leaves, or fruits.
- sprig. **ramito**. Rhizomes.
- sprigging. **sembrando ramitos**. Vegetative propagation by planting stolons or rhizomes.
- spring. **primavera**. The season of the year when plants begin to grow after lying dormant all winter; the pe-

riod between the vernal equinox and the summer solstice.

spring wood. **leño temprano. leño de primavera.** Secondary xylem formed during the spring and early summer, distinguished by the large, thin-walled elements of which it is composed; primary wood.

sprout. **brotar. germinar. retoñar.** To bud or germinate.

sprout. **vástago. renuevo. retoño.** Shoot.

sprout cell. **célula vástago.** A cell formed as a bud from a mother cell.

sprout germination. **vástago germinación.** The elongation of axillary or adventitious buds; also, the production of daughter cells as rounded outgrowths, as in yeasts.

spumeous. **capa.** Having scum or froth, as on a pond.

spur. **estolón.** A lateral, dwarf shoot that develops on some woody plants; also, a slender, usually hollow, sac-like projection from a flower petal or sepal, or of the calyx or gamopetalous corolla, as from the calyx of the columbine (**Thymelaeaceae**); also, a short branch on which flowers and fruits are borne; also, the extension of the base of a leaf beyond its point of attachment; calcar.

spur pelory. **peloria estolón.** An abnormal condition in which all the petals of an irregular flower develop spurs, so that the flower becomes regular.

spurred. **estolonado.** Bearing a spur or spurs.

spurious dissepiment. **disepimento espuria.** False septum; a partition in a fruit which is not an ingrowth from the edges of the carpel, nor an upgrowth from the receptacle.

spurious fruit. **fruta espuria.** A group of fruit having the appearance of a single fruit.

squama. **escama.** One of the bracts of an ament or catkin; also, one of the parts of a plant that is overlaid, as the undeveloped leaves of a bud; also, a scale or scale-like structure.

squamaceous. **escamaceo.** *See* squamate.

squamae. **escamae.** Plural of squama. squamate. **escamoso.** Covered with or having many squama; scaly.

squamella. **escuámula.** A small chaffy bract, scale-like appendage; squama. squamellae. **escuámulas.** Plural of squamella.

squamellate. **escuamelado.** Bearing squamellae.

squamiform. **escuamiforme.** Scale-like.

squamose. **escuamoso. escamoso.** *See* squamate.

squamous. **escuamoso.** Having coarse scales; squamate.

squamula. **escuamula.** A small scale. squamule. **escuamula.** The lodicule of a grass flower.

squamulose. **escuamuloso.** Bearing or covered with minute scales (squamules); lepidote.

squarrose. **escuarroso.** Having scales, bracts, or other parts, as a calyx or involucre, that project outward at a right angle and usually recurved at the tips, as in some species of asters (**Asteraceae**); also, in mosses (**Musci**), leaves in which the upper part is curved sharply back into the lower part.

squarribose. **escuarruloso.** Having diminutive recurved parts.

squarrosus. **squarrosus.** Latin meaning "spreading in all directions bent

backwards”.

s-RNA. **ARN soluble**. *See* soluble RNA.

s-shaped. **sigmoide**. Having the curved shape of the letter “s”; sigmoid.

stable community. **comunidad estable**.

A plant community which remains unaltered in its general characters for a long time.

stability. **estabilidad**. The capacity of a living system to withstand or recover from externally imposed changes or stresses.

stabilization. **estabilización**. The sixth and final stage in a six part process of plant succession in which the stabilizing influence of natural selection results in little change, tending to inhibit evolutionary innovation and accounting for the fossil groups that produced little change over long periods of time. *See* *seré*.

stabilizing selection. **selección estabilizadora**. The steady influence of natural selection in an environment that changes very little in space and time, tending to inhibit evolutionary innovation, as evidenced by fossil groups that changed little over long periods of time; maintenance evolution.

stachyo- **stacio-**. A Greek prefix that means, “spiked”.

stage. **etapa. fasa**. A phase in a life cycle.

stalagmoid. **stalagmoide**. Said of spores shaped like a long tear or drop.

stalk. **pedículo. peciolo** (petiole). **pedúnculo** (peduncle). **cabillo** (stalk). The stem or supporting structure of a flower or leaf.

stalk. **rabillo**. The stem or supporting structure of a fruit or bearded dandel.

stalk. **tallo**. The stem or supporting structure of a plant.

stalkless. **sin tallo**. Without a stem.

stamen. **estambre**. The male reproductive structure of a flower that contains the pollen; composed of an upper fertile part, the anther, and a thin sterile stalk; the filament; also, the microsporophyll of angiosperms.

staminal disk. **disco estaminal**. The elevated, fleshy cushion part of the androecium which is formed from coalesced staminodia or nectaries.

staminal tube. **tubo estaminal**. The lower, united portion of fused filaments.

staminal. **estaminal**. Pertaining to stamen, as a staminal tube.

staminate flower. **flor estaminada**. A male flower having stamens but no pistils.

staminate. **estaminada**. Having stamens but no pistils, as a staminate (male) plant which does not produce fruit or seeds

staminiferous. **estaminífero**. Having or producing stamens; staminate.

staminode. **estaminodio**. Stamens are referred to as staminodes if they are without anthers or if the anthers fail to produce pollen; however, these rudimentary stamen may function as nectaries or petals; an abortive stamen that may be highly modified or reduced.

staminodium (*pl.* staminodia) **estaminodio**. A sterile stamen that may be modified as a nectary or on occasion, as a petaloid structure.

staminody. **estaminodia**. The changing or metamorphosis of various floral structures, as bracts, pistils etc. into stamens.

staminose. **estaminoso**. Said of a flower

in which the stamens are very obvious.

stand. **población vegetal. manchón.**

In ecology, the term refers to a standing growth of plants, especially trees; in taxonomy, stand describes a distinctive plant association, which facilitates comparisons of different plant communities.

standard. **estándarte. crecimiento estándar.** The large upper petal of a papilionaceous corolla; also, one of the three upper petal-like structures of an iris (**Iridaceae**); vexillum; banner; vane.

standard deviation. **desviación standard. desviación standard.** The square root of the variance.

starch. **almidón.** A chemically complex white, odorless, tasteless carbohydrate found in all parts of plants that store food, and especially plentiful in potatoes (**Solanum**), wheat (**Triticum**), rice (**Oryza**), and corn (**Zea**); a polysaccharide that is formed by the condensation of glucose units and is a storage substance in many plants. It does not reduce Fehling's solution but forms a blue-black compound with iodine solution.

starch crescent. **almidón creciente.** A strand of cell, crescentic in cross-section, containing starch grains.

starch grain. **grano de almidón.** A rounded or irregular-shaped inclusion in a cell, composed of a series of layers of starch, giving a stratified appearance and surrounding a central hilum.

starch plant. **planta de almidón.** A plant in which the carbohydrate formed in excess of immediate requirements is stored in the leaf as

temporary starch.

starch sheath. **vaina de almidón.** An endodermis that contains starch grains; also, a one-layered cylinder of cells lying on the inner boundary of the cortex of a young stem, with prominent starch grains in the cells. It is homologous with an endodermis; also, a layer of starch grains around the pyrenoid in an algal cell.

starter. **iniciadora.** The pure culture or mixture of microorganisms used for starting a fermentation process.

starter solution. **solución iniciadora.** A mixture of fertilizer to aid in the establishment of a recently planted cultivar.

stasigenesis. **estasigénesis.** An evolutionary condition in which a lineage passes through time without dividing or changing; referred to as "living fossils".

stasipatric. **estasipátrico.** A rapid speciation that occurs within some small breeding populations that are not completely isolated genetically or geographically; parapatric.

stasis. **estasis. estancamiento.** A period of little or no evolutionary change.

stanchyma. **estatenquima.** A tissue composed of cells containing statoliths.

statismspore. **estatismosporo.** A fungal spore that is not forcefully discharged at maturity.

statistice. **stadística.** The estimate of a parameter arrived at from an observed sample. It bears the same relation to the sample as the parameter does to the population.

statistical analysis. **análisis estadísticos.** A method of studying data based

on probability where the calculation of a value is established by observations and then tested for significance by comparison with the values that might be expected to occur by chance.

stato-. **estato-**. A Greek prefix that means, "fixed" or "standing".

statocyst. **estatocisto**. An organ of gravitation composed of cells that contain starch grains, statoliths, and ectoplasm which are sensitive to pressure.

statolith. **estatolito**. A starch grain in the statocyst of root tips which are thought to be responsive to gravitational impulses.

stegium. **estegio**. Thread-like hair on the styles of some tropical and subtropical species of *Asclepiadaceae*.

stegocarpous. **estegocarpico**. Said of the capsule of a moss (*Musci*) when it has a lid.

stela. **estela**. A cylinder of the primary vascular tissue inside stems and roots separated from the cortex by endodermis and pericycle, and in some cases pith and medullary rays. The detailed structure differs in different groups of plants.

stelipilous. **estelípila**. Having stellate hairs.

stellate. **estrellado**. Slender segments or hairs spreading out from a common center like the points of a star; star-shaped.

stelliform. **estelliforme**. Having the shape of a star; star-like.

stellulate. **estellulado**. Resembling a small star.

stem. **tallo**. In angiosperms, the ascending support and conducting structure (axis) of a plant, usually developed initially from the epicotyl

and growing upward, as distinguished from the descending root structure; also, the peduncle of the fructification; the pedicle of a flower; the petiole of a leaf.

stem apex. **ápice del vástago**. **ápice del las ramas**. The tip of the stem or the point farthest from the point of attachment.

stem body. **cuerpo impulsor**. The part of a spindle between two groups of chromosomes separating at anaphase.

stem bulblet. **bulbillo del tallo**. A small bulb produced from an underground node, as on *Lilium longiflorum* (*Liliaceae*).

stem leaves. **hojas caulinares**. Leaves growing on a stem, especially the upper part of the stem.

stem root. **raíz del tallo**. Vertical or horizontal aboveground roots; also, aerate or knee roots.

stem succulent. **planta de tallo suculento**. A plant with a succulent stem and very small leaves which are often reduced to spines.

stem tendril. **zarcillo de tallo**. A tendril which is a modified stem.

stem tuber. **tubérculo caular**. A thick, storage stem, usually not upright. *See* tuber.

stemless. **acaule**. **sin tallo**. Having no stem; acauline.

stem-like. **cauliforme**. **caular**. Having the form of a caulis or stem.

sten(o)ecious. **estenocio**. Capable of living in only a narrow or restricted range of habitats, as stenoecious species.

steno-. **esteno-**. A Greek prefix that means, "small" or "narrow", as in stenopetalous.

stenobathic. **estenobático**. Living in water with a narrow range of depth,

- as stenobathic plants.
- stenocarpus. **estenocarpus**. Latin meaning "narrow-fruited".
- stenohaline. **estenohalino**. Capable of living in only a narrow range of saline water or osmotic pressures, as a stenohaline plant.
- stenomorph. **estenomorfo**. A very small plant due to a cramped habitat.
- stenopetalous. **estenopétalo**. Having narrow petals.
- stenophyllous. **estenófilo**. Having narrow leaves.
- stenosepalous. **estenosepalo**. Having narrow sepals.
- stenothermal. **estenothermal**. Only able to survive in a very narrow temperature range, as stenothermal species.
- stenothermic. **estenotermico**. See stenothermal.
- stenothermous. **estenotemoso**. Unable to tolerate a wide temperature range.
- stenothery. **estenoteria**. Tolerance of only a very narrow range of temperature.
- stenotopic. **estenotópico**. Species that are limited to a particular habitat.
- stenotropic. **estenotrópico**. Very limited capacity to adapt to varied conditions.
- stephanokont. **estefanokonte**. A cell with a ring of cilia or flagella at one end.
- steppe. **estepa**. A vast, extensive grass plains in Eurasia; also any dry, treeless grassland, plain or prairie.
- stereo-. **estereo-**. A prefix that means, "hard", "solid", or "three dimensional", as stereomorphic.
- stereoisomer. **stereoisómero**. Having isomers consisting of the same groups of atoms, differing in their arrangement in space.
- stereome. **estereoma**. The elements that give strength to a fibrovascular bundle in a plant.
- stereome cylinder. **cilindro estereoma**. A cylinder of strengthening tissue in a stem usually just outside the phloem.
- stereomorphic. **estereomorfo**. A type of flower that is three-dimensional with radial symmetry, usually regular but often having many reduced parts, as the *Narcissus* (**Amaryllidaceae**) and columbines (**Ranunculaceae**).
- stereotaxis. **estereotaxis**. The movement of a plant in response to contact with a solid body (touch); thigmotaxis.
- stereotropic. **estereotrópico**. The bending or turning in response to contact with a solid body.
- stereotropism. **estereotropismo**. The turning toward (positive) or turning away (negative) from a solid body or rigid surface; stereotropism.
- sterigma. **esteríigma**. The persistent needle base of some coniferous trees; also, a stalk bearing the spore in a fungus; a ridge extending down a stem below the point a decurrent leaf is attached; peg.
- sterigmata. **esterigmas**. Plural of sterigma.
- sterile. **estéril**. Infertile, as a flower without a pistil that does not bear seed; a stamen without an anther that doesn't bear pollen or a leafy shoot without flowers; not able to germinate, as a sterile spore; also, free from living microorganisms.
- sterile cell. **célula estéril**. One of the two cells formed in the division of the generative cell; the other is known as the spermatogenous

- cell; the terminal cell is a chain of aecidiospores.
- sterile flower. **flor estéril**. A staminate flower.
- sterile glume. **gluma estéril**. One of the glumes at the base of a grass spikelet which does not subtend a flower.
- sterile vein. **vena estéril**. A strand or sheet of interwoven hyphae occurring with the spore-bearing hyphae in the fruit bodies of some fungi.
- sterilization. **esterilización**. A method of eliminating organisms in a soil by raising temperature to 100° C or by using chemicals; also, to make sterile.
- sterilize. **esterilizar**. To make free from living organisms, especially microorganisms by heating; also, to make a plant unable to bear fruit or germinate.
- sternotribe. **esternotribu**. A flower which dusts pollen on the underside of a visitor.
- steroid. **esteroide**. A compound containing the carbon ring of the sterols, found in small amounts in some plants; also, saturated hydrocarbons containing seventeen carbon atoms in a system of rings, 3 six-membered and one five-membered, condensed together (six atoms being shared between rings). *See* cholesterol.
- stichidium. **sticidio**. A special branch of the thallus in red algae on or within which tetraspores are formed.
- stichobasidium. **sticobasidio**. A basidium, usually elongated and cylindrical, which the spindle of the dividing nuclei lie obliquely or longitudinally.
- sticker. **cadillo**. A common name for a bur, barb, or thorn.
- stickiness. **viscosidad. pegajosidad**. The quality or condition of being sticky, clinging, or adhesive.
- sticky end. **extremo adhesiva**. The ends of single strands of DNA molecules that complement each other in the sequence of their nucleotides; can be rejoined in the presence of the enzyme ligase. Restriction enzymes are used to produce sticky ends.
- sticto-. **sticto-**. A Greek prefix that means, "spotted".
- sticky. **pegajoso**. Adhesive, tending to cling to anything touched; also, covered with an adhesive substance.
- stiff. **rígido**. Rigid, firm, not flexible, or pliant.
- stiffly. **rígidamente**. In a stiff manner.
- stigma. **estigma**. The apical portion of the pistil which receives the pollen; eyespot.
- stigmatic. **estigmático**. Part of or characteristic of the stigma.
- stigmatiferous. **estigmatífero**. Bearing a stigma.
- stigmatocyst. **stigmatocisto**. Hyphobasidium.
- stilboid. **stilboide**. Said of a fungus having a stalked head of spores or other reproductive structures.
- stilt. **fulcrante (raíz). fúlcrea. zanco. zancuda**. A root that comes off the lower bole and runs diagonally to the ground, as in mangroves and in some palms (**Palmae**); prop root; buttress root.
- stilt root. **raíz fulcrante. raíz zanco. raíz fúlcrea**. An adventitious root formed by a stem from a point above the ground level passing downwards into the soil and affording support to the plant; prop root; buttress root.
- stimulate. **estimular**. To induce func-

- tional activity.
- stimulation. **estímulo**. The act of inducing a functional change or alteration.
- stimulose. **estimuloso**. Bearing stinging hairs.
- stimulus. **estímulo**. Something that excites the organism, organ, or cell into producing a specific response without itself providing energy for the new activities.
- sting. **picar**. A response to touching a stiff, sharp-pointed hollow, glandular hair that secretes an irritating substance when touched, as nettle (**Urticaceae**).
- stinging hair. **pelo urticante**. A stiff, sharp-pointed hollow, glandular hair that secretes an irritating substance when touched, as nettles (**Urticaceae**); also, a multicellular hair with a brittle tip which breaks off on contact with an animal, leaving a sharp edge which penetrates the skin and injects an irritant fluid; urent.
- stipate. **stipado**. Crowded.
- stipe. **estípite**. **pecíolo (enhelechos)**. The stalk of flowering plants formed by the receptacle or by a carpel, especially when attaching the ovary to the receptacle; also, the petiole of a fern (**Filicopsida**) or seaweed frond; in a tree fern, the caudex (**Cyatheaceae** and **Thyrsopteridaceae**); also, the stem which supports the pileus (cap) of some mushrooms; also, a leaf stalk; podogyne; carpopodium.
- stipe bundles. **haz estípite**. The vascular fibers of the fern (**Filicopsida**) petiole.
- stipel. **estipela**. In a compound leaf, a secondary stipule located at the base of a leaflet.
- stipellate. **estipelado**. Bearing a stipel or stipels.
- stipellule. **estipela**. See stipel.
- stipiform. **estipiforme**. Having the form of a stipe; same as stipitiform.
- stipatatic acid. **ácido stipatático**. A metabolic product of *Penicillium stipitatum*.
- stipitate. **estipitado**. Having or growing on a stipe.
- stipitiform. **estipitiforme**. Having the shape or form of a stipe; same as stipiform.
- stipular scar. **cicatriz stipular**. A mark on a twig surface that indicates the former place of attachment of a stipule.
- stipular trace. **traza stipular**. The vascular tissue running to a stipule.
- stipular. **estipular**. Of or resembling a stipule; also, growing on or close to stipules.
- stipulate. **estipulado**. Bearing stipules, as a stipulate stem.
- stipule. **estípula**. One of a pair of small leaf-like appendages at the base of a leaf stalk or leaf petiole, usually united but standing separately; common to many roses (**Rosa**) and geranium (**Geraniaceae**).
- stipuliform. **estipuliforme**. Having the shape or form of a stipule; stipule-like.
- stipulose. **stipuloso**. Bearing conspicuous stipules; stipulate.
- stock. **tallo subterráneo**. The main stem of a plant or tree; also, in a graft, that portion of a stem that grows underground, root fragments, called stock, that are attached to a stem cutting, called a scion.
- stolon. **estolón**. An elongated slender stem, shoot, or filiform that grows horizontally along or beneath the ground, taking root at the nodes

- and producing new plants; also, a stolon with a bud at the end which is referred to as a runner; also, a long hypha lying on the substratum and producing tufts of rhizoids and sporangiophores at intervals.
- stoloniferous. **estolonífero**. Producing or growing stolons, as stoloniferous grasses (**Poaceae**).
- stoloniform. **estoloniforme**. Stolon-like.
- stoma. **estoma**. A pore in the epidermis of plants, present in large numbers, particularly on leaves, through which gaseous exchanges take place. Each stoma is surrounded by the sausage-shaped guard cells which open and close the stoma by changes in their turgidity; also, used to refer to pore and guard cells. *See* stomate.
- stomata. **estomata**. Plural of stoma.
- stomatal. **estomático. aerífera**. Having a stoma, or slit-like opening in the epidermis of the leaf; sometimes referred to as the stomatal apparatus which exercises a great deal of control over water loss.
- stomate. **estoma**. A small opening on a leaf's surface through which water and gases pass into and out of plants.
- stomatiferous. **estomatífero**. Bearing stomata.
- stomatopodium. **estomatopodio**. A hypha branch or "plug", above or in a stoma. Also spelled stomopodium.
- stomium. **estomio**. The thin-walled, lip cell region of a fern (**Filicopsida**) sporangium which ruptures to release spores.
- stone cell. **célula pétreá. célula esclerosá**. A short, firm cell not much longer than broad, with lignified walls, that composes the sclerenchyma and supports other tissues, especially in seeds and fruit; brachysclereid.
- stone. **pireno. hueso. cuesco. carozo. pepa**. The hard covering of a seed, especially those of soft, pulpy fruit, as peaches (**Amygdalus**) and plums (**Prunus**); the hard endocarp of a drupe.
- stone fruit. **fruto pireno**. A fruit whose seeds are covered with a hard shell surrounded by pulp, as cherries (**Prunus**); drupe.
- stony soil. **suelo pedregoso**. Soil containing an abundant amount of small rocks.
- storage leaf. **hoja de reserva. hoja almacenaje**. A succulent, fleshy leaf.
- storage pith. **médula de reserva**. A fibrous mass where starch or water is stored, as in palms and rushes.
- storage tracheid(e). **traqueida de reserva**. A thick-walled cell, resembling a tracheid(e) without living contents, in which water is stored.
- store (nutrients). **almacenar (nutriente)**. To accumulate for future use.
- storey. **piso de vegetación**. A layer of vegetation.
- stout. **robusto**. Sturdy, strong.
- straight. **recto**. Without a curve, bend, or angle.
- strain. **raza**. A group of genetically identical organisms, natural or artificial, that are part of race, breed or variety but are distinguished from related plants by some feature, as wheat strains which have differing sizes, disease resistance, or growing periods; also, a variety of species with distinct morphologi-

cal and/or physiological characters.
stramineous. **pajizo**. Having the yellowish color of straw.

strand plant. **planta de playa**. A plant growing by the sea where it is not submerged at high tide but may be splashed by spray.

strangler. **estrangulador**. A type of plant, such as a strangling fig (**Moraceae**), common to tropical rainforests, which germinates high in a host tree, sends roots to the ground for physical support by twining branches or aerial roots around the host (anastomosis), and eventually envelops and kills the supporting tree.

strangling fig. **higo estrangulamiento**. A fig tree (**Ficus**) that germinates high in a host tree, sending roots to the ground which eventually anastomoses; and as it grows, envelops, and kills the supporting host tree.

strap leaf. **hoja deshilada**. The leaf of certain grasses (**Poaceae**), excluding the sheath.

strap. **deshilada**. The flat part of a corollet in lingulate florets.

strap-shaped. **en forma deshilada**. Flat and long.

stratification. **estratificación**. The practice of exposing imbibed seeds to cool (2°C to 10°C) temperatures for a period of time prior to germination in order to break dormancy; also, the banding seen in thick cell walls due to the presence of wall layers differing in water content, chemical composition, and physical structure; also, the grouping of vegetation in woods or forests into two or more well-defined layers differing in height, as trees, shrubs, and ground vegetation.

stratified cambium. **cambium estratificado**. A cambium in which the cells, seen in tangential section, appear arranged in fairly regular horizontal rows.

stratified thallus. **talo estratificado**. A lichen thallus composed of a layer of algal cells between layers of fungal hyphae.

stratose. **estratoso. estratificado**. Composed of well defined layers; layered.

stratose thallus. **talo estratificado. talo estratoso**. A lichen thallus having the tissues in horizontal layers.

stratum society. **estrato de sociedad**. A plant society occurring as a clearly defined layer in a plant community, e.g. shrubs in a wood.

streak. **estría**. A common name for a virus disease in a monocotyledonous plant in which necrotic streaks of yellow color appear on the leaves; also, a furrow; also, a layer of tissue differing in color or structure from the tissue on each side of it.

streaked. **rayado. listado**. Having stripes, as white flowers streaked with red.

stream. **arroyo. riachuelo**. A flowing body of surface water, as a small river or creek.

streaming. **corriente**. The metabolic motility of protoplasm that occurs laterally through the proplasmic materials and longitudinally through files of connected cells.

streptocarpous. **estreptocárpico**. Having fruits that are twisted.

streptomyces. **estreptomices**. Any of the organisms of the genus **Streptomyces** found in the soil and considered to be an intermediate be-

tween bacteria and fungi.

streptomycin. **estreptomicina**. An antibiotic, active against Gram + and some Gram - bacteria, produced by *Streptomyces griseus*.

streptothricin. **estreptotricina**. An antibiotic active against bacteria and fungi, produced by *Streptomyces lavendulae*.

streptococcus. **estreptococo**. A coccus in which the individuals tend to be grouped in chains.

stress (water). **estrés (agua)**. Plants that are unable to absorb enough water to replace the amount being lost by transpiration; may experience wilting, cessation of growth, or death of the plant, or plant parts.

stria. **estria**. A fine line or furrow.

striate. **estriado**. Having fine longitudinal lines, ridges, or grooves; lineolate.

strict. **estricto**. Straight, stiff, rigid, upright position, not spreading.

strictus. **strictus**. Latin meaning "rigid".

striga. **estriga**. A straight, hair-like bristle.

strigillose. **estriguloso**. Having very small, firm, slender bristles (strigose).

strigose. **estrigoso**. Being covered with sharp, stiff, often bulbous-based, trichomes, all pointing in the same direction, as on some leaves.

strigulose. **estriguloso**. Same as strigillose.

strigulous. **estriguloso**. See strigillose.

stringy. **fibroso. filamentoso**. Composed of strings or fibers.

striolate. **striolado**. Finely striate.

striped. **rayado. listado**. Having longitudinal stripes of color.

stripsistine. **estripsistino**. A stage in meiotic prophase when cross-

ing over takes place.

strobilaceous. **estrobiláceo**. Of or pertaining to a cone or an inflorescence that resembles a cone; cone-like.

strobilate. **estrobilado**. Cone producing.

strobile. **estróbilo**. Same as strobilus.

strobiliferous. **estrobilífero**. Bearing strobilus.

strobiliform. **estrobiliforme**. Having the shape of a cone.

strobilus. **estróbilo**. A cone-like mass of closely packed, scale-like, sporangia bearing structures at the apex of the stem, as of the horsetail (**Calamitaceae**); also, a seed-bearing cone, as pine (**Pinaceae**); cone.

stroma. **estroma**. The fleshy, substance of some fungous plants, in which the perithecia are embedded; also, the matrix of chloroplasts where the grana are embedded; also, the zone between the intergranum lamellae of a chloroplast; also, the tissue that forms the framework of an organ, as the tissue of the ovary that surrounds the reproductive cells.

stroma starch. **almidón estroma**. Starch formed in the stroma of a chloroplast when photosynthesis is active.

stromata. **estromata**. Plural of stroma.

stromatiform. **estromatiforme**. Having the shape or form of a stroma.

strombuliferous. **estrombulífero**. Producing strombuliform pods.

strombuliform. **estrombuliforme**. Twisted, coiled, or spiraled into the shape of a screw or helix.

strombus. **estrombo**. Twisted, turned, or spirally coiled, as some legumes.

strong. **fuerte**. Having a large amount of its essential quality.

strongly. **marcadamente**. Markedly.
strophiolate. **estrofoliado**. Having an
elongated aril or strophiole in the
hilum.

strophiole. **estrofiolo**. An append-
age at the hilum in some seeds;
caruncle.

structural change. **alteración estructural**. Change in the genetic struc-
ture of one or more chromosomes.

structural control. **control de estructural**. Genotypic control.

structural deviation. **desviación estructural**. Any departure from the usual
structure of a plant.

structural gene. **gen estructural**. A
sequence of nucleotides that codes
for the amino acids and the structure
of a protein.

structural hybrid. **híbrido de estructural**. A hybrid whose parental gam-
etes differed in respect of the ar-
rangement of their genes.

structural mutation. **mutación de estructural**. An intergenic change
in the linear arrangement of genes.

structure. **estructura**. In taxonomy,
one of the three measures of char-
acter: form, function and structure;
with plant, plant organ, and plant
organ parts described and classi-
fied in that order according to type,
color, shape, size, number, and dis-
position pertaining to each part;
also, the potentially permanent linear
order of the particles, chromomeres,
or genes in the chromosome.

struma. **estruma**. A cushion-swell-
ing at the base of an organ or or-
gan part; also, a swelling on one
side at the base of a moss capsule.

strumiferous. **estrumífero**. Bearing one
or more struma.

strumose. **estrumoso**. Having a cov-
ering of cushion-like swellings;

having a swelling at one side of
the base; bullate.

stunt. **atrofia, raquitismo**. Atrophy.
stunted growth. **retardo del crecim-
iento**. Plant development which has
abnormally ceased; atrophied.

stunted. **atrofiado, raquítrico**. Atro-
phied.

stupeous. **estupeo**. Woolly.

suppose. **estuposo**. Bearing mats of long
hair; also said of a tissue formed
from hyphae which are not gelati-
nized.

stylar. **estilar**. Of or pertaining to a
style.

stylar canal. **canal estilar**. A tube or
mass of loose tissue running through
the center of the style through which
the pollen tube grows.

stylar column. **ginostemo**. The col-
umn formed by the combining of
the stamens and style in orchids;
gynostemium.

stylate. **esilado**. Having a persistent
or long-lasting style.

style. **estilo**. The narrow, non-ovule
bearing, stalk-like part of a pistil
which connects the ovary and
stigma.

style branch. **ramas del estilo**. A
branch of the style, as in some
composite flowers.

styliferous. **estilífero**. Style-bearing.

stylidium. **stilidio**. The upper part of
an archegonium.

stylocarpellous. **estilocarpelo**. A nor-
mal carpel that has a style but not
a stipe.

stylocarpepodic. **estilocarpépodico**.
A type of carpel with both a style
and a stipe.

stylodious. **estilodio**. A type of gyno-
ecial fusion with a solitary, free
carpel; unilocarpellous.

stylopod. **estilopod**. *See* stylopodium.

stylopodic. **estilopódico**. Having a stylopodium or basal enlargement. stylopodium. **estilopodio**. A disk-like, basal enlargement of the style, as in the carrot family **Apiaceae** (**Umbelliferae**).

stylospore. **estilóspora**. A term formerly used for a spore on a pedicel or hypha.

suaveolent. **suaveolente. aromático. fragante**. Fragrant.

sub-. **sub-**. A Latin prefix that means, "under", "below", or "beneath"; also, resulting from further division, as in subdivision; also, "a constituent of"; also, "subordinate" or "secondary".

subacute. **subagudo**. Slightly acute.

subalpine forest. **bosque subalpino**. A predominately conifer-dominated wooded area in the subalpine zone of temperate latitudes, but with an occasional incursion south of the Tropic of Cancer.

subalpine. **subalpino**. Growing in the mountains at a level below the alpine zone but above the montane zone.

subalternate. **subalterno**. Alternate but with a tendency to become opposite.

subapical. **subapical**. Near the apex,

as a style near the apex of the ovary.

subaqueous. **subaqueose**. Living, forming, or growing underwater, as subaqueous plants.

subartic. **subartico**. Designating a region just south of the Arctic Circle.

subatomic particles. **partículas subatómico**. Very small bits of matter, such as electrons, protons, and neutrons, that make-up the internal structure of atoms.

subaxillary. **subaxilar**. Located be-

low an axil.

subbasal. **subbasal**. Near the base.

subbasifixed. **subbasifijo**. Attached near the base or lower end, as an anther attached near its base to the apex of the filament.

subcapitate. **subcapitado**. Almost capitate.

subcellular. **subcelular**. Smaller in size than the ordinary cells.

subcentric oosphere. **oosfera subcéntrica**. An oosphere with the protoplasm surrounded by one layer of fatty globules and with two to three additional layers on one side.

subclass. **subclase**. In taxonomy, a group of plants ranking above an order and below a class.

subclimax. **subclímax**. An ecological stage preceding a climax, especially when further development has been arrested because of some factor other than climate.

subcordate. **subcordato**. Almost cordate.

subcortical. **subcortezal**. Located beneath the cortex of a tree.

subcorymbose. **subcorimboso**. Almost corymbose.

subculture. **subcultivo**. A culture of bacteria or fungi prepared from a pre-existing culture.

subcylindric. **subcilíndrico**. Almost cylindrical in shape.

subentire. **subentero**. Almost entire; said of a margin which is very slightly indented.

subepidermal tissue. **subepidérmica**. Hypodermis.

suber. **suber**. Cork.

suberect. **suberecto**. Upright below, nodding at the top.

subereous. **subereo**. Pertaining to cork; cork-like; corky.

suberification. **suberificación**. Suberi-

zation.

suberin. **suberina**. A waxy, waterproofing substance in cork tissue; a mixture of oxidation and respiration products of fatty acids, present in the walls of cork cells, making them impervious to water.

suberin lamella. **suberina de laminilla**. A layer of wall material impregnated with suberin.

suberization. **suberización**. Making cell walls into cork by forming suberin.

suberize. **suberizar(se)**. **suberificar**. To change into cork by the formation of suberin in the cell walls.

sub-erose. **sub-eroso**. Appearing gnawed and eroded.

suberose. **suberoso**. Corky in texture; cork-like in appearance.

suberous. **suberoso**. Of or like cork; suberose.

subfamily. **subfamilia**. In taxonomy, a group of related plants ranking above a genus and below a family.

subfoliaceous. **subfoliáceo**. Almost foliaceous.

sub-formation. **subformación**. In phytosociology, a sub-unit of a major vegetation group which is geographically distinctive.

subgenus. **subgénero**. In taxonomy, a group of related plants ranking above a species and below a genus.

subglabrate. **subglabrescente**. Almost glabrous.

subglobose. **subgloboso**. Almost round in shape.

subgroup. **subconjunto**. A subordinate group or subdivision of a group.

subherbaceous. **subherbáceo**. Having some of the characteristics of

a herb.

subhumid. **subhúmedo**. Having rainfall equal to supporting the plant needs of tall grasses (**Poaceae**) and similar plant life.

subhymenium. **subhimenio**. In some fungi (**Basidiomycotina** and **Ascomycotina**), a layer of tissue below the hymenium.

subiculum. **subículo**. A cottony mass of hyphae underlying the fruit body of some fungi.

subinferior. **seminferior**. Growing slightly below some other part; also, belonging to some part that is some distance from the main stem.

sublignous. **subleñoso**. Almost woody.

sublittoral. **sublitoral**. Near the seacoast (but not on the shore) or below the littoral (intertidal) zone, as a sublittoral plant; also, in freshwater areas, an alternate name for the limnetic zone.

submarginal. **submarginal**. Near the edge or margin of an organ or part.

submarine. **submarino**. Growing underwater, as submarine plants.

submerged. **sumergido**. Submersed; below the water surface.

submergence marsh. **marisma sumersión**. The lower division of a salt marsh, from the mean highwater level of neap tides to the general level of mean high water; commonly, with more than 360, one hour submerged days per year and never more than nine days of continuous submergence. Sometimes referred to as an emergence marsh.

suborder. **suborden**. In taxonomy, a group of related plants ranking below a class and above a family.

subpetiolar bud. **subpeciolar**. An axillary bud surrounded by the base of the petiole; infrapetiolar.

subpetiolate. **subpetiolado**. Pertaining to a bud concealed by the petiole.

subpotency. **subpotencia**. A lessening in the capacity to transmit inherited characteristics.

subramose. **subramoso**. Not branching freely; also, having few branches.

subrhizomatous. **subrizomatoso**. Almost rhizomatous.

subrotundate. **subredondeado**. Almost rounded.

subscapose. **subescapífero**. Almost scapose.

subserere. **subsero**. A secondary succession of plant communities.

subsessile. **subsésil**. Nearly sessile.

subshrub. **subarbusto**. **sufrútice**. A suffrutescent perennial plant; a plant smaller than a shrub which produces wood at the base and branches upward with growth that dies back at the end of each growing season.

subsidiary cell. **célula subsidiaria**. Accessory cell; auxillary cell.

subsoil. **subsuelo**. The layer of soil that lies just beneath the top or surface soil that plants with long roots often grow into seeking nutrients and water.

subspecies. **subespecie**. In taxonomy, a group of related plants ranking below a species that must be geographically distinct, populations not just morphs, and different to some extent from other geographic populations; a subdivision of a species, larger than a race. *See* variety.

subspicate. **subespigado**. Almost spicate, but on some or all of the flowers or florets there are short pedicels.

subspontaneous. **subspontáneo**. Pertaining to a plant which has been introduced but has maintained it-

self by ordinary means of reproduction.

subsporangial vesicle. **vesícula subsporangial**. A swelling on the sporangiophore immediately beneath the terminal sporangium.

substantive variation. **variación de substantivo**. Variation in the constitution of an organ or organism, as opposed to a variation in the number of parts.

substomatic chamber. **cámara substomatico**. A large intercellular chamber below a stoma.

substrate. **substrado**. The reactant acted on by an enzyme; also, an object or material on which a plant grows or to which it is attached; also, an underlying layer; also, the solid object to which an organism is attached, *e.g.* a seaweed.

substrate mycelium. **micelio substrado**. The part of the mycelium that is in contact with the substrate.

subtemperate. **subtemplado**. Pertaining to, or found in the colder areas of the Temperate Zone.

subtending. **subyacente**. Lying below and close to, as a bract may subtend an inflorescence; also, having a bud, or developed from a bud, or a sporangium, in its axil.

subterete. **subterete**. Almost terete.

subterranean. **subterráneo**. Below the surface of the ground; hypogeous.

subtraction. **subtracción**. The loss of a hereditary factor.

subtropical. **subtropical**. Nearly tropical; subtropical distribution, as occurring in areas between tropical and temperate regions; semitropical.

subula. **sizna**. A fine, sharp point.

subulate. **subulado**. **alesnado**. Awl-

shaped.

subvalvate. **subvalvado**. Almost valvate.

subvariety. **subvariedad**. In taxonomy, any interbreeding group of plants below a species, as a breed, strain, or variety.

succession. **sucesión**. The sequential change or replacement in vegetation that may result in a climax community, either in response to alterations in the environment or by internal properties in the plants themselves; occurring in a series of six stages: nudation, migration, ecesis, competition, reaction, and stabilization.

successional species. **especie sucesional**. In a changing ecosystem, species that other species; as an example, after many years low growing plants produce enough soil to support trees, which then shade out the previous low growers; also, pertaining to the classification of phyletic lineages.

succineus. **succineus**. Latin meaning "amber colored".

succinic acid. **ácido succínico**. The acid produced from α -ketoglutaric acid, in the Citric Acid Cycle by oxidation of CO to CO₂.

succinic dehydrogenase. **de(s)hidrogenasa a succínico**. An enzyme which catalyses the oxidation of succinic acid.

succise. **suciz**. Appearing to be cut or broken off at the lower end.

succubous. **súcubo**. A type of leaf arrangement in which the upper edge of each leaf is hidden beneath the lower edge of the leaf above, as occurs in leafy liverworts (**Hepaticae**). See incubous.

succulent. **suculento**. Having thick,

juicy leaves or stems; a xerophyte storing water in the tissue, giving it a fleshy appearance.

sucker. **súrculo. brote adventicio.**

chupón. An adventitious, underground shoot from the trunk or branch of a tree or plant, initially nourished by the parent, that emerges from the soil to form a new plant; one of the small roots of a parasitic plant by which it absorbs materials from the host; See haustorium and turion.

suction pressure. **presión de succión.**

When said of a cell, the force which is available for taking in water. It is equivalent to the osmotic pressure of the cell sap (OP), less the inward pressure of the cell wall (WP), and the osmotic pressure of the surrounding medium (OPM), which is zero if the cell is in pure water. $SP = OP - WP - OPM$.

sucrase. **sucrasa**. An enzyme responsible for the catalytic hydrolysis of sucrose to fructose and glucose; invertase.

sucrose. **sacarosa**. A carbohydrate formed by chemically joining a molecule of glucose with a molecule of fructose; functions as the common storage and transport sugar in plants; also the commercial table sugar extracted from cane or beets; a disaccharide compound of glucose and fructose.

suffrutescent. **sufruticoso**. Slightly shrubby or woody at the base; also woody at the base and herbaceous at the top.

suffrutex. **subarbusto. sufrútice**. A diminutive shrub with a woody stem; also, a plant with a woody base but with a herbaceous annual growth, common to perennials;

- undershrub.
- suffruticose. **suffruticoso**. Having the quality of a suffrutex; same as suffrutescent.
- suffuse. **difundir**. Spread out on the substratum.
- suffused. **matizado**. Tinted or tinged with color.
- sugar. **azúcar**. Any of the class of carbohydrates that are soluble in water, sweet to taste, and directly or indirectly fermentable; manufactured by most plants.
- sulcate. **sulcado**. Marked with parallel grooves, furrows, or ridges, as a stem.
- sulcus. **sulcus**. A groove or furrow.
- sulfatase. **sulfatase**. A type of enzyme commonly found in plant tissue that catalyzes the hydrolysis of esters of sulfuric acid.
- sulfur. **azufre**. A non-metallic element with the chemical symbol of S.
- sulfur bacteria. **bacterias de azufre**. Any of a group of bacteria that are able to oxidize sulfur compounds; bacteria which live in situations where oxygen is scarce or absent, and which act on sulphur compounds releasing the element; thio-bacteria.
- sulfur cycle. **ciclo del azufre**. The cyclic movement of sulfur in different chemical forms from the environment, to organisms, and then back into the environment.
- sulphureous. **sulfureo**. Pale, clear yellow.
- summer. **verano**. The season of the year when the sun is most directly felt; in the North Temperate Zone, includes the months of June, July, and August.
- summer annual. **anual estival**. A group of plants with seeds that germinate in the spring or early summer, flower and fruit in late summer or early fall and then die.
- summer dormancy. **letargo estival**. Being dormant during the summer; aestivation.
- summer flower. **flor estival**. A plant that blooms in the summer, especially a summer annual.
- summer spore. **espora de verano**. A nonsexual spore produced in some rusts in their uredo stage; uredospore.
- summer wood. **leña de verano**. **leña tardío**. Secondary wood formed in the summer, as secondary thickening comes to an end for the season; the elements are often thick-walled and smaller than those of spring wood; also, sometimes referred to as autumn wood.
- sun. **sol**. The light, heat and vitalizing energy provided plant life by the sun, as distinguished from shade.
- sun plant. **planta de sol**. A plant tolerant of exposure to much bright light or needing much light.
- sun scald. **quemadura por el sol**. **escaldadura**. A high temperature injury to tissue from intense warming of tree trunks during winter, resulting in bark cracking and splitting.
- sunny. **soleado**. Of, like, or coming from the sun.
- super-. **super-**. A Latin prefix that means, "above" or "over".
- superaxillary. **superaxilar**. Growing above the axil; above the axil, as a peduncle; supraaxillary.
- superclass. **superclase**. A subdivision of a subphylum; on occasion, subphylum.
- superdominance. **superdominancia**. See overdominance.

superfamily. **superfamilia**. A group of related families.

superficial. **superficial**. On the surface of the substratum.

supergene. **supergen(e)**. A chromosome segment protected from crossing-over which is transmitted intact from generation to generation, like a recon; a group of genes acting as a mechanical unit in particular allelomorphic combinations.

superhelical. **superhelicoidal**. Of or pertaining to a superhelix.

superhelix. **superhélice**. A form of DNA composed of a double helix coiled around itself.

superior. **súpero**. Growing above some other part, as an ovary located above or free from the (inferior) calyx; also, a calyx attached to the sides of an (inferior) ovary, making it appear to rise from its top; also, said of an annulus near the top of the stipe. *See* hypogyny.

superior ovary. **ovario súpero**. An ovary located above the receptacle with all other floral parts developing below the base of the ovary.

superior radicle. **radícula súpero**. A radicle which points towards the apex of a fruit.

superorder. **superorden**. In taxonomy, a group of plants classified above an order and below a class.

superparasite. **superparasito**. A parasite on another parasite.

superparasitism. **superparasitismo**. The infestation of parasites by other parasites.

superposed. **sobrepuesta (yema). serial**. Located directly over some other part, as a bud or buds located above axillary buds.

superspecies. **superespecie**. Related

species based on geographical or ecological criteria.

supervolute. **supervoluto**. Having one margin rolled inwards and enveloped by the opposite margin, or as in morning glory leaves (**Ipomoea**), one edge rolled inward.

supine. **supino**. Prostrate, with parts oriented upward, as a supine stem.

supinus. **supinus**. Latin meaning "lying face upwards".

suppressed. **suprimido**. In forestry, undeveloped.

suppression. **supresión**. Failure to develop, referred to a member which is normally present.

suppressive. **supresivo**. Said of a plasmagene which suppresses the expression of an alternative condition in a particular respect in a hybrid individual and its descendants.

suppressor. **supresor**. A mutant gene that reverses the effect of another mutant gene.

suppressor mutation. **mutación supresor**. A second mutation that masks the phenotypic effects of a previous mutation, however, as it occurs at a different site in the genome, it may not necessarily be considered a reversion in the strictest sense.

supra-. **supra-**. A Latin prefix that means, "above" or "over".

supraaxillary. **supraaxilaria**. *See* superaxillary.

suprabasal. **suprabasal**. Located above the basal area.

supracellular. **supracelular**. Pertaining to systems of biological organization above the level of the cell.

suprafoliaceous. **suprafoliáceo**. Inserted into the stem above the leaf, petiole, or axil, as a peduncle or

flower.

supragenic. **supragenico**. Pertaining to hereditary factors above the level of the gene.

supraligular. **supraligular**. Attached above the ligule.

supralittoral zone. **zona supralitoral**. The seashore area immediately above the littoral fringe and beyond the reach of tidal submergence, although an area still receiving sea spray.

supramolecular. **supramolecular**. Having more complexity than a molecule; also, composed of more than one molecule.

sur-. **sur-**. A Latin prefix that means, "somewhat" or "above".

surcle. **surcula**. A very small shoot or sucker.

surculigerous. **surculigero**. Producing suckers or sucker-like outgrowths.

surculose. **renuevo**. **súrculo**. Producing suckers or sucker-like outgrowths.

surculose-proliferous. **súrculo-prolífico**. Producing runners from the base or rootstock.

surculum. **surculum**. A fern (*Filicopsida*) rhizome.

surculus. **surculo**. A leafy structure coming from an underground base.

surrect. **surrecte**. Running up the stem from the point of emergence, as a leaf base that extends along a stem; opposite of decurrent.

surface fire. **fuego superficie**. A forest fire that burns only the undergrowth and leaf litter on the forest floor.

surface. **superficie**. The outer face of a plant organ or part as it pertains to the configurations, vestiture, and epidermal excrescences.

surficial. **surficial**. Growing on or spreading over the surface of the ground; epigeous.

surrounded. **rodear**. To enclose.

surrounded. **envuelto**. To lie around or be on nearly all sides.

survivorship curve. **curva de supervivencia**. A graphical representation of the survival of individuals in a population from birth to the maximum age reached by any one member; a constant mortality rate is reflected by a straight line.

survival of the fittest. **supervivencia del másto**. A elaborate process in which the total environment resolves which members of a species survive to reproduce and pass on their genes to the next generation, although not necessarily involving a struggle between organisms; natural selection.

suscept. **suscept**. A living organism which is susceptible to a given disease or pathogen.

susceptibility. **susceptibilidad**. The whole properties of a plant which dispose it to be attacked by a parasite.

suspended. **péndulo**. Hanging free; pendulous.

suspended placenta. **placenta péndulo**. Having a placenta at the top of the ovary.

suspensor. **suspensor**. In the embryo, a group of cells at the extremity which aid in positioning the embryo in relationship to its food supply; also, a cell or set of cells derived from the zygote but not part of the embryo of seed plants and some pteridophytes, that push the embryo into the nutritive tissues (endosperm or prothallus); also, a cell supporting the gametangium

of the **Mucorales**.
 sustainable management. **sostenible de gestión**. A form of environmental resource planning and use which does not deplete or degrade the natural resources of the community, region, or country.
 suture. **sutura**. A line of fusion; the area of dehiscence of an anther or fruit. In flowering plants, the line of fusion of edges of a carpel is the ventral suture. The midrib of the carpel is the dorsal suture, not implying any fusion of parts to form it, but to distinguish it from the ventral suture; line of junction, where a fruit split.
 swarm cell. **célula enjambre**. Of myxomycete, and some **Chrtridiales**, a motile cell acting before and after division, as an isogamete.
 swarm sporangium. **zoosporangio**. Zoosporangium.
 swarm spore. **espora móvil**. Zoospore.
 swamp forest. **bosque pantanoso**. *See* mangrove swamp.
 swamp. **pantano**. **ciénega**. **fangal**. **marisma (sal)**. A wet area normally covered by water; fen or marsh.
 swelling. **hinchazón**. A bulge or protrusion.
 sweet. **dulce**. Sweet or pleasant to the taste or smell, as honey or violets.
 swollen. **engrosado**. **hinchado**. Enlarged, bulging.
 sword-like. **ensiforme**. A long, thin shape; gladiate.
 synchocarpous. **sichnocárpico**. Capacity to bear fruit many times, as some trees.
 syconus. **sicono**. Same as syconus.
 syconus. **sicono**. A type of composite fruit, like a fig (**Ficus**), which is formed from a hollow fleshy in-

florescence stalk inside in which tiny flowers develop; small drupes are produced by the female flowers.

syleptic shoots. **vástago sileptico**. Abnormal outgrowths that develop from lateral buds before they reach maturity.

symbiont. **simbionte**. An organism living in the state of symbiosis.

symbiosis. **simbiosis**. A general term describing any prolonged, close association of two or more organism of different species living together for their mutual benefit, within the same community.

symbiotic. **simbiótico**. An association of two or more different organisms in which both or all benefit; also, of or characterized by symbiosis.

symbol. **símbolo**. A letter, or group of letters or numbers representing an element, atom, molecule, or compound.

symmetric. **simétrico**. Symmetrical.

symmetrical. **simétrico**. Similar in shape or arrangement to the extent that a line drawn through the middle of the structure will produce a mirror image on either side; regular. *See* actinomorphic.

symmetry. **simetria**. Similarity in shape or arrangement on either side of a dividing line, as a flower with the same number of parts in each floral whorl.

sympatric evolution. **evolución simpátrico**. The development of new taxa from the ancestral taxon within the same geographical areas.

sympatric speciation. **especiación simpátrico**. The origin of a species as a result of ecological or genetic barriers that arise within

the boundaries of a single population, as the appearance of a new polyploid plant species.

sympatric. **simpátrico**. Describes species that occupy similar geographic habitats or whose habitats overlap.

sympatry. **simpatri**. The occurrence of closely related species in the same area with the character differences usually increasing (diverge) when they occur together in a process called character displacement which may be morphological or ecological.

sympetalous. **simpétalo**. Having united petals; gamopetalous.

symphogenous. **simfógeno**. Of pycnidia etc. formed by the growth and division of several hyphae.

sympysis. **concrecencia. sinfisis**. The growing together or coalescence of parts that are usually separate.

symplost. **simplasto**. The continuation of cytoplasm throughout a plant by the cytoplasm in different cells being connected, resulting in the formation of an important pathway for auxins, as an example; also, a uninucleate cell formed by fragmentation of the nucleus within a single energid.

symplesiomorphous. **simplesiomorfo**. Describes a shared primitive character state between two or more taxa, but this is not viewed as evidence that the taxa are related.

sympodial. **simpodial. simpódico**. Of or pertaining to, or producing sympodium.

sympodial growth. **crecimiento simpodial. crecimiento horizontal**. See sympodial inflorescence and sympodium.

sympodial inflorescence. **inflorescencia simpódica**. After each season's growth, the shoot tip of the

main stem stops growing, often terminating in a flower spike (sympodial inflorescence) but growth is continued at the tip of one or more lateral buds.

sympodium. **simpodio**. A type of branching where the main axis imitates a simple stem, but is composed of many lateral branches, each arising successively from the one before; each extension grows from the lateral axes, not from the original tip, as in grapevines (**Vitaceae**); also, a composite axis produced and increased in length by successive development of lateral buds, just behind the apex. The main axis stops growing; pseudaxis; false axis.

syn-. **sin-**. A Greek prefix that means, "together", "alike", or "jointly".

synandrium. **sinandrio**. A mass of united anthers.

synandrous. **sinandro**. Having fused anthers; having several united stamens.

synangium. **sinangio**. A compound structure in certain ferns, formed by the lateral fusion of sporangina.

synantherous. **sinantero**. Characterized by stamens that are joined by their anthers, as composite flowers.

synanthous. **sinanto**. Characterized by an abnormal fusion of two or more flowers; also, having flowers and leaves that emerge simultaneously.

synapomorphic. **sinapomorfico**. In phylogenetic systematics, a term that describes shared derived character states from unique evolutionary events by two or more taxa; monophyletic.

synapsis. **sinape**. The joining of homologous chromosomes during the

- zygotene stage of meiosis (Prophase I); syndesis.
- synaptene. **sinápteno**. The stage of the prophase of meiosis when homologous chromosomes become paired; zygotene.
- synaptinemal complex. **complejo sináptinomal**. A tripartite, thread-like group of proteins that extends between chromosomes during the prophase of meiosis.
- syncarp. **sincarpo**. A multiple fleshy fruit; also, an aggregate fruit, as an *Anona squamosa* (**Annonaceae**) or blackberries (**Rosaceae**).
- syncarpous. **sincárpico**. Of or pertaining to a syncarp; also, composed of united carpels or having stigmas, styles, and ovaries completely fused.
- syncarpy. **sincárpia**. The stage or condition of producing aggregate fruit.
- syncladous. **sinclado**. Said of branches growing in groups from the same point.
- synconium. **sinconio**. Multiple fruit surrounded by a hollow, compound, fleshy receptacle, as in **Ficus**.
- syncotylous. **sincotile**. Having united cotyledons.
- syncytium. **sincíteo**. A single cell with several nuclei.
- syndesis. **sindesis**. In meiotic nuclear division, the fusion of homologous chromosomes.
- syndiploidy. **sindiploidía**. Doubling; the fusion of sister nuclei to give a doubled chromosome number, particularly in the divisions immediately preceding meiosis.
- syndrome. **síndrome**. A group of symptoms characteristic of the same infection or abnormal genetic condition, but not necessarily all appearing together.
- synecology. **sinecología**. The branch of botany or ecology that studies plant communities as distinguished from individual species; concerns the structure, development, and causes of the distribution.
- synema. **sinema**. The column formed of fused filaments in a flower with monoadelphous stamens.
- synergid. **sinergide**. One of the two haploid cells that lies beside the ovum, inside the embryo sac, providing nourishment to a flowering plant.
- synergism. **sinergismo**. A correlated action of a group of organs or systems, as auxins and gibberellin in plant development; also, the combined activities of substances such as drugs, hormones, *etc.* which separately influence a reaction in the same direction, such that the effect produced is greater than the sum of effects of each substance acting alone; also, a similar effect produced by two organisms.
- synergistic. **sinergístico**. Of or pertaining to synergism.
- synergistic interaction. **interacción sinergístico**. The interplay of two or more factors so that the net effect is greater than that expected from adding together the independent effects of each factor.
- synergy. **sinergia**. The combined or correlated action of two or more parts of an organism or system.
- syngamic. **singámico**. Syngamous.
- syngamous. **singamo**. Of or pertaining to syngamy; syngamic.
- syngamy. **singamia**. The union of two cells, as gametes in fertilization.
- syngenesious. **singenésico**. With stamens fused by their anthers, usually forming a ring or tube shape.

syngynous. **singino**. Epigynous.

synyzesis. **sinizesis**. In meiotic prophase, contraction of the chromatin to one side of the nucleus, obscuring the individual loops.

synkaryon. **sincaríon**. In fertilization, the nucleus that results from the fusion of two nuclei; also, a pair of nuclei in close association in a hyphal segment, and dividing at the same time to give daughter nuclei which associate in the same way.

synnema. **sinnema**. An erect bunch of hyphae, bunched together and producing spores.

synobasic. **sinobásico**. Having a united base.

synoecious. **sinocio**. Having male and female flowers in the same head, as in some composite plants; also, having male and female organs in a single receptacle, as in some mosses (**Musci**).

synoecy. **sinoecia**. The condition where male and female gametes are produced by the same individual.

synonym. **sinónimo**. A plant name, that differs from the official name, usually older and not conforming to the standards governing priority in the application of names; also, in genetics, a condon that can be substituted for another to produce the same amino acid.

synonymous. **sinónimo**. Of or pertaining to synonyms.

synonymy. **sinónimo**. Lists of different scientific names that have been applied to a species or other groups by different taxonomists.

synovarious. **sinovarios**. Having ovaries of adjacent carpels fused, but styles and stigmas separate.

synpetalous. **sinpétalo**. **gamopétalo**. Having united petals; gamopeta-

lous.

synsepalous. **sinsépalo**. **gamosépalo**. Having united sepals; gamosepalous.

synspermous. **sinespermo**. Of or pertaining to synspermy.

synspermy. **sinespermía**. A union or connecting of two or more seeds.

synstemonous. **sinstemono**. United stamens.

synstylovarious. **sinstilovarios**. Having ovaries and styles of adjacent carpels fused, but stigmas separate.

syntenic. **sintenico**. Positioned on the same chromosome pair.

synteny. **sinteníá**. The positioning of particular genes on the same chromosome pair, irrespective of any hereditary linkage between the two.

syntepalous. **sintépalo**. Having particular genes on the same chromosomal pair.

synthesis. **sintesis**. The forming of complex compounds or other substances from simpler elements or other compounds, as enzymes, hormones, antibodies, genes, and viruses are synthesized in the cells of plants.

synthesize. **sintetizar**. To produce by chemical synthesis.

synthetase. **sintetasa**. See ligase.

syntype. **sintipico**. All specimens in a type series where no type specimen has been designated.

synusia. **sinusia**. A distinct vegetative layer composed of plants of a similar life form, as *Polytrichum* moss (**Musci**) on the ground layer of open oak wood (**Quercus**); different synusia may occur on the same layer at various times of the year; also, an ecological unit based on the life forms of organisms growing in company.

syrtidium. **sirtidio**. A dry sand bar for-

mation.

system. **sistema.** An integrated combination of diverse components that form a whole, as in taxonomy which includes systems for classification, identification, nomenclature, and description; also, a set of parts or organs serving to perform some function; and each of the primary tissues or parts in higher plants, as the vascular system.

systematic. **sistemático.** Of or pertaining to a system; also, generally distributed throughout the organism.

systematics. **sistemáticos.** The section of botany that classifies groups of plants based on the view that

variations in the world of plants is composed of discrete units (species) that are identifiable, classifiable, describable, nameable, and the product of evolution; taxonomy.

systematic sample. **muestra sistemático.** See regular sample.

systemic. **sistémica.** Of or pertaining to supplying or affecting the entire plant or plant system as systemic poison affects the entire plant, not just its leaf or root surface.

sytophe. **sistrof.** The clumping of chloroplasts when exposed to very bright light.

systylous. **sistilo.** Said of the lid of mosses when adhering to the columella.

T

tabashir. **tabashir**. A mass of silica occurring in the stems of bamboos.

tabescent. **tabescente**. Shrivelling.

tabular. **tabular**. Horizontally flattened.

tabular root. **ráiz tabular**. Roots having a flattened shape.

tachytely. **taquítemente**. The rate of evolution within a group that is much faster than the average (horotelic) rate, and occurs when an organism enters a new zone, triggering adaptive functions.

tachysporous. **taquisporo**. Said of a plant which releases its seeds quickly.

tactile bristle. **táctil de cerda**. A stiff hair which transports a contact stimulus.

tactile pit. **punteadura táctil**. A sharply defined area of a thin cell wall in an epidermal cell of a tendril which appears to be concerned in the perception of pressure.

taiga. **taiga**. The name applied to the swampy, coniferous evergreen, boreal forests, especially those in the subarctic zones, as in Eurasia and the northern regions of the North American continent; sometimes referred to as lichen woodlands.

tailed. **caudado**. Having a tail-like appendage or appendages; caudate.

tallow. **sebo**. Any of a variety of greases or greasy substances obtained from plants.

tan. **pardo-amarillento**. A yellowish-brown color.

tandem selection. **selección en tandem**. The occurrence of two or more copies of a gene in a row; ribosomal RNA genes typically occur as tandem repeats.

tangential section. **sección tangente**. A longitudinal section that does not pass through the center of the structure.

tangle. **enredo**. A confused mass or snarl of things, as vines or branches; also, the common name for either one of two, edible, large brown seaweeds *Laminaria digitata* or *Laminaria saccharina*.

tangled. **enredado**. To become intertwined, as branches or hair (trichomes).

tannic acid. **ácido tánico**. A yellowish, astringent substance, derived from oak bark (**Quercus**), gallnut (*Quercus infectoria*) etc., and used in tanning, dyeing, medicines, etc; also, any of a number of other similar substances.

tannin. **tanino**. Tannic acid which is extracted from the bark of oak (**Quercus**) and other trees; also, a generic term for non-nitrogenous compounds (phenols, glycosides, hydroxyl acids) that occur in a wide variety of plant leaves, unripe fruits, and tree barks, making them unpalatable to herbivores.

tanniferous. **tanífero**. Yeilding tannic acid.

tapering. **atenuado**. Gradually getting smaller in size toward one end, as a leaf base which becomes gradu-

ally narrowed towards the petiole.
tapetal. **tapete**. Pertaining to the tapetum.

tapetal cell. **célula del tapete**. *See* tapetum.

tapetal plasmodium. **plasmodio tapete**.

A multinucleate mass formed by the breakdown of the cell walls between the cells of the tapetum.

tapetum. **tapete**. The cell or cells in the endothelial layer around each sporangium which provides nourishment to the maturing spores; a food rich layer of cells around a group of spore-Mother Cells in vascular plants which disintegrate to liberate the contents that are absorbed by the developing spores.

taphonomy. **tafonomía**. The study of the processes and conditions that surround fossilization.

taphrium. **tafrio**. A ditch formation.

tap root. **raíz pivotante**. **raíz axonomorfa**. **raíz central**. The elongated, primary root continuing the axis of the plant downward from which smaller root branches emerge, as in most dicots. It may be swollen with stored food.

tartaric acid. **ácido tartárico**. A colorless, crystalline acid occurring in unripe grapes (**Vitaceae**).

tartarous. **tartaro**. Said of the surface of a lichen when it is rough and crumbly.

tassel. **borla**. In corn (**Zea**), the long, staminate (male), flower-bearing stems that hang from the top of a cornstalk, which fertilize the corn "silk" of the ear carrying the female flower; also, the staminate inflorescence of maize (corn, U.S.); also, the downward hanging inflorescence of some plants.

taste. **probar**. The sense by which

the flavor of a substance is identified by the taste buds; commonly used in Native American systems of taxonomy.

tautonym. **tautónimo**. In taxonomy, an illegitimate binomial in which the generic name and specific epithet is the same.

tawny. **leonado**. **pardo rojizo**. A dull yellowish color with a tinge of brown; tan.

taxa. **taxa**. Plural of taxon.

taxis. **taxis**. **taxia**. **tactismo**. The movement in motile organisms or cells, such as gametes in response to an external stimuli, as light in phototaxis; also, the movement of a whole organism towards or away from a stimulus. *See* tropism.

taxon. **taxón**. In taxonomy, a category, such as genus or species in the hierarchical classification of plants.

taxonomic. **taxonómico**. **taxinómico**. Of or pertaining to taxonomy.

taxonomic series. **serie de taxonómico**. The range of extant living organism, ranging from the simplest to the most complex forms.

taxonomist. **taxonomista**. **taxónomo**. One skilled in the classification of organisms according to some system, especially a system involving phylum, species, *etc*; one versed in taxonomy.

taxonomy. **taxonomía**. **taxinomía**. The branch of botany dealing with the hierarchical classification of living and extinct plants on the basis of differences and similarities; also, the science of classifying living organisms.

tectum. **tecto**. The outer layer of tissue surrounding a pollen grain.

T.D.P. **T.L.** Thermal death point.

teeth. dientes. Small lobes or points along leaf margins.

tegmen. tegmen. The thin, soft inner coat of a seed, surrounding the embryo; the inner coat of a testa; integument.

tegmental. tegmental. Of or pertaining to the tegmentum.

tegmentum. tegmento. The scaly coat or one of the leaf scales that covers a bud; bud scale.

tegule. tegula. One of the bracts of the involucre in the **Asteraceae**.

tegulicolous. tegulicole. Growing on ceramic tiles, as on rooftops.

tegument. tegumento. Any natural covering, as a shell or capsule; integument.

teleoblema. teleoblema. Universal veil.

teleology. teleología. The interpretation of structures in terms of purpose and utility.

telemorphosis. telemorfosis. The growth of a gametophyte into the clear area between two strains of a heterothallic fungus grown in solid culture.

teleutobud. yema perenne. *See* winter bud.

teleutosorus. teleutósoro. telio. A group of teleutospores with their supporting hyphae forming a pustule on the surface of the host. *See* telium.

teleutospore. teleutóspora. telióspora. A thick-walled spore, consisting of two or more cells, formed by a rust fungus towards the end of the growing season. They can remain dormant for some time and then germinate to give one or more promycelia on which the basidiospores are formed. *See* teliospore.

teleutostage. teleutóetapa. The stage in the life history of a rust fungus

when teleutospores are formed.

telial. telial. The final stage in the life cycle of a rust fungi; also, of or pertaining to a telium.

teliosorus. teliósoro. *See* telium.

teliospore. telióspora. A resting or dormant rust fungi spore that is produced in the Fall and remains in the tissue of a host during Winter, germinating in the Spring to produce basidia; winter spore; teleutogonium; teleutospore.

teliostage. telioetapa. The last stage in the life cycle of rust fungi when two-celled, resting spores develop.

telium. telio. A sorus bearing teliospores of rust fungi; teleutosorus; teliosorus.

telmatium. telmatio. A wet meadow formation.

telocentric chromosome. cromosoma telocéntrico. A chromosome with the centromere at one end or in a terminal position.

telomere. telómero. Sequences of DNA at the tip of a chromosome that counteract its condensation before the onset of nuclear division; also, the tip or end of a chromosome arm.

telomitic. telomítico. Having chromosomes attached to the fibers of the spindle by their ends.

telophase. telofase. The fourth and final stage of mitosis or meiosis, during which the nuclei revert to the resting stage, the spindle disappears, the chromosome becomes less visible, and the nuclear membrane reappears; in many higher plants the telophase of the first meiotic division is omitted.

telophase I. telofase I. The first telophase of meiosis; in telophase I, chromosomes decondense, the spin-

dle apparatus disintegrates, and a new nuclear envelope forms around each daughter nucleus; in many organism, telophase I is bypassed and the meiotic nuclei go directly from anaphase I to metaphase II.

telophase II. **telofase II.** The second telophase of meiosis; in telophase II, chromosomes decondense, the spindle apparatus disintegrates, and a new nuclear envelope forms around each of the four new daughter nuclei.

telosynapsis. **telosinapsis.** The end to end association of chromosomes in zygotene and pachytene; metasynapsis.

telotaxis. **telotaxia. telotactismo.** The movement of an organism toward a particular stimulus, excluding others.

temperate deciduous forest. **bosque caducifolio temperado.** Deciduous summer forests with large tracts of broad-leaved hardwoods common to the middle latitudes.

temperate grassland. **pradera temperado.** A type of prairie vegetation found in the northern hemisphere of North America, the southern hemisphere of South Africa, the steppes of Eurasia, the pampas of Argentina, the Canterbury Plains of New Zealand and in large areas of Australia. It is common to the temperate latitudes and is characterized by insufficient moisture for the growth of most trees.

temperate phage. **fago temperado.** A non-virulent phage which fuses its genetic material with the host; lysogenic phage; a bacteriophage that enters into a less virulent state by becoming incorporated into the host genome as a prophage instead of

in the vegetative or lytic form that eventually destroys the cell.

temperate zone. **zona templada.** In geography, the part of the Northern Hemisphere between the Tropic of Cancer and the Arctic Circle, or in the Southern Hemisphere, the part between the Tropic of Capricorn and the Antarctic Circle.

temperate. **temperado.** See temperate zone.

temperature. **temperatura.** The degree of heat or cold as measured by any of the various scales as Celsius or Fahrenheit.

temperature coefficient (Q_{10}). **coeficiente de temperatura (Q_{10}).** The ratio of the rate of progress of any reaction or process in a plant, at a given temperature, to the rate at a temperature 10°C lower.

temperature inversion. **inversión de temperatura.** A weather condition in which a layer of warm air overlies cooler air near the ground and prevents the rising and dispersion of air pollutants.

template. **plantilla.** A macromolecule that serves as a mold for the synthesis of another macromolecule.

template RNA. **plantilla ARN.** See RNA.

temporary collenchyma. **colénquima temporario.** Collenchyma present in a young organ, disappearing gradually as secondary thickening progresses.

temporary starch. **almidón temporario.** Starch which is stored for a time in the chloroplasts when the plant is forming carbohydrates more rapidly than they are being used or removed from the leaf.

tender. **oferta. sensible.** Young plants that can not survive excessively hot

temperatures.

tendrill. **zarcillo**. A slender, twining, thread-like appendage of a climbing plant that attaches itself to some thing and helps support the plant; most are leaf structures; also, a stem, leaf, or part of a leaf modified as a branched or unbranched filamentous structure, used by many climbers for attachment of a support by twining, or by adhesive terminal disks.

tenellus. **tenellus**. Latin meaning “dainty” or “delicate”.

tendrillate. **zarcillado**. Having tendrils.

tendrill-pinnate. **zarcillo-pinada**. Pinnately compound, ending in a tendril, as in the sweet pea (**Lathyrus**).

tensile strength. **resistencia a la tracción**. The maximum amount of lengthwise pull that a substance can bear without tearing apart.

tentacle. **tentáculo**. A sensitive filament, as the glandular hairs of some insectivorous leaves (**Droseraceae**), which helps in capturing insects and produces enzymes which digest the prey.

tentacular (leaf). **tentacular (hoja)**. Having tentacles.

tenui-. **tenui-**. A Latin prefix that means, “slender” or “thin”.

tenuous. **tenuo**. Slender or thin in shape.

tepala. **tépalo**. A segment of a perianth which is not differentiated into distinct sepals and petals.

tephro-. **tefro-**. A Greek prefix that means, “ash gray”.

terebate. **terebrado**. Having scattered perforations.

terete. **terete**. Having an elongated shape like a cylinder.

terebrator. **terebrador**. The trichogyne of a lichen.

tergeminat. **trigeminado**. In compound

leaves, having three petioles growing from a common point with a pair of leaflets on each petiole.

tergiferous. **tergifero**. Bearing spores on the back.

termifolius. **termifolius**. Latin meaning “thin-leaved”.

terminal. **terminal**. Growing at the end or apex of a stem or branch; also, located at the end or tip; also, said of secondary wood parenchyma when this develops only at the end of the growing season, and therefore at the limit between one annual ring and the next. *See* apical.

terminal affinity. **afinidad terminal**. The property by which chromosomes are held together end-to-end from diplotene till first metaphase of meiosis, or brought together in this way at metaphase.

terminal bud. **yema terminal**. A bud located at the apex of a stem.

terminal flower. **flor terminal**. A flower located at the apex of a stem.

terminalization. **terminalización**. The expansion of the association of the two pairs of chromatids on one side of a chiasma at the expense of that on the other side; referred to as terminalization because the resulting “movement” of the chiasma is towards the ends of the chromosomes.

terminal leaf. **hoja terminal**. A leaf located at the apex of a stem.

terminals. **terminals**. The fine end-branches of the veins of a leaf.

terminal shoot. **brote terminal**. A shoot growing at the apex of a branch.

terminal style. **estilo terminal**. A style located at the apex of the ovary.

terminator condon. **cóndon de paro**. *See* nonsense mutation.

terminus spore. **espora terminus**. A

- phialospore of a one-spored phialide, terminating its growth.
- tern-. **tern-**. A Latin prefix that means, "in three" or "threes".
- ternary. **ternario**. Pertaining to three or three's; growing in groups of three's, as some leaves and fruits.
- ternary fission. **fisión ternario**. A type of cell division that forms 3 daughter cells from a single parent cell.
- ternate. **ternado**. Having three leaflets; also, having leaves in whorls of three; also, arranged in threes, as branches arising at about the same point from a stem.
- ternately compound leaf. **hoja compuesta ternada**. Having leaflets in groups of three.
- ternatopinnate. **ternatopinnado**. Ternately compound, especially secondary petioles, on the sides where leaflets are attached in groups of three from the top of a common petiole.
- terpene. **terpeno**. A group of compounds consisting of two to many isoprene units in a ring; sometimes categorized as unsaturated hydrocarbons, essential oils with straight-chain or ring-structures derived from isoprene.
- terpenoid. **terpenoide**. Any compound that is derived from five-carbon precursors called isoprene units; examples include methol (two isoprene units), beta-carotene (eight isoprene units), and rubber (up to 6,000 isoprene units).
- terraqueous. **terracuoso**. Living on land and in water, as a terraqueous plant.
- terrestrial. **terrestre**. Living or growing in soil, as a terrestrial plant.
- terrestrial acid. **ácido terrestre**. A metabolic product of *Penicillium terrestre*.
- terrigenous. **terrácola**. Living on or in the ground.
- territory. **territorio**. An area with definite boundaries.
- tertiary root. **raíz terciario**. A branch of a secondary root.
- tertiary structure. **estructura terciario**. The portion of a protein's shape that is maintained by disulfide bonds, ionic interactions, or hydrophobic attraction between amino acids with the polypeptide chain bent sharply to form a roughly spherical, three dimensional mass.
- tertiary thickening. **engrosamiento terciario**. The deposit of wall thickening on the inner surface of a secondary cell wall, tracheid, or vessel, usually in the form of rings or a loose spiral.
- tesselate. **teselado**. Having a checkered pattern.
- tessellated. **teselado. ajedrezado. escaqueado. abigarrado**. Checkered.
- testa. **testa. tegumento**. The hard, outside covering of a seed. *See* integument.
- testaceous. **testaceo**. Having a brownish-yellow or brownish-red color.
- test cross. **cruzamiento de prueba**. In genetics, a cross between a heterozygote and a recessive homozygote for determining the genotype of an individual showing the dominant phenotype.
- tetra-. **tetra-**. A Greek prefix that means, "four".
- tetracarpellary. **tetracarpelar**. Having four carpels.
- tetracoccus. **tetracocco**. Having four cells elastically dehiscing and separating.
- tetracyclic. **tetracíclico**. Having four

whorls; also, having four rings in the molecules.

tetracyte. **tetracito**. One of the four cells after a meiotic division.

tetrad. **tétrada**. A group of four, as four homologous chromatids in a bundle during the first meiotic prophase and metaphase; also, a group of four chromosomes formed by the division of a pair during meiosis, and the pair is visibly four-stranded.

tetrad analysis. **análisis de tétrada**. The use of tetrads in studying chromosome and gene behavior during meiosis.

tetrad division. **división de tétrada**. The nuclear and cell divisions occurring when a spore mother cell divides to give four spores.

tetrad scar. **marca de tétrada**. A scar on a primitive spore at the point of attachment to three other spores, all four having developed after meiosis; germination takes place in the general area of the scar.

tetradidymous. **tetradidimo**. Four-fold.

tetradinous. **tetradíno**. Occurring in tetrads.

tetradymous. **tetradímo**. Having four cells.

tetradynamous. **tetradínamo**. Having six stamens, four of which are uniformly longer than the others.

tetragonal. **tetragonico**. Having four angles.

tetragonous. **tetragono**. Having four angles and four convex faces.

tetragynous. **tetragino**. A hermaphrodite with four styles.

tetrahedral. **tetraédrico**. Having four faces, as a three-sided pyramid with a base.

tetrakonton. **tetraconton**. Having four

flagella.

tetrameric. **tetramérico**. With four similar parts, as tetrameric enzymes.

tetramerous. **tetramero**. Having four flowers in each whorl; sometimes written 4-merous; also, arranged in fours; also, arranged in multiples of four.

tetrandrous. **tetrandro**. Having four stamens.

tetrapetalous. **tetrapétalo**. Having four petals.

tetraphyllous. **tertrafilo**. Having four leaves or leaflets.

tetraploid. **tetraploide**. Having four representatives of each type of chromosome or four sets of chromosomes in each cell; also, having four times the haploid number of chromosomes characteristic of the species. *See* diploid and haploid.

tetraploidy. **tetraploidia**. The circumstance in which an individual has four times the haploid number of chromosomes found in the species.

tetrapolar. **tetrapolar**. Said of basidiomycetes which have the sex factors in four groups: AB, Ab, aB, ab.

tetrapterous. **tetraptero**. Having four wings or wing-like appendages, as tetrapterous fruit.

tetrapyrenous. **tetrapireno**. Having four stones, as some fruit.

tetrapyrrole ring. **anillo tetrapirole**. The tetrapyrrole molecule is composed of four joined rings consisting of four carbon-hydrogen units and one nitrogen-hydrogen unit, which maybe linear (joined side by side) or cyclic.

tetrapyrrole. **tetrapirole**. A group of pigments occurring in most living organisms; in plants, they are light

sensitive.

tetraquetrous. **tetracuetro**. Having four sharp, wing-like corners, as the stalk of some plants.

tetrarch. **tetrarea**. Having four strands of xylem.

tetrasaccharide. **tetrasacharido**. A carbohydrate formed by the condensation of four hexose units.

tetraschistic. **tetracístico**. Divided into four parts by fission.

tetrasepalous. **tetrasepalo**. Having four sepals.

tetrasomic. **tetrasómico**. Pertaining to a nucleus, organism which has the diploid number of chromosomes, except of one which is present four times.

tetraspermous. **tetraspermo**. Having four seeds.

tetrasporange. **tetrasporangina**. A tetrasporangium.

tetrasporangium. **tetrasporangio**. In red algae, a sporangium that gives rise to four spores after meiosis; a tetraspore producing sporangium.

tetraspore. **tetraspora**. Any of the asexual spores, usually four, produced by red algae, from the division of the mother cell; also, a diploid spore produced by some **Phaeophyceae**.

tetrasporophyte. **tetrasporófito**. In red algae, the diploid phase in the life cycle that produces tetraspores.

tetrestachyous. **tetrestachio**. Having four spikes.

tetraster. **tetráster**. A complex mitotic figure formed in an ovum after polyspermy.

tetrestichous. **tetrástico**. Occurring in four vertical rows, as the flowers on some spikes.

tetrathecal. **tetrathecal**. Having four cells or cavities in the ovary.

tetrahedral. **tetrahedral**. Having four axes, as tetrahedral spicules.

tetragon. **tetragon**. A tetrahedral spicule; having four axes.

tetro-allelic. **tetroalélico**. A polyploid with four different alleles at a specific locus.

tetrose. **tetroso**. A monosaccharide sugar with four carbon atoms.

texture. **textura**. Pertains to the consistency of an organ or its parts; for example, ceraceous is a type of texture which refers to the waxy consistency of a leaf; also, in soil, the relative proportions of the various-sized groups of individual soil grains in a mass of soil (sand, silt, and clay) in a specific amount of soil.

thalamifloral. **tálamifloral**. Pertaining to a flower which has all its members inserted separately on the receptacle, with the gynecium superior.

thalamium. **tálamio**. The hymenium of an apothecium.

thalamous. **tálamo**. *See* thalamus.

thalamus. **tálamo**. The receptacle of a flower.

thalassium. **tálasio**. A sea formation.

thalassophyte. **talasófito**. A sea weed.

thalli. **talli**. Plural of thallus.

thalliform. **taliforme**. Having the shape or form of a thallus.

thalline exciple. **excípulo talino**. An exciple which contains algal cells.

thalline margin. **margen de talino**. The margin of an apothecium of a lichen when it has the same structure as the thallus, usually colored like the thallus.

thalloid. **taloso**. Having a thallus or thallus-like.

thallophyte. **talófito**. Any of the non-vascular plant or plant-like organ-

isms not differentiated into root, stem, and leaves, as bacteria, algae, fungi, lichens, and liverworts.; the body is known as the thallus. Formerly considered to comprise a major taxonomic division (**Thallophyta**) of the Plant Kingdom, but most biologists and taxonomists no longer consider them to be part of the Plant Kingdom; a term once used to designate fungi and algae collectively. *See* non-vascular.

thallose. **taloso**. Flat and showing no differentiation into a stem or leaves, as in liverworts.

thallospore. **talospora**. An asexual fungal spore, having no conidophore, or one which is not separated from the hypha or conidophore, which develops from part of a fungal hypha.

thallus (*pl.* thalli). **talo**. Plant-like, non-vascular organisms (without leaves, stems, and roots), as fungi, algae, liverworts, and lichen; also, having body characteristics of thallophytes.

theca. **teca**. A sac, or sac-like capsule; also, one half of an anther which contains two pollen sacs or male sporangia, especially in lower plants; also, an ascus; the capsule of a moss.

thecae. **tecas**. Plural of theca

thecal. **tecal**. Pertaining to a theca.

thecaspore. **tecaspora**. An ascospore.

thecate. **tecar**. Having a theca.

theciferous. **tecífero**. Containing asci.

thecium. **tecio**. The hymenium of an ascomycete or lichen.

thelephorous. **teléforo**. Having nipple-like protuberances.

thelytokous. **telitoq**. Pertaining to a form of parthenogenetic reproduction where only females are pro-

duced.

thelytoky. **telitoquia**. **telitocia**. Obligatory parthenogenesis producing an entirely female population or non-functioning males with evolution dependent on mutation in a single individual, and continuing only in the line from that individual; the only genetic system where fertilization is eliminated completely.

therium. **terio**. A hot-spring formation.

thermal death point (TDP). **temperatura letal (TL)**. The temperature at which an organism is killed or a plant virus inactivated, after a given time, usually ten minutes; also, the lowest temperature that achieves sterilization in a given quantity of broth culture upon a 10 minute exposure, *e.g.* 55°C for *Escherichia coli* and 120°C for spores.

thermal death time. **tiempo de temperatura letal**. The least time required to kill all cells of a culture at a specified temperature.

thermal emissivity. **emisividad térmica**. The loss of heat from a leaf by radiation, conduction, and convection.

thermal enrichment. **enriquecimiento térmica**. Beneficial effects in an aquatic ecosystem from a rise in water temperature. *Compare* to thermal pollution.

thermal inversion. **inversión térmica**. Layer(s) of dense, cool air trapped under a layer of less dense warm air, preventing an upward flow of air currents. In a prolonged inversion, air pollution in the trapped layer can build up to harmful levels.

thermal pollution. **polución térmica**. The addition of abnormal and undesirable amounts of heat to air or

water; especially pertains to the discharge of waste heat from electric generating or nuclear power plants into natural bodies of water.

thermal shock. **choque térmica.** A rapid change in water temperature than can kill or harm plant life and other aquatic organisms.

thermal stratification. **estratificación térmica.** The layering of different temperatures of water or air occasioned by different densities, less dense floating on more dense layers.

thermic. **termico.** Soils of the lowest soil-temperature class and occurring in the temperate regions; pergelic.

thermocline. **termoclina.** A zone of gradual temperature decrease between the warmer surface water (epilimnion) and colder deep water (hypolimnion) in a lake or ocean.

thermoduric. **termodurico.** Capable of withstanding relatively high temperatures, especially microorganisms that survive the process of pasteurization.

thermogenic soil. **suelo termogénico.** A soil occurring in sub-tropical or tropical regions where the dominant factor in its formation is the high temperature.

thermograph. **termógrafo.** A type of automatic recording instrument that gives a continuous record of temperatures for periods of time.

thermonasty. **termonastia.** The response to general non-directional temperature stimulus.

thermoperiod. **termoperíodo.** The amount of time during which a plant is exposed to a particular temperature during each twenty-four hour period.

theromoperiodism. **termoperiodismo.**

The response of a plant to daily changes in temperature.

thermophile. **termófilo.** An organism that grows well under temperatures exceeding 45° C or above.

thermophilous species. **especie termófilo.** Any species that grows best under warm temperatures.

thermophilic bacteria. **bacteria termofilico. bacteria termófilo.** Bacteria which require a temperature of 45–65° C for their development.

thermophyte. **termófito.** A plant growing in warm conditions.

thermostage. **termóetapa.** A stage in the life of a flowering plant when at the onset of development from the embryo in the seed, low temperatures are needed to ensure further normal development.

thermotaxis. **termotaxis. termotaxia. termotactismo.** The reaction of a plant in response to changes in temperatures.

thermotolerant. **termotolerante.** Able to endure high temperatures but not growing well under the conditions.

thermotropism. **termotropismo.** The tendency of a plant to turn toward or away from the sun or some other heat source; thermotaxis.

theronine. **teronina.** An aliphatic, polar, amino acid.

therophyllous. **terófilo.** Having leaves only in the warmer part of the year; deciduous.

therophyte. **terófito.** One of Raunkiaer's six life-form categories of a plant that completes its life cycle rapidly during favorable conditions and survives under unfavorable conditions, as seed; generally an annual or ephemeral plant, occurring in deserts or under cultivation. *See*

chamaephyte, cryptophyte, epi-
phyte, hemicryptophyte, and phane-
rophyte.

thersiferous. **tirsífero**. Having thyrsoïd
inflorescences.

thiamin(e). **tiamina**. Vitamin B₁ that
aids in the formation of the coen-
zyme pyrophosphate; aneurin.

thick. **grueso. espeso**. Having rela-
tively great depth from one sur-
face or side to the other; also, com-
pact.

thickened. **engrosado**. To be inspiss-
ated, as plant fluids become thick-
ened when their volatile constituents
are evaporated.

thickening fiber. **fibre engrosamiento**.
One of the spiral bands of thick-
ening on the wall of a cell, tracheid,
or vessel.

thicket. **conjunto de matas**. An area
of thick underbrush and shrubs; a
copse.

thickly. **gruesamente**. Compactly, as
an area thickly populated with
perennial species.

thick-shelled. **cáscara espesa**. Hav-
ing an outer case that is of rela-
tively great depth, as a coconut
(*Palmae*) shell.

thick-walled. **pared espesa. pared
grueso**. Having a cell partition or
case that is of relatively great depth.

thigmorphogenesis. **tigromorfogénesis**.
A change in growth and develop-
ment due to mechanical distur-
bances; typically a decrease in elon-
gation.

thigmotaxis. **tigmotaxis. tigmotaxia**.
The response of an organism when
it comes in contact with a solid
structure; stereotaxis.

thigmotropism. **tigmotropismo**. A ten-
dency to bend, turn, or entwine
around a solid structure or body

when coming in contact with it; ster-
eotropism.

thin. **esbelto. delgado**. Having lit-
tle thickness or depth from one
surface or side to the other; also,
in forestry, to remove some of the
trees to enable the remaining ones
to increase in girth.

thinly. **delgadamente. esparcid-
amente**. Not compact, as an area
thinly populated with perennial
species.

thin out. **aclara. ralear. entresacar**.
To remove young plants from a row
to provide the remaining plants with
more space to develop; also, to re-
move fruits from a tree so that the
remaining fruits will grow larger.

thin-shelled. **cáscara delgada**. Having
an outer case with very little depth
or thickness.

thin-walled. **pared delgada**. Having
a cell partition or case with little
thickness.

thiobacteria. **tiobacteria**. *See* sulfur
bacteria.

thioctic acid. **ácido tióctico. ácido
tioctánico**. Lipoic acid.

thorn. **espina**. A stiff, woody, sharp
pointed structure growing on a stem,
tree branch, or other plant; some-
times applied to any thorn-like
structure, as blackberries (*Ros-
aceae*), roses (*Rosaceae*), hawt-
horns (*Crataegus*), and cacti (*Cact-
aceae*). *See* sticker.

thorn forest. **bosque espina**. A tropical
type vegetation of small, thorny
shrubs and bushy trees, with an oc-
casional tall tree, little or no grasses
(*Poaceae*) which distinguishes the
area from a savannah woodland.

thorny. **espinoso**. Having thorns or
spines, or being thorn-like; spinous.

thorny bush. **matorral espinoso**. A

thicket or area of scrub land populated with small, prickly brush and shrubs.

thread-like. **filiforme. como hilo.**

Having the form of a thread or filament, slender and of equal thickness from the top to the bottom, as a thread-like style; filiform.

threatened species. **especie(s) amenazadas de extinción.** Plant species that are still in their natural range but are likely to become endangered because of a decline in numbers.

threatened with extinction (species).

amenazado de extinción (especie).

A species which is declining precipitously.

threconine. **treconina.** An amino acid found in proteins.

three-flowered. **trifloral.** Bearing three flowers only; also, bearing clusters of three flowers.

three-ranked. **tres-rango.** Arranged in three vertical ranks or rows around an axis.

threshold. **umbral.** That intensity of stimulus below which there is no response by a given irritable tissue.

threshold effect. **efecto umbral.** The harmful or fatal effect of a small change in environmental conditions that exceeds the limit of tolerance of an organism, species, or population.

threshold trait. **umbral característica.** A trait that shows discontinuous variation, but whose inheritance is polygenic.

throat. **garganta.** An orifice of a gamopetalous corolla or gamosepalous calyx; also, the expanded tube of the corolla in the perianth; the upper margin of the leaf sheath in grasses (**Poaceae**).

thrum. **trum.** Having a filamentous or fringe-like appendage, as a heterostylous flower with short style and long stamens.

thrum-eyed. **de ojos trum.** Having the throat of the corolla more or less closed by the anthers.

thylakoid. **tilacoide.** The photosynthetic lamella of a chloroplast; also, a sac-like membranous structure of the grana of chloroplasts, which house chlorophylls. Solar energy trapped in the thylakoids is used in photosynthesis.

thymine. **timina.** A chemical base that occurs in DNA, corresponding to uracil in RNA. *See* base.

thryptophyte. **triptófito.** An organism increasing the sensitivity of a suspect to outside factors.

thyriothecium. **tiriotecio.** An inverted perithecium in which the asci hang down.

thyrs. **tirso.** A type of branched, mixed inflorescence with a contracted panicle, in which the main branch or central axis is indeterminate, and the secondary is determinate with many opposite lateral dichasium, bearing large numbers of pedicellate flowers, as lilac (**Oleaceae**) and horse chestnut (**Hippocastanaceae**); also, any closely branched inflorescence with many small-stalked flowers.

thyrsiform. **tirsiforme.** Having the appearance or form of a thyrs.

thyrsoid. **tirsoide.** Thyrs-like.

thyrsula. **tirsula.** A small cyme occurring in a leaf axil, as in a number of **Lamiaceae**.

tidal estuary. **estuario de marea.** Areas of marsh grasses (**Poaceae**) and reeds along the broad mouth of a river into which the tide flows,

especially an inlet of the sea at the lower part of the river where the ground is covered by high tides but drained at low tide.

tidal range. **variedad de las mareas.**

The difference in height between consecutive high and low waters with spring tides being high and neap tides being low.

tide. **marea.** The rise and fall of the surface level of the sea, usually occurring about every twelve hours by the gravitational attraction of the sun and the moon on water; also, the in and out movement of river or coastal waters.

tigellum. **tallo embrional.** Plumule.

tiller. **hijuelo.** A basal shoot emerging from the stem of some grasses (**Poaceae**); also, basal and subterranean shoots, generally erect, as from elm trees (**Ulmaceae**).

tillering node. **nudo de macollamiento.**

A node occurring on the root or bottom of the original stalk which produces a new plant.

tillering. **macollamiento. amacollado.**

ahijamiento. The production of lateral buds and shoots near the ground resulting in a plant with several shoots instead of one, especially important in grasses (**Poaceae**) and grain crops; also, a type of vegetative reproduction achieved with the use of tillers.

tilth. **condición de la tierra. tierra**

cultivable. The physical condition of the soil, as to ease of tillage, fitness for a seedbed, and suitability for plant growth.

timberline. **límite del arbolado. de**

la vegetación arbórea. The geographic area on mountains and in polar regions beyond which trees will not grow; tree line. *See*

baumgrenze.

tip growth. **crecimiento apical.** The growth of a cell only at the ends or at a localized area, as in the case of root hairs.

tip. **ápice.** At the top or end of a structure.

tiphium. **tíffio.** A pool formation.

tissue. **tejido.** A group of cells, bound together by cell walls, working together toward a common function, as vascular or epidermal tissue.

tissue culture. **cultivo de tejido.**

cultivo tisular. A technique for growing and manipulating pieces of tissue in a nutrient medium under sterile conditions after their removal from the organism.

tissue system. **sistema tejido.** The whole tissues in a plant having the same function, whether or not they are in continuity, and whatever their position in the plant.

tissue tension. **tensión tejido.** The mutual compression and stretchings exerted by the tissue of a living plant.

toadstools. **hongos tóxico. hongos**

venenosos. setas venenosas. A common name for an umbrella-shaped fungal fruit body that is considered poisonous; the fruit body of agarics, other than mushrooms.

tocopherol. **tocoferol.** One of the group of terpene compounds that is an anti-oxidant in cells; vitamin E.

tolerance. **tolerancia.** The ability of a plant to withstand adverse environmental conditions; also, the ability of a plant to withstand the development of a parasite within it, without showing serious symptoms of disease.

tolerance limit. **límite de tolerancia.**

límite de tolerado. *See* limits of tolerance.

tolerant. **tolerante.** Capable of growing in a specialized environment, as shade tolerant plants.

tomenta. **tomenta.** Plural of tomentum.

tomentellous. **tomenteloso.** *See* tomentose.

tomentose. **tomentoso.** A type of vestiture; covered with wooly, dense, interwoven trichomes.

tomentulose. **tomentuloso.** Slightly tomentose.

tomentum. **tomento.** A soft covering of long, entangled trichomes, pressed close to the surface, as leaves covered with a white tomentum.

tongue. **lengua.** Any of a number of parts that are flattened, strap, or tongue-shaped, as a projection from the top of a leaf sheath in some grasses (**Poaceae**) or the corolla in the ray florets of some composites (**Astraceae**); ligule.

tonoplast. **tonoplasto.** A thin membrane that encircles the vacuole of a plant cell, separating it from the cytoplasm; vacuolar membrane.

tooth. **diente.** One of the projections along the margin of a leaf or flower petals; also, the freetip of a petal of a gamopetalous corolla.

toothed. **dentado.** Having margins with rounded or sharp, coarse teeth that point outward at right angles to the midvein; dentate

top cross. **cruzas radiales.** The offspring produced when a variety is crossed with one inbred line.

top dressing. **abono de cobertura.** Applying materials such as fertilizer to the soil surface while plants are growing.

top soil. **suelo superficial.** The surface layer of soil, which is rich in humus and other organic material, both living and dead; often with a loose, crumbly structure. In many cases, the top soil may be absent due to erosion, development, or mining; A-horizon.

topogenous peat. **turba topogeno.** A type of bog that has formed in reduced rainfall areas with resulting low humidity and summer drought conditions, that restricts Sphagnum growth to areas where moisture is concentrated, as in lower valley areas.

topography. **topografía.** The science of mapping and charting the surface conditions of an area of land, including hills, valleys, rivers, *etc*; relief features.

topoisomerase. **topoisomerasa.** A type of enzyme that relieves the kinks in DNA that would otherwise block the movement of replication forks; topoisomerase function by breaking one or both strands, thereby allowing the strands to uncoil by swiveling around one another; after uncoiling, the strands are again linked back together by topoisomerases.

topotaxis. **topotaxis.** The response or reaction of an organism to a stimulus when the organism orientates itself in relation to the stimulus, and then moves towards or away from it.

topotype. **topotipo.** A taxonomic specimen of a named taxon collected from the original type locality or from the area where the species was described.

toric. **torico.** Of, pertaining to, or shaped like a torus.

torose. **toroso**. Having a cylindrical shape with constrictions or bulges at intervals, as a torose pericarp. *See* moniliform.

tormentose. **tormentoso**. Cottony.

torrid zone. **zona tórrido**. The warm region between the tropic of Cancer and the tropic of Capricorn, divided by the Torrid Zone.

torsion. **torsión**. Twisting without marked displacement; a spiral twist, as a vine.

torsion pairing. **apareamiento torsión**. The non-homologous association of chromosomes at pachytene which release a torsion without satisfying an attraction, when it occurs in continuance of homologous association.

tortuous. **tortuoso**. Elongated and cylindrical, with evenly spaced swellings; necklace-like.

torula. **torula**. A small torus.

toruliform. **toruliforme**. Having the shape of a string of beads; moniliform.

torulose. **toruloso**. Slightly torose, as in a small fruit which is slightly constricted between seeds.

torus. **toro**. The tip of a flower stalk which bears the petals, sepals, stamens and carpels; receptacle; thalamus; also, a thickened membrane which surrounds the bordered pit of a wood cell.

totipotency. **totipotencia**. The capacity of a cell to develop into a complete organ or organism.

totipotency. **totipotencia**. Capable of developing into a complete organism or differentiating into any kind of cell, tissue, or organ.

totipotent(ial). **totipotente**. Capable of complete regeneration of any or all of its parts, as some succulents.

toxic substance. **sustancia tóxica**. Chemicals that are hazardous or fatal to various species.

toxic. **tóxico**. Producing a poison; poisonous.

toxicity. **toxicidad**. Having a poisonous or toxic quality.

toxicology. **toxicología**. The study of poisons and their effects, antidotes, and detection.

toxigenic. **toxígeno**. Producing toxin.

toxigenicity. **toxigenicidad**. The tendency for a pathogen to produce toxins. It is an important factor in bacterial virulence.

toxin. **toxina**. Any poison formed by a plant; also, a microbial product that is toxic to plants.

TPN. **TPN**. Triphosphopyridine nucleotide. Obsolete. Now, nicotinamide adenine dinucleotide phosphate (NADP).

trabant. **trabante**. A short segment of a chromosome separated from the rest by one long constriction, if terminal, or two if intercalary; satellite.

trabecula. **trabécula (ósea)**. Crassula; a structure that looks like a beam or crossbar; a rod-like cell running across a cavity; also, a gill primodium; also, plates of undifferentiated primordial tissue in a developing gleba, forming a branch of a dendroid columella; also, plates of sterile tissue running transversely across the sporangia in some **Lycopodinae**; also, longitudinal plates of tissue across the lumen of a stem in *Selaginella*, supporting the stele.

trabecular. **trabécular**. Of or relating to a trabecula.

trabeculate. **trabedulado**. Pertaining to peristome teeth marked by transverse bars; also, having trabe-

cula.

trace. **traza.** A vascular connection leading from the stele of an axis to a leaf or bud.

trace element. **elemento traza. microelemento.** Any one of five chemical constituents needed in small amounts by plants; as copper, boron, zinc, manganese, and cobalt.

trace scar. **cicatriz traza.** A mark indicating the former point of attachment within the leaf scar of the vascular bundle or trace.

tracer. **trazador. marcador. sustancia trazadora.** An atom or an element, commonly radioactive, that can be traced and observed as it passes through a plant or plant system in order to study the biological processes or chemical reactions.

trachea. **tráquea.** A tubular series of non-living cells in the plant xylem which supports and aids in the transport of water and salts; a conducting element of the xylem; wood vessel.

tracheary. **tráquea.** Dead (at maturity), lignified, water conducting cells of vascular plants composed of tracheids and vessel elements.

tracheid. **traqueida.** An elongated, imperforate, single-celled, non-living, lignified, water conducting element of xylem, found in almost all lower vascular plants, gymnosperms, and in some angiosperms.

tracheophyte. **traqueofito.** Plants that have vascular tissue through which water and nutrients are transported; plants grouped in the division **Tracheophyta**; vascular plant.

trachy-. **traqui-.** A Greek prefix that means, "rough".

trachycarpous. **traquicárpo.** Bearing fruit with a roughly textured outer

skin.

trachyspermous. **traquispermo.** Seeds with a rough texture.

tractile fiber. **fibre trácil.** The spindle fiber which begins to develop from an attachment to a chromosome and extend to the pole of the spindle.

trailing. **rastrera.** Creeping along the ground, usually with adventitious roots, but not rooting.

trailer sequence. **secuencia remolque.** An extra amount of non-coding DNA that is transcribed into RNA beyond the end of the gene.

trait. **característica.** Any visible, phenotypic property of an organism; character.

trama. **trama.** A fungal tissue with a hymenium, as the gill of an agaric; also, the loosely packed hyphae which occupy the middle of the gill of an agaric; context.

tramp species. **especie vagabundo.** A collective term for plant species that have spread to different parts of the world through trade and shipping activities.

trans-. **trans-.** A Latin prefix that means, "across" or "beyond".

transaminase. **transaminasa.** An enzyme that catalyzes transamination.

transamination. **transaminación.** The reversible transfer of an amino group from one compound to another; also, the transfer of ammonia during the formation of amino acids from keto acids.

transcorrugated. **transondulado.** Wrinkled transversely to the axis.

transcribe. **transcribir.** To form or synthesize by transferring genetic information from a template, as to transcribe DNA into messenger RNA.

transcription. **transcripción.** In genetics, the process in which DNA information is transferred to a molecule messenger RNA as the first step in protein synthesis; in molecular studies, the process of forming a nucleic acid molecule by using a template of another molecule.

transduction. **tra(n)sducción.** In bacteria, a genetic modification effected by the DNA of viruses (bacteriophages); the transfer of genetic material between bacteria by bacteriophages.

transgenic technology. **tecnológico transgénico.** Introduction of foreign DNA into cells or organisms. Used in genetic engineering to create recombinant plant, animals, and microbes.

transect. **transecar.** A cross section of the vegetation of an area, most often, a long, narrow strip as along side a road or river edge; also, a straight line across an area in which measurements are taken at regular intervals or continuously for the purpose of studying vegetation immediately adjacent to it.

transeptate. **transeptado.** Having all the septa placed transversely.

transfer cell. **célular transferencia.** A type of specialized cell in higher plants, that have many protuberances in their walls and a number of plasmodesmata, which exchange dissolved substances with their surroundings and transfer them across plant membranes; found in association with phloem and xylem cells.

transfer ribonucleic acid (tRNA). **ARN de transferencia (ARN t).** A specialized form of RNA that carries amino acids to the ribosomes during

protein synthesis. A type of small RNA molecule that binds to a specific amino acid and to a codon on messenger RNA; it is called transfer RNA because it is associated with the transfer of amino acids to mRNA in ribosomes; more than forty different tRNA molecules have been found, with at least one for each protein amino acid.

transferase. **transferasa.** An enzyme that catalyses the transfer of a functional group from one substance to another.

transfer-RNA. **ARN de transferencia.** See transfer ribonucleic acid (tRNA).

transformation. **transformación.** A genetic recombination that incorporates DNA from the environment of a microorganism (bacterium); the introduction of genetic material from dead bacteria in suspension to living bacteria in the same suspension.

transformation factor. **factor de transformación.** A substance that can be passed from cell to cell causing a permanent hereditary change.

transfusion cell. **célular de transfusión.** A thin-walled plant cell that facilitates water movement to adjacent tissues; passage cell.

transfusion tissue. **tejido de transfusión.** A tissue lying on either side of the vascular bundle in the leaves of most gymnosperms. It is an extension of the vascular bundle performing the function of lateral veins and is composed of empty cells with pitted and occasionally internally thickened walls, and parenchymatous cells containing protein.

transgenic. **transgénico.** Refers to cells or organisms that contain genes that

were inserted into them from other organisms by genetic engineering.

transglycosylation. **transglicosilación.**

A glycoside bond formation, especially during polysaccharide synthesis.

transgression variation. **variación transgresión.** The production of progeny with phenotypes that exceeded the parental extremes.

transients. **transeúnte.** In normal flora, the assortment of superficial microbes whose numbers and types vary depending upon recent exposure. The deeper lying residents constitute a more stable population.

transient polymorphism. **polimorfismo transeúnte.** The presence in a population at a particular gene locus of alternative alleles in which one is continuously replaced by another in contrast with a balanced polymorphism where the alleles are in equilibrium.

transition. **transición.** A type of genetic mutation that involves the replacement in DNA or RNA of one purine or pyrimidine with another.

transition cell. **célula de transición.** A thin-walled cell at the end of a leaf, representing the last of the phloem.

transition zone. **zona de transición.** The portion of the axis of a young plant in which the change from root structure to stem structure occurs.

transitional. **de transición.** Said of an inflorescence which has some racemose and some cymose characters.

transitory starch. **almidón de transitorio.** Starch found temporarily in a leaf in which photosynthesis is proceeding more quickly than

the removal or consumption of carbohydrates.

translate. **traducir.** To cause the genetic information in the mRNA to direct the specific sequencing of amino acids in protein synthesis.

translation. **tra(n)slación.** The sequencing of amino acids in protein synthesis by using genetic information contained in messenger RNA to form the polypeptide chain.

translator. **traductor.** The connecting, thread-like structure between the pollinia of adjacent anthers, as in tropical **Asclepiadaceae**.

translocase. **translocaso.** Permease.

translocation. **tra(n)slocación.** The movement of dissolved nutrients from one part of the plant to another with salts moving upward through the xylem and other elements moving in both directions through the phloem; also, the transfer of part of a chromosome into a different part of a homologous chromosome, or into a non-homologous chromosome.

translucent. **translúcido.** Letting light pass through, but not clear enough for objects on the other side to be distinguishable; as seeing through frosted glass.

transmission electron microscopy (TEM). **microscopia de luz transmitida (MLT).** Microscopy that focuses an electron beam through the thin section of a specimen to study its internal structure.

transmitter substance. **sustancia transmisora.** A chemical secretion released in small amounts from a neuron that triggers change in the membrane potential of an adjacent cell.

transmutation. **transmutación.** The

alteration of one element into another by radioactive decay; also, the change of one species or type to another.

transparent. **transparente.** Transmitting light so that objects on the other side can be easily distinguished; as seeing through a clear window glass.

transpicuous. **transpícuo.** See transparent.

transpiration. **transpiración.** The act of transpiring or giving off moisture, especially through leaf stomatas and stem lenticels.

transpiration stream. **corriente de transpiración. corriente transpiratoria.** The stream of water which passes through a plant from the roots to the leaves, where it escapes, mostly as water vapor.

transpire. **transpirar.** To give off moisture from the leaves or other parts.

transplant. **trasplantar.** To remove a plant growing in one location and plant it in another location.

transport. **transporte.** The process by which nutrients are absorbed and distributed throughout the plant.

transport protein. **proteína de transporte.** A type of membrane protein that enables the transport of specific solutes across the membrane.

transposable element. **elemento transponible.** A type of mobile genetic element in eukaryotes, such as corn (*Zea*), which can undergo transposition causing chromatid breaks that modifies the action of adjacent genes; also, any genetic unit that can insert into a chromosome, exit, reinsert at another location. See transposon.

transposition. **transposición.** A change

in genetic order.

transposon. **transposone.** A type of mobile genetic element that can be integrated at many different sites along the chromosome. An example is a segment of bacterial DNA with the capacity to transfer its own genetic characteristics from one bacterium to another or from one location in a cell to another location; many antimicrobial agents such as penicillin reside upon transposons.

transverse. **transversal.** Lying across the longitudinal axis of an organ or structure; also, broader than long; also, lying crosswise between two structures; also, connecting two structures in a crosswise fashion; also, attached by the longer side.

transverse dehiscence. **dehiscencia transversal.** Dehiscing at a right angle to the longitudinal axis of the theca, as some anther.

transversion mutation. **mutación transversión.** A base pair substitution where the purine–pyrimidine orientation on each DNA strand is reversed.

transversional mutant. **mutante transversional.** A type of mutation where a purine–pyrimidine base pair is replaced by a pyrimidine–purine base pair.

trapeziform. **trapeziforme.** Of an unsymmetrical four-sided shape; shaped like a trapezium or trapezoid.

trapezium. **trapezio.** A four-sided plane figure with no sides parallel.

trapezoid. **trapezoide.** A four-sided plane figure having two sides parallel and two sides not parallel.

traumatic. **traumático.** Pertaining to wounds.

traumatonasty. **traumatonastía.** A

nastic movement following wounding.

traumotaxis. **traumotaxis**. The movement of protoplasts and nuclei after wounding

trauma(to)tropism. **trauma(to)tropismo**. The development of curvature following wounding.

tree. **árbol**. A large, woody plant with a main stem (although many species are multi-stemmed), which commonly grow more than 30 meters tall and have no aerial die-back at the end of growing periods, apart from foliage loss, and are classified as either broadleaf or needle leaf (conifers), deciduous, or evergreen.

tree crown. **copa del árbol**. The top part of the shrub or tree.

tree fern. **helecho arborescente**. Massive, tree-like ferns, often quite ancient in origin, with marginal gradate sori, which in some species, deflect to the under side of the frond; generally placed by taxonomists in one of two families, **Thyrsopteridaceae** and **Cyatheaceae**.

tree ring index. **indicador anillo anual**. **anillo anual** **indicador de árbol**. An annual tree ring width that has been standardized for age; used in the field of dendrochronology.

tree ring. **anillo de árbol**. **anillo anual**. Growth ring(s) or annual ring(s) that are a sheath of cells appearing as one of a series of concentric rings in a cross-section of a tree trunk that is usually the result of a single year's growth, starting in the spring and ending in the late summer.

tree-like. **arborescente**. Having the appearance of a tree but not the characteristics of a true tree, as some

shrubs.

tree-line. **límite del arbolado**. **de la vegetación arbórea**. See timberline and baumgrenze.

tree-ring dating. **dendrocronología**. See dendrochronology.

tree-top. **cima (de árbol)**. The highest section or summit of a tree.

trehalose. **trehaloso**. A carbohydrate found in some fungi.

tremelloid. **tremelloide**. Gelatinous.

tri-. **tri-**. A Greek and Latin prefix that means, "three" or "having three parts".

triacylglyceride. **triacilglicerido**. A combination of a molecule of glycerol with three long-chained organic fatty acids linked to the glycerol by acylglyceride linkages.

triad. **triada**. A union or group of three.

triadelphous. **triádelfo**. Having stamens arranged into three groups.

triallelic. **trialélico**. Pertains to a polyploid in which three different alleles are at a given location (locus).

triandrous. **triandro**. Having three stamens.

triangle. **triángulo**. A closed plane with three sides and three angles.

triangular. **triangular**. Shaped like a triangle.

triangulate. **triangular**. Three-angled.

trianthous. **trianto**. Having three flowers.

triaristate. **triaristado**. Having three awns.

triasier. **triáster**. A complex mitotic figure resulting from triple meiosis, as in an ovum after polyspermy.

tribe. **tribu**. A taxonomic rank between family and genus, composed of genera whose shared characteristics distinguish them from other genera within the family; names end

in **-eae** with groupings that provide subfamilies and dividing, forming subtribes.

tricamerous. **tricamero**. Having three locules.

tricarboxylic acid cycle. **ciclo del ácido tricarboxílico**. A repeating, life-giving, cyclical series of intracellular chemical reactions that form acetic acid when triggered by enzymes located in the mitochondria, resulting in an organism's conversion of nutrients into physical energy; named after its principal discoverer, Sir Hans Adolph Krebs; Citric Acid Cycle; Krebs cycle.

tricarinate. **tricarinado**. Having three ridges or keels.

tricarpellary. **tricarpelar**. Having three carpels.

trichasium. **tricasio**. A cymose inflorescence with three axis.

trichidium. **trichidio**. Sterigma.

trichite. **trícito**. A hypothetical crystal which is very thin and elongated and presumed to be present in very large numbers in a starch grain.

tricho-. **trico-**. A Greek prefix that means, "hairy".

trichoblast. **tricoblasto**. A colorless, granular or rod-like particle that surrounds the gullet in the **Cryptomonadales**; also, a branched multicellular filament produced from small trichoblast at the apex of the filament of the **Ceramiales**. The trichoblast may divide to form a surface layer of spermatogonia.

trichocarpous. **tricocárpico**. Having hairy fruit.

trichogyne. **tricógina**. **tricógino**. In red algae and ascomycete fungi, a thin, elongated, hair-like part of a procarp that serves as a receptor for the male fertilizing bodies.

trichome. **tricoma**. Any hair-like growth, as a prickle, bristle, root hair, and the stinging hair of nettle (**Urticaceae**) leaves; also, in some bacteria and cyanobacteria, a chain of slimy sheathed, vegetative cells; and, a chain of cells in blue-green algae; also, in the **Cyanophyta**, a single row of cells which with their sheath make up the filament.

trichome hydathode. **hidatodo tricoma**. A multicellular hair which secretes water.

trichophore. **trícóforo**. The part of red algae that bears the trichogyne.

trichophyllous. **trícófilo**. Said of a plant of dry places which has the young stems and leaves protected from desiccation by a thick coating of hairs.

trichothallic growth. **crecimiento tricotalico**. A type of growth of an algal filament in which cell division is confined to one or a few cells near or at the base of the filament.

trichothecin. **tricotecina**. An antifungal metabolic product of *Trichothecium roseum*.

trichotomous. **tricótomo**. **trifurcado**. Branching or forking into three parts; also, giving shoots in threes.

trichroic. **tricróico**. Having three colors.

triccoccus. **trícoco**. Having three cocci or carpels, as **Euphorbiaceae**. See coccus.

tricolor. **tricolor**. Having three colors; three-colored.

tricolpate. **tricolpado**. Having three fossae.

tricoma. **tricoma**. Having three tufts of hair at the end of a seed.

tricostate. **tricostado**. Three-ribbed.

tricotyledonous. **tricotiledóno**. Having

three cotyledons.

tricyclic. **tricíclico**. Having three whorls.

tridentate. **tridentado**. Three-toothed.

tridigitate. **tridigado**. Divided into three finger-like lobes or divisions.

tridynamous. **tridínama**. Having stamens arranged in two equal groups of three.

tri(o)ecious. **tri(o)ecio**. Having male, female, and bisexual flowers on separate plants; trioecious.

triennial. **trienial**. Lasting for three years.

trifarious. **trifario**. Arranged in three rows.

trifid. **trifido**. Three-cleft; divided into three parts.

triflorous. **trifloro**. Three-flowered, as a triflorous peduncle.

trifoliolate. **trifoliado**. **trifoliada**. Having three leaflets or leaves, as clover (**Trifolium**).

trifoliolate. **trifoliolado**. Having three small leaves, pinnately compound with the terminal petiolule longer than the lateral; also, palmately compound with petioles equal in length, as trifoliolate leaves.

trifurcate. **trifurcado**. Having three forks, as a trifurcate branch.

trigamous. **trigamo**. Having staminate, pistillate, and perfect flowers all in the same head.

trigeminate. **trigeminado**. Arranged in three equal pairs.

trigenic. **trigenico**. Refers to a hereditary difference determined by three gene differences.

trigonal. **trigonal**. Triangular in cross-section.

trigonus. **trígono**. Having three conspicuous angles, as a stem or ovary.

trihybrid. **trihíbrido**. A trigenic hybrid.

trijugate. **triyugado**. Having three pairs of leaflets, as a pinnate leaf.

trilete. **trilete**. A tetrahedral shape of some spore, appearing sometimes as round or triangular, with three scar lines forming a Y.

trilobate. **trilobado**. With three lobes, as a trilobate leaf.

trilocular. **trilocular**. With three locules or cavities, as a trilocular pericarp.

trimerous. **trímero**. **trimembre**. Having three members in each whorl or arranged in sets of three, as in the flowers of most mono-cotyledons; often written 3-merous.

trimitic. **trimitico**. Having three kinds of hyphae.

trimonecious. **trimonecio**. Having male, female, and bisexual flowers on the same plant; opposite of triecious.

trimorphic. **trimorfo**. With three forms; said of a species which has three kinds of flowers, differing in the relative lengths and positions of the filaments, anthers, and stigmas.

trimorphism. **trimorfismo**. Having three distinct forms of flowers or leaves on the same plant or occurring in the same species.

trinervate. **trinervado**. Having three main nerves arising from the base. *Compare* triplinervate.

trinerved. **trinervino**. Pertaining to a leaf with three main nerves emerging from the base.

trioecious. **trioico**. *See* triecious.

triolein. **trioleína**. A fat formed from oleic acid (only) and glycerol.

triose. **triosa**. Any of a group of sugars containing three atoms of carbon and produced from glycerol by oxidation.

triose phosphate. **triosa fosfato**. The compound formed from a triose sugar and phosphoric acid.

triose phosphate dehydrogenase.

de(s)hidrogenasa triosa fosfato.

An enzyme which catalyses the oxidation of triose phosphate.

triphosphopyridine nucleotide (TPN).

trifosfopiridina-nucleótido (TPN).

Obsolete. A substance closely related to DPN, and concerned with biological oxidation, and reductions. Replaced by nicotinamide adenine dinucleotide phosphate (NADP).

tripalmate. **tripalmado**. Palmately compound three times.

tripalmately compound leaf. **hoja compuesto tripalmado**. Having three orders of leaflets, each palmately compound.

tripartite. **tripartido**. Divided into three parts, nearly to the base, as a tripartite leaf.

tripetaloid. **tripetaloides**. Appearing to have three petals.

tripetalous. **tripétalo**. Having three petals.

triphyllous. **trifilo**. With three leaves.

tripinnate. **tripinado**. Pinnately compound three times, with pinnate pinnules; bipinnate leaves with each division also pinnate, as some fern (**Filicopsida**) leaves.

tripinnately compound. **compuesta tripinado**. Having three orders of leaflets, each pinnately compound.

tripinnatifid. **tripinatífido**. Three times pinnately cleft.

tripinnatisect. **tripinatisecto**. Cleft to the base in a tripinnate manner.

triple fusion. **fusión triple**. The union in the embryo sac of the two polar nuclei and a male nucleus, the starting point for the development of the endosperm.

triplet. **triplete**. A group of three nucleotides on a nucleic acid that codes for a particular amino acid; also, any combination of three bases in the genetic code: nonsense triplets; also, one of three individuals resulting from the division of an ovum.

triplex. **triplexo**. A tetraploid zygote which has three doses of any given dominant.

triplinervate. **triplinervado**. Pertaining to three-nerved leaves with the two lateral nerves arising from the midnerve above the base. *Compare* trinervate.

triplinerved. **triplinervino**. A leaf with three nerves; the two lateral nerves emerging from the midnerve above the base. *Compare* trinerved.

triploid. **triploide**. Having three times the haploid number of characteristics of the species.

triploidy. **triploidia**. Having the condition of a triploid organism.

tripterous. **trialdo**. Having three wings or wing-like appendages.

triquetrous. **triquetro**. Having three pronounced edges or ridges, as a triquetrous nutlet.

triradiate. **trirradiado**. Having three rays, radiating in three directions from a central position, as triradiate spore.

trisaccharide. **trisacárido**. Any of a class of carbohydrates that yield three molecules of monosaccharides during hydrolysis.

trisect. **triseçar**. To divide into three parts.

trisepalous. **trisépalo**. Having three sepals.

triseptate. **triseptado**. Having three septa or partitions.

triserial. **triseriado**. Having three

verticils.

triseriate. **triseriado**. Arranged in rows or series of threes.

trisomic. **trisómico**. An otherwise diploid individual having one chromosome represented three times; pertaining to trisomy.

trisomy. **trisomia**. A condition which produces three of a given chromosome instead of the normal set of two; $2n+1$.

trispermous. **trisperma**. Three-seeded.

trisorpin. **trisorina**. A metabolic product of *Helminthosporium tritivulgaris*.

tristichous. **trístico**. Three-ranked; occurring in three vertical ranks or rows.

tristis. **tristis**. Latin meaning "dull colored".

trisulcate. **trisulcado**. Having three furrows, as a trisulcate stem.

triternate. **triternado**. Three times ternate; used to describe a petiole which separates into three and is divided again at each point into three, and on each of these nine points, bears three leaflets.

triterpene. **triterpena**. A compound that consists of six isoprene units linked together; sterols, such as beta-sitosterol, are triterpenes.

trivalent. **trivalente**. Said of a chromosome which is threefold.

trivial. **trivial**. Of or pertaining to a specific species

trivial name. **trivial nombre**. The name added to the generic name of a species to distinguish it; also, the common name of a plant; specific name.

tRNA. **ARN t**. See transfer ribonucleic acid.

trochlear. **troclear**. Circular and narrowed in the middle, as the wheel

of a pulley.

trochleate. **trochleado**. See trochlear.

trophic. **trófico**. Of or pertaining to nutrition, as the trophic capacity of an area or ecosystem.

trophic level. **nivel trófico**. In ecology, any of the stages in the flow of food or feeding level from one population of organisms to another, with green plants at the first trophic level, primary consumers at the second level and so on.

trophochondriome. **trofocondrioma**. A mitochondria concerned with nutrition.

trophochromatin. **trofocromatina**. A substance within the nucleus which controls the nutrition of the cell.

trophochromidia. **trofocromidia**. Chromidia concerned with nutrition.

trophocyst. **trofociste**. A hyphal swelling from which a sporangium is produced.

trophogonium. **trofogonio**. Of ascomycetes, an atheridium whose sole function is to supply food.

trophophyll. **trofofilo**. Species that can thrive under alternating dry and moist conditions or cold and hot temperatures, as deciduous trees; also, a vegetative leaf.

trophophyte. **trofófito**. A plant which is xerophytic at one period of the year, and hygrophytic at another.

trophoplasm. **trofoplasma**. Protoplasm which is mainly concerned with nutrition.

trophoplast. **trofoplasto**. A plastid.

trophotropism. **trofotropismo**. A reaction in a growing organ induced by the chemical nature of the environment.

tropic. **trópica**. Either of two geographic parallels of middle latitudes; one, $23^{\circ} 23$ minutes north (Tropic

of Cancer) and the second, 23° 27 minutes south of the equator (Tropic of Capricorn), the farthest points north and south that the sun always shines directly overhead.

tropic curvature. **curvatura trópica.**

A curvature of a plant organ caused by one-sided growth under the influence of a stimulus falling on the plant from one side.

tropic response. **respuesta trópica.** The turning, changing, or closing in response to a stimulus, as the closing of a leaf in response to touch; haptotropism

tropical forest. **bosque tropical.** A classification of vegetation composed of a variety of forest types including rain forest, semi-evergreen seasonal forest, monsoon forest, and deciduous seasonal forest.

tropical montane forest. **bosque montano tropical.** A mountainous rain forest growing in the middle latitudes below the subalpine level.

tropical rain forest. **bosque de lluvia tropical. selva tropical ombrófila.** The oldest of the world's vegetative types, occurring in the equatorial lowlands, characterized by year-round warmth, very heavy rainfall, up to three tree strata, an abundance of lianas, epiphytes, and saprophytes; evergreen trees flowering, fruiting, and leafing continuously all year around.

tropical seasonal forest. **bosque estacional tropical.** A broad-leaved, evergreen forest in a tropical region with marked dry seasons which produces some leaf shedding, and a less luxuriant growth of climbing and herbaceous plants than in a rain forest.

tropical wet forest. **selva alta perennifolia tropical.** A perennial rain-forest high in the mountains.

tropical. **tropical.** Of or pertaining to the tropics, as bananas (**Musaceae**) are a native tropical species.

Tropics. **el trópico.** The equatorial regions with year around warm weather.

tropism. **tropismo.** The directional growth or movement of a plant or plant organ in response to an external stimulus, such as light, touch, or gravity, either by attraction (positive) or repulsion (negative).

trophilous. **tropófilo.** Adapted to climates that are alternately dry and wet, or cold and hot, as trophilous vegetation.

trophophyte. **tropófito.** See trophophyll.

trophophytic. **tropófitico.** Of, pertaining to, or resembling trophophyte, as trophophytic flora.

tropotaxis. **tropotaxis. tropotaxia.** The growth or movement of a plant in response to two stimuli, especially lights, using different sense organs.

truncated. **trucado.** Pertaining to a soil profile in which the top layers have been removed by erosion.

true. **verdadero. pura. puro.** In accordance with the parental type.

true breeding. **cria verdadera.** Pertaining to purebred strains for a given trait, which means that the gene for that trait is homozygous.

true fruit. **fruto verdadero.** A fruit formed only from the ovary.

true fungi. **hongos verdaderos. eumicetos.** A taxonomic division of fungi (**Eumycota**) that do not form a plasmodium or pseudoplas-

modium.

true indusium. **indusio verdaderos.**

An indusium with an epidermal outgrowth that protects the sorus.

trullate. **trulado.** A plane with the widest axis below the middle and with straight margins; also, ovate but with margins straight and angled below the middle; trowel-shaped.

trumpet hypha. **hifa campana.** A filament inside the thallus of a brown alga which is markedly enlarged at each transverse septum.

truncate. **truncado.** Cut-off; blunt, as the truncate leaves of the *Liriodendron tulipifera* (**Magnoliaceae**) which appear sharply severed.

trunk. **tronco.** The main stem of a tree, as distinguished from the branches and roots.

tryma. **trima.** A two- to four-lobed nut enveloped by a fleshy dehiscent exocarp, as most species of hickory (**Juglandaceae**).

trypsin. **tripsina.** An enzyme involved in the proteolytic digestion of plants.

tryptamine. **triptamina.** A crystalline substance related to serotonin, formed in the tissues from tryptophan, functioning as an intermediate in various metabolic processes.

tryptophan(e). **triptófano.** A non-polar, heterocyclic, amino acid in protein.

tyrosine. **tirosina.** An amino acid in protein.

tube. **tubo.** The hollow, cylindrical part of the hypanthium.

tube cell. **célula de tubo.** The cell in the pollen grains of seed plants that develops into the pollen tube.

tube germination. **tubo de germinación.** Germination of a spore by the for-

mation of a hypha.

tube nucleus. **núcleo vegetativo. núcleo del tubo polínico.** In a flowering plant, the vegetative nucleus (one of three in the male gametophyte) in a growing pollen tube which degenerates after double fertilization; vegetative nucleus.

tuber. **tubérculo.** The fleshy, enlarged tip of an underground stem (rhizome), filled with stored nutrients, usually starch, bearing modified axillary buds, called eyes, which produce new plants, as an arrowroot (**Marantaceae**) or a potato (**Solanaceae**); also *Tuber*, a genus of fungi that includes various species of highly esteemed truffles.

tubercle. **excrecencia pequeña.** A small, tuber-like swelling or projection, as a nodule on the root of a legume; also, a small knob on the fronds of certain lichens.

tubercular. **tubercular.** Of, pertaining to, or having the shape of a tubercle.

tuberculate. **tuberculado.** Bearing small, wart-like tubercles; also, a type of style with a swollen, hard, persistent tubercle.

tubercularoid. **tubercularoide.** Having a warted surface.

tuberculation. **tuberculación.** The development of tubercles or becoming tubercled.

tubercule. **tubérculo.** In sporophytes, silica deposits on stem ridges, as in horsetails (**Equisetaceae**).

tuberiferous. **tuberoso.** See tuberous.

tuberiform. **tuberiforme.** Having the form or shape of a tuber.

tuberoid. **tuberoide.** A thickened root resembling a tuber.

tuberoze. **tuberoso.** Tuberous.

tuberosity. **tuberosidad.** The qual-

ity of being tuberous.

tuberous. **tuberoso**. Producing tubers; thickening and forming tubers.

tuberous root. **raíz tuberosa**. A true root (usually one of a group), fleshy and resembling stem tubers but bearing no buds or scale leaves, as the dahlia (**Dahlia**).

tubiflorous. **tubifloro**. Bearing tubular flowers.

tubiform. **tubiforme**. Having the form of a tube.

tubiform floret. **flor tubulosa**. A tube-shaped flower.

tubular. **tubular**. Having the shape of a hollow cylinder, as a tubular corolla.

tubuliflorous. **tubulifloro**. Having tubular corollas in perfect flower heads of some species of **Asteraceae**.

tubulin. **tubuline**. The protein from which microtubules are made.

tubulous. **tubule**. Having tubular flowers.

tubulus. **tubulus**. The neck of a perithecium; also, a pore lined by a hymenium bearing basidia

tuft. **fascículo**. Arranged in a clump or dense cluster, as a tuft of grass.

tufted. **faciculado (tricoma)**. Having a cluster of hairs or similar outgrowths, all arising at about the same height; also, stems growing in dense clusters.

tugor movement. **movimiento turgente. movimiento de turgencia**. Moment that results from changes in internal water pressures in a plant part.

tugor pressure. **presión de turgencia**. The real pressure produced in cells by pressing against a membrane. *See* wall pressure.

tumescent. **tumescence**. A swollen

part.

tumid. **tumescence**. Swollen; inflated.

tumor. **tumor**. A globular mass of cells in which cell divisions occur at random, commonly with no control.

tundra. **tundra**. A vast, treeless, continuously frozen plain, as in the arctic regions, some plateaus of the Andes, and other areas; a cold desert characterized by the scanty, xerophytic vegetation in which mosses and lichens dominate.

tunic. **túnica**. A loose, membranous, natural covering, not formed from epidermis, as the tunic of a seed or an onion (**Liliaceae**); also, the peridium of some fungi; exocarp.

tunica. **túnica**. A coat, especially a thin, white membrane around the peridium in most species of the **Nidulariaceae**.

tunicate. **tunicado**. Composed of concentric layers of tissue, as a tunicate bulb; having a coat or covering.

tunicated. **tunicadado**. Being composed of multiple layers, as an onion (**Liliaceae**).

tunicate bulb. **bulbo tunicadado**. Laminated bulb.

turbinate. **turbinado**. Having the shape of an up side down cone, as turbinate fruit.

turbinate cell. **célula turbinado**. A swelling on a vegetative thallus of the **Cladophytriaceae**.

turgent. **turgente. abultado**. Same as turgid.

turgescence. **turgescencia**. The condition of cells or tissue which are distended by water.

turgescent. **turgescence**. Swelling.

turgid. **túrgido**. Tumid or swollen; full of water taken in by osmosis; also, said of a young or soft plant member

which is stiff or rigid due to the internal pressure arising from a plentiful supply of water.

turgor. **tugor. turgidez.** The normal resiliency of living plant cells; also, the state of a cell when the cell wall is stretched by an increase in the volume of the vacuole by the intake of water.

turgor pressure. **presión de turgencia. presión túrgida.** The pressure on a cell wall that is created from within the cell by the movement of water into it.

turion. **turión.** A type of scaly, often succulent, solitary shoot, emerging from the ground, as asparagus (**Liliaceae**); also, an underground, over-wintering bud on root-stock. *See* sucker.

turioniferous. **turional.** Having or producing shoots.

turnover rate. **tasa de renovación.** The rate a population is replaced by the next generation.

turnover time. **tiempo de renavación.** The measure of an element in a biogeochemical cycle; the time it takes to fill or empty a nutrient reservoir.

turpentine. **aguarrrás. trementina.** The volatile, combustible component of resin that includes two terpenes – camphor and pinene.

tussock. **mata de hierba.** A clump or tuft of grasses, twigs, or sedges growing on wet or swampy ground.

twig. **vara. ramita. ramo.** A small branch from a tree or a young woody stem.

twining. **voluble. enredadera.** A pattern of spiral stem growth in vines, coiling or twisting around something; usually upward; climbing.

twins. **gemelo. mellizo.** Individuals arising from the division of a fertilized egg into two; each half developing into an individual.

twisted. **retorcido.** A winding distortion.

twisted aestivation. **estivación contra-hecho.** Contorted aestivation.

two-celled. **bilocular.** Having two cells. two-edged. **de doble filo.** Flattened and having two sharp edges.

twofold. **duplicado.** Having two and two together or growing from the same place, as twofold leaves.

two-leaf. **de dos hoja.** Having two distinct leaves; diphyllous.

two-lipped. **bilabiado.** *See* bilabiate. two-lobed. **bilobular.** Having two lobes; bilobed; bilobate.

two-loculed. **bilocular.** Having two locules; bilocular.

two-parted. **de dos partidos.** Divided from the margin almost to the base; bipartite.

two-petaled. **dipetalado.** Having two distinct petals; dipetalous.

two-ranked. **de dos filas.** Arranged on opposite sides of the stem so as to form two rows.

two-seeded. **de dos semillas.** Containing two seeds, as a fruit; dispermous.

tylo-. **tilo-.** A Greek prefix that means, "with knots" or "projections".

tyloses. **tilo. tilis.** A bladder-like growth emerging from a cell wall into the cavity of older woody tissue, sometimes filled with gums, resins, or other colored substances, which results in the blocking of water conduction.

tymaniform. **timpániforme.** Like a drum head.

tyndallization. **tyndallización.** Fractional (discontinuous, intermittent)

sterilization designed to destroy spores indirectly. A preparation is exposed to flowing steam for an hour, and then the material is allowed to incubate to permit spore termination. The resultant vegetative cells are destroyed by repeated steaming and incubation.

type genus. **género tipo**. The taxonomic genus from which the name of the family or subfamily is taken; selected as most perfectly exhibiting the family characteristics.

type species. **especie tipo**. The taxonomic species from which the name of the genus is taken; selected as most perfectly exhibiting the generic characteristics.

type specimen. **tipo ejemplar**. The individual plant from which the taxonomic description of the species or subspecies has been prepared and on which the specific name is based; holotype.

type. **tipo**. A structure that characterizes a group of plants.

typical. **típico (estambre)**. The type of the species, family, or other group, as the typical genus.

tyramine. **tiramina**. A colorless, crystalline amino acid produced by bacteria or by the decarboxylation of tyrosine, found in citrus fruits.

tyrosine. **tirosina**. An aromatic amino acid.

U

ubiquinol. **ubiquinol**. The reduced form of ubiquinone; ubiquinol donates electrons to cytochrome *b* in the electron transport chain.

ubiquinone. **ubiquinona**. A generic term for a group of compounds that serve as electron carriers in the electron-transport chain of mitochondria; a lipid-soluble quinone whose function is to accept electrons from electron donors like NADH and from the oxidation of fatty acids; also called coenzyme Q.

ubiquitous. **ubiquo**. Widespread distribution occurring in a wide variety of habitats.

uliginose. **uliginoso**. Growing in swampy areas.

ulmic acid. **ácido ulmico**. An acid occurring in humus.

ulmin. **ulmina**. A dark brown substance that exudes from some trees, especially oak (**Fagaceae**) and elm (**Ulmaceae**); also, a substance related to ulmic acid found in humus.

ultimate. **última**. The final section or division of a structure.

ultra-. **ultra-**. A prefix that means, "beyond", "excessive", or "beyond the range".

ultracentrifuge. **ultracentrifugador**. A high speed centrifuge that is capable of spinning at more than 100,000 revolutions per minute.

ultramicroscope. **ultramicroscopio**. A form of microscope that reveals the presence of particles (*e.g.* vi-

ruses) that cannot be seen with the common optical microscope.

ultramicroscopic. **ultramicroscopico**. Extremely small particles and organisms that require an electron microscope to detect and examine their structure. The way they dwarf their host is noticeable, *i.e.* even as small as bacteria are, more than 2000 ultramicroscopic bacterial viruses will fit into a single cell; and more than 50,000,000 ultramicroscopic polioviruses will fit into the average human cell. Through special stains in combination with electron microscopy, they are most readily observed.

ultrasome. **ultrasomo**. An intracellular particle too small to be seen by the usual optical microscopic methods.

ultrastructure. **ultraestructura**. A structure with notably fine details, invisible to non-electron microscopes.

ultraviolet light (UV light). **luz ultravioleta (UV)**. Pertains to the invisible part of the light spectrum whose rays have wavelengths shorter than those of the violet end of the visible spectrum and longer than those of the X rays.

ultraviolet microscope. **microscopio de luz ultravioleta**. A microscope with quartz lens and slides which uses ultraviolet radiation for illumination; enables user to obtain a sharper resolution of smaller objects and greater magnification for viewing or photographing on a fluo-

rescent screen with an image converter.

ultraviolet radiation. **radiación ultravioleta**. Electromagnetic radiation similar to light but the wavelengths are shorter than violet light and with more energy which causes it to severely burn and damage biological tissue.

ultraviolet rays. **rayos ultravioleta. ultravioletados**. The portion of the sun's total range with wavelengths shorter than the shortest of the visible spectrum (purple); between approximately 380 and 100 nm.

umbel. **umbela**. A type of racemose inflorescence in which stalks (pedicels) nearly equal in length, spread outward from the same point on the flower axis, resembling the struts of an umbrella, to form a flat-topped or slightly rounded surface; common to the family **Umbelliferae**.

umbellate. **umbelado**. Occurring in umbels, as umbellate flowers.

umbellet. **umbélula**. One of the little or secondary umbels of a compound umbel.

umbelliferous. **umbelífero**. Bearing umbels; of or pertaining to the **Umbelliferae** family.

umbelliform. **umbeliforme**. Like an umbel; a determinate inflorescence having the general appearance but not the structure of an umbel, as with condensed cymes rather than condensed racemes of the true umbel; also, forming an umbel.

umbellulate. **umbelulado**. Having or arranged in umbellules.

umbellule. **umbélula**. One of the secondary umbels in a compound umbel.

umbilicate. **umbilicado**. Peltate and

depressed in the center, as the ends of an apple (**Rosaceae**).

umbilicus. **ombligo**. A small depression, as the hilum of a seed; navel-like.

umbiliform. **umbiliforme**. Having the shape of an umbilicus.

umbo. **umbòn**. A blunt or rounded projection on the ends of scales on certain pine cones (**Pinus**); also, a convex projection or knob in the center, as in the pileus or cap of some fungal fruit bodies.

umbonate. **umbonado**. Having an umbo; also, a solid round shape with a projection in the center; with a central boss.

umbonulate. **umbonulado**. Terminated by a very small umbo.

umbonule. **umbonula**. A small umbo.

umbraculate. **umbracúlido**. Having an umbrella-shape.

umbraculiferous. **umbraculífero**. Having an expanded umbrella-shaped organ or part.

umbraculiform. **umbraculiforme**. Shaped like an umbrella, as some mushrooms.

umbraculum. **umbraculo**. An umbrella-shaped appendage.

umbrinus. **umbrinus**. Latin meaning "umber colored".

umbrosus. **umbrosus**. Latin meaning "of shady places".

unable to reproduce. **incapaz de reproducir**. Sterile; failing to produce fruit or spores, as a plant or to germinate, as seed.

unarmed. **inerme**. Without spines, prickles, or thorns.

unavailable nutrients. **nutrientes unusabilable. nutrientes indisponible**. Minerals which for some reason, *e.g.* insolubility, cannot be absorbed by the plant from the soil.

unbalanced polyploid. **poliploide desequilibrado**. Aneploid.

unavailable water. **agua unasimilable. agua undisponible**. Water that is present in the soil but cannot be readily absorbed by plants because it is strongly held to the surface of the soil particles.

uncate. **uncado**. *See* uncinat.

uncinate. **uncinado**. Having a hook or barb at the end, as some spines and bristles.

unconfined aquifer. **acuífero unlimitedo**. A collection of ground water above a layer of rock or clay through which water flows very slowly.

unctuous. **graso. untuoso**. Slick, oily, slippery to touch; greasy.

under surface. **envés**. The reverse or underside, as the under surface of a leaf.

underbrush. **sotobosque**. Bushes, shrubs, and small trees growing under large trees in forests; undergrowth.

underdispersion. **subdispersión**. In plant ecology, a condition in which the pattern of individuals of a specific species within a community is not random, but regular, with similar numbers recorded in all quadrats; regular distribution.

underdominance. **subdominancia**. *See* balanced polymorphism.

underground stolon. **estolón subterráneo**. A determinate elongated that forms a bulb or tuber at the end.

underground. **bajo tierra**. Below or under the soil, as growing underground.

undergrowth. **sotobosque**. *See* underbrush.

underneath. **debajo**. Below or under, as growing underneath the trees.

undershrub. **subarbusto**. A perennial plant with stems that are woody only in the basal portion, the upper part dying back; subshrub; suffrutex.

understock. **pie. patrón**. The trunk or root material to which buds or scions are inserted in grafting; rootstock.

understory species. **especie subpiso**.

The trees of the lower canopy levels in a forest ecosystem, differing from emergent, crown, or upper story species; banana (**Musaceae**) is a characteristic understory species.

understory. **subpiso**. The vegetation which characterizes the lower level of plants in a forest; below the forest canopy.

underwood. **subpiso**. *See* understory.

undifferentiated. **indiferenciado**. Not modified or specialized in the course of development.

undivided blade. **lámina entero**. Not separated into leaflets; simple blade undivided. **entero**. Not lobed, cleft, or branched.

undulate. **ondular**. A leaf margin that is wavy in three dimensions (up and down), with smooth, shallow indentations; repand; serrulate; wavy.

unequal crossing-over. **sobrecruzamiento desigual**. In genetics, a crossing-over after improper pairing between chromosomes homologues that are not perfectly aligned.

unequally pinnate. **pinada desigualmente**. *See* odd-pinnate.

unguiculate. **unguiculado**. Having a claw-like base, as unguiculate flower petals.

ungula. **ungula**. The narrow, claw-like base of some petals, where they are attached to the receptacle.

ungulate. **ungulado**. Like a horse's foot in form.

uni-. **uni-**. A Latin prefix that means, "one."

uniaristate. **uniaristado**. One-awned.

uniaxial. **uniaxial**. **uniáxico**. Having one axis, as when the primary stem does not branch and terminates in a flower; monaxial.

unicarpellate. **unicarpelar**. *See* unicar-pellous.

unicarpellous. **unicarpogónico**. **monocarpogónico**. Having a single, free carpel in the gynoecium; stylodious

unicaulous. **unicaule**. Having a single stem; monocaulous.

unicellular. **unicelular**. **monocelular**. Describes tissues, organs, or organisms composed of a single cell, as the reproductive organs of some algae and fungi are unicellular; single-celled; having one cell only. unicentric distribution. **distribución céntrica**. The occurrence of endemic species in very localized areas.

unicolored. **concolor**. **unicolor**. Having a single color.

unicostate. **uninervado**. Having one large vein running down the middle; midvein, as a unicostate leaf.

unifactorial. **unifactorial**. Involving or controlled by one gene, in contrast with multifactorial; monofactorial.

uniflorous. **unifloro**. Having or bearing only one flower.

unifoliate leaflet. **folíolo unifoliado**. Having only one leaflet with a petiolule distinct from the petiole of the whole leaf.

unifoliate. **unifoliado**. Having only one leaf, as a unifoliate stem; monophyllous.

unifoliolate. **unifoliolado**. A leaf which is theoretically compound but has only one leaf, as in the orange

(**Rutaceae**).

unigeneric. **monogenérico**. Having a single character used in the identification of a genus.

unijugate. **uniyugado**. A pinnately compound leaf but with only one pair of leaflets.

unilateral. **unilateral**. Having all the parts arranged on one side of an axis, as unilateral flowers; also, of a raceme with all the flowers turned to one side; also, of a stimulus falling on the plant from one side; second.

unilocular. **unilocular**. Having one locule, cell, or single cavity, as unilocular sporangium.

uniloculate. **uniloculado**. Having a single locule.

uninucleate. **uninucleado**. Having one nucleus.

union. **unión**. The growing together of two parts or organs.

uniovular. **uniovular**. Produced when a single fertilized embryonic cell mass splits; monozygotic.

uniparous cyme. **cima unipara**. A type of cyme that develops a single axis at each branching.

unipetalous. **unipétalo**. Having only one petal; monopetalous.

unipolar. **unipolar**. At one end only, especially of a bacterial cell.

uniramous. **unirama**. Unbranched.

uniseptate. **uniseptado**. Having one septum or partition.

uniseriate. **uniseriado**. Arranged in a single row, series, or whorl, as a uniseriate perianth with sepals only; also, said of a vascular ray which is one cell wide in cross-section.

unisexual. **unisexual**. A flower or plant with either male (stamens) or female (carpels) reproductive organs but not both; not hermaph-

roditic; also, having antheridia and archegonia on separate gametophytes; imperfect; declinous; dioecious.

unistratose. **uni(e)stratificado**. Forming a single layer.

unit character. **carácter unidad**. One whose differences from an alternative is transmitted as a unit in heredity. These are independent characters which are traceable in each generation, and assorted and distributed by the laws of chance.

unit membrane. **membrana unidad**. **membrana unitaria**. **membrana elemental**. The basic unit of the membrane cell system which is composed of two layers of protein with a center of lipid molecules.

unit of vegetation. **vegetación de unidad**. Community.

United States Department of Agriculture (USDA). **Departamento de Agricultura de los Estados Unidos**. A branch of government of the United States of America responsible for domestic and international agricultural activities.

united. **unido**. Joined, combined, or made one.

unitunicate. **unitunicado**. A single integument or delicate tissue, especially applied to an ascus when layers of the ascus wall do not release during ascospore release.

univalent. **univalente**. Single; describes a chromosome that does not unite with its homologous chromosome during synapsis; also, one of the single chromosomes which separates in the first meiotic division.

universal veil. **velo universal**. A coating of hyphae which completely surrounds the fruit body of a fungus.

univoltine. **univoltino**. Species in which one generation reaches maturity each year.

unpolluted. **incontaminado**. Without a polluting or contaminating agent or medium. *Note*: A contaminant may differ from a pollutant, as a contaminant may refer to an impure substance added to the environment by man, whereas a pollutant may be a natural substance, such as pollen or volcanic ash.

unreduced gamete. **gameto no reducido**. A gamete having the diploid number of chromosomes.

unseptate. **no septado**. Lacking cross walls.

unreliable character. **carácter poco fidedigo**. Characters considered by taxonomists to be either inconsistent, indistinct, or unrecognizable and therefore not usable for identification or classification purposes.

unripe. **verde**. **inmaduro**. Not mature, as an unripe fruit.

unsaturated. **no saturado**. Refers to fatty acids or other hydrocarbon-containing chemicals whose carbon-carbon bonds include double bonds, as well as single bonds; oleic acid (one double bond), linoleic acid (two double bonds), and linolenic acid (three double bonds) are examples of unsaturated fatty acids.

unstable community. **comunidad inestable**. A plant community which does not remain constant over a period of years.

unsymmetrical. **no simétrico**. Said of a flower in which all the parts are not regular.

unstable gene. **gen inestable**. A gene liable to frequent mutations.

upcurved. **recurvado**. To curve in an upward direction.

upgrowth. **excrecencia**. **crecimiento**. **aumento**. **desarrollo**. The process of growing in an upward direction.

upper. **superior**. Higher in physical position; posterior.

upper lip. **labio superior**. The adaxial portion of the limb of a bilabiate corolla.

upper surface. **haz**. The top surface, as the upper surface of a leaf; opposite of the lower or under surface.

upright plant. **planta de crecimiento erecto**. Standing or growing in an erect or straight up direction.

uproot. **desraizar**. **desarraigar**. **erradicar**. To root up, remove, or tear out by the roots.

uracil. **uracilo**. A pyrimidine base that occurs in RNA, corresponding to thymine in DNA.

urceolate. **urceolado**. Having the shape of a flask or urn; descriptive of a corolla of united petals having a bulbous tube, a narrow neck, and a very small limb.

urceolus. **urceolo**. Resembling a small pitcher or flask.

ureus. **urceo**. Any structure that resembles a pitcher, hollow, and contracted near the mouth.

urease. **ureasa**. An enzyme present in various fungi, bacteria, and beans; also, an enzyme which catalyses the splitting of urea into ammonia and water.

urecicole. **urecicolo**. Growing as a parasite on rust fungi.

uredinial. **uredinial**. Of or relating to the uredinium.

urediniospore. **urediniespora**. *See* uredospore.

uredinium. **uredinio**. A blister-like prominence bearing uredospores of rust fungi.

uredospore. **urediospora**. *See* uredospore.

uredium. **uredinio**. An area of fungal tissue within which uredospores develop in plants infected with rust fungi (**Urediniomycetes**).

uredo stage. **etapa uredo**. The phase when rusts develop one-celled summer spores with red or yellow spots.

uredosorus. **uredosoro**. *See* uredium.

uredospore. **uredóspora**. A nonsexual fungal spore produced by some rusts in their uredo stage; summer spore.

urent. **urticante**. Stinging, as urent hairs; stinging hairs.

uridine. **uridina**. A form of uracil present in RNA that binds and carries sugar particles to where they are needed in the growth process.

uridylic acid. **ácido uridílico**. The nucleotide formed from uracil.

urn. **urna**. The theca where the spores of moss (**Musci**) are produced; also, the bottom portion of a pyxis; the capsule of a moss.

urn-shaped. **urniforme**. Having the shape of an urn.

uro-. **uro-**. A Greek prefix that means, "tailed".

urticate. **urticado**. To sting.

usnic acid. **ácido usnico**. A substance found in some lichens that has antibiotic activity; useful in some local skin infections involving Gram-positive bacteria.

uterus. **útero**. The peridium of some fungi, especially the **Gasteromycetes**.

utricle. **utrículo**. A one-seeded fruit with a thin wall, frequently dehiscent by a lid; also, a small bag or

sac-like structure, such as a thin seed vessel resembling a bladder, as in spinach (**Chenopodiaceae**).
 utricular. **utricular**. Like a bladder; also, pertains to the utriculus.
 utricular leaf. **hoja utricular**. The leaves of aquatic bladderwort (**Lentibulariaceae**) plants which

have floating bladders.
 utriculiform. **utriculiforme**. Having the shape of a utricle.
 utriform. **utriforme**. Bag-like.
 uva. **uva**. A berry formed from a superior ovary.
 uvarious. **uvarious**. Latin meaning "like a bunch of grapes."

V

- vacuolar. **vacuolar**. Of or relating to a vacuole, as a vacuolar wall.
- vacuolar membrane. **membrana vacuolar**. A thin membrane that encircles the vacuole of a plant, separating it from the cytoplasm; tonoplast.
- vacuolate. **vacuolado**. Pertains to a cell or cytoplasm having one or more vacuoles; vesicular.
- vacuole. **vacúola**. **vacuola**. In a plant cell, the centrally located, often quite large cavity, which is limited by a unit membrane and filled with a dilute solution of sugar and salt, sometimes referred to as cell sap; also, the aqueous cavity within the cytoplasm which is surrounded by the tonoplast that stores low molecular weight ions and molecules.
- vacuolization. **vacuolización**. The formation of vacuoles.
- vagile. **vágil**. Applies to a plant that is free to move about, as vagile organisms.
- vagility. **vagilidad**. The condition of being able to move around freely, as spores and seeds blown by the wind which may float in the air for several miles.
- vagina. **vagina**. A sheath, as the sheathing petiole in grasses (**Poaceae**).
- vaginate. **vaginado**. Sheathed.
- vaginiferous. **vaginífero**. Bearing sheaths.
- vaginule. **vaginula**. A minute sheath surrounding the base of the seta in the bryophytes.
- valence. **valencia**. The combining power of an atom based on the number of electrons it can give or take.
- valid. **válido**. Of names, in accord with the International Rules of Botanical Nomenclature.
- valine. **valina**. An amino acid in proteins, essential for growth.
- vallecula. **valecula**. A furrow, groove, or depression.
- vallecular. **valecular**. Of or pertaining to vallecula.
- vallecular canal. **canal valecular**. The canal-like intercellular space running in the cortex beneath a stem groove, and outside the carinal canal, as in the horsetails (**Equisetaceae**).
- valleculate. **valeculado**. Having a vallecula.
- valsoid. **valsoide**. Having the perithecia in a circle in the stroma; also, having groups of perithecia with their beaks pointing inwards or parallel to the surface.
- value (color). **valor (color)**. One of the three measurements of color (hue, chroma, value) with value indicating the degree of lightness or darkness; a color value of 5 is visually midway between absolute white and absolute black in the Munsell Soil Color Charts.
- valvate. **valvar**. An arrangement of sepals, petals, bracts, cone scales, etc. that have edges meeting but not overlapping, as valvate petals.

Also a type of capsule or legume dehiscence in which valves (segments) separate.

valvate dehiscence. **dehiscencia valvado**. Liberation of pollen from anthers or seeds from dry fruits by means of little flaps of upraised wall material

valve. **valva**. A part of a fruit wall which separates at dehiscence; also, half the cell wall (frustule) of a diatom; also, a section in an anther that opens like a lid; also, the three enlarged inner sepals covering the fruit of *Rumex* (**Polygonaceae**).

valvular. **valvar**. Having the form or function of a valve, as a valvular calyx; also, opening by means of valves.

valvular capsule. **cápsula valvar**. A type of capsule having valves that break away from the septa, as in *Ipomoea* (**Convolvulaceae**).

valvular dehiscence. **dehiscencia valvar**. A type of anther which dehisces through a pore covered by a flap of tissue.

vane. **vexilo**. *See* vexillum; standard; banner.

variable. **variable**. Deviating from the normal or recognized type, as a variable species; aberrant.

variability. **variabilidad**. The capacity of an individual or group of individuals to produce gametes having genotypic variation.

variable expressivity (gene). **expresividad variable (gen)**. Different phenotypes produced by the same genotype.

variance. **varianza. variancia**. The mean square deviation of a variate from its mean. Estimated as the Mean Square. The square of the Standard Deviation.

variant. **variante**. Within a population, an individual plant or group of plants that can be recognized and defined; considered by some to be the same as variety; also, a variable quantity whose measurement or frequencies form all or part of the data for analysis; also, a specimen differing slightly in its characteristics from the type.

variant character. **carácter variante**. A specific character that varies from the parent.

variation. **variación**. Differences from a standard or norm occurring within individuals of the same species, which may be eliminated or continued by natural selection; deviation from the parental form or structure; also, the occurrence of differences in the permanent structure of cells; also, the occurrence of differences in the environment; also, the differences between the offspring of a single mating.

varicose. **varicoso**. Swollen or enlarged in places.

variegated. **variegado. abigarrado. rayado. jaspeado. veteado**. Marked with spots or patches of different colors.

variegation. **variegación**. The condition of having varied leaf or flower colors that may be inherited or from the presence of a virus; also, irregular variation in color of a plant organ, *e.g.* leaves or flowers due to the suppression of normal pigment development, which may occur because of the action of a marginal genotype, somatic mutation, or infection.

varietal. **varietal**. Of or relating to a variety.

variety. **variedad**. In taxonomy, plants

that are classified below the species and subspecies level, as they differ morphologically in some minor but transmissible characteristic. A taxonomic variety is known by the first validly published name applied to it so that the nomenclature tends to be stable; cultivar.

variously. **diversamente**. With diversity, as variously colored flowers. vascular. **vascular**. Conductive tissue, as xylem and phloem which convey fluids.

vascular anastomosis. **anastomosis vascular**. A small transverse vascular bundle acting as a link between the main vascular bundles of a stem or root.

vascular bundle. **haz vascular**. **hacillo vascular**. A long, continuous strand of vascular tissue in seed plants and pteridophytes that goes from the roots through the stem and into the leaves, along which water and soluble nutrients pass; contributes to the plant's structural support; fascicle.

vascular cambium. **cambium vascular**. An actively dividing cell tissue in stems and roots which increases the girth of plants; characteristic of secondary growth, giving rise to secondary xylem and secondary phloem; lateral meristem.

vascular cryptogam. **criptógamo vascular**. A non-flowering organism which has vascular tissue.

vascular cylinder. **cilindro vascular**. *See* stele.

vascular plant. **planta vascular**. A plant formed in part of vascular tissue that comprise the seed-producing plants (spermatophytes) and the fern and fern-like plants (pteridophytes); tracheophyte.

vascular ray. **rayos vascular**. A sheet of conducting vascular tissue formed during secondary growth of the plant axis; extending radially from the xylem through the cambium into the phloem; medullary ray.

vascular strand. **cordón vascular**. *See* vascular bundle.

vascular system. **sistema vascular**. A specialized network of tissues, the xylem and phloem, forming a continuous system for the circulation of fluids throughout the plant. *See* vascular tissue.

vascular tissue. **tejido vascular**. The tissue, mostly phloem and xylem, that conducts water and other nutrients through the higher plants (ferns and seed plants); conductive tissue; vascular bundle.

vasculiform. **vasculiforme**. Shaped like a little pot.

vasculose. **vasculoso**. The substance composing the principal part of the plant's vascular tissue.

vasculum. **vasculo**. An ascidium.

vasicentric. **vasicentrico**. Paratracheal.

vasiform tracheid(e). **traqueida vasiforme**. A wide tracheid capable of conducting water.

vector. **vector**. A transfer agent, such as an insect, in the process of pollination; also, in recombinant DNA activities, the plasmid or phage chromosome used to carry the cloned DNA segment.

vegetable. **verdura**. **vegetal**. In botany, the word is used only as descriptive word (adjective) not as a naming word (noun), as vegetable matter or vegetable substance. In common usage (as a noun), vegetable may refer to a group of plants, such as lettuce (**Asteraceae**) or cabbage (**Bassica**).

vegetable ivory. **marfil vegetal**. The bony endosperm of certain palms (*Palmae*).

vegetable kingdom. **reino vegetal**. *See* Plant kingdom.

vegetal. **vegetal**. Having characteristics common to both plants and animals, as absorption, growth, and nutrition.

vegetation. **vegetación**. A collective term for the total plant life growing in a particular area; a mass of growing plants.

vegetation mosaic. **mosaico de vegetación**. A general term for a virus infection in plants in which angular patches of yellow appear on leaves forming a mosaic pattern.

vegetative. **vegetativo**. A state, condition, or structure concerned with feeding and growing rather than with sexual reproduction, as vegetative reproduction is asexual; also, in describing microbial developmental stages, a metabolically active feeding and dividing form, as distinct from dormant, seemingly inert, non-dividing form, as a bacterial cell versus its spore.

vegetative bud. **yema vegetativa**. A bud that forms new branches and leaves but not flowers.

vegetative cell. **célula vegetativo**. A growing cell, which differs from a cell that forms spores (spore Mother Cell). This refers particularly to the tube cell of angiosperm pollen grains, which is the only vegetative cell of the male gametophyte.

vegetative core. **corazón vegetativo**. The apical meristem of a shoot.

vegetative frond. **fronda vegetativo**. Fronds that lack sporangia.

vegetative growth. **crecimiento vege-**

tativo. A collective term referring to the growth of stems and foliage.

vegetative nucleus. **núcleo vegetativo**. The tube-nucleus of a pollen grain in flowering plants.

vegetative pattern. **diseño vegetativa**. The study of community diversity in relation to habitat diversity within a geographic area.

vegetative propagation. **propagación vegetativa**. A form of asexual reproductive process in multicellular plants in which new plants develop from the unspecialized plant parts (roots, stems, leaves) of the parent plant.

vegetative reproduction. **reproducción vegetativa**. A type of propagation or reproduction that occurs without fertilization and seed formation. Asexual reproduction by detachment of part of the plant which then develops into a complete plant. *See* vegetative propagation.

vegetative state. **estado vegetativa**. A stage in a plant's life cycle when reproduction occurs asexually with the detachment of some part of the plant and its ensuing development into a complete plant; also, the non-infective state in a phage.

vehicle. **vehículo**. An inanimate material (solid object, liquid, or air) that serves as a transmission agent for pathogens.

veil. **velo**. An evanescent membrane over an apothecium; also, a sheath of hyphae forming a complete membrane over the fruit body of an agaric.

vein. **nervadura. vena**. One of the strands or bundles of conducting tissue (xylem and phloem) that forms the main framework of a leaf

or petal.

veinal. **venal. nerval.** Of or pertaining to veins.

vein-band. **banda de vena. nervadura de banda.** An indicator of a virus infection in which bands of lighter or darker color occur along the main leaf vein.

vein-clearing. **vena-aclarado. nervadura-aclarado.** An indicator of a virus infection in which the leaf veins become unnaturally clear or translucent.

vein islet. **islot de vena.** A very small patch of photosynthetic tissue in a leaf, more or less surrounded by a small vein.

veined. **nervado.** Having veins or vein-like markings.

veinless. **enervio.** Without veins.

veinlet. **nervulo.** A small vein, usually branching off from a larger vein.

veiny. **venia.** Multi-veined.

velamen. **velamen.** A cork-like outer covering on the aerial roots of certain plants, *e.g.* epiphytic orchids (**Orchidaceae**), consisting of several layers of dead cells, often with spirally thickened and perforated walls, which soak up water running over it.

velate. **velado.** Having a velum or veil.

velum. **velo.** A membranous flap that covers or partially covers the sporangium, as in **Isoetaceae**; veil.

velum parziale. **parcial velo.** Partial veil.

velum universale. **velo universal.** Universal veil.

velutinous. **velutino.** A type of hairy covering in which the trichomes are dense, straight, long, velvety, and soft.

velvety. **velutino. aterciopelado.**

Smooth or soft to touch or taste.

venation. **venación. nervadura.** The pattern of vein development in a leaf; the surface arrangement of visible leaf veins.

venenatus. **venenatus.** Latin meaning "poisonous".

venomous. **venenoso.** Poisonous.

venose. **venoso.** Veiny.

venous. **venosa.** Of or pertaining to veins.

venter. **ventir.** In moss (**Musci**) and fern (**Filicopsida**), the expanded basal area of an archegonium in which the oosphere is developed.

ventral. **ventral.** Refers to the surface that is toward or nearest the axis; inner or lower face of an organ, as a carpel; the upper surface of a leaf; also, anterior or in front; adaxial.

ventral placentation. **placentación ventral.** A placenta position along the margin of a simple ovary; marginal placentation.

ventral canal cell. **célula canal del vientre.** An unwallled cell which lies in the venter of an archegonium, above the egg, which is a sister cell.

ventral side. **lado ventral.** Refers to the top or upper side of a perianth part.

ventral suture. **sutura ventral.** The presumed line of junction of the edges of the unfolded carpel.

ventral trace. **traza ventral.** One of the two laterally placed vascular strands often present in the wall of a carpel.

ventral wall. **pared ventral.** In a guard cell, the wall closest to the stomatal pore.

ventricose. **ventricoso.** Swelling out on one side, as a perianth and

hypanthium structure that is inflated on one side near the middle; a ventricose calyx; also, having an inflated bulge at one side.

ventricosus. **ventricosus**. Latin that means, "swollen, especially on one side".

ventricular. **ventricular**. Having a bulge in the middle.

ventriculose. **ventriculoso**. Slightly ventricose.

venule. **vécula**. A small vein, especially one that connects to a larger one.

venulose. **vécula**. Having veinlets.

venulous. **véculo**. *See* venulose.

vermicular. **vermicular**. Having the shape of a worm.

vermiform. **vermiforme**. Having the shape of a worm.

vernacular. **habla local**. The common name of a plant, differing from the scientific name, as Black-eyed Susan for *Rudbeckia hirta*.

vernal. **vernal**. In the late spring; also, used in reference to the six part division of the year: vernal, aestival, autumnal, hibernal, prevernal, and vernal; also, appearing in the late spring, as vernal flowers.

vernalis. **vernalis**. Latin meaning "spring".

vernalization. **vernalización**. The process of vernalizing or transforming, as changing winter cereals into spring varieties by soaking and chilling; also, a flowering process by which floral induction in some plants is promoted by exposing the plants to a chilling temperature for a specified time period; lowering temperatures of a plant to shorten the interval between sowing and flowering.

vernalize. **vernalizar**. Forcing a plant

to bloom and bear fruit early by subjecting the seed or bulb to low temperatures.

vernation. **vernación**. The arrangement of bud scales, young leaves, or fronds in the bud, when referring to their folding, coiling, or other similar characteristics; conduplicate.

verruca. **verruca**. A wart or wart-like; also, wart-like outgrowth on a thallus.

verruciform. **verruciforme**. Resembling a wart.

verruculose. **verruculoso**. Slightly verrucose.

verrucose. **verrugoso**. Having a wart-like appearance; tuberculate.

versatile. **versátil**. Attached at the back, near the middle rather than at one end, as an anther, which gives the appearance of swinging free on the filament, helping in the dispersal of pollen.

versicolor. **versicolor**. Having various colors; iridescent.

versicolorous. **versicoloro**. Not all the same color; also, changing color with maturity.

versiform. **versiforme**. Changing form with age; also, said of organs of the same kind but which are not all the same shape.

vertex. **vértice**. **vertex**. The point opposite to and farthest from the base of a triangle or other similar shapes with a base.

vertical. **vertical**. Lying in the direction of the stem or axis, as leaves position with the blade perpendicular, so that neither side is obviously the upper or lower surface; lengthwise.

verticil. **verticilo**. An arrangement of three or more flowers, leaves, or

other parts which surround the stem at the same plane; a whorl, as the inflorescence in many **Lamiaceae**; whorl.

verticillaster. **verticilastro**. Arising from the nodes of an elongated rachis, a pair of axillary flower clusters facing each other; a kind of inflorescence which appears like a dense whorl of flowers, but is really a combination of two crowded dichiasal cymes, one at each side of the stem; false whorl.

verticillate. **verticilado**. Arranged in one or more whorls or verticils; as verticillate leaves or flowers.

vesicle. **vesícula**. Any small cavity, sac, or bladder-like structure containing fluid or air, as often occurs in the cytoplasm of eukaryotic cells; also, membrane-found particles pinched off by the constriction of a membrane, as in the Golgi apparatus.

vesicular. **vesicular**. Of or pertaining to a vesicle; bladder-like.

vesiculose. **vesiculado**. Having vesicles; also, swollen like a bladder; also having the appearance of being composed of small bladders.

vespertine. **vespertino**. Opening in the evening, as vespertine flowers that open in the evening or night; also, parts that appear or expand during the evening.

vessel. **vaso**. A tube carrying liquids and mineral salts, and acts in mechanical support; in angiosperms, the primary water-conducting cell system in the xylem. It is a non-living element of the xylem composed of a tube-like series of cells, arranged end-to-end, running parallel to the long axis of the organ in which it lies, and in communi-

cation with adjacent elements by means of numerous pits in the side walls.

vessel element. **elemento vaso**. Individual cells of xylem, that combine end to end, to form a vessel; also, one of two homologous tracheary elements, tracheid and vessel, with the vessel element perforate and found in some species of *Equisetum* (**Equisetaceae**) and *Selaginella* (**Selaginellaceae**), a few ferns (*Marsilea* (**Marsileaceae**)), *Pteridium* (**Dennstaedtiaceae**)), the *Gnetales* (**Gnetopsida**), and almost all angiosperms.

vessel member. **miembro elemento**. See vessel element.

vestige. **vestigio**. A part or organ that is no longer fully developed structurally or functionally useful.

vestigial. **vestigial**. A part or organ that is no longer fully developed structurally or functionally, although believed historically to have been complete at an earlier time.

vestigial organ. **órgano vestigial**. An organ or structure which is greatly reduced in size; often non-functioning.

vestigial stipel. **estipela vestigial**. The remnants of a small or a minute stipel found at the base of a leaf.

vestigial stipule. **estípula vestigial**. The remnants of small or minute leaf-like appendages (stipules) attached at the base of a leaf stalk or leaf petiole.

vestiture. **indumento**. Any hairy, epidermal covering on the surface of organs or parts.

vexillar. **vexilar**. Relating to the standard.

vexillary. **vexilar**. Of or pertaining to the vexillum.

vexillary estivation. **estivación vexilar.**

A form of estivation or prefloration when the exterior petal, as in the case of the vexillum, is the largest, and sheathes the other petals.

vexillum. **vexilo. estandarte.** The upper, usually wide petal in a papilionaceous corolla; standard; banner; vane.

viability. **viabilidad.** The period of time an organism remains alive; also, used to describe the length of time before a seed will fail to germinate; also, the measure of the number of individuals surviving in one class relative to another standard class.

viable. **viable.** Having the capacity to live, grow, or develop, as a spore, or seed.

vicariad. **vicariade.** See vicariance.

vicariance. **vicariancia.** The geographical separation of similar species by a barrier such as a mountain range or by a shift in the earth's crust.

vicarious distribution. **distribución vicaria.** Closely related species pairs which are derived from a common ancestor; as one species replaces the other geographically (not ecologically) their distribution is said to be vicarious.

vicarious species. **especies vicario.** See vicariance.

vicillin. **vicilina.** A globulin occurring in pea seeds.

vicinism. **vicinismo.** An unexpected outcrossing.

villi. **vellosidad.** Long, straight, soft hair that cover some fruit and flowers.

villose. **viloso.** See villous.

villosulous. **vilosule.** Covered with tiny, soft, crooked trichomes.

villous. **viloso.** Having or covered with long, soft, crooked hairs, but not matted.

villus. **villus.** A thin branching outgrowth from the "stem" of a moss (**Musci**).

vimen. **vimen.** Long, flexible shoots.

vimina. **vimina.** A long, flexible shoot.

vimineous. **vimineo.** Producing vimina or long flexible twigs or shoots, as a vimineous plant.

vinaceous. **vinaceo.** Wine colored.

vine. **bejuco.** A type of annual or perennial plant that is characterized by an elongated, weak stem which climbs or trails on some support; may have either a herbaceous or woody texture.

vinicolor. **vinicolor.** Having the color of wine.

violaceous. **violaceo.** Violet in color; also, pertaining to **Violaceae**, the violet family.

violet color. **color violeta.** A bluish-purple color.

viral. **viral. vírico.** Of or pertaining to a virus.

viridescent. **virDESCENTE.** See virescent.

virens. **virens. verde.** Green.

virescence. **viRESCENCIA.** Plant parts changing to a green color, by the abnormal presence of chlorophyll.

virescent. **viRESCENTE.** Becoming green; greenish; also, an abnormal green condition, sometimes accompanied by the development of small, crowded leaf-like structures, due to the attack of a parasite or other disease.

virgate. **virgULIFORME.** Wand-like; also, producing a large number of long, slender, and straight twigs, as a virgate stem.

virgatus. **virgatus.** Latin meaning "twiggy".

virgin forest. **selva virgen. bosque virgen.** A forest in its natural state, never cleared or cut by humans; old-growth forest.

virgin soil. **suelo virgen.** A soil that has not been significantly disturbed from its natural environment.

virgin. **virgen.** In a natural state.

virguliform. **virguliforme.** Rod or wand-shaped.

viridi-. **viridi-.** A Latin prefix for "green".

virion. **virión.** A mature individual virus particle composed of RNA or DNA surrounded by a protein shell (capsid), sometimes enclosed in an envelope, and constituting the infectious form of the virus.

virogene. **virogen.** A virus producing gene.

viroid. **viroide.** Disease causing pieces of nucleic acid which resemble viruses, but are only small, closed circles of RNA with no capsid. Although all known viroids are plant pathogen, it is possible that animal versions exist.

virological. **virológico.** Pertaining to viruses.

virology. **virología.** The study of viruses.

virologist. **virologista.** One who studies viruses.

virulence. **virulencia.** The disease producing capacity of a microorganism; the capacity of a pathogen to invade and harm host cells; also, the degree or measurement of pathogenicity.

virulent. **virulento.** Having the capacity to break down or overcome the resistance of the host; highly infectious, as virulent microorganisms.

virulent phage. **fago virulento.** A bac-

teriophage that destroys the host bacteria by lysis; temperate phage.

virus (*pl.* viruses). **virus.** A crystal-like, non-cellular organism or particle, which has no metabolism of its own and depends on other living cells for reproduction and growth; composed of a protein coat and a central core of DNA or RNA, but not both.

virusoid. **virusoide.** A particle similar to a viroid but located inside the protein coat of a true virus.

virus particle. **partícula vírica.** *See* virion.

viscid. **viscido.** Covered with a thick, sticky, or glutinous substance, as viscid leaves.

viscid disseminule. **disemínulo vícida.** A seed or spore with a sticky surface or hair, and is commonly dispersed by becoming attached to an animal.

viscidous. **viscidousus.** Latin meaning "sticky or clammy surface".

viscidulum. **viscidulado.** A glandular structure attached to the pollinia of an orchid; adheres to the body of pollinating insects.

viscin. **viscina.** The sticky substance produced in the fruits of mistletoe.

viscid. **viscoide.** Viscid; rather sticky.

viscosity. **viscosidad.** A property of fluids that causes them to resist flowing.

viscotaxis. **viscotaxis.** A change in the direction of movement in a motile organism or cell, responding to a change in the viscosity of the surrounding fluid.

viscous. **viscico.** Thick and highly dense.

visible. **visible.** In genetics, a mutant whose phenotype may be observed; differing from lethals, which are

only inferred.

vital staining. **coloración vital. tinción vital.** A process of staining than can enter a living cell without causing it injury.

Vitamin C. **ceviatámico. vitamina C.**
See ascorbic acid.

vitamin. **vitamina.** A complex organic substance produced mostly by photosynthetic organisms, essential in minute amounts for human growth and development.

viti-. **viti-.** A Latin prefix that means, "pertaining to a vine".

vitelline. **vitelina.** Egg-yellow in color.

vitreous. **vítreo.** Transparent.

vitta. **vita.** One of the many long, club-shaped tubes for carrying oil in the fruit of the **Umbelliferae**; also, a type of virus disease in which necrotic streaks develop.

vitae. **vitado.** Having longitudinal ridges or stripes.

viviparous. **vivíparo.** Sprouting on the parent plant, as bulblets which form in some inflorescences, as in some grasses (**Poaceae**), the spider plant (**Commelinaceae**) and in some mangroves; also, a form of asexual reproduction, as in onions (**Lilia-ceae**), in which a bulb-like structure develops, forming a new plant when detached from the parent.

viviporous. **viviporoso.** Characterized by beginning embryo growth while still attached to the mother plant.

volatile oils. **aceite volátil.** Terpenes made of two to four isoprene units;

essential oil.

volatilization. **volatilización.** The process of evaporation; to pass into the atmosphere as a gas.

volcanic soil. **suelo de volcánico.** A soil derived from volcanic ash under tropical conditions. If basic they develop rapidly into fertile soils, but take much longer if they are acid.

voluble. **voluble.** Ascending around other branches or stems in a spiral; twining.

volubilis. **volubilis.** Latin meaning "twining".

volunteer plant. **planta voluntario.** A plant that occurs through natural propagation rather than by having been planted by humans.

volute. **voludo.** Rolled up.

volutin granules. **gránulos de volutina.** Granular cytoplasmic inclusions which stain intensely with basic dyes. They are believed to contribute to the formation of chromatin; also, stored food substances in fungi, especially yeasts.

volva. **volva.** A cup-shaped (cupuliform) sheath that surrounds the stem of some agaric fruit in the early stages of growth, rupturing as the fruit body enlarges, and sometimes remaining around the base of the stipe, as a cup or pouch.

volvate. **volvado.** Possessing a volva.

vulgaris. **vulgaris.** Common.

vulviform. **vulviforme.** Cleft with projecting edges.

W

W. W. A class of flowers pollinated by the wind.

wall. pared. The side part or relatively rigid boundary of and hollow structure, as a cell wall.

wall pressure. presión parietal. The hydrostatic pressure on water; in a turgid plant cell, pressure potential is said to be positive, but in transpiring xylem, which is under considerable tension, the pressure potential is said to be negative; sometimes referred to as turgor pressure.

wanting. ausente. Not present; without; absent.

warping (of land). aterramiento. cegamiento. colmatación. A type of traditional farming where a river is allowed to temporarily flood low-lying areas to obtain silt for crops and to reduce the need for further irrigation that season.

wart. verruga. A firm protuberance; a small blunt-tipped, rounded upgrowth.

warty. verrucoso. Resembling warts or having bumps like warts.

waste. desecho. Unusable or excess material left from the breakdown of tissue.

wastewater lagoon. lagua de aguas residuales. A large pond where air, sunlight, and microorganisms break down wastes, allow solids to settle out, and kill some disease-causing bacteria; generally a 30 day process involving the addition of

chlorine, with the residues pumped out and spread over land areas (often crop land).

water bloom. flor de agua. A dense population of planktonic algae, mostly *Myxophyceae*, which may suddenly develop on bodies of fresh water due to favorable growth conditions.

water calyx. cáliz de agua. A closed-sac calyx in which hydathodes secrete water so that other flower parts may continue their development without damage from dryness.

water conduction. conducción de agua. The process by which moisture is moved (conducted) from the ground through the plant's root and stem system.

water culture. cultivo de agua. An experimental means of determining the mineral requirement of a plant. The plant is grown with its roots dipping into solutions of known components.

water cycle. ciclo del agua. The cycle in which precipitation falls with some of the water evaporating, some running off, and some percolating into the soil for plant use (taken in by the roots systems) and released back into the atmosphere by transpiration; used in plant photosynthesis, and respiration.

water leaf. hoja acuática. Any of the plants that are classified in the genus *Hydrophyllum* (*Hydrophyllaceae*).

water lily. **ninfea. nenúfar.** Any plant of the family **Nymphaeaceae**.

water mold. **moho de agua.** An aquatic fungus, especially **Saprolegniales**.

water pollution. **polución del agua. contaminación del agua.** Any physical or chemical change in surface or ground water that is capable of harming living organisms.

water pore. **hidatodo.** Hydathode.

water potential. **potencial del agua.** In plant systems, the water potential is the relative capacity of water molecules to do work by interacting with each other; it is made of the solute potential, the matrix potential, and the pressure potential.

water sprouts. **vástago de agua.** A type of shoot that grows from dormant lateral buds on trunks which have long and often variable internodal lengths or intervals; epicormic shoots.

water storing tissue. **tejido acuífero.** A group of large, often thin-walled cells inside a plant in which water is stored and from which it is withdrawn in times of drought.

water table. **tabla de agua. lámina de agua.** The point or depth at which the ground or soil below is permanently saturated with water; also, the upper surface of ground water.

water. **agua.** A colorless, tasteless, odorless liquid compound of hydrogen and oxygen that is essential to most plants and animals.

waterlogged soil. **suelo anegado.** Soil that is temporarily or permanently soaked or filled totally with water; can result in the root systems of some species not getting air and dying.

waterlogged. **anegado. inundado.**

Soaked or totally saturated with water, as a swamp.

waterlogging. **encharcamiento. saturación de agua en el suelo.** Saturation of the soil with irrigation water or excessive precipitation, with the water table rising close to the surface.

watershed. **divisoria de agua. cuenca.** A natural land area or artificial drainage basin that delivers water, sediment, and dissolved substances to major rivers via small streams and artificial drains.

water vesicle. **agua de vesícula.** A much enlarged epidermal cell which stores water.

W-chromosome. **chromosoma W.** Sometimes used for X chromosome where the female is the heterogamous sex.

Watson-Crick. **Watson-Crick.** Pertaining to or derived from the double-helical model of the molecular structure of DNA devised by James D. Watson (1929) and Francis H. C. Crick (1916)

wavy. **onduloso.** Wave-like or undulating on the border or surface, as a leaf with a wavy margin.

wax cap. **sombrero de cera. gorra de cera.** The common name for the waxy, brightly colored fruit bodies of fungi, especially of the family **Hygrophoraceae**.

wax. **cera.** A wax-like substance secreted by some species, as the palm *Ceroxylon andicola* (**Palmae**); also, a lipid material having a high melting point, somewhat impermeable to water, and with oxygen inserted in the molecule.

waxy. **ceroso.** Covered with wax; also, resembling wax in appearance; having a smooth, shiny texture,

as a waxy leaf.

weak. **débil**. Easily torn, broken, or bent; also, low gluten content, as in wheat (**Poaceae**).

weather. **estado atmosférico. condiciones meteorológicas**. Short term changes in the temperature, barometric pressure, humidity, precipitation, sunshine, cloud cover, wind direction, and speed, and other factors in the troposphere of a specific place and time.

weathering. **meteorización. disgregación**. The various physical and chemical changes occurring in rocks, at or near the earth's surface, by atmospheric agents.

webbed. **paljado. palmeado**. With an interconnecting network of filaments, fibers, hairs, or veins; palmate.

wedge-shaped. **cuneiforme**. Broad and truncate at the top and tapering down to the base; cuneiform.

weed. **maleza. mala hierba. cizaña**. Any troublesome plant that colonizes or appears opportunistically on cultivated or otherwise disturbed habitats, especially those detrimental to crops or toxic to animals; also, any plant not valued for its beauty or use.

weedy. **arvense**. Full of weeds.

wet rot. **podredumbre de la madera causada por un hongo**. A type of timber decay found only in wet wood; caused by the fungus *Coniophora puteana*.

wet. **húmedo. mojado**. Moist or containing water; also, rainy, misty, snowy, as wet weather.

wetland. **pantano**. A general term applied to water habitats that are seasonally or permanently waterlogged land, as marshes, bogs, and

swamps, especially along coasts which are regularly flooded by tides.

whiplash. **flagelo**. A little used word for flagellum, a whip-like tail or structure for locomotion on certain cells, bacteria etc; also, a runner of a plant.

whip-like. **flageliforme**. Having the form of a whip, long, thin, and flexible. See whiplash.

white (haired). **canoso (en indumentos)**. A white, hairy covering.

white color. **color blanco**. A color like milk, containing all of the visible rays of the spectrum; opposite of black.

white frost. **escarcha blanco**. White, feather-like, interlocking crystals of frozen dew; hoarfrost.

whitish. **blanquecino**. Moderately white in color; somewhat white.

whorl. **verticilo**. A circle of three or more buds or leaves around a stem; also, a cyclic group of sepals, petals, stamens, or carpels; verticil; also, the arrangement of organs in a way that they arise from another organ at a common level.

whorled. **verticilado**. An arrangement of three or more leaves or other structures attached symmetrically at a node, as a whorled plant; verticillate.

wide distribution. **repartición extendido. área de distribución extendido**. A condition in which taxonomic groups have an extensive range.

wild. **silvestre. sin cultivar**. Occurring in a natural state, without human intervention.

wild type. **tipo silvestre. tipo salvaje**. The phenotype or genotype found in nature or in the standard laboratory stock for a particular organ-

ism.

wild-type gene. **gen de tipo silvestre.**

The allele most frequently found at a particular gene locus, as distinguished from a mutant type gene.

wilderness. **yermo. desierto.** An extensive area of land which has never been permanently occupied or developed by humans; existing in a nearly natural state or condition.

wilt. **marchitarse.** To become limp or flaccid from heat or the lack of water; loss of turgidity.

wilted. **marchito. ajado. mustio.** Lacking firmness or turgidity.

wilt disease. **marchitamiento. marchitez.** A plant disease in which loss of turgidity is the major symptom; frequently due to an infection from a fungus belonging to the **Deuteromycotina**, as *verticillium* wilt.

wilting. **secamiento.** A limpness that occurs when plant tissue contains insufficient water to hold the cells rigid.

wilting coefficient. **coeficiente de marchitamiento.** The percentage of water in a soil when a plant begins to wilt.

wilting percentage. **porcentaje de marchitamiento.** The percentage of soil water not available to the roots; plants wilt when the soil moisture is reduced to the wilting percentage.

wilting point. **punto de marchitez.** The moisture content of soil at which plants wilt and fail to recover; sometimes referred to as the Permanent Wilting Point (PWP); also, the pF value when the soil cannot supply water rapidly enough to make up the losses by transpiration.

wind. **viento.** The natural motion of

the air, caused by the upward movement of warm air and the subsequent in-rushing of cooler air to fill the void.

wind dispersal. **anemocoria.** The spreading or scattering of pollen, seeds and fruit by wind currents; anemochory.

wind erosion. **erosión eólica.** A gradual wearing away of top soil or rocks by wind.

wind pollination. **anemofilia. anemogamia.** Fertilization by pollen carried by the wind, especially plants with an inconspicuous flower, as in grasses (**Poaceae**), birches (**Betulaceae**), and sages (**Labiales**); also, the conveyance of pollen from anthers to stigmas by wind; anemophily.

windborne. **transportado por el viento.** Transported by the wind, as some pollen.

windbreak. **barrera contra el viento.** A row of trees or shrubs planted to partially block wind flow and reduce soil erosion on cultivated land.

winding. **sinuoso. serpenteo.** Twisting or curving around.

windward. **barlovento.** The side toward which the wind is blowing.

wing. **ala.** Any structure that has a thin, flattened extension or projection which appears to be a wing, as the lateral petals in the **Fabaceae**; also, a thin, dry membranous appendage of a structure, as the airfoil of a samara; also, the downward continuing base of a decurrent leaf;

winged bark. **corteza alado.** A type of tree bark with one or more long, thin, expanded longitudinal plates.

winged fruit. **fruto alado. sámara.** A dry fruit with a wing-like ex-

tension; samara.

winged leaf. **hoja alado.** A pinnate or pinnately divided leaf.

winged nut. **nuez alado.** A type of accessory fruit in which the nut is surrounded by a wing-like bract, as in hornbeams (**Betulaceae**).

winged seed. **semilla alado.** Seeds with wing-like extensions, as a maple tree (**Aceraceae**) which has a double samara with one seed in each half.

winged. **alado.** Having flattened, blade-like margins, as with certain petioles; alate.

wing-shaped. **aliforme.** Resembling a wing in shape; aliform.

winter. **invierno.** In the North Temperate Zone, the coldest time of the year, which includes the months of December, January, and February.

winter annual. **anual invernol.** A species that lives less than one year but through the winter season, germinating in late summer or fall with flowering and fruiting in the early spring of the next year.

winter bud. **yema de invierno. yema hibernante.** A hibernating vegetative shoot; teleutobud.

winter dormancy. **latencia invernol. reposo invernol.** Dormant during the winter season; not vegetating during the winter, as winter dormancy plants.

winter hardiness. **resistencia al frio.** The capacity of a plant to withstand extreme winter conditions.

winter spore. **espora de invierno. teléutospore. teliospore.** A resting or dormant spore that develops in the telial stage of the rust fungi and germinates at the end of the winter season; teleutospore; telio-

spore.

wiry. **alambrino.** Like a wire in shape and texture; stiff and wire-like, as some vines.

with corona. **coronado.** Having a circle of florets, as a composite flower; also, having a cup-like appendage of the corolla or petals attached to a stem, as in milkweeds (**Asclepiadaceae**); also, having an appendage on top of a seed that aids in dispersal; corolliferous.

with in. **dentro. en el interior.** Inside or internal.

with perianth. **periantado.** Having a perianth.

wither. **marchitar.** To wilt or become limp from heat or lack of water.

withering. **marchitamiento.** Drying up or becoming wilted from heat or lack of water.

without a style. **astilo.** Having no style.

without lamina. **elaminado.** Having no leaves or blades.

wood. **madera. leño.** Secondary xylem which is found in many perennial plants, forming the bulk of trees and shrubs; composed of water conducting vessels and/or tracheids, fibers, and parenchyma cells.

wood ray. **madera radial. xilema radial.** A ray of parenchyma cells growing from the pith to the cambium in a woody stem; xylem ray.

wood ray parenchyma. **parénquima de madera radial.** The parenchymatous cells in a wood ray.

wood sugar. **azucar de madera. xilosa.** A crystalline sugar present in woody plants; xylose.

wood vessel. **tráquea.** Vessel. *See* trachea.

wooded. **arbolado.** Covered with trees.

woodland. **bosque.** A vegetation community with a large number of trees

which are more spread apart than in a forest; tree crowns generally do not touch.

woody. **leñoso. boscoso.** Applied to plants composed of wood; also, having a hard, lignified texture; also, possessing a high percentage of cells with thick secondary walls; usually with an active vascular cambium; ligneous.

woody tissue. **tejido lignificado.** Tissue which has become hard because of the presence of lignin in the walls.

woody vine. **bejuco leñoso.** Any of a number of vines from the gourd family having large, fleshy roots, five-lobed leaves, and clusters of greenish-white flowers; bryony.

wool. **lana.** A soft covering of entangled hair, lying compactly on the surface of some plant parts; tomentum.

woolly. **lanoso. lanuginoso.** Covered with long, entangled, soft hairs; lanate.

wound. **herida. lesión.** An injury to a plant caused by some external force, as cutting or scraping.

wound cork. **súber cicatrizal.** A layer of cork cambium and cork formed below and around wounds, if not

to large. It heals the damage and prevents the entry of parasites into the plant.

wound hormone. **necrohormona.** A substance produced in wounded tissue which is able to influence the subsequent development of parts of the plant; necrohomone.

wound parasite. **parásite de herida.** A parasite which can only gain entry into the body of plant through a wound.

wound response. **respuesta de herida.** A specialized metabolic activity, triggered by hormones after a plant is damaged by wind, rain, freezing *etc.*, that includes an increased rate of synthesis of various repair systems, followed by the differentiation of roots and buds in higher plants.

wound tissue. **tejido de herida.** A pad of parenchymatous cells formed by a cambium after wounding. It may result in groups of meristematic cells from roots and buds forming.

wrinkle. **arruga.** A small furrow or ridge in an otherwise smooth surface; corrugation.

X

- x. x.** The basic or haploid number of chromosomes.
- xanthein. **xanteína.** The water-soluble coloring pigment in flowers, as distinguished from xanthine, the non-water-soluble portion; also, a yellow pigment sometimes present in cell sap.
- xanthic. **amarillento.** Yellowish in color; especially flower colors ranging from yellow through orange to red; also, of or pertaining to xanthine.
- xanthin(e). **xantina.** The yellow, non-water-soluble coloring pigment in flowers, as distinguished from xanthein, the water soluble portion.
- xantho-. **xanto-.** A Greek prefix that means, "yellow".
- xanthocarpous. **xantocárpico.** Bearing yellow fruit.
- xanthophore. **xantóforo.** A type of chromatophore that contains a yellow pigment which does not numerically increase or decrease in response to outside stimuli as other types.
- xanthophyll. **xantofíla.** A yellow crystalline pigment located in plastids and made of oxygenated derivatives of carotene, acting as accessory pigments during photosynthesis; seen in the autumn leaves.
- xanthophyllic. **xantofilaico.** Pertaining to or containing xanthophyll.
- xanthospermous. **xantospermo.** Bearing yellow seeds.
- X-chromosome. **cromosoma X.** The sex chromosome containing numerous genes which show sex-linkage.
- xenia. **xenia.** The genetic effects produced by pollen on a developing embryo or on the maternal tissues (endosperm) of the fruit; as corn with white endosperm being pollinated by one with dark yellow endosperm producing seeds with pale yellow endosperm.
- xenobiotic. **xenobiótico.** A foreign substance capable of harming or affecting an organism.
- xenogamous. **alógamo. xenógamo.** Of or pertaining to xenogamy or produced by cross-fertilization.
- xenogamy. **xenogamia.** Pollination between flowers of separate plants; cross fertilization.
- xenogenesis. **xenogene.** The supposed making of offspring wholly
- xeric. **xerico.** Xerophyte.
- xeric environment. **medio ambiente xeric.** A very dry environment; lacking moisture; xerophytic.
- xero-. **xero-.** A Greek prefix that means, "dry", as xerophyte; also, xer- before vowels.
- xeromorph. **xeromorf.** A plant that thrives in saltwater marshes or in alkaline soils.
- xeromorphic. **xeromorfo.** Having a form not typical of the species as a result of habitat influences; also, having adaptations for surviving drought or life in a dry environ-

ment, as the succulent, water-storing stem of cacti; also, plants which are protected from water loss by specialized morphological characteristics, e.g. thick cuticle.

xeromorphy. **xeromorfismo**. Having morphological characters which aid in the reduction of water loss.

xerophile. **xerófile**. A xerophyte.

xerophilous. **xerófilo**. Thriving in hot, dry habitats.

xerophyte. **xerófito**. Plants that thrive in dry or arid habitats.

xerophytic. **xerófito**. Of or pertaining to xerophytes.

xerophytism. **xerofitismo**. The quality or condition of being xerophytic.

xerosere. **xerosere**. **xeroserie**. The sequence of communities reflecting the stages of plant succession which begins in an arid habitat or with bare rock.

xerothermic. **xerotermino**. Being both hot and dry, as a xerothermic region; also, thriving in hot, dry habitats, as xerothermic organisms.

xerothermous. **xerotermino**. Pertaining to xerothermic.

x generation. **generación x**. The gametes.

xiphoid. **xifoide**. Shaped like a sword; ensiform.

xiphophyllous. **xifófilo**. Having ensiform or sword-shaped leaves.

X-linked. **ligado-X**. Pertaining to genes on the X chromosome.

x rays. **rayos X**. The portion of the sun's range of radiation which is immediately shorter than ultraviolet; between 0.1 and 100 nm.

x-ray crystallography. **crystalografía de rayos X**. A method for studying the molecular and atomic structures of a substance.

xylan. **xilan**. A yellow, gummy pentosan

found in the cell walls of woody tissues which yields xylose on hydrolysis; a hemicellulose made of xylose units.

xylem. **xilema**. The woody tissue of higher plants, composed mostly of woody fibers, tracheids, parenchymatous cells, and tracheae (in angiosperms), through which most of the water and dissolved minerals utilized by a plant are conducted upward from the roots.

xylem core. **corazón de xilema**. A solid strand of xylem in the center of a stele.

xylem Mother Cell. **célula madre de xilema**. A daughter cell cut off from a cell of the cambium which is later converted into a component of the xylem.

xylem parenchyma. **parénquima xilema**. Parenchymatous cells occurring in the xylem, apart from those occurring in the vascular rays.

xylic gap. **espacio de xilico**. A gap in the xylem opposite a leaf base.

xylem ray. **rayo xilema**. Parenchyma cells growing from the pith to the cambium in a woody stem; wood ray.

xylo-. **xilo-**. A Greek prefix that means, "wood" or "woody", as xylocarp.

xylocarp. **xilocarpo**. A hard, woody fruit.

xylocarpous. **xilocárpico**. Bearing fruit that becomes hard or woody.

xylochrome. **xilocromo**. A mixture of substances containing tannins, gums, and resins which produces the heartwood color.

xylogen. **xilogeno**. Wood in a formative state; lignin. *See* xylem.

xylogenous. **xilógeno**. Living in or on wood.

xyloid. **xiloide**. Of wood; wood-like;

ligneous.

xylology. **xilología.** The study of the structure of wood.

xyloma. **xiloma.** A sclerotium-like body which forms spores internally and does not put out branches which develop into sporangiophores; also,

a woody tumor on a plant.

xylophilous. **xilófilo.** Preferring to grow on wood.

xylose. **xilosa.** A crystalline sugar (pentose) present in woody plants and formed by the hydrolysis of xylan; wood sugar.

Y

Y-chromosome. **cromosoma Y**. The sex chromosome found only in the heterogametic sex; differing in size from the X-chromosome and with few or no major genes. Commonly, only a short part of it pairs with the X-chromosome at meiosis.

yearly. **anual. anualmente**. Once a year; also, a plant that lives only one year or one growing season, as a yearly plant; annual.

yeast. **levadura**. Minute, one-celled ascomycetous fungi (**Saccharomycetaceae**) which produce alcoholic fermentation in sugary fluids.

yellow color. **color amarillo**. A color lying between red and green in the color spectrum.

yellow enzyme. **fermento amarillo. enzima amarillo**. Compounds in electron transfer which are clearly associated with the cytochromes; flavoprotein.

yellow-green algae. **alga amarillo-verde**. A mainly freshwater algae

(**Xanthophyta**) with yellow-green to green chloroplasts masking the chlorophyll; typically functioning as motile spores (zoospores).

yellowing. **amarilleamiento. amarillez**. A general term for any plant disease or mineral deficiency in which yellowing is a characteristic symptom; often caused by viruses, bacteria, and fungi; chlorosis

yellowish. **amarillento**. Of or pertaining to one of the shades of the color yellow; xanthic.

yellow snow. **nieve amarillo**. Snow colored yellow by the growth on it of certain algae, sometimes occurring in the Alps and Antarctic regions.

Y-linked. **ligado-Y**. Pertaining to genes on the Y chromosome.

young plant. **plántula. planta de semillero**. A seedling or an embryo of a seed recently germinated.

Z

zantho-. **zanto-**. A Greek prefix that means, "yellow".

Z-chromosome. **chromosoma Z**. The sex chromosome occurring in heterogametic females and homogametic males.

zeatin. **zeatina**. A plant hormone (cytokinin), originally found in young corn (**Poaceae**).

zeaxanthol. **zeaxantol**. Lutein.

zecanin. **zecanina**. A glutelin protein.

zedoary. **zedoarío**. An aromatic substance occurring in the roots of some plants in the genus *Curcuma* (**Scitamineae**), that is used in medicines and perfumes.

zein. **zeinda**. A protein found in corn (**Poaceae**) used in the manufacture of many plastics, adhesives and coatings.

zeitgeber. **zeitgeber**. Any of the time-based stimuli, such as light, dark, or temperature that induces a response in the biological clock of an organism, as night flowering.

zeromorph. **zeromorf**. See xeromorph.

zerophile. **zerófile**. See xerophile.

zerophyte. **zerófit**. See xerophyte.

zeugite. **zeugito**. A cell in which nuclear fusion occurs.

zinc. **cinc. zinc**. A shiny, bluish-white metallic element with the chemical symbol of Zn which is important in leaf and internode growth; deficiency gives a rosette-style distortion of the leaves.

Zn. **Zn**. The chemical symbol for the element zinc.

zoid. **zoide**. Zoospore.

zonal. **zonal**. Having circular bands of color, as the leaves of some geraniums (**Geraniaceae**) are zonal.

zonal soil. **suelo zonal**. A broad group of soils occurring in one of the main climatic regions of the world.

zonate. **zonado**. Marked or colored in circular rings or zones; also, said of tetraspores formed in a row of four and not in a tetrahedral group.

zonation. **zonación**. The distribution of plants in zones of a particular character; e.g. light availability determining the limits of distribution, resulting in the zonation of the seas: red algae growing at great depths, brown algae in the intermediate depths, and green algae growing the well-lighted upper depths; also, the formation of bands of different color on the surface of a plant; also, the formation of fungi in culture, of a concentric band of color, texture, abundance of spores etc; also, the occurrence of vegetation in bands, each having its characteristic, dominant species; also, a stage in the development of an oogonium when the contents are arranged in two or more well-marked zones.

zone. **zona**. A geographic area characterized by certain forms of plants determined by environmental influences; also, in ecology an area or belt with more or less uniform vegetation; also, a band of color,

hairs, etc. on the surface.

zone of saturation. **saturación de zona.** An area where are available pores in the soil and rock are filled by water. *See* water table.

zone lines. **lineas zona.** Narrow dark brown or black lines in decaying wood, commonly caused by fungi

zoobiotic. **zoobiótico.** A parasite living in association with an animal.

zoochorous. **zoocoro.** Said of spores or seeds dispersed by animals.

zoogamete. **zoogameto.** A motile gamete; planogamete.

zoogl(o)ea. **zooglea.** A mucilaginous mass of bacteria embedded in a slimy material derived from the swollen cell walls.

zoogonium. **zoogonio.** Zoospore.

zoophile. **zoófilo.** A zoophilous plant or its seed.

zoophilic. **zoófilico.** *See* zoophilous.

zoophilous. **zoófilo.** Plants that are pollinated by animals.

zoophily. **zoofilia.** Pollinated by animals.

zoophyte. **zoófito.** A group of invertebrate animals resembling plants, such as sea anemones, corals, sponge, and others.

zoosporangial. **zoosporangial.** Of or pertaining to zoosporangium.

zoosporangium. **zoosporangio.** A sporangium or container that produces zoospore, releasing them through and opening at the apex of the zoosporangium.

zoospore. **zoospora.** An asexual spore with independent motion, that occurs in non-motile organisms, as certain fungi and algae.

zoosporic. **zoosporico.** Pertaining to or resembling a zoospore.

Z-scheme. **Z-esquema.** A diagram representing electron flow through

Photosystem II and Photosystem I

zwitterion. **zwitterion.** An ion with both a negative and positive charge (dipolar).

zygo-. **cigo-.** A Greek prefix that means, "joined" or "married".

zygomorphic. **cigomorfo. zigomorfa. zigomórfica.** A flower or another part that is bilaterally symmetrical on one plane; can be divided equally into two identical halves (mirror image) by one line being drawn through the middle, as a snapdragon (**Scrophulariaceae**) or an orchid (**Orchidaceae**); irregular.

zygomorphism. **cigomorfismo.** Being in a zygomorphic condition.

zygomorphy. **cigomorfiismo.** *See* zygomorphic.

zygonema. **cigónema.** Zygotene.

zygophase. **cigófase.** The diploid phase in a life history.

zygophore. **cigóforo.** A mycelial branch bearing a gametangium.

zygophyte. **cigófito.** A plant that reproduces by the means of zygo-spores.

zygosis. **cigosis. zigosis.** The union of cells or gametes.

zygosporangium. **cigósporangio. zigó-sporangio.** A sporangium producing zygosporangia.

zygospore. **cigospora. zigóspora.** A spore formed by the union of two similar gametes; a zygote with a thick, protective wall.

zygosporophore. **cigosporóforo.** The suspensor of the **Zygomycetes**.

zygote. **cigoto. zigoto.** The cell produced by the union of two gametes; also, a fertilized ovum before further differentiation.

zygotene. **cigóteno. zigóteno.** The

substage of the prophase of meiosis I when homologous chromosomes become paired. The five stages of prophase are: leptotene, zygotene, the pachytene, the diplotene, and diakinesis. *See* synaptene.

zygotic. **cigótico. zigótico.** Of, pertaining to, or resembling a zygote.

zygotic meiosis. **meiosis cigótico.** A meiosis occurring at the first two divisions of the nucleus resulting from gametic union.

zygotic number. **número cigótico.** The diploid chromosome number.

zygozoospore. **cigózoospora.** A motile zygospor.

zygotropism. **cigótropismo.** The curvature of the gametophore of one strain of a fungus towards one of an opposite strain.

zymase. **cimasa. zimasa.** An intracellular enzyme group in yeast, that in the absence of oxygen, changes sugar into lactic acid or alcohol and carbon dioxide.

zyme. **zima.** A substance causing fermentation; ferment.

zymogen. **cimógeno. enzima precursor.** A bacteria with the capacity of

being an enzyme; also, a non-catalytic substance formed by plants and animals as a stage in the development of an enzyme. It is converted into an enzyme and a protein by the action of a kinase.

zymogenic. **cimógeno.** Of or pertaining to zymogen.

zymogenous. **cimógeno.** *See* zymogenic.

zymogenus. **cimogénero.** Producing enzymes.

zymohexose. **cimóhexosa.** The enzyme which catalyses the splitting of hexose diphosphate to triose phosphate.

zymology. **cimología.** The study of fermentation.

zymolysis. **cimolisis.** The fermentative actions of enzymes on sugars.

zymophyte. **cimófito.** A bacterium that causes fermentation.

zymotic. **cimótico.** Pertaining to or caused by fermentation.

zwitter ion. **ion de zwitter.** An ion with two active charges such as when the two active groups of an amphoteric substance are ionized together.

SPANISH to ENGLISH INDEX

A

- A.** A.
AB. AB.
a- a-
ab- ab-
abastonado faríngeo. pharyngeal rod.
abaxial. abaxial.
abayado. baccate.
aberración. aberration.
aberrante. aberrant.
abeto. fir.
abigarrado. tessellated. variegated.
abimencial. abhymenial.
abiótica. abiotic.
abolladura. dent.
abombado. puffball.
abonar. compost.
abono de cobertura. top dressing.
abono orgánico. compost.
abono vegetal. compost.
abono. fertilizer.
aboospora. aboospore.
aborigen. aboriginal.
abortado. abortion.
abortar. abort.
abortivo. abortive.
aborto. abortion.
abotonar. bud.
abortus. abortus.
abrazado. clasped. embracing.
abrazador. embracing.
abreviado. abbreviated.
abrise. bloom.
abrojo. burr.
abruptamente. abruptly.
abrupto. abrupt.
abscisina. abscisin.
abscisión. abscission.
abscisión de las hojas. leaf abscis-
 sion.
abscisión estrato. abscission layer.
absorción. absorption.
absorción pasivo. passive absorp-
 tion.
absorción selectivo. selective absorp-
 tion.
absorber. absorb.
abstricción. abstriction.
abstrictar. abstrict.
abullonado. puffball.
abultado. turgent.
abyección. abjection.
abyunción. abjunction.
acamado. lodge.
acanalado. canaliculate. channelled.
acanalado. furrowed. canaliculate.
 channelled.
acanaliculación. canaliculation.
acanta. acantha.
acanto- acantho-
acantocarpo. acanthocarpous.
acantocárpico. acanthocarpous.
acantoclado. acanthocladous.
acantofisis. acanthophysis.
acantoide. acanthoid.
acarodomatío. acarodamtium.
acarofilia. acarophily
acarpelado. acarpous.
acarpelo. acarpelous.
acárpico. acarpous.
acarpo. acarpous.
acaudeo. acaudate. anurous.
acaule. acaulous. stemless. acauline.
acaulescencia. acaulescence.
acaulescente. acaulescent. acaulous.
acaulis. acaulis.
aceptador de carbono dióxido. car-

bon dioxide acceptor.
accesorio. accessory.
accomicetes. sac fungi.
acéfalo. acephalous.
aceite volátil. volatile oil.
aceites esencial. essential oils.
acelerado. accelerator.
acelular. acellular.
-áceo. -aceous.
acéntrico. accentric.
aceptor de hidrógeno. hydrogen acceptor.
acerato. acerate.
aceroso. acerose.
acervado. acervate.
acervo génico. gene pool.
acérvulo. acervulus.
acetabulado. acetabuliform.
acetabuliforme. acetabuliform.
acetabulado.
acetaldehído. acetaldehyde.
acetilación. acetylation.
achile. achilous.
aciclico. acyclic.
aciclo. aciclum.
acícula. acicula.
aciculado. aciculate.
acicular. acicular. needle-like.
aciculifolio. needle-leaved.
aciculiforme. aciculiform.
acidez. acidity.
ácido. acid.
ácido abscisico. abscisic acid.
ácido adenílico (AMP). adenylic acid (AMP).
ácido alginico. alginic acid.
ácido aminado. amino acid.
ácido aminoglutérico. glutamic acid.
ácido ascórbico. ascorbic acid.
ácido butirico. butyric acid.
ácido cafeico. caffeic acid.
ácido cetoglutárico. ketoglutaric acid.
ácido desoxirribonucleico (ADN). deoxyribonucleic acid (DNA).
acido espiculisporico. spiculisporic

acid.
ácido fitico. phytic acid.
ácido fórmico. formic acid.
ácido fosfatídico. phosphatidic acid.
ácido fosfoenolpirúvico. phosphoenolpyruvic acid.
ácido fosfoglicérico (AFG). phosphoglyceric acid (PGA).
ácido fosfórico. phosphoric acid.
ácido fosfoglicérico. phosphoglyceric acid.
ácido fúlvico. fulvic acid.
ácido fumárico. fumaric acid.
ácido galacturónico. galacturonic acid.
ácido giberélico. gibberellic acid.
ácido glicérico. glyceric acid.
ácido glutámico. glutamic acid.
ácido graso. fatty acids.
ácido hexurónico. hexuronic acid.
ácido himatomelanico. hymatomelanin acid.
ácido húmico. humic acid.
ácido imino. imino acid.
ácido indol(il)acético (AIA). indoleacetic acid (IAA).
ácido indolbutírico (AIB). indolebutyric acid (IBA).
ácido isocítrico. isocitric acid.
ácido láctico. lactic acid.
ácido lipónico. lipoic acid.
ácido liquénico. lichenic acid.
ácido luteico. luteic acid.
ácido málico. malic acid.
ácido minioluteico. minioluteic acid.
ácido murámico. muramic acid.
ácido nicotínico. nicotinic acid.
ácido nitroso. nitrous acid.
ácido nucleico. nucleic acid.
ácido octanóico. octanoic acid.
ácido oleico. oleic acid.
ácido orgánico. organic acid.
ácido oxalacético. oxaloacetic acid.
ácido oxálico. oxalic acid.
ácido palmítico. palmitic acid.

ácido pantoténico. pantothenic acid.

ácido par(a)aminobenzoico. Para-aminobenzoic (PABA).

ácido parafínico. paraffinic acid.

ácido penicilínico. penicillic acid.

ácido pimélico. pimelic acid.

ácido pirúvico. pyruvic acid.

ácido ribonucléico (ARN). ribonucleic acid (RNA).

ácido salicílico. salicylic acid.

ácido siquímico. shikimic acid.

ácido stipatático. stipatatic acid.

ácido succínico. succinic acid.

ácido tánic. tannic acid.

ácido tartárico. tartaric acid.

ácido terestrico. terrestric acid.

ácido uridílico. uridylic acid.

ácido usnico. usnic acid.

acidófilo. acidophilous. acidophile.

acies. acies.

aciforme. aciform.

acigoto. azogote.

acináceo. acinaceous.

acinaciforme. acinaciform.

acinete. akinete.

aciniforme. aciniform.

ácino. acinus.

acinosa. acinous.

aclamídeo. achlamydeous.

aclara. thin out.

aclarador. clearing agent.

aclarante. clearing agent.

aclimación. acclimation.

aclimatación. acclimatization. hardening.

aclimatar. acclimate. acclimatize. harden-off.

aclimatar. harden off.

acodadura. layering.

acodo aéreo. air layering.

acodo oclusiva. closing layer.

acolchar. mulch.

acomodación. accommodation.

aconitrasa. aconitrase.

acopado. cupulate.

acoplamiento. attachment.

acoplamiento fusus. spindle attachment.

acorazonado. cordate. heart-shaped.

acostillado. fluted. ribbed

acotiledón. acotyledon.

acotiledóno. acotyledonous.

acramfibria. acramphibrya.

acrandro. acrandrous.

acre. acid.

acrescente. accrescent.

acrete. accrete.

acro-, **acro-**.

acroblasto. acroblast.

acrocárpico. acrocarpous.

acrocéntrico. acrocentric.

acródroma (nervadura). acrodromous (veins).

acrodroma. acrodrome.

acrofitio. acrophytium.

acrógeno. acrogenic. acogenous

acrógeno. acrogen. acrogenous.

acroginia. acrogyny

acromático. achromatic.

acronicio. acronychius.

acropetal. acropetal.

acropleurogeno. acropleurogenous.

acrosarco. acrosarcun.

acroscóptico. acroscopic.

acróscopo. acroscopic.

acrosoma. acrosome.

acrospira. acrospire.

acróspora. acrospore.

acrósporo. acrosporous.

acrotonico. acrotonic.

actino-, **actino-**.

actinocítico. actinocytic.

actinodroma. actinodromous.

actinomiceto. actinomycete.

actinomorfía. actinomorphy.

actinomorfo. actinomorphic.

actinorizo. actinorrhiza.

actinostela. actinostele.

actio. actium.

activación de energia. energy of

activation.
activador. activator.
actófilo. actophilous.
acuado. acuate.
acuático. aquatic.
acuifero. aquifer.
acuifero limitado. confined aquifer.
acuifero unlimitado. unconfined aquifer.
aculeado. acanaceous. aculeate.
aculeate. acanaceous. aculeate.
aculeo. aculeus.
aculeolado. aculeolate.
acumbente. accumbent.
acuminado. acuminate.
acumulador. accumulator.
acutangular. acutangular.
acutifolio. acutifolius.
acutifoliado. acutifolius.
ad. ad.
adaptable. adaptable.
adaptación fenotípico. phenotypic adaptation.
adaptación. adaptation.
adaptación biótica. biotic adaptation.
adaptación cromático. chromatic adaptation.
adaptación cromático complementario. complementary chromatic adaptation.
adaptación directa. direct adaptation.
adaptación fenotípico. phenotypic adaptation.
adaptación general. general adaptation.
adaptación genética. genetic adaptation.
adaptarse. adapt.
adaptivo. adaptive.
adaxial. adaxial.
accrustación. adcrustation.
adelfia. adelphia.
adelfo. adelphous.

adelfogamia. adelphogamy.
aden-. aden-.
adeniforme. adeniform.
adenina. adenine.
adenófilo. adenophyllous.
adenoide. adenoid.
adenóforo. adenophore.
adenosina. adenosine.
adenosina difosfato (ADP). adenosine diphosphate (ADP).
adenosina monofosfato. adenosine monophosphate.
adenosina trifosfato (ATP). adenosine triphosphate (ATP).
adenosintrifosfato ATP. adenosine triphosphate (ATP).
adenoso. adenous.
adermina. adermin.
adesmia. adesmy.
adherencia. adhesion.
adherente. adherent.
adhesión. adhesion.
adiabático. adiabatic.
ádico glutámico. glutamic acid.
ádido fumárico. fumaric acid.
adinamandria. adynamandry.
ADN. DNA.
adnación. adnation.
adnascens. adnascens.
adnato. adnate. annexed.
adnexal. adnexal.
ADP. ADP.
adpreso. appressed. adpressed.
adscendente. ascendent.
adsorción. adsorption.
adsperso. adspersed.
adsurgente. adsurgent.
adulto. adult.
adulto (arbol, planta). mature (tree, plant).
aduncado. aduncate.
advenedizo. adventive.
adventicia. adventitia.
adventicio. adventitious.
adverso. adverse.

aacidiosoro. aacidiosorus.
aenius. aenius. l
aequi- aequi-
aequihimenifero. aequi-hymeniferous.
aequilátero. aequilateral.
aeración. aeration.
aérea. air.
aerencima. aerenchyma.
aéreo. aerial.
aereolae. aereolae.
aerifera. stomatal.
aéro. aerial.
aerobic. aerobic.
aerobio. aerobe.
aerobiología. aerobiology.
aerobiosis. aerobiosis.
aerófito. aerophyte.
aerogénico. aerogenic.
aeropalinología. aeropalynology.
aerotactico. aerotactic.
aerotaxis. aerotaxis.
aerotolerante. aerotolerant.
aerotropismo. aerotropism.
aerugino. aeruginous.
aestivacion ascendente. ascending aestivation.
aestomatoso. astomatous.
aetalio. aethallium.
afanisis. aphanisis.
afaptotropismo. aphaptotropism
afeliotropico. apheliotropic. apho-
tropic.
afelpado. pannose. felted.
AFG. PGA. Phosphoroglyceric acid.
áfilo. aphyllous. leafless.
afilópodo. aphyllopodic.
afinidad. affinity.
afinidad diferencial. differential
affinity.
afinidad terminal. terminal affin-
ity.
aflatoxina. aflatoxin.
aflebia. aphlebia.
aflechado. sagittiform.
afoliado. aphyllous. leafless.

aforestación. afforestation.
afótico. aphotic.
afotométrico. aphotometric.
afototactico. aphototactic.
afototropico. aphototropic.
agalla. gall.
agamandroecio. agamandroecious.
agámeta. agamete.
agámeto. agamete.
agámico. agamic.
ágamo. agamous.
agamogénesis. agamogenesis.
agamogenético. agamogenetic.
agamoginoecio. agamogynoecious.
agamohermafroditá. agamoherm-
aphrodite.
agamospecie. agamospecies.
agamospermia. agamospermy.
agamospora. agamospore.
agamotrópica. agamotropic.
agar (-agar). agar (-agar).
agáric. agaric.
agaricaceo. agaricaceous.
agaricole. agaricolous.
agente. agent.
agente aclarante. clearing agent.
agente activador. activator.
agente de polución. pollutant.
agente inductivo. inducer.
agente polinizador. pollinator.
agente reductor. reducing agent.
agglomerado. agglomerate.
agino. agynous.
aglomerado. conglomerate.
aglutinado. agglutinate.
agrado. agrad.
agrandado. enlarged.
agrandar. enlarge.
agregación. aggregation.
agregado. agglomerate. aggregate.
crowded.
agregado. clustered. crowded.
agglomerate.
agrestal. agrestal.
agrestis. agrestis.

agrobiología. agrobiology.
agroclimatología. agroclimatology.
agronomía. agronomy.
agrostología. agrostology.
agrupación de plantas. assemblage of plants.
agrupado. clustered. crowded.
agua. water.
agua asimilable. available water.
agua de capilar. capillary water.
agua de cepilaridad. capillary water.
agua disponible. available water.
agua de gravitación. gravitational water.
agua de mar. seawater.
agua del subsuelo. ground water.
agua de vesícula. water vesicle.
agua disponible. available water.
agua dulce. freshwater.
agua freática. ground water.
agua gravitacional. gravitational water.
aguarrás. turpentine.
agua del suelo. soil water.
agua salada. saltwater.
agua subterránea. ground water.
agua unasimilable. unavailable water.
agua undisponible. unavailable water.
agudo. acute.
aguijón. prickly.
aguijonado. echinate. prickly.
aguijonoso. prickly.
aguijónulado. echinulate.
aguja. needle.
aguja. spire.
ahijamiento. tillering.
ahilamiento. etiolation. leggy.
ahorquillado. furcate.
AIA. IAA.
AIB. IBA.
aifitia. aiphytium.
aire. air.
airear. aerate.
aislamiento. isolation.

aislamiento ecológico. ecological isolation.
aislamiento estacional. seasonal isolation.
aislamiento geográfico. geographic isolation.
aislamiento reproductivo. reproductive isolation.
aitionástico. aitionastic.
aitogénico. aitiogenic.
ajado. wilted.
ajedrezado. tessellated.
akineto. akinete.
ala. ala. wing.
alabastra. alabastrum.
alado. alate. winged.
alagostémono. allagostemonous.
alambrino. wiry.
alanina. alanine.
alantoid. alantoide.
alar. alar.
alargado. elongate.
alas. alae.
alatus. alate.
albescente. albescent.
albidus. albidus.
albinismo. albinism.
albino. albino.
albumen. albumen.
albúmina. albumin.
albuminoides. albuminoids.
albuminoso. albuminous. endospermous.
albura. alburnum. sapwood.
albus. albus.
alcaloide. alkaloid.
alcohol. alcohol.
alcohol etílico. ethyl alcohol.
alcohol metilo. methyl alcohol.
aldehído. aldehyde.
aldehído acético. acetaldehyde.
aldehído fórmico. formaldehyde.
aldohexosa. aldohexose.
aldol. aldol.
aldopentosa. aldopentose.

aldotriosa. aldotriose.
aldosa. aldose.
aldotetrosa. aldotetrose.
alélismo. allelism.
alelo. allele.
alelomorfo. allelomorph.
alelomorfo múltiple. multiple allelomorph.
alelopatía. allelopathy.
alelos múltiples. multiple alleles.
alepidota. alepidote.
alergeno. allergen.
alergia. allergy.
alesnado. awl-shaped. subulate.
aleurispóra. aleuriospore.
aleurona. aleurone.
aleurónica. aleurone layer.
alfabeto genética. genetic alphabet.
alfa-cetoglutarado oxidasa. alpha-ketoglutarate oxidase.
alfombra de polución. pollution carpet.
alga. algae.
alga amarillo-verde. yellow-green algae.
alga rojo. red alga.
algae. algae.
alga marina. seaweed.
algin. algin.
alga rojo. red alga.
alga verde. green algae.
algas verdeazules. blue-green algae.
algícolo. algicolous.
algin. algin.
algología. algology.
aliaceo. alliaceous.
alianza. alliance.
aliforme. aliform. wing-shaped.
alela silencioso. silent allele.
almacenar (nutriente). store (nutrients).
almidón. starch.
almidón creciente. starch crescent.
almidón de transitorio. transitory starch.

almidón estroma. stroma starch.
almidón floridean. floridean starch.
almidón temporario. temporary starch.
almohadón. cushion.
alocarpia. allocarpy.
alocro. allochrous.
aloctono. exotic.
alofanoides. allophanoids.
alogamia. allogamy.
alógamo. allogamous. xenogamous.
alógeno. allogene. recessive allele.
alometría. allometry.
alopatria. allopatry.
alopátrico. allopatric.
alopoliploide. allopolyploid.
alosindesis. allosyndesis.
alosoma. allosome.
alotetraploide. allotetraploid.
alotípico. allotypic
alotipo. allotype.
alotransplantar. allograft.
alpino. alpine.
alsade. alsad.
alsio. alsium
alta. high.
alteración estructural. structural change.
alternación de generación. alternation of generations.
alterno. alternate.
altitud. altitude.
alto. high.
altura. height.
alucinógeno. hallucinogen.
alveolado. alveolate.
alvéolo. alveolus (*pl.* alveoli)
amacollado. tillering.
amarilleamiento. yellowing.
amarillento. yellowish. xanthic.
amarillez. yellowing.
amarillo pálido. flavidulous.
ámbar. amber.
ambi-. ambi-
ambiental. environmental.
ambiente. ambient.

ambigua. ambiguous.
ambiguo. ambiguous.
ambilinearidad. ambilinearity.
ameboide. am(o)eoid.
ameiosis. ameiosis.
amenazado de extinción (especie). threatened with extinction (species).
amensalismo. amensalism.
amentáceo. amentaceous. catkinate.
amentífero. amentiferous.
amentifloras. amentaceous.
amentiforme. amentiform. catkinate.
amento. ament. catkin. amentum.
amerístico. ameristic.
amerospora. amerospore.
amfibiótico. amphibiotic.
amfitrófico. amphitrophic.
amida. amide.
amigdaliforme. amygdaliform.
amigdoloide. amygdoloid.
amilaceo. amylaceous.
amilasa. amylase.
amiloide. amyloid.
amilopectina. amylopectin.
amiloplasto. amyloplast.
amillosa. amylose.
amilostatolito. amylostatholith.
amina. amine.
aminillae anillado. annulate lamellae.
aminoácido. amino acid.
aminoácido de alfa. alpha amino acid.
aminación reductivo. reductive amination.
aminoazúcar. amino sugar.
amitosis. amitosis.
amitótico. amitotic.
amófilo. ammophilous.
amoniaco. ammonia.
amonificación. ammonification.
amonio. ammonium.
amorf. amorph.
amorfo. amorphous.
AMP. AMP.
amplectante. amplexant.

amplectivo. amplexive.
amplexicaule. amplexicaul. clasping.
amplexo. amplexus.
ampliado. ampliate.
amplitud ecológico. ecological amplitude.
ampoloso. blistered.
ámpula. ampulla.
ampuláceo. ampullaceous.
ampuliforme. ampulliform.
anabionte. anabiont.
anabólico. anabolic.
anabolismo. anabolism.
anacinéctica. anakinetic.
anacinéctomera. anakinetomere.
anádromo. anadromous.
anaerobio. anaerobe. anaerobic.
anaerobio facultativo. facultative anaerobes.
anaerobio obligado. obligate anaerobe.
anaerobiosis. anaerobiosis.
anaerofito. anaerophyte.
anáfase. anaphase.
anafisis. anaphysis.
anagénesis. anagenesis.
análisis de nodal. nodal analysis.
análisis de tétrada. tetrad analysis.
análisis estadísticos. statistical analysis.
análisis gradiente. gradient analysis.
análisis inverso. inverse analysis.
análisis normal. normal analysis.
análisis secuencial. sequential analysis.
análogo. analogous.
análogo variación. analogous variation.
análogo. analog(ue).
análogo de base. base analog. basal analog.
anamorfosis. anamorphosis.
anandro. anandrous.
anantero. astemonous.
ananto. ananthous.
anaranjado (color). orangish (color).

anascístico. anascistic.
anastomosado. anastomosing.
anastomosar. anastomose.
anastomosis. anastomosis.
anastomosis vascular. vascular anastomosis.
anatomía de Kranz. Kranz cycle.
 Kranz anatomy.
anatomía fisiológica. physiological anatomy.
anatomía vegetal. plant anatomy.
anátropo. anatropous.
ancad. ancad.
anceps. anceps.
ancipital. ancipital.
ancipito. ancipitous.
ancistriode. ancistroid.
ancistroso. barbellate.
andro-, andro-,
androceo. androecium.
androcito. androcyte.
androdinamo. androdynamous.
androceo. androecium (pl. androecial).
androdiocio. androdioecious.
androecio. androecious.
andróforo. androphore.
andrógeno. androgyne. androgenous.
androgénesis. androgenesis.
andróginia. androgyny.
andrógino. androgynous.
androgínóforo. androgynophore.
andromonoico. andromonoecious.
andropetalario. andropetalous.
andróspora. androspore.
androsporangio. androsporangium.
andrótomo. androtomous.
anegado. waterlogged.
anemo-, anemo-,
anemocoria. anemochory. wind dispersal. anemochorous.
anemocoro. anemochoric.
anemoe. anemosis.
anemofilia. anemophily. wind pollination.
anemófilo. anemophile. anemophilous.

anemogamia. wind pollination.
anemotropismo. anemotropism.
aneuploide. aneuploid.
aneuploidia. aneuploidy.
aneurina. aneurine.
anexo. annexed. adnate.
anfi-, amphi-,
anfiáster. amphiasster.
anfibio. amphibian. amphibious.
anfibiótico. amphibiotic.
anficario. amphikaryon.
anficárpia. amphicarp.
anficárpico. amphicarpic. amphicarpous.
anfídiploide. amphidiploid.
anfilóle. amphiphlole.
anfigastr(i)os. amphigastria.
anfigeno. amphigenous.
anfiges. amphigean.
anfigino. amphigynous.
anfilepsis. amphilepsis.
anfimixis. amphimixis.
anfiploide. amphiploid.
anfíspora. amphispore.
anfitecio. amphithecium.
anfitrico. amphitrichous.
anfitrófico. amphitrophic.
anfiteno. amphitene.
anfitropo. amphitropous.
anfora. amphora.
anfolito. ampholyte.
anfractuosus. anfractuosus.
angiocarpia. angiocarpy.
angiocarpo. angiocarp. angiocarpous.
angiosperma. angiosperm.
angostada. narrowed.
angosto. angustate. narrow.
anguilluliforme. anguilluliform.
angulado. angulate.
angular. angular.
ángulo. angle.
anguloso. angular.
angusti-, angust-,
angustifolio. angustifoliate. leptophyllos.

- angusto.** angustate.
anhidrasa carbónica. carbonic anhydrase.
anhídrido. anhydride.
anilla. nipple.
anillado. ringed.
anillo. annulus.
anillo (anual). ring (annual).
anillo anual. tree ring. annual ring.
anillo anual falso. false annual ring.
anillo anual indicador de arbol. tree ring index.
anillo de arbol. tree ring.
anillo de crecimiento. growth ring.
anillo de hada. fairy ring.
anillo-poroso. ring-porous.
anillo químico. ring (chemcial).
anillo tetrapirole. tetrapyrrole ring.
anion. anion.
anión. anion.
aniso- aniso-.
ansiocarpico. anisocarpic.
anisocítico. anisocytic.
anisocótilo. anisocotylous.
anisofilia. anisophylly.
anisofilo. anisophyllous.
anisogameto. anisogamete.
anisogamia. anisogamy.
anisogenie. anisogeny.
anisogamo. anisogamous.
anisogenomático. anisogenomatic.
anisomeria. anisomery.
anisomero. anisomerous.
ansometrico. anisometric.
anisopétalo. anisopetalous.
anisoplanogametos. aniso-planogametes.
anisosépalo. anisosepalous.
anisostémono. anisostemonous.
anisotropia. anisotropy.
anisotropico. anisotropic.
antsépalo. oppositifolious.
anual. annual.
ánodo. anode.
anomalía. anomaly.
anomocítico. anomocytic.
anormal. abnomal. atypical.
anotinal. annotinal. yearly.
anotino. annotinous.
annotinus. annotinus.
anotomia. anatomy.
ansiocarpico. anisocarpic.
ansometrico. anisometric.
antagonismo. antagonism.
antagonismo de iones. ionic antagonisms.
antagonismo iónico. ionic antagonism.
ante-, ante-.
antela. anthela.
antepétalo. antepetalous.
antera. anther.
antherid(i)óforo. antherid(i)ophore.
antherido. antheridium.
antheridio. antherid(ium).
anterifero. antheriferous.
anteriforme. antheriform.
anterior. anterior.
anterocito. antherocyte.
anteroide. anteroide.
anterozoide. antherozoid.
anterozoide. sperm.
antesépalo. antesepalous.
antesis. anthesis.
antheridio. antheridium.
anti-, anti-.
antibiosis. antibiosis.
antibiótico. antibiotic.
anticlinal. anticlinal.
antico. anticous.
anticodón. anticodon.
anticuerpo. antibody.
antidromia. antidromy.
antienzima. antienzyme.
antífite. antiphyte.
antifolio. oppositifolious.
antigeno. antigen.
antimorf. antimorph.
antiparalela. antiparallel.
antipétalo. antepetalous. antipetalous.

antipétalo. oppositipetalous.
antisépalo. antisepalous.
antitético. antithetic.
antitropico. antitropic.
antitropo. antitropous.
antitrorso. antrorse.
anto-. antho-.
antocarpó. anthocarp.
antocia(ni)na. anthocyan(in).
antocianina. anthocyanin.
antociano. anthocyan(in).
antóforo. anthophore. anthophorous.
antoide. anthoid.
antoleucina. antholeucin(e).
antolisis. antholysis.
antolita. antholite.
antotaxia. anthotaxy.
antoxantina. anthoxanthin(e).
antracina. anthraciny.
antracnosa. anthracnose.
antropo-. anthropo-.
antropocoria. anthropochory.
antropófite. anthropophyte.
antrorso. antrorse.
anual. yearly. annual.
annual estival. summer annual.
anual invernál. winter annual.
anualmente. yearly.
añublo. blight. smuts.
anular. annular. annulate. ring-like.
anuro. anurous.
apandro. apandrous.
aparato de Golgi. Golgi apparatus.
aparato de ovular. egg apparatus.
aparato de neuromotor. neuromotor apparatus.
apareamiento al azar. random mating.
apareamiento de cromasomas. pairing of chromosomes.
apareamiento de semejanza. assortative breeding.
apareamiento de bases. base pairing.
apareamiento torsión. torsion pairing.

apéndice. appendage. appendix.
apéndice bifurcado. biramous appendage.
apéndiculado. appendicled.
apendiculado. appendiculate.
apergaminado. parchmentaceous.
apertura (flora). opening (flowers).
apertura opiothial. opiothial aperture.
apétalia. apetalý
apétalo. apetalous.
apical. apical.
ápice. acumen. apex. tip.
ápice de la raíz. root cap. root tip.
ápice del las ramas. stem apex.
ápice del vástago. stem apex.
ápice foliar. leaf tip.
ápice punzante. pungent tip.
ápice radical. root tip.
apiculado. apiculate.
apículo. apiculus.
apileado. apileate.
aplanado. applanate. planate.
aplandado. flat.
aplaneismo. aplanetism.
aplanogámeta. aplanogamete.
aplanógameto. aplanogamete.
aplanospora. aplanospora.
aplestrino. alpestrine. subalpine.
aplicada. applied.
alpestris. alpestris.
apo-. apo-.
apobasidio. apobasidium.
apocarpia. apocarpy.
apocárpico. apocarpous.
apocarpó. apocarp.
apócito. apocyte.
apoenzima. apoenzyme.
apófisis. apophysis.
apogametia. apogamety.
apogamia. apogamy.
apogamia diploide. diploid apogamy.
apogamia generativo. generative apogamy.
apogamia reducido. reduced apogamy.

apogamia somática. somatic apogamy.

apogámico. apogamic.

apogenia. apogeny. sterility.

apogeotrópico. apogeotropic.

apogeotropismo. apogeotropism.

apomict. apomict.

apomítico. apomictic.

apomixis. apomixis.

apomorf. apomorph.

apopétalo. apopetalous.

apoplastico. apoplastic.

apoplasto. apoplast.

aporcar. raise.

aporogamia. aporogamy.

aposépalo. aposepalous.

aposición. apposition.

apospória. apospory.

apospórico. aposporic.

apostase. apostasis.

apostómono. apostemonous.

apóstrofe. apostrophe.

apotecio. apothecium.

apotropo. apotropous.

apresorio. appressorium.

apricus. apricus.

aproximado. approximate.

áptero. apterous.

aqeneceto. achenecetum.

aquénico. achenial.

aquenio. achene. akenium.

aquenio esquizocarpico. schizocarpic
achene.

aquenodio. achenium.

aquillado. keeled.

arabino. arabinose.

aracnoide. arachnoid.

ARA-mensajero. messenger RNA
(mRNA).

ARN soluble. soluble RNA (s-RNA).

araneo. araneose.

árbol. tree.

árbol frondoso. broad-leaved for-
est (hardwood). broad-leaved tree.

árbol joven. sapling.

arbolado. forested. wooded.

arbóreo. arboreal.

arborescente. arborescent. tree-like.

arboreto. arboretum.

aborto necrogenico. necrogenic
abortion.

arbusclar. arbusclar.

arbuscule. arbuscule.

arbustivo. shrubby.

arbutsto. shrub.

arcilla. clay.

arcilloso. clayey.

ardela. ardella.

área cribosa. sieve area. sieve field.

área de distribución extendido. wide
distribution.

área de distribución. distribution
area.

área minima. minimal area.

área reliquia. refuge.

área vital. life zone.

arecto. arrect.

arena. sand.

arenaceo. arenaceous.

arenícola. arenicolous. psammo-
philous. sand-dwelling.

arenoso. arenose.

aréola. areole.

areolación. areolation.

areolado. areolar. areolate.

arerramiento. warping (of land).

arescente. arescent.

argénteo. argenteous. silvery.

argénteo. silvery.

argilícola. argillicolous.

argilófilo. argillophilous.

argiloso. argilose.

arginina. arginine.

argos. argos.

argófilo. argophyllous.

argutus. argutus.

aridez. aridity.

árido. arid.

arilado. arillate.

ariliforme. arilliform.

arilo. aril(lus).

arilodio. arillode.
arista. arista(pl. aristae). awn.
aristado. aristate. awned.
aristulado. aristulate.
arizoma. arhizous.
armado. armed.
armado de púas. hamulate.
armadura. armature. armor.
armilado. armillate.
ARN. RNA.
ARN de transferencia (ARNt). transfer ribonucleic acid (tRNA).
ARN de transferencia. transfer-RNA.
ARN m. m-RNA.
ARN ribosómico. ribosomal RNA(rRNA).
ARN ribosómico. rRNA.
ARN soluble. soluble RNA (s-RNA).
ARNt. tRNA.
aroma. aroma. scent.
aromático. aromatic. suaveolent.
arqueado. arching. arcuate. bowed.
arquegonióforo. archegoniophore.
arquegonio. archegonia. archegonium.
arqueobacterial. archaebacteria.
arquesporio. archesporium.
arquesporo. archespore.
arquicarpo. archicarp.
arquigonióforo. archigoniophore.
arquiliquens. archilichens.
arquimicetes. archimycetes.
arquiplasma. archiplasm.
arquoplasm. archoplasm.
arraigado. radicate. rooted.
arrecife de coral. coral reef.
arrecife de coralino. coral reef.
arreglar. arrange.
arrenconcarion. arrhenokaryon.
arrenonúcleo. arrhenokaryon.
arriba. face.
arrizo. arrhizal. rootless.
arrollamient recíproco. relational coiling.
arropar. mulch.
arrosetado. rosulate.

arroyo. stream.
arruga. corrugation. rootless. ruga. wrinkle.
arrugarse. shrivel (fruit).
arrugoso. rugose.
arrugulado. rugulate.
arruguloso. rugulose.
arruinar. blight.
articulación. articulation.
articulado. articulate. jointed.
artículo. article.
artro-. arthro-.
artrogeno. arthrogenous.
artróspora. arthrospore.
artrosterigma. arthrosterigma.
arundináceo. arundinaceous.
arvense. weedy.
arvensis. arvensis.
asca. ascus.
ascocarpo. ascocarpous.
ascend(i)ente. ascending. ascend-ent. assurgent.
ascendencia. descent.
asci. asci.
ascidiforme. ascidiform.
ascidio. ascidium. pitcher.
ascifo. ascyphous.
asciforme. asciiform.
ascigero. ascigerous.
asco. ascus.
ascocarpo. ascocarp. ascocarpous.
ascociación. association.
ascocnidio. ascoconidium.
ascocnidióforo. ascoconidiophore.
ascóforo. ascophore.
ascogenoico. ascogenous.
ascogonial. ascogonial.
ascogonio. ascogonium.
ascoliquen. ascolichen.
ascoma. ascoma.
ascomicetes. sac fungi.
ascomiceto. ascomycetous. sac fungi.
ascomicetos. ascomycete. sac fungi.
ascospora. ascospore.
ascostoma. ascostome.

ascostroma. ascostroma.

asépalo. asepalous.

aseptado. aseptate.

asexual. agamous. asexual. sexless.

asimetría molecular. molecular asymmetry.

asimétrico. asymmetric.

asimilación. assimilation.

asimilación del carbono. carbon assimilation.

asimilación de nitrógeno. nitrogen assimilation.

asimilación de nutrientes. nutrient absorption.

asimilar. assimilate.

asimilativo. assimilative.

asinapsis. asynapsis.

asociación. association.

asociación biótica. biotic association.

asociación secundario. secondary association.

asociación vegetal. plant association.

asocie. associates.

asparagina. asparagine.

asperado. asperate.

asperifoliado. asperifoliate.

aspergilliforme. aspergilliform.

aspermio. aspermous.

áspero. asperous. scabrous.

ásperso. harsh.

asperulado. asperulate.

asporógeno. asporogenous. asporous.

astelico. astelic.

áster. aster.

asterófisis. asterophysis.

asteroide. asteroid.

astico. astichous.

astilo. without a style.

astro-, astro-

astroesclereida. astroscleireid.

astrofólado. astropholate.

astroide. astroid.

astroesclereida. astroscleireid(e).

atactostela. atactostele.

atado de raíces. rootbound.

atavismo. atavism.

atelomitico. atelomitic.

atenuado. attenuate. tapering.

ater. ater.

aterciopelado. velvety.

aterramiento. warping (of land).

atípico. atypical.

atmósfera. atmosphere.

atmosférico. atmospheric.

atomado. atomate.

átomo. atom.

ATP. ATP.

ATPasa. ATPase.

atrapamoscas. fly trap.

atrato. atratous.

atributo. attribute.

atricolor. atricolor. inky.

atro-, atro-

atrofía. stunt. atrophy.

atrofiado. stunted.

atrofiar. atrophy.

átropo. atropous.

atropurpureus. atropurpureus.

atrovirens. atrovirens.

-atus. -atus.

atutófito. autophyte.

agua asimilable. available water.

aulófito. aulophyte.

alimentación primario. primary increase.

aumento. upgrowth.

aurantico. auranticous.

aureo. aureous.

aureus. aureus.

aurícula. auricle.

auriculado. auriculate.

ausente. absent. lacking. wanting.

australis. australis.

aut-, aut-

autapomorf. autapomorph.

autecio. autecious. autoecious.

autecologia. autecology.

auteforme. auteform.
auto-, auto-.
auto. self.
autoadaptación. self-adaptation.
autoalogamia. autoalogamy.
autobasidimiceto. autobasidiomycete.
autobasidio. autobasidium.
autocarp. autocarp.
autocatálisis. autocatalysis.
autocolor. self-colored.
autocompatibilidad. self-compatibility.
autóctono. autochthonous.
autodelicuescente. autodeliquescent.
autoecología. autecology.
autoestéril. self-sterile.
autófagia. autophagy.
autofecundación. self-fertilization.
 selfing.
autofertilidad. self-fertility.
autófito. autophyte.
autogamia. autogamy.
autógamo. autogamous.
autogéno. autogenic.
autoico. autoicous.
autoincompatibilidad. self-incompatibility.
autolisina. autolysin.
autolisis. autolysis.
automixis. automixis.
autonomismo. autonomism.
autoparásito. autoparasite.
autopolinización. self-replication.
 self-pollination.
autopoliploide. autopolyploid.
autopotamo. autopotamous.
autopropagación. self-progagation.
autoramificación. self-branching.
autoreplicación. self-replication.
autosíndesis. autosyndesis.

autosoma. autosome.
autospora. autospore.
autotetraploide. autotetraploid.
autótrofico. autotrophic.
autótrofo. autotroph.
autótrofo fotosintético. photosynthetic autotroph.
autotropismo. autotropism.
auxanómetro. auxanometer.
auxesis. auxesis.
auxina. auxin.
auxocito. auxocyte.
auxospirema. auxospireme.
auxospora. auxospore.
auxóspora. auxospore.
auxótrofo. auxotroph.
avascular. avascular, non-vascular.
avenius. avenius.
axenia. axeny.
axial. axial, axile.
axila de la hoja. leaf axil.
axila. axil, axilla.
axilar. axillary.
axillante. axillant.
axón embrionario. embryonic axis.
axonema. axoneme.
axonomorfa (raíz). tap root.
axospermo. axospermous.
ayustar. splice.
azar. random.
azigospora. azygospore.
azúcar. sugar.
azúcar aminado. amino sugar.
azúcar de fruto. fruit sugar.
azucar de madera. wood sugar.
azúcar furanoso. furanose sugar.
azúcar simple. simple sugar.
azufre. sulfur.
azuloso. bluish.
azureus. azureus.

B

- B.** B.
B¹. B¹.
babú. bamboo.
bacario. baccacetum.
bacca. bacca.
bacci-. bacci-.
baccífero. bacciferous.
bacciforme. bacciform.
baciliforme. bacilliform.
bacilo. bacillus (pl. bacilli).
bacteria. bacteria. bacterium.
bacteria esférico. spherical bacterium.
bacteria gramnegativo. gram-negative bacteria.
bacteria grampositivo. gram-positive bacteria.
bacteria termofilico. thermophilic bacteria.
bacteria termófilo. thermophilic bacteria.
bacterial. bacterial.
bacteria mesofilico. mesophilic bacteria.
bacteria nitrificante. nitrifier bacterium.
bacteriano. bacterial.
bacterias de azufre. sulfur bacteria.
bacterias de(s)nitrificantes. denitrifying bacteria.
bacterias nitrificantes. nitrifying bacteria.
bactericida. bactericidal.
bacterio. bacteria. bacterium.
bacterioclorina. bacteriochlorin.
bacterioclorofila. bacteriochlorophyll.
bacteriode. bacteriod.
bacteriófago. bacteriophage.
bacteriología. bacteriology.
bacterioncina. bacteriocin.
bacterióriza. bacteriohiza.
bacteriostasis. bacteriostasis.
bacteriostát. bacteriostat.
bacteriostático. bacteriostatic.
bacteroide. bacteroid.
baculiforme. baculiform.
badius. badius.
baeócita. baecocyte.
baja. low.
bajo. low. shallow.
bajo tierra. underground.
balance nitrogenado. nitrogen balance.
balanza de naturaleza. balance of nature.
barlovento. windward.
balsamífero. balsamiferous.
bálsamo. balsam.
ballistóspora. ballistospore.
balusta. balausta.
bambú. bamboo.
banco de semillas. seed bank.
banda de Caspary. Casparian strip.
banda de protección. shelterbelt.
banda de sporangiogénico. sporangio-genic band.
banda de vena. vein-band.
barba. beard.
barbado. barbate. bearded.
barbula. barbule.
barbelulado. barbellulate.
barbilla. barbel.
barlovento. windward.
barranca. ravine.
barrera contra el viento. windbreak.

barrera dispersión. dispersal barrier.

barrera físico. physical barrier.

barrilla. saltwort.

basal. basal.

basal libre placentación. free basal placentation.

base. base.

base foliar. leaf base.

base nitrogenada. nitrogen base. nitrogenous base.

basí-, basi-.

basicromatina. basichromatin.

básico. basic.

basidial. basidial.

basidio. basidium.

basidiocarp. basidiocarp.

basidio fasciculado. fasciculate basidium.

basidióforo. basidiophore.

basidiogenético. basidiogenetic.

basidioliquen. basidiolichene.

basidiomiceto. basidiomycetous.

basidiomicetes. basidiomycetes. club fungi.

basidiomiceto(e). basidiomycete.

basidóforo. basidiophore.

basidio. basidium (pl. basidia).

basidios. basidia.

basidiospora. basidiospore.

basidióspora. basidiospore. basidiosporous.

basifijo. basifixed.

basifugal. basifugal. acropetal.

basigámico. basigamic.

basilar. basilar.

basinervio. basinerved.

basípeto. basipetal.

basiscópico. basiscopic.

basitónico. basitonic.

basodiogenético. basidiogenetic.

basófilo. basophilous.

bast. bast.

basura. litter.

baumgrenza. baumgrenze.

baya. berry. pod.

baya esquizocarpico. schizocarpic berry.

baya falso. false berry.

bejin. puffball.

bejuco leñoso. woody vine.

bejuco. liane. vine.

bellota. acorn.

béntico. benthic.

bentos. benthos.

bentos nectónico. nectonic benthos.

bentos sésil. sessile benthos.

betacina(ni)na. betacyan(in).

bi-, bi-.

bialdo. dipterous.

bianual. biannual.

biarticulado. biarticulate.

biaxial. biaxial.

bibacca. bibacca.

bibulo. bibulous.

bicalcarado. bicalcarate.

bicapsular. bicapsular.

bicarpelar. bicarpellate.

bicelular. bicellular.

bicíclica. bicyclic.

biciliado. bicilate.

bicoloro. bicolor. bicolorous.

bicomuado. bicornulate.

bicóncavo. biconcave.

biconico. biconic.

biconjugar. biconjugate.

biconvexo. biconvex.

bicornuado. bicornuate.

bicostillado. bicostate.

bicrenado. bicrenate.

bicuminado. bicuminate.

bicúspide. bicuspid.

bidentado. bidentate.

biduo. biduous.

bienal. biennial.

bifacial. bifacial.

bifacialmente. bifacially

bifaro. bifarious.

bifenils policlorinado (BPCs).

polychlorinated biphenyls (PCBs).

bífero. biforous.
bífido. bifid.
bifistuloso. bifistular.
biflabelado. biflabellate.
biflagelado. biflagellate.
bifloro. biflorous.
bifolio. bifoliate.
bifoliolado. bifoliolate.
bifurcación. A fork.
bifurcada. forked.
bifurcado. bifurcate. forked.
bifurcarse. fork.
bigeminado. bigeminate.
bigenérico. bigeneric.
bigutulado. biguttulate.
bilabiado. bilabiate. two-lipped.
bilacinado. bilaciniate.
bilaminar. bilaminar.
bilateral. bilateral.
bilobado. bilobed.
bilobar. bilobed.
bilobular. two-lobed. bilocular.
bilocular. bilocular. two-celled. two-lobed.
bimaculado. bimaculate.
bimero. bimerous.
bimodal. bimodal.
binado. binate.
binomial. binomial.
binucleado. binucleate.
binucleólado. binucleolate.
bio-. bio-.
bioacumulación. bioaccumulation.
bioacústica. bioacoustics.
bioblasto. bioblast. chondriosome.
biocenoso. biocenose.
bioc(o)enosis. bioc(o)enosis.
biocoenosio. biocoenosium.
bioc(o)enótico. biocoenotic.
biocida. biocide.
bioclima. bioclimate.
bioclimatología. bioclimatology.
biocora. biochore.
biocroma. biochrome.
biodegradable. biodegradable.

biodinámica. biodynamics.
biodiversidad. biodiversity.
bioecología. bioecology.
bioeléctrico. bioelectric.
bioelectromagnético. bioelectromagnetics.
bioenergética. bioenergetic.
bioensayo. bioassay.
bioestadística. biostatistics.
bioética. bioethics.
biófago. biophilous. biogenous.
bioflavonoide. bioflavonoid.
biófilo. biophilous. biogenous.
bióforo. biophore
biogénesis. biogenesis.
biogénico. biogenic.
biógeno. biogen(e).
biogeno. biogenous.
biogeocenosis. biogeoc(o)enosis.
biogeografía. biogeography.
biogeografía isla. island biogeography.
biogeografía orgánica. biogeography.
biólisis. biolysis.
biología. biology.
biología agrícola. agribiology.
biología celular. cell biology.
biología cuantitativo. quantitative biology.
biología del desarrollo. developmental biology.
biología marina. marine biology.
biología molecular. molecular biology.
biológico. biological.
biólogo. biologist.
bioluminiscencia. bioluminescence.
bioma. biome.
bioma del desierto. desert biome.
biomasa. biomass.
biomecánica. biomechanics.
biometría. biometry.
biométrica. biometric.
bion. bion.

bionomico. bionomic.
bionte. biont.
bioplasma. bioplasm.
bioquímica. biochemistry.
bioquímico. biochemical
bioremediación. bioremediation.
biorritmo. biorhythm.
bioserie. bioseries.
biosfera. biosphere.
biosíntesis. biosynthesis.
biositemática. biosystematics.
biostadística. biometric.
biota. biota.
biotas isla. island biotas.
biotecnología. biotechnology
biótica. biotic.
biotina. biotin.
biotipo. biotype.
biótopo. biotope.
biotrof. biotroph.
biozona. biozone. life zone.
bipalmado. bipalmate.
biparo. biparous.
bipartición. bipartition.
bipartido. bipartite.
bipetalado. bipetalous.
bipétalo. bipetal.
bipinnado. bipinnate.
bipinnatifido. bipinnatifid.
bipolar. bipolar.
birefringencia. birefringence.
birramoso. biramous.
bisacado. bisaccate.
bisáceo. byssaceous.
biscutado. biscutate.
bisecto. bisected.
biseriado. biseriate.
biserrado. biserrate. double serrated.
bisetáceo. bisetous.
bisexual. bisexual.
bisulado. bisulcate.
bisulco polar. polar cleft.
bisimétrico. bisymmetric.
biternado. biternate.
bitunicado. bitunicate.

biunciado. biunciate.
bivalente. bivalent.
bivalvado. bivalve.
biverticilado. biverticillate.
biyugado. bijugate.
blanco-amarillento. ochroleucous.
blanquecino. whitish.
blastema. blastema.
blasteniospora. blasteniospore.
blasto-. blasto-.
blastocoro. blastochore.
blastogénesis. blastogenesis.
blastogeno. blastogenic.
blastomiceto. blastomycete.
blastoparenquimática. blastoparen-
 chymatous.
blastospora. blastospore.
blefaroplasto. blepharoplast.
blematogeno. blemmatogen.
bola espora. spore ball.
bolsa. pouch.
bolsa digestiva. digestive pouch.
bombicina. bombycine.
borde. edge. rim.
borde de camino. roadside.
borde dentado. serration.
bordeado. bordered. edged.
boreal. boreal.
borla. tassel.
boro. boron.
boscoso. woody.
bosque. forest. woodland.
bosque abierto. open forest. open
 woodland.
bosque aciculifolio. conifer forest
bosque boreal. boreal forest.
bosque caducifolio de verano.
 deciduous summer forest.
bosque caducifolio estacional.
 deciduous seasonal forest.
bosque caducifolio temperado.
 temperate deciduous forest.
bosque (plano)caducifolio. deciduous
 forest. montane rain forest.
bosque caliza. limestone forest.

bosque de coníferas. conifer forest.

bosque de frondosas. broad-leaved forest (hardwood).

bosque de galería. gallery forest.

bosque de lluvia tropical. tropical rain forest.

bosque de manglar. mangrove forest.

bosque de neblina. cloud forest.

bosque esclerófilo. sclerophyllous forest.

bosque espina. thorn forest.

bosque estacional tropical. tropical seasonal forest.

bosque lago. lake forest.

bosque latifoliadas. broad leaf forest.

bosque liquen. lichen woodlands.

bosque lluvioso. rain forest.

bosque mezclado perennifolio. evergreen mixed forest.

bosque mixto. mixed forest.

bosque montano tropical. tropical montane forest.

bosque montano. montane forest.

bosque monzónico. monsoon forest.

bosque natural. natural woodland.

bosque pantanoso. swamp forest.

bosque perennifolio. evergreen forest.

bosque pluvial. rain forest.

bosque ribereño. riparian forest.

bosque sabana. savannah woodland.

bosque secundario. secondary forest.

bosque septentrional. boreal forest.

bosque subalpino. subalpine forest.

bosque tropical. tropical forest.

bosque virgen. old-growth forest. virgin forest.

bosquelatifoliadas. broad leaf forest.

bosques manglar. mangrove forest.

bóstrix. bostryx.

botánica sistemática. plant systematics.

botánica. botany.

botánica sistemática. plant systematics.

botánico. botanical. botanist.

botón floral. flower bud.

botón preventivo. preventitious bud.

botri-. botry-.

botriode. botryoid.

botuliforme. botuliform. sausage-shaped.

bourgeone. bourgeon.

bozo. down.

BPCs. PCBs

bráctea. bract.

bráctea foliosa. bract-leaf.

bráctea involucral. chaff. involucral bracts.

bráctea pericaetial. perichaetial bract.

bráctea periognial. perigonial bract.

bracteado. bracteate.

bráctees espatiformes. falls.

bracteodia. bracteody.

bractéola. bracteole. bractlet.

bractéomania. bracteomania.

bractéoso. bracteose.

bradi-. brady-.

bradispora. bradyspore.

braditélico. bradytelic.

braqui-. brachy-.

braquiblasto. brachyblast.

braquicladio. brachycladous.

braquiforme. brachyform.

braquimeiosis. brachymeiosis.

braquiesclereida. brachysclereid.

braquial. brachiate.

brazo. arm.

brazo cromosómico. chromosome arm.

breñoso. bushy.

brevemente. shortly.

brevi-. brevi-.

brevibrote. short shoot.

brevicolado. brevicollate. short-necked.

brezal. heath.

brezo. heath.

brillante. glossy. shining. lustrous.
briófita. bryophyte.
briófitas. bryophytes.
briofitos. bryophytes.
briología. bryology. muscology.
brionia. bryony.
bromelia. bromeliad.
bromeliiforme. bromeliiform.
broquidódroma. brochidodromous.
brotar. bud. sprout. burgeon.
brote. innovation. outgrowth. shoot.
brote adventicio. sucker.
brote aéreo. aerial shoot.
brote lateral. lateral shoot.
brote terminal. terminal shoot.
brumalis. brumalis.
brunneus. brunneus.
bucle de regulación. feedback loop.
bulado. bullate.

bulbífero. bulbiferous.
bulbiforme. bulbiform.
bulbilado. bulbillate.
bulbillo del tallo. stem bulblet.
bulbillo. bulbel.
bullillo del tallo. stem bulblet.
bulbilo. bulbil.
bulbo. bulb.
bulbo aéreo. aerial bulb.
bulbo escamiforme. scaly bulb.
bulbo laminado. laminated bulb.
bulbo tunicadado. tunicate bulb.
bulbosa. bulbous.
bulto. bulge.
burdón. burdo.
bursícula. bursicula.
bursiculado. bursiculate.
bursiforme. bursiform.
butrous. butíro.

C

C. C.

Ca. Ca.

cabezuela. head.

cabezuela compuesta. compound head.

cabezuela floral. flower head.

cabillo. stalk.

cácico carbonato. calcium carbonate.

cadena alimentaria. food chain.

cadena alimenticia. food chain.

cadena polinucleotídica. polynucleotide chain.

cadena polipeptica. polypeptide chain.

cadena respiratorio. respiratory chain.

cadena transportadora de electrones. electron transport chain.

cadena trófica. food chain.

cadillo. burr. sticker.

caducifloro. caduciflorous.

caducifolio. caducifolious. deciduous.

caduco. caducous.

caeco. caecum.

caedizo. caducous.

caeoma. caeoma.

caepitoso. caepitose.

caesius. caesius.

cafeina. caffeine.

caistobasidio. chaistobasidium.

cal. lime (agricultural).

calabasa. gourd.

calamífero. calamiferous.

calamiforme. calamiform. reed-like.

cálamo. calamus.

calatidio. calathidium. calathide.

cálaza. chalaza.

calazogamia. chalazogamy.

calcar. calcar.

calcáreo. calcareous.

calcariforme. calcarate. calcariform.

calceiforme. calceiform. calceolate.

calcícola. calcicole.

calcícolo. calcicolous.

calcificación. calcification.

calcífilo. calciphilous.

calciflorado. calyciflorate.

calciforme. calciform.

calcifuga. calcifuge.

calcífugo. calcifugugous

calcio. calcium.

calcio carbonato. calcium carbonate.

calic-. calyc-.

calicado. calycate.

calicantemia. calycanthemy.

calciflorado. calyciflorate.

calcifloral. calycifloral.

calciforme. calyciform.

calcifuga. calcifuge.

calcífugo. calcifugous.

calicinar. calycine.

calicino. calycine.

calicoide. calycoid.

caliculado. calyculate.

calículo. calycle. calyculus.

caliculo. epicalyx.

calino. caline.

caliptra. calyptra. root cap.

caliptrado. calyptrate. capped.

caliptrógeno. calyptrogen.

cáliz. calyx. cup.

cáliz de agua. water calyx.

cáliz floral. flower cup.

caliza. limestone.

calizo. calcareous.

callejero. rambler.

calli-. calli-.

callo (orquídea). callus (orchid).

callosidad. callosity.

caloria. calorie.

calosa. callose.

calvescente. calvescent.

cama de siembra. seedbed.

cámara. chamber.

cámara aerífera. air chamber.

cámara de anteridial. antheridial chamber.

cámara polínica. pollen chamber.

cámara prelaminar. prelamellar chamber.

cámara substomático. substomatic chamber.

cambio. cambium (pl. cambia).

cambio adaptivo. adaptive breakthrough.

cambio de bases. base exchange.

cambio de cationes. cation exchange.

cambio de cultivo. shifting cultivation.

cambium estratificado. stratified cambium.

cámbium fascicular. fascicular cambium.

cámbium interfascicular. interfascicular cambium.

cámbium suberígeno. cork cambium.

cambium vascular. vascular cambium.

camé-. chamae-.

camé(o)fito. chamae(o)phyte.

camelinus. camelinus.

camnio. camnium.

campaniforme. campaniform.

campanulado. campanulate.

campestris. campestris.

campilódroma. campylodromous. camptodromous.

campilótropo. campylotropous.

campo. field.

camptódroma. camptodromous.

caña. cana. cane. haulm. reed. culm.

canal. canal.

canal estilar. styler canal.

canal resinífero. resin canal.

canal secretífero. canal secretory.

canal secretorio. secretory canal.

canal valecular. vallecular canal.

canalización. canalization.

canaóla. culmicole.

cañavera. sedge.

cancelado. cancellate.

cancro. canker.

candidus. candidus.

canescente. canescent. hoary.

canoso (en indumentos). white (haired).

canus. canus.

capa. scum. spumeous.

capacidad de adaptación. adaptive capacity.

capacidad de cambio. exchange capacity.

capacidad de cambio anión. anion exchange capacity.

capacidad de cambio base. base exchange capacity.

capacidad de cambio cation. cation exchange capacity.

capacidad de campo. field capacity.

capacidad de carga. carrying capacity.

capacidad de fotosintético. photosynthetic capacity.

capacidad reproductor. reproductive capacity.

capa de aleurona. aleurone layer.

capa de esporógeno. sporogenous layer.

capa del ozona. ozone layer.

capa esponjoso. spongy layer.

capa pilífera. piliferous layer.

caperuza. cap.

capilar. capillaceous. capillary.

capilicio. capillitium.

capiliforme. capiliform.

capitado. capitate.

capitalista. capitalist.

capitelado. capitellate.

capitelo. capitellum.
capitular. capitular.
capituliforme. capituliform.
capítulo. capitulum.
capítulo esprangiolifero. sporangioli-
 ferous head.
capítulo floral. flower head.
capreolado. capreolate.
capreolo. capreolus.
caprificación. caprification.
cápsida. capsid.
capsómero. capsomere.
cápsula. boll. capsule.
cápsula acrocidal. acrocidal capsule.
cápsula basicida. basicidal capsule.
cápsula denticida. denticidal cap-
 sule.
cápsula operculado. operculate cap-
 sule.
cápsula de semilla. seed capsule.
cápsula seminal. seed capsule.
cápsula valvar. valvular capsule.
cápsulado. capsulate.
capsular. capsular.
capuchón. hood.
capullo. blossom.
capullo floral. flower bud.
carácter. character.
carácter accesorio. accessory char-
 acter.
carácter adaptivo. adaptive char-
 acter.
carácter adquirido. acquired char-
 acter.
cárbacter complejo. complex char-
 acter.
carácter cualitativo. qualitative
 characters.
carácter cuantitativo. quantitative
 characters.
carácter de adaptación. adaptive
 character.
carácter específico. specific char-
 acter.
carácter hereditario. hereditary

character.
carácter mendeliano. mendelian
 inheritance.
carácter poco fidedigo. unreliable
 character.
carácter poligénico. polygenic char-
 acter.
carácter unidad. unit character.
carácter variante. variant charac-
 ter.
característica hereditario. heredi-
 tary characteristic.
característica. trait.
característico. characteristic.
carátens genérico. generic charac-
 ters.
carbohidrato. carbohydrates.
carbohidraza. carboxhydrase.
carbono. carbon.
carbono 14 radiactivo. radioactive
 carbon -14.
carboxidismutasa. carboxydismutase.
carboxilasa. carboxylase.
carboxílico. carboxyl group.
carcéculo. carcerulus.
carcéculo esquizocarpico. schizo-
 carpic carcerule.
carenado. keeled.
carga genética. genetic load.
cariallagico. caryallagic.
cariáster. karyaster.
carina. carina.
carinado. carinate.
cario-. caryo-. karyo-.
carioide. caryoid.
cariocinesis. karyokinesis.
cariogamia. karyogamy.
cariolinfa. karyolymph.
cariología. karyology.
cariómero. karomere.
cariomicrosoma. karyomicrosome.
cariómito. chromosome.
cariópdide. caryopsis.
carioplasm. karyoplasm.
cariopsis. caryopsis. grain.

cariorrexis. karyorhexis.
cariosoma. karyosome.
carioteca. karyotheca.
cariotina. karyotin. chromatin.
cariotipo. karyotype.
carneus. carneus.
carnicero. carnivorous.
carnivoro. carnivore.
carnívoro. carnivorous.
carnosa. carnose.
carnoso. fleshy. sarcous.
carnuloso. carnulose.
caroteno. carotene.
carotenoide. carotenoid.
carotina. carotin.
carotinoide. carotinoid.
carozo. stone.
carpelar. carpellary. carpellate.
carpelo. carpel.
carpeloide. carpelloid.
carpido. carpid.
carpo-. carpo-.
carpófita. carpophyte.
carpóforo. carpophore.
carpogeno. carpogenous.
carpogonio. carpogonium.
carpología. carpology.
carpopodio. carpopodium.
carpospora. carpospore.
carposporófito. carposporophyte.
carposprangio. carposporangium.
carpotrófico. carpotrophic.
cartáceo. chartaceous. paper-like.
cartáceo. paper-like.
cartilaginoso. cartilaginous.
carúncula. caruncle.
carunculado. carunculate.
cáscara. husk. rind. shell.
cáscara delgada. thin-shelled.
cáscara espesa. thick-shelled.
casco. helmet.
casco. hull.
casideo. cassideous.
casmocleistogamico. chasmocleisto-
 gamic.

casmófito. chasmophyte.
casmógama. chasmogamous.
casmogamia. chasmogamy.
casmógamico. chasmogamic.
casquete nuclear. nuclear cap.
casquete polar. polar cap.
castaño. castaneous.
castración parásita. parasitic cas-
 tration.
cata-. kata-.
catabolismo. catabolism.
catacinético. katakinetic.
catacinetómero. katakinetomere.
catacorola. catacorolla.
catadroma. katadromous. catadro-
 mous.
catafasa. kataphase.
catafilo. cataphyll.
catalasa. catalase.
catálisis. catalysis.
catalizador. catalyst.
catalizar. catalyze.
catatecio. catathecium.
catecol. catechol.
categoría. rank.
categorización de Raunkiaer.
 Raunkiaer categorization.
catenación. catenation.
catenuliforme. catenuliform.
catenado. catenate.
cación. cation.
catotecio. cathothecium.
cauda. cauda.
caudado. caudate. tailed.
cáudice. caudex.
caudiculado. caudiculate.
caudículo. caudicle.
caul-. caul-.
caulescente. caulescent.
caulícula. caulicule.
caulículo. cauliculus.
caulículo. caulicle.
caulífero. cauliferous.
caulifloria. cauliflory.
caulifloro. cauliflorous.

cauliforme. cauliform. stem-like.
cauligeno. cauligenous.
caulinar. cauline. stem-like.
caulino. cauline.
caulis. caulis.
caulocárpico. caulocarpic.
caulocárpo. caulocarpous.
caulocistidio. caulocystidium.
caulocole. caulicolous.
cauloide. cauloid.
caulomo. caulome.
causada por un hongo. wet rot.
cavernícola. cavernicolous.
cavidad. cavity. reservoir. sac.
cavidad branquial. gill cleft. gill slit.
cavidad espora. spore sac.
cavidad frontal. frontal cavity.
cavidad punteadura. pit cavity.
cavidad savia. sap cavity.
cavitación. cavitation.
cecideo. cecidium.
cecidización. cecidization.
cefal-. cephal-.
cefalina. cephalin.
cefalio. cephalium.
cefalobranquial. cephalobranchial.
cefalodeo. cephalodium.
cefaloide. cephaloid.
cegamiento. warping (of land).
ceilocistidio. cheilocystidium.
ceimplasma. keimplasm.
celluloso. cellulase.
celulosa fúngico. fungal cellulose.
celo-. coelo.
celobiosa. cellobiose.
celomicetos. coelomycetes.
celospermo. coelospermous.
célula. cell.
célula accesorio. accessory cell.
célula acompañante. companion cell.
célula adhesivo. adhesive cell.
célula albuminoso. albuminous cell.
célula andrógino. androgonal cell.
célula anexa. companion cell.

célula anteridial. antheridial cell.
célula antipodal. antipodal cell.
célula apical. apical cell.
célula auxiliar. auxilliary cell.
célula axil. axial cell.
célula asogenico. asogenic cell.
célula basal. basal cell.
célula buliforme. bulliform cell.
célula cambiforme. cambiform cell.
célula canal. canal cell.
célula canal del cuello. neck canal cell.
célula canal del vientre. ventral canal cell.
célula caperuza. cap cell.
célula circular. ring cell.
célula de cierre. guard cell.
célula colector. collecting cell.
célula columnar. columnar cell.
célula corporal. body cell.
célula cribosa. sieve cell.
célula cúpula. dome cell.
célula de cierre. guard cell.
célula de guarda. guard cell.
célula de labio. lip cells.
célula de los radios medulares. medullary ray cell.
célula del tapete. tapetal cell.
célula de malpighi(o). malpighian cell.
célula de paso. passage cell.
célula de relleno. packing cell.
célula de transición. transition cell.
célular de transfusión. transfusion cell.
célula digestiva. digestive cell.
célula en empalizada. palisade cell.
célula enjambre. swarm cell.
célula en reposo. resting cell.
célula epibasal. epibasal cell.
célula esclerosa. stone cell.
célula esclerótico. sclerotic cell.
célula espermátogeno. spermatogenous cell.
célula esponjoso. spongy cell.
célula esporógeno. sporogenous cell.

célula estéril. sterile cell.
célula germinal. germ cell.
célula germinal primaria. primordial germ cell.
célula germinativa. germ cell.
célula hermana. sister cell.
célula hialina. hyaline cell.
célula hija. daughter cell.
célula hiperbasal. hyperbasal cell.
célula huevo. egg cell.
célula inicial. initial cell.
célula intercalar. intercalary cell.
célula látex. latex cell.
célula madre. mother cell.
célula madre del polen. pollen mother cell.
célula madre de xilema. xylem Mother Cell.
célula motor. motor cell.
célula nudo. node cell.
célula nutricia. nurse cell.
célula oclusiva. guard cell.
célula pedículo. pedicle cell.
célula pericentral. pericentral cell.
célula periférico. peripheral cell.
célula pétrea. stone cell.
célula placentaria. placental cell.
célula primordial. primordial cell.
célula radial marginal. marginal ray cell.
célula raqueta. racket cell.
célula receptora. receptor cell.
célula secretora. secretory cell.
célula sexual. gamete. sex cell.
célula somática. somatic cell.
célula subsidiaria. accessory cell. subsidiary cell.
célula tectriz. cover cell.
célula vegetativo. vegetative cell.
celular. cellular.
celular central. central cell.
celular complementario. complementary cell.
celular de transfusión. transfusion cell.

celular embudo. funnel cell.
celular generador. generative cell.
celular generativo. generative cell.
celular híbrido. hybrid cell.
celular opercular. opercular cell.
celular polar. polar cell.
célula receptora. receptor cell.
célula rizoidal. rhizoidal cell.
célula somática. somatic cell.
célula turbinado. turbinate cell.
célula de tubo. tube cell.
célula vegetativo. vegetative cell.
celular transferencia. transfer cell.
celular verde. green cell.
celulosa. cellulose.
célulosa de reserva. reserve cellulose.
cementación. cementation.
ceno-. coeno-.
cenobio. coenobium.
cenocentro. coenocentrum.
cenocisto. coenocyst.
cenocito. coenocyte.
cenogametangio. coenogametangium.
cenogameto. coenogamete.
cenosoro. coenosorus.
cenospecie. coenospecies.
cenote. sinkhole.
censairo mecanismo. censor mechanism.
centonado. centonate.
central (raíz). tap root.
central. central.
centrífugo. centrifugal.
centríolo. centriole.
centrípeto. centripetal.
centro activo. active site.
centro ascigero. ascigerous centrum.
centro de diversidad. center of diversity.
centro de origen. center of origin.
centrodesma. centrodesmus.
centro de reacción. reaction center.
centro reductor. reducing center.
centro genético. genecenter.

centro génico. genecenter.
centrómero. centromere.
centrosoma. centrosome.
cepáceo. cepaceous.
cera. wax.
ceranoide. ceranoid.
cerat-. cerat-.
cercano. near.
cerda. bristle.
cerdoso. bristly.
cereales. cereals.
cerebriforme. cerebriform.
cerífero. ceriferous. ceraceous.
cero fisiología. physiological zero.
ceroso. waxy.
certación. certation.
ceruus. ceruus.
césped. lawn.
cespitoso. caespitose. cespitose.
cestilla de propágulos. cyathus.
 gemma cup.
cetona. ketone.
cetosa. ketose.
ceto-uracilo. keto-uracil.
ceviatámico. Vitamin C.
chaparral. chaparral.
charófita. charophytes.
chimenea. chimney.
choclo. maize. corn.
choque térmica. thermal shock.
chupón. sucker.
ciano-. cyano-.
cianobacteria. cyanobacteria.
cianoplasto. cyanoplast.
ciat-. cyath-.
ciatiforme. cyathiform.
ciatio. cyathium.
cicad. cycad.
cicatricoso. scarred.
cicatriz. cicatrix. scar. blemish.
cicatriz de la hoja. leaf scar.
cicatriz foliar. leaf scar.
cicatriz imperfección. blemish.
cicatriz stipular. stipular scar.
cicatriz trasa. trace scar.

cíclica hídrico. hydrologic cycle.
cíclica hórico. hydrologic cycle.
cíclico. cyclic.
ciclo. cycle.
ciclo-. cyclo-.
ciclo alimentario. food cycle
ciclo alimenticio. food cycle.
ciclo biogeoquímico. biogeochemical cycle.
ciclo célula. cell cycle.
ciclo cromosómico. chromosome cycle.
ciclo de Krebs. Krebs cycle.
ciclo de nutrientes. nutrient cycle.
ciclo de oxígeno. oxygen cycle.
ciclo de sequía. drought cycle.
ciclo de vida. life cycle.
ciclo del ácido cítrico. citric acid cycle. Krebs cycle.
ciclo del ácido tricarboxílico. tribarboxylic acid cycle.
ciclo del agua. water cycle.
ciclo del azufre. sulfur cycle.
ciclo del carbono. carbon cycle.
ciclo del glioxalato. glyoxylic cycle.
ciclo del nitrógeno. nitrogen cycle.
ciclo glioxílico. glyoxylic cycle.
ciclo pentosa-fosfato. pentose-phosphate cycle.
ciclo vital. life cycle.
ciclosis. cyclosis
ciclosporo. cyclosporous.
ciego. blind.
ciénaga. morass.
ciencia del suelo. soil science.
ciencias ambientales. environmental science.
ciencias biológicas. life sciences.
ciencias naturales. natural science.
ciénega. swamp. morass.
cieno. ooze. silt.
cifela. cyphella.
cigo-. zygo-.
cigófase. zygophase.
cigófito. zygophyte.

cigóforo. zygothore.
cigomorfismo. zygomorphism.
 zygomorphy.
cigomorfo. zygomorphic.
cigónema. zygionema.
cigosis. zygosis.
cigospora. zygosporo.
cigósporangio. zygosporangium.
cigósporóforo. zygosporophore.
cigóteno. zygotene.
cigótico. zygotic.
cigoto. zygote.
cigoto diploide. diploid zygote.
cigótropismo. zygotropism.
cigozoospora. zygozoospore.
cilia. cilia.
ciliado. ciliate.
ciliatulado. ciliatulate.
cilíndrico. cylindric.
cilíndrico. cylindric.
cilindro. cylinder.
cilindro estereoma. stereome cyl-
 inder.
cilindro vascular. vascular cylinder.
cilio. cilium.
cilolado. ciliolate.
cima. cyme.
cima (de árbol). tree-top.
cima bípara. dichasium.
cima escorpiode. scorpioid cyme.
cima helicoide. helicoid cyme.
cima simple. simple cyme.
cima unípara. uniparous cyme.
cimasa. zymase.
cimbiforme. boat-shaped. cymbiform.
címbium. cambium.
cimófito. zymophyte.
cimógeno. zymogen. zymogenic.
 zymogenous.
cimógeno. zymogenus.
cimóhexosa. zymohexose.
cimolisis. zymolysis.
cimología. zymology.
cimoso. cymose.
cimótico. zymotic.

cimula. cymule.
cinarrodon. hip.
cinc. zinc.
cincino. cincinnus.
cinéreo. cinereous.
cinerus. cinerus.
cinetómero. kinetomere.
cinetósoma. kinetosome.
cingulado. cingulate.
cininado. cinnate.
cino. kino.
cinoplasma. kinoplasm.
cinorrodon. cynarrhodion.
cipsela. cypsel.
cipsela erizada. bur.
cirado. cirrate.
circadiano. circadian.
circinado. circinate.
circuito de regulación. feedback loop.
circulación. circulation.
circular. circular.
circulo. circle.
círculo de renovación. renewal cy-
 cle.
círculo de renuevo. renewal cycle.
circulación. circulation.
circun-. circum-.
circunbasal. circumbasal.
circuncaulo. circumcaulous.
circumnudado. circumnutate.
circumnutación. circumnutation.
circuncaulo. circumcaulous.
circuncisil. circumscissile.
circunferencia. circumference. girth.
circunferencial. circumferential.
cirríforme. cirrhous.
cirro. cirrus (*pl.* cirri).
ciste. cyst.
cisteína. cysteine.
cisternae. cisternae.
cistidio. cystidium.
cistina. cystine.
cistocarpo. cystocarp.
cistógeno. cystogenous.
cistolito. cystolith.

cistosoro. cystosorus.
cistosporo. cystospore.
cistrón. cistron.
cistrón redundante. redundant cistron.
citiquímica. cytochemistry.
cito-. cyto-.
citobiología. cytobiology.
citocinesis. cytokinesis.
citócroma. cytochrome.
citócromo. cytochrome.
citodiéresis. cytodiaeresis.
citodo. cytode.
citoesqueleto. cytoskeleton.
citofaringe. cytopharynx.
citogamia. cytogamy.
citogénesis. cytogenesis.
citogenética. cytogenetics.
citogeno. cytogenous.
citolinfa. cytolymph.
citolisina. cytolysin.
citólisis. cytolysis.
citología. cytology.
citológico. cytological.
citomicrosoma. cytomicrosome.
citomorfosis. cytomorphosis.
citopatógeno. cytopathogenic.
citoplasma. cytoplasm(a).
citoplasma fundamental matriz. cytoplasmic matrix.
citoplasma periférico. peripheral cytoplasm.
citoplasmática. cytoplasmic matrix.
citoplasmático. cytoplasm(at)ic
citoplásmico. cytoplasm(at)ic.
citoquímica. cytochemistry.
citoquinesis. cytokinesis.
citoquinina. cytokinin.
citosina. cytosine.
citosoma. cytosome.
citotaxonomía. cytotaxonomy.
citoma. ytome.
citotropismo. cytotropism.
citriforme. citriform. lemon-shaped.
cizaña. darnel. weed.
Cl. Cl.

cladístico. cladistic.
clado. clade.
cladocarpo. cladocarpous.
cladodio. cladode.
cladódromo. cladodromous.
cladofilo. cladophyll.
cladosifónico. cladosiphonic.
cladogénesis. cladogenesis.
cladogeno. cladogenous.
cladograma. cladogram.
clamideo. chlamydeous.
clamido-. chlamydo-.
clamidóspora. chlamydospore.
clan. clan.
claro. clearing.
clase. class.
clasificación. classification.
clasificación artificial. artificial classification.
clasificación del suelo. soil classification.
clasificación fenético. phenetic classification.
clasificación filética. phyletic classification.
clasificación filogenético. phylogenetic classification.
clasificación natural. natural classification.
clatroide. clathroid.
clatrado. latticed. clathrate.
clatriforme. clathriform.
clatrodo. clathrate.
clava. clava.
clavado. clavate.
clave genética. genetic code.
claviforme. claviform. club-shaped.
clavulado. clavulate.
cledio. chledium.
cleistocarpo. cleistocarp.
cleistógamo. cleistogamous.
cleistogamia. cleistogamy.
cleistogen. cleistogene.
cleistotecio. cleistothecium.
clima. climate.

climacterico. climacteric.
clímax biótico. biotic climax.
clímax climático. climatic climax.
climax de antropogénico. anthropogenic climax.
clímax de bosque. forest climax.
climax dominante. climax dominant.
clímax edáfica. edaphic climax.
clímax fisiográfico. physiographic climax.
climax predominante. prevailing climax.
clina. cline.
clinandrio. clinandrium.
clinanto. clinanthium.
clinóstato. clinostat. klinostat.
clinotrófico. klinotrophic.
clipeado. clypeate.
clipeiforme. clypeiform.
clon. clone.
clonal. clonal.
clono. clone.
clorantia. chloranthy.
clorénquima. chlorenchyma.
cloro. chlorine.
cloro-. chloro-
clorofila. chlorophyll.
clorófilase. chlorophyllase.
clorófilo. chlorophyllous.
clorofilógeno. chlorophyllogen.
cloroplasto. chloroplast.
cloroplasto axil. axile chloroplast.
clorosis. chlorosis.
cloróstatolito. chlorostatolith.
cloruro de sodio. sodium chloride.
cloruro sódico. sodium chloride.
closterospora. closterospore.
closteroviruses. closteroviruses.
clusa. nutlet.
CMP. PMC.
co-. co-
coa(da)ptación. coadaptation.
coacción. coaction.
coacervado. coacervate.
coadnato. coadnate. joined.

coadunato. coadunate. connate.
coagulación. coagulation.
coalescente. coalescent.
cobre. copper.
cocaina. cocaine.
coarctado. coarctate.
cobertizo. lath house.
cobre. copper. cupreous.
coccineus. coccineus.
coccoide. coccoid.
coco. coccus (pl. cocci).
cochleado. cochleate.
cociente de asimilación. assimilatory quotient.
cociente respiratorio (CR). respiratory quotient (RQ).
cóclea. cochlea.
coclear. cochlear. spoon-shaped.
código degenerado. degenerate code.
código genético. genetic code.
Código Internacionales de Nomenclatura Botánico. International Code of Botanical Nomenclature.
codominante. codominant.
codón. condon.
códon absurdo. nonsense condon.
códon sin sentido. nonsense condon.
coeficiente de coincidencia. coefficient of coincidence.
coeficiente de consanguinidad. inbreeding coefficient.
coeficiente de defusión. diffusion coefficient.
coeficiente de endogamia. coefficient of inbreeding.
coeficiente de heterogonico. heterogonic coefficient.
coeficiente de inbreeding. inbreeding coefficient.
coeficiente de marchitamiento. wilting coefficient.
coeficiente de regresión. regression coefficient.
coeficiente de selección. selection coefficient.

coeficiente de temperatura (Q_{10}).temperature coefficient (Q_{10}).**coeficiente fotosintético.** photosynthetic quotient.**coenzima.** coenzyme.**coenzima 1.** coenzyme 1.**coenzima 2.** coenzyme 2.**coenzima A.** coenzyme A.**coetáneo.** coetaneous.**coevolución.** coevolution.**cofactor.** cofactor.**cofia.** root cap.**coherirse.** cohere.**coherente.** coherent.**cohesión.** cohesion.**cohesión mecánico.** cohesion mechanism.**cohorte.** cohort.**cojinete foliar.** leaf cushion.**colabente.** collabent.**colateral.** collateral.**colchicina.** colchicine.**colénquima.** collenchyma.**colénquima permanente.** permanent collenchyma.**colénquima temporario.** temporary collenchyma.**coleógeno.** coleogen.**coleóptilo.** coleoptile.**coleórizo.** coleorhiza.**colesterol.** cholesterol.**colgante.** pendulous.**coliculado.** colliculose.**colinealidad.** colinearity.**colquicina.** colchicine.**colina.** choline.**colinealidad.** colinearity.**collete.** collet. collar.**collinus.** collinus.**colmatación.** warping (of land).**colofonia.** colophony. rosin.**coloide.** colloid.**colonia.** community.**colonial.** colonial.**colonista.** colonist.**colonización.** colonization.**colonizar.** colonize.**color.** color.**color amarillo.** yellow color.**colorante ácido.** acid dye.**colorante básico.** basic dye.**colorante nuclear.** nuclear stain.**color blanco.** white color.**color malva.** mauve color.**color oro.** gold color. yellowish.**color protectora.** protective color.**color roja-violeta.** red-violet color.**color violeta.** violet color.**coloración vital.** vital staining.**columela.** columella.**columelliforme.** columelliform.**columna.** column.**columnar.** columnar.**com-.** com-.**coma.** coma.**comado.** comate.**comedor de fango.** mull.**comensals.** commensals.**comensalismo.** commensalism**comisura.** commissure.**comófito.** chomophyte.**como hilo.** thread-like.**como pluma.** feathery.**comoso.** comose. papose.**compaginado.** compaginate.**compartimental(liza)ción.** compartmentalization.**compatible.** compatible.**compensación.** compensation.**compensación de dosificación.** dosage compensation.**competencia interespecífica.** interspecific competition.**competencia.** competition.**compital.** compital.**complanado.** complanate.**complejo sináptinomal.** synaptinomal complex.**complementación intercistronica.** interchange.

complemento cromosómico. chromosome complement.
composición florística. floristic composition.
comprimido. complanate, compressed.
compuestas. Compositae.
compuesto. composite, compound.
compuesta orgánico. organic compound.
compuesta tripinado. tripinnately compound.
compuesto inorgánico. inorganic compound.
compuesto secundario. secondary compounds.
comunidad abierta. open community.
comunidad biótica. biotic community.
comunidad cerrado. closed community.
comunidad climácico. climax community.
comunidad climático. climatic community.
comunidad climax. climax community.
comunidad complementario. complementary community.
comunidad estable. stable community.
comunidad final. climax community.
comunidad inestable. unstable community.
comunidad inmaduro. immature community.
comunidad marginal. marginal community.
comunidad pionera. pioneer community.
comunidad reliquial. relic(t) community.
comunidad seral. seral community.
comunidad vegetal. plant community.
conación. connation.

con parches. patchily.
conato. connate.
conato perfoliado. connate-perfoliate.
concatenado. concatenate.
cóncavo. concave.
concentración de hidrogeniones. hydrogen ion concentration.
conceptáculo. conceptacle.
conchado. conchate.
concinnus. concinnus.
concolor. unicolorred, concolor.
concoloro. concolorous.
concordancia. concordance.
concrecencia. concrecence, symphysis.
concrecente. concrecent, concrete, coalesced.
condensación. condensation.
condensado. condensed.
condición de la tierra. tilth.
condiciones meterológicas. weather.
condioesporangio. condiosporangium.
condióspora. condiospore.
condominancia. codominance.
condominante. codominant.
cóndon absurdo. nonsense condon.
cóndon de paro. terminator condon.
cóndon sin sentido. nonsense condon.
condrioconto. chondriocont.
condriolisis. chondriolysis.
condriomita. chondriomite.
condriosoma. chondrisome.
condroide. chondroid.
conducción de agua. water conduction.
conducción fototrópico. phototropic conduction.
conducto. duct.
conducto resinoso. resin duct.
conduplicado. complicate, conduplicate.
conectivo. connective.
confertus. confertus.
confervoides. confervoid.
configuración. configuration.
confluente. confluent.

congénere. congeneric. conspecific.

congénito. congenital.

congestado. congested.

conglobado. conglobate.

conglomerado. agglomerate. conglomerate.

conglutinado. conglutinate.

congregado. congregate.

congresión. congression.

cónico. conic. conical. cone-shaped.

conideo. conidium (*pl.* conidia).

conidióforo. conidiophore.

conidiosporangio. conidiosporangium.

conífera. conifer.

conífero. coniferous.

conivente. connivent.

conjugación. conjugation.

conjugado. conjugate.

conjunto. group.

conjunto de matas. thicket.

cono. cone.

cono de fertilización. fertilization cone.

cono entrada. entrance cone.

con parches. patchily.

comparecido. consimilar.

consanguínea. consanguinous.

conservación. conservation.

conservación de la naturaleza. conservation of nature.

conservación del biológico. biological conservation.

conservación del medio ambiente. biological conservation.

conservación del suelo. soil conservation.

consociación. consociation.

consortismo. consortism.

conspicífico. conspecific.

conspicuamente. distinctly.

constelado. constellate.

constipado. constipate.

constricción. constriction.

constricción primario. primary constriction.

constricto. constricted.

consumidor. consumer.

consumidor primario. primary consumer.

consumidor secundario. secondary consumer.

contabescente. contabescent.

contaminación. pollution.

contaminación del agua. water pollution.

contaminación del aire. air pollution.

contaminante. contaminant.

contaminar. pollute.

contaminarase. contaminated.

contermino. conterminous.

contexto. context.

contingente. contingent.

contiguo. contiguous.

continuo. continuum. continuous.

continuo de apareamiento. mating continuum.

contorsionado. contorted.

contorsionduplicado. contortoduplicate.

contrafuerte. buttress.

contracción secundario. secondary contraction.

control de estructural. structural control.

control genotípica. genotypic control.

control químico. chemical control.

convergencia. convergence.

convergencia adaptivo. adaptive convergence.

convergente de efarmonico. epharmonic convergence.

conversión de gene. gene conversion.

convertir en abono. compost.

convexo. convex.

convoluto. convolute.

convoluto estivación. convolute aestivation.

copa del árbol. tree crown.
copa propagulífera. cyathus. gemma cup.
copa. crown.
copa floral. cup.
copa propagulífera. gemma cup.
copado. crown.
copal. copal.
coprófilo. coprophilous.
cópula. copulation.
copulación. copulation.
coral. coral.
coralino. coralline.
coraloide. coral-like. coralloid.
corazón. core.
corazón de la madera. heartwood.
corazón vegetativo. vegetative core.
corazón de xilema. xylem core.
corcho. cork.
corchoso. corky
cordifolius. cordifolius.
cordiforme. heart-shaped. cordiform.
cordón vascular. vascular strand.
coremio. coremium.
coremiforme. coremiform.
cornezuelo. ergot.
co-represor. corepressor.
cori-. chori-.
coriacelado. coriacellate.
coriáceo. coriaceous.
corion. corium.
corimbiforme. corymbiform.
corimbo. corymb.
corimboso. corymbose.
corion. corium.
coripétalo. choripetalous.
corisépalo. chorisepalous.
corisis. chorisisis.
cormillo. cormel.
cormo. corm(us).
cormófito. cormophyte.
córneo. horny. corneous.
cornezuelo. ergot.
cornículo. horn.
corniforme. corniform.

corniculado. corniculate
corola. corolla.
coroláceo. corollaceous.
corolado. corollate.
corolete. corollet.
corolífero. corolliferous.
coroliforme. corolliform.
corolino. corolline.
corona. corona.
coronado. coronate. with corona.
coroniform. coroniform.
coronula. coronule.
corporal alimenticia. food body.
corriente. streaming.
corriente de transpiration. transpiration stream.
corriente plasmática. protoplasmic streaming.
corriente transpiratoria. transpiration stream.
corte transversal. section.
corteza. shreddy bark.
corteza cáscara. shell bark.
corteza exterior. outer bark.
corteza secundario. secondary cortex.
cortina. curtain. cortin.
corpúsculo. corpuscle.
corpúsculo basal. basal corpuscle.
corpúsculo central. central body.
corpúsculo de inclusión. inclusion body
corpúsculo polar. polar body.
corpúsculo primaria. primary body.
correlación. correlation.
correpresor. corepressor.
corriente. streaming.
corrugado. corrugated.
cortar y quemar agricultura. slash and burn agriculture.
corte transversal. section.
córtex. cortex.
córtex fastigiado. fastigate cortex.
córtex fibrosa. fibrous cortex.
corteza. bark. cortex. rind. shreddy bark.

corteza alado. winged bark.
corteza anillado. ringed bark.
corteza exterior. outer bark.
corteza fisurada. fissured bark.
corteza liso. smooth bark.
corticado. corticate.
cortical. cortical.
corticícola. corticolous.
cortiledón. seminal leaf.
cortina. cortin(a).
coscinocistidio. coscinocystidium.
coscinoide. coscinoid.
coser. splice.
cosmopolita. cosmopolitan.
costa. costa. shoreline.
costal. costal.
costa litoral. seacoast.
costapalmado. costapalmate.
costato. fluted. ribbed.
costilla. costule. ridge. rib.
costillado. fluted. ribbed.
costilla media. midrib.
costra. scab.
cotiledón. cotyledon. seed leaf.
cotiliforme. cotyliform.
cozaña. weed.
CR. RQ.
crampón. crampon.
crassi-. crasi-.
crasicarpo. pachycarpous.
crasicaule. pachycaulous. sarco-
 caulous.
crasiclado. pachycladous.
craspedódromo. craspedodromous.
crassus. crassus.
crásula. crassula (*pl.* crassulae). bar
 of Sanio. Sanio's band. Sanio's
 rim.
crateriforme. crateriform.
Creación especial. special Creation.
creacionismo. creationism.
creacionista. creationist.
crecer. grow.
crecimiento. growth. upgrowth.
crecimiento apical. apical growth.

tip growth.
crecimiento celular. cell growth.
crecimiento deslizante. gliding
 growth. sliding growth.
crecimiento difuso. diffuse growth.
crecimiento elástico. elastic growth.
crecimiento estándar. standard.
crecimiento exponencial. exponential
 growth.
crecimiento exponencial ecuación.
 exponential growth equation.
crecimiento horizontal. sympodial
 growth.
crecimiento intercalar. intercalary
 growth.
crecimiento lineal. linear growth.
crecimiento primario. primary growth.
crecimiento secundar. second growth.
crecimiento secundario. secondary
 growth.
crecimiento simpodial. sympodial
 growth.
crecimiento tricotalico. trichothallic
 growth.
crecimiento vegetativo. vegetative
 growth.
cremnófito. kremnophyte.
cremocarpó. cremocarp.
crenado. crenate.
crenio. crenium.
crenulado. crenulate.
crepuscular. crepuscular.
crescéntrico. crescentric.
crespo. crispate.
cresta. cresta. ridge. comb.
crestado. crested. cristate.
crestas mitocondriales. crista(e).
cría. breeding.
criador de semillas. seed breeder.
cria verdadera. true breeding.
crianza de líneas. line breeding.
cribar. sieve.
cribforme. sieve-like.
cribriforme. cribriform.
crimio. crymium.

crinito. crinite.
crinitus. crinitus.
criobiología. cryobiology.
criófilo. cryophil.
criófito. cryophyte.
crióplancton. cryoplankton.
criptó-. crypto-.
criptóbiosis. cryptobiosis.
criptófito. cryptophyte.
criptógamo. cryptogam(ous).
criptógamo vascular. vascular cryptogam.
criptómero. cryptomere.
criptomerismo. cryptomerism.
criptófito. cryptophyte.
criptoplasma. cryptoplasm.
criptóstoma. cryptostoma.
crisocromo. chrysochrome.
crisogonidio. chrysogonidium.
cristalografía de rayos X. x-ray crystallography.
cristaloide. crystalloid.
cristalwort. glasswort.
cristato. cristate.
cristatus. cristatus.
cristalografía de rayos X. x-ray crystallography.
croma. chroma.
cromasico. chromasic.
cromátida. chromatid.
cromátida hermana. sister chromatid.
cromátida hermana de cambio. sister chromatid exchange.
cromatidio. chromatid.
cromatidios. chromatidia.
cromatina. chromatin.
cromatóforico. chromatophoric.
cromatóforo. chromatophore.
cromatólisis. chromatolysis.
cromatoplasma. chromatoplasm.
cromidio. chromidium (*pl.* chromidia)
cromiolo. chromiole.
cromo-. chromo-.
cromocentro. chromocenter.
cromocondria. chromochondria.

cromóforo. chromophorous.
cromóforo de sobra. shade chromophore.
cromogeno. chromogen.
cromogeno respiratorio. respiratory chromogen.
cromogenico. chromogenic.
cromómero. chromomere.
cromonema. chromonema (*pl.* chromonemata).
cromopara. chromoparous.
cromoplasto. chromoplast.
cromosoma. chromosomes.
cromosoma accesorio. accessory chromosome.
cromosoma acéntrico. acentric chromosome.
cromosoma anular. ring chromosome.
cromosoma arlequin. harlequin chromosome.
cromosoma hijo. daughter chromosome.
cromosoma homólogo. homologous chromosome.
cromosoma metacéntrico. metacentric chromosome.
cromosoma múltiple. multiple chromosome.
cromosoma sexual. sex chromosome.
cromosoma telocéntrico. telocentric chromosome.
cromosoma W. W-chromosome.
cromosoma X. X-chromosome.
cromosoma Y. Y-chromosome.
cromosoma Z. Z-chromosome.
cromosomal. chromosomal.
cromosómico. chromosomal.
cronispora. chronisporae.
cronospecie. chronospecies.
crosier. crosier.
cruce. cross breed. cross.
cruce dihíbrido. dihybrid cross.
cruce monohíbrido. monohybrid cross.
cruce recíproco. reciprocal cross.
cruciado. cruciate.

cruciforme. cross-shaped. cruciform.
cruentus. cruentus.

crustáceo. crustaceous.

crustoso. crustose.

cruza. cross breed. cross.

cruzamiento. cross breeding. inbreeding.

cruzamiento de prueba. test cross.

cruzamiento exógeno. outcrossing.

cruzamiento recíproco. reciprocal cross.

cruzamiento retrógrado. backcross.

cruzar. cross breed. cross.

cruzas radiales. top cross.

cteno-. cteno-.

ctenoide. ctenoid.

Cu. CU. ?????

cuadrado. quadrate.

cuadrangular. quadrangular.

cuadrante. quadrate.

cuadri-. quadri-.

cuadricápsular. quadricapsular.

cuadrifario. quadrifarious.

cuadrifido. quadrifid.

cuadrifilo. quadriphyllous.

cuadrifoliado. quadrifoliate.

cuadrifoliolado. quadrifoliolate.

cuadrifurcado. quadrifurcate.

cuadrilateral. quadrilateral.

cuadrilobado. quadrilobate.

cuadrilocular. quadrilocular.

cuadripartición. quadripartition.

cuadripinnatído. quadripinnatifid.

cuadriplexo. quadriplex.

cuadrivalente. quadrivalent.

cuadriyugado. quadrijugate.

cuadruplexo. quadruplex.

cuantasoma. quantasome.

cuanto. quantum.

cuarteto. quartet.

cuaternado. quaternate.

cúbico. cubical.

cubierta. hood.

cubre. cover.

cubrir de césped. sod.

culculado. cucullate. cuculliform.

cuculiforme. cuculliform.

cucurbitáceo. cucurbitaceous.

cuello. collar. neck.

cuello de la raíz. root collar.

cuerctina. quercitin.

cuerpo basal. basal body.

cuerpo cinética. kinetic energy.

cuerpo de Golgi. Golgi body.

cuerpo de inclusión. inclusion body.

cuerpo fructífero. fruiting body.

cuerpo impulsor. stem body.

cuerpo oleoso. elaioplast. oil body.

cuerpo receptivo. receptive body.

cuesco. stone.

cultígeno. cultigen.

cultivar. cultivar. raise.

cultivo. culture.

cultivo axénico. axenic culture.

cultivo de tejido. tissue culture.

cultivo de agua. water culture.

cultivo hidropónico. hydroponics.

cultivo puro. pure culture.

cultivo tisular. tissue culture.

cultriforme. cultriform.

cultura de arena. sand culture.

cumulado. cumulate.

cuneado. cuneate. cuneiform.

cuneiforme. cuneiform. wedge-shaped. cuneado.

cúpula. cupule. dome.

cupulado. cupulate.

cupuliforme. cup-shaped. cupulate. cupuliform.

curva de crecimiento. growth curve.

curva de respuesta. response curve.

curva de supervivencia. survivorship curve.

curva normal. normal curve.

curvado. bent. curved.

curvatura. curvature.

curvatura de crecimiento. growth curvature.

curvatura geotrópica. geotropic bending.

curvatura trópica. tropic response.
cúspidado. cuspidate.
cúspide. cusp.
cutícula. cuticle.

cuticular. cuticular.
cutina. cutin.
cutinización. cutinization.
cyaneus. cyaneus.

D

dacrioide. dacryoid.
dactiloide. dactyloid.
daedaleo. daedaleous.
dar. bear.
dasi- dasi-.
dasifilo. dasyphyllous.
datación de radiocarbónica. radio-carbon dating.
de-, de-.
dealbado. dealbate.
dealmidón. destarch.
deasimilación. deassimilation.
debajo. underneath.
débil. weak.
débito de oxígeno. oxygen cycle.
de botánica. botanical.
deca-, deca-.
decámero. decamerous.
decandro. decandrous.
decaploide. decaploid.
de celosia. latticed.
decem-, decem-.
de central libre. free-central.
deciduo. deciduous.
decipiens. decipiens.
declinado. declinate.
declinado. declined.
declivado. declivate. sloping.
decoloración. fading.
decolorado. etiolated. decolorate.
decomponerse. decompose.
decompuesto. decompound.
deconjugación. deconjugation.
decorticación anular. girdling.
decorticado. decorticate.
decumbente. decumbent.
decurrente. decurrent.
decurvado. decurved.
decusado. decussate.
dediferenciación. dedifferentiation.

dediploidización. dediploidization.
de doble filo. two-edged.
dedoblemente. dedoublement.
de dos filas. two-ranked.
de dos hoja. two-leaf.
de dos partidos. two-parted.
de dos semillas. two-seeded.
de(s)hidrasa. dehydrogenase.
de(s)hidrogenación. dehydrogenation.
de(s)hidrogenasa. dehydrogenase.
defensor de la naturaleza. conservationist.
deficiencia. deficiency.
déficit de la presión de difusión (DPD). diffusion pressure deficit (DPD).
definida. definite.
deflexo. deflexed.
deflorado. deflorate.
defoliación. defoliation.
defoliador. defoliant.
defoliante. defoliant.
defoliar. defoliate.
de(s)forestación. deforestation.
deformación. deformation.
deforme. malformed.
degeneración. degeneration.
degeneración consanguínea. inbreeding depression.
degenerar. degenerate.
degradación. degradation.
degradación ambiental. environmental degradation.
degradador. decomposer.
degradar. degrade.
de grava. gravelly.
dehidrogenar. dehydrogenate.
de(s)hidrasa. dehydrase.
de(s)hidrogenación. dehydrogena-

tion.
de(s)hidrogenasa. dehydrogenase.
de(s)hidrogenasa ácido glutámico. glutamic acid dehydrogenase.
de(s)hidrogenasa auccínico. succinic dehydrogenase.
de(s)hidrogenasa fórmico. formic dehydrogenase.
de(s)hidrogenasa láctico. lactic dehydrogenase.
de(s)hidrogenasa malado. malate dehydrogenase.
de(s)hidrogenasa triosa fosfato. triose phosphate dehydrogenase.
de(s)hidrogenar. dehydrogenate.
de hierbas. herbal.
dehisce. dehisce.
dehiscencia. dehiscence.
dehiscencia bilabiado. bilabiate dehiscence.
dehiscencia brevicidal. brevicidal dehiscence.
dehiscencia longitudinal. longitudinal dehiscence.
dehiscencia poroso. porous dehiscence.
dehiscencia transversal. transverse dehiscence.
dehiscencia valvado. valvular dehiscence.
dehisciente. dehiscent.
de hoja caduca. deciduous.
de hoja perenne. evergreen.
de hoja persistente. indeciduous.
de hojas caedizas. deciduous.
de horticultura. horticultural.
de la grand explosión. big bang theory
del la vegetación arbórea. tree-line. timberline.
delección. deletion.
delgadamente. thinly.
delgado. slender. thin.
delicuescente. deliquescent.
delignificación. delignification.
deltado. deltate.

deltoide. deltoid.
demanda química de oxígeno (DQO). chemical oxygen demand (COD).
dematoide. dematoid.
demediado. dimidiate.
demersus. demersus.
demicíclico. demicyclic.
demo. deme.
demoler. degrade.
dendriforme. dendriform.
dendrítico. dendritic.
dendro-. dendro-.
dendrocronología. dendrochronology. tree-ring dating.
dendroecología. dendroecology.
dendrógrafo. dendrograph.
dendroide. dendroid.
dendrología. dendrology.
dendrometro. dendrometer.
-dendro. -dendron.
dendrófisis. dendrophysis.
denigrado. denigrate. blackened.
dens. dens.
densidad de (la) población. population density.
denso. crowded.
dentación. dentation.
dentado. dentate. toothed.
denticulado. denticulate.
dentiforme. dentiform.
dentro. with in.
denudado. denudate.
de ojos trum. thrum-eyed.
deoperculado. deoperculate.
Departamento de Agricultura de los Estados Unidos. United States Department of Agriculture (USDA).
depauperado. depauperate.
dependiente. dependent.
dependiente de la densidad. density dependent.
depilación. depilation.
deplandado. deplanate.
deplasmólsis. deplasmolysis.

de poros anillados. ring-porous.
de poros encirculos. ring-porous.
depresión consanguínea. inbreeding depression.
deprimado. depressed.
deriva. drift.
dermal. deremal.
dermatocaliptrogeno. dermatocalyptrogen.
dermatócistidio. dermatocystidium.
dermatógeno. dermatogen.
dermatosoma. dermatosome.
dermis. dermis.
dervia genética. genetic drift.
desafilado. blunt.
desalinización. desalinization.
desalación del agua. desalinization.
desaminación. deamination.
desaparecido. extinct.
desarraigar. uproot.
desarrollo. development.
desarrollo. upgrowth.
desarticlado. disarticulated.
desarticulándose. disarticulating.
desarticular. disarticulate.
descarboxilación. decarboxylation.
descarboxilación oxidativa. oxidative decarboxylation.
descarboxilasa. decarboxylase.
descendencia. offspring.
descendente. descending.
descendientes. offspring.
descolarido. faded.
descomponedor. decomposer.
descomposición. decay. decomposition.
desdoblar(se). degrade.
desecho. waste.
desequilibrio de ligamiento. linkage disequilibrium.
deserticola. eremophilous.
desertificación. desertification.
desertización. desertification.
desfloración. deflowering.
deshilada. strap.

deshojado. leafless.
desicación. desiccation.
desierto. desert. wilderness.
desimilación. dissimilation.
desinapsis. desynapsis.
desinfección. disinfection.
desmenuzar. shred.
desmolasa. desmolase.
desmonte. deforestation.
desnaturalización. denaturation.
desnaturalizar. denature.
desnitrificación. denitrification.
desnuda. naked.
desnudo. naked.
desonsoma. desmosome.
desoxirribosa. deoxyribose.
desaparición. extinction.
desparramado. sprawling.
desprenderse (hojas). abscise (leaves).
desprendible. detachable.
desprendimiento abscisión de las hojas. shed(ding).
despuntado. pinching.
desraizar. uproot.
desthiobiotina. desthiobiotin.
destrana. dextran(e).
desviación. deviation.
desviación al azar. random drift.
desviación estándar. standard deviation.
desviación estructural. structural deviation.
desviación normal. normal deviation.
desviación standard. standard deviation.
detectar. sense.
determinación. determination.
determinación del sexo. sex determination.
determinado. determinate.
determinante. determinant.
determinante hereditario. hereditary determinant.
determinismo evolutivo. evolutionary

determinism.
detersil. detersile.
de transición. transitional.
detrito. detritus.
detritus. detritus.
deutero. deut(o)(er)(o).
deuteroconidio. deuteroconidium.
deutrogamia. deutrogamy.
deuteromicetos. deuteromycetes.
deuteroplasma. deuteroplasm. meta-
 plasm.
de vida libre. free-living.
dextrana. dextran(e).
dextrinasa. dextrinase.
dextrinas. dextrins.
dextrorso. dextrorse.
di-. di-.
dia-. dia-.
diachenium. cremocarp.
diacinesis. diakinesis.
diada. dyad.
diadelfo. diadelphous.
diadromo. diadromous.
diáfisis. diaphysis.
diafototropismo. diaphototropism.
diafragma. diaphragm.
diageotropico. diageotropic.
diageotropismo. diageotropism.
diagnóstico. diagnosis.
diagonal. diagonal.
diagrama floral. floral diagram.
dialélico. diallelic.
dialicarpo. dialycarpous.
dialipétalo. dialypetalous.
dialisépalo. dialysepalous.
diálisis. dialysis.
dialistelico. dialystelic.
diaminas. diamines.
diamorfísomo sexual. sexual dia-
 morphism.
diandro. diandrous.
diakenio. diachene. diachenium.
diaquinesis. diakinesis.
díaspora. diaspore.
diasquistico. diaschistic.

diastasa. diastase.
diaster. diaster.
diástole. diastole.
diatomeas. diatoms.
diatropismo. diatropism.
diazotrof. diazotroph.
dicario(n). dicaryon.
dicarionte. dicaryon.
dicarpelar. dicarpellary.
dicario. dikaryon.
dicariofase. dikarophase.
dicarionte. dikaryon.
dicasi. dichasium.
dicasio. dichasium.
dicéntrico. dicentric.
dicha-. dica-.
dichotomia elicoide. helicoid
 dichotomy.
dicíclico. dicyclic.
diclamídeo. dichlamydeous.
diclino. declinous.
dicófisis. dichophysis.
dicogamia. dichogamy.
dicógamo. dichogamous.
dicopodio. dichopodium.
dicot. dicot.
dicoteledóno. dicotyledonous.
dicotiledón. dicotyledon.
dicotiledóneas. Dicotyledoneae.
dicotiledónico. dicotyledonous.
dicotomia falso. false dichotomy.
dicotómico. dichotomous.
dicótomo. dichotomous.
dictiosoma. dictyosome.
dictiosporangio. dictyosporangium.
dictiospora. dictyospore.
dictiostela. dictyostele.
didimo. didymous.
didímospora. didymospore.
didínamo. didynamous.
diente. tooth.
dientes. teeth.
diferenciación. differentiation (of
 cells).
diferenciación celular. cell differ-

- entiation.
- diferenciación sexual.** sex differentiation.
- diferencial de selección.** selection differential.
- difilético.** diphyletic.
- difótico.** diphotic.
- diforme.** difformed.
- difráctea.** diffract.
- difundir.** suffuse.
- difusión.** diffusion.
- difusión cuticular.** cuticular diffusion.
- difusión facilitado.** facilitated diffusion.
- difuso.** diffuse.
- difuso-poroso.** diffuse-porous.
- digénico.** digenic.
- digerir.** digest.
- digestión.** digestion.
- digino.** digynous.
- digitado.** digitate.
- digitiforme.** digitiform.
- diheterocigoto.** diheterozygote.
- diheterozigoto.** diheterozygote.
- dehidrogenasa glicérico.** glyceric dehydrogenase.
- dihridisomo.** dihybridism.
- dikontán.** dikontan.
- dilacerado.** dilacerate.
- dilatación.** dilatation.
- dilatar.** enlarge.
- dilatido.** dilated.
- dilutido.** diluted.
- dimer.** dimer.
- dímero.** dimerous.
- diminuto (-amente).** minute(ly).
- diminuto(-ament).** diminute(-ly).
- diminuto.** diminutive.
- dimitico.** dimittic.
- dimonocio.** dimonoecious.
- dimorfismo.** dimorphism.
- dimorfo.** dimorphous.
- dimórfico.** dimorphic.
- dinámica de las poblaciones.** population dynamics.
- dinucleótido.** dinucleotide.
- diofilo.** diphylous.
- dioico.** dioecious.
- dióxido de carbono.** carbon dioxide.
- dioxina.** dioxin.
- dipéptido.** dipeptide.
- dipetalado.** dipetalous. two-petaled.
- diplanetismo.** diplanetism.
- diplo-.** diplo-.
- diplobionte.** diplobiont.
- diplocariótico.** diplokaryotic.
- diplocaulescente.** diplocaulescent.
- diploclamideo.** diplochlamydeous.
- diplococo.** diplococcus.
- diplocromosoma.** diplochromosome.
- diploidesmico.** diplodesmic.
- diplodización.** diploidization.
- diploide.** diploid.
- diploide gametófito.** diploid gametophyte.
- diploidia.** diploidy.
- diplonema.** diplonema.
- diplonte.** diplont.
- diplofase.** diplophase.
- diplosis.** diplosis.
- diplosoma.** diplosome.
- diplosporia.** diplospory.
- diplostémono.** diplostemonous.
- diplótena.** diplotene.
- diplóteno.** diplotene.
- diptero.** dipterous.
- dipterocarpo.** dipterocarp.
- disacárido.** disaccharide.
- disafilado.** blunt.
- disapareamiento de semejanza.** disassortative breeding.
- discal.** discal.
- discifloral.** discifloral.
- disciforme.** disciform.
- disclímax.** disclimax.
- disco.** disco. disk.
- discocarpo.** discocarp.
- disco estaminal.** staminal disk.

disco germinal. germinal disk.

discoide. discoid. discoide. disk-like.

discoloro. discolorous.

discoplanton. discoplankton.

disco de separación. separation disk.

discreto. discrete.

disecado. dissected.

disecar. dissect.

diseminación. dissemination.

diseminar. disseminate.

diseminula. disseminule.

diseminula carnoso. fleshy disseminule.

disemínulo. disseminule.

disemínulo comado. comate disseminule.

disemínulo comoso. comose disseminule.

disemínulo con plumas. plumed disseminule.

disemínulo uncinado. hooked disseminule.

disemínulo víscida. viscid disseminule.

disempimento falso. false dissempiment.

diseño vegetativa. vegetative pattern.

disepalo. disepalous.

disepimento. dissepiment.

disfótica. dysphotic.

disgregación. weathering.

disiliente. dissilient.

disociación. dissociation.

disoma. disome. bivalent.

disomia. disomy.

disomico. disomic.

dispérmico. dispermic.

dispermo. dispermous.

dispersar. disperse.

dispersión. dispersal.

dispersión de la población. population dispersion.

disfótica. dysphotic.

dispiema. dispireme.

disponer. arrange.

distal. distal.

distancia de mapa. map distance.

distante. distant.

distico. distichous.

dístico. distichous.

distinto. distinct.

distribución. distribution.

distribución céntrica. unicentric distribution.

distribución de frecuencia. frequency distribution.

distribución de la población. population distribution.

distribución discontinuo. discontinuous distribution.

distribución independiente (de los genes). independent assortment (of genes).

distribución regular. regular distribution.

distribución vivaria. vicarious distribution.

distrófia. dystrophy.

distrófico. dystrophic.

disyunción. disjunction.

disyunto. disjunct.

disyuntor. disjunctor.

ditécica. dithecal.

diteo. ditheous.

diurno. diurnal.

diurno circadiano. circadian rhythm.

divaricado. divaricate.

divergencia. divergence.

divergencia anguloso. angular divergence.

divergencia foliar. leaf divergence.

divergens. divergens.

divergente. divergent.

diversamente. variously.

diversidad. diversity.

diversidad de especies. species diversity.

diversidad genética. genetic diversity.

- divertículo.** diverticulum (*pl.* diverticuli).
- dividido.** divided.
- dividido en cámaras.** chambered.
- división.** division.
- división binaria.** binary fission.
- división celular.** cell division.
- división conjugado.** conjugate division.
- división cruciforme.** cruciform division. promitosis.
- división de nuclear libre.** free nuclear division.
- división de tétrada.** tetrad division.
- división ecuacional.** equational division.
- división ecuatorial.** equatorial division.
- división nuclear.** nuclear division.
- división octante.** octant division.
- división postmeiótic.** postmeiotic division.
- división progresiva.** progressive cleavage.
- división reduccional.** reduction(al) division.
- división reductora.** reduction(al) division.
- división segundo.** second division.
- divisoria de agua.** watershed.
- DNA recombinante.** recombinant DNA.
- doble.** double.
- doble fusión.** double fusion.
- doble hélice.** double-helix (*pl.* helices).
- doble-serado.** double-serrated.
- dodeca-.** dodeca-.
- dolabriforme.** dolabrate. dolabriform.
- doliforme.** doliform.
- dormania.** dormany.
- domatio.** domatium.
- domesticación.** domestication.
- dominación incompleto.** incomplete dominance.
- dominancia.** dominance.
- dominancia apical.** apical dominance.
- dominancia incompleta.** partial dominance.
- dominante.** dominant.
- donador de hidrógeno.** hydrogen donor.
- dormina.** dormin.
- dorsal.** dorsal.
- dorsifero.** dorsiferous.
- dorsifijo.** dorsifixed.
- dorsiventral.** dorsiventral.
- dosel.** canopy.
- dosel abierta.** open canopy.
- dosel cerrado.** closed canopy.
- dosis génica.** gene dosage.
- dotación cromosómico.** chromosome set.
- doticiaceo.** dothidiaceous.
- doble-serrado.** double-serrated.
- DQO.** COD.
- drepaniforme.** drepaniform. sickle-like.
- drepanio.** drepanium.
- driodio.** driodium.
- drupa.** drupe. pyrenocarp.
- drupado.** drupaceous.
- drupéola.** drupelet.
- dulce.** sweet
- dulcis.** dulcis.
- dumoso.** dumose. shrubby.
- duplexo.** duplex.
- duplicación.** duplication.
- duplicación de gene.** gene duplication.
- duplicación somático.** somatic doubling.
- duplicado.** twofold.
- duración.** duration.
- duración del día.** day-length.
- duramen.** duramen.
- durmiente.** dormant.

E

- e-, e-.
-eae. -eae.
ebenáceo. ebenaceous.
ebeneo. ebeneous. black.
ebracteado. ebracteate.
ecalcarado. ecalcarate.
ecdisona. ecdysone.
ecesis. ecesis.
ecidio. aecidium. aecium.
ecidióspora. aecidiospore. aeciospore.
eco-. eco-.
ecociencia. ecoscience.
ecocrino. ecocrine.
ecodeme. ecodeme.
ecofeno. ecophene.
ecogenia. ectogenesis.
ecolina. ecocline.
ecología. (o)ecology.
ecología comunidad. community ecology
ecología de fuego. fire ecology.
ecología de la producción. production ecology.
ecología de poblaciones. population ecology.
ecología entretenimiento. recreation ecology.
ecología fisiología. physiological ecology.
ecología marina. marine ecology.
ecología vegetal. plant ecology.
ecológicamente. ecologically.
ecológico. ecological.
ecologista. environmentalist.
ecólogo. ecologist.
ecorticado. ecorticate.
ecosfera. ecosphere.
ecosistema. ecosystem.
ecospecie. ecospecies.
ecotipo. ecotype.
ecotono. ecotone.
ecótopo. ecotope.
ecrustaceo. ecrustaceous.
ectexina. ektexine.
ecto-. ecto-.
ectoasco. ectoascus.
ectocrino. ectocrine.
ectoenzima. ectoenzyme.
ectófito. ectophyte.
ectoflocodal. ectophlocodal.
ectoflórico. ectophloic
ectogenico. ectogenic.
ectomicorriza. ectomycorrhiza.
ectono. ectone.
ectoparásito. ectoparasite.
ectoplasma. ectoplasm.
ectosarc. ectosarc.
ectospora. ectospore.
ectostroma. ectostroma.
ectotecal. ectothecal.
ectotrófico. ectotrophic.
ectrotrópico. ectrotropic.
edáfico. edaphic.
edafología. edaphology.
edafón. edaphon.
edema. edema. oedema.
edocefaloide. (o)edocephaloid.
edulis. edulis.
efecto alostérico. allosteric effect.
efecto de borde. edge effect.
efecto de invernadero. greenhouse effect.
efecto de posición. position effect.
efecto umbral. threshold effect.
eficacia reproductora. fitness.
eficiencia ecológica. ecological ef-

ficiency.
eficiencia fotosintético. photosynthetic efficiency.
efiguracións. effigurations.
efigurado. effigurate.
efímera. ephemeral.
efuso. effuse.
eglandular. eglandular.
egrosado. swollen.
eje. axis (*pl.* axes).
eje caulinar. caulome. shoot axis.
eje falso. false axis.
eje floral. floral axis.
eje longitudinal. longitudinal axis.
eje orgánico. organic axis.
eje primaria. primary axis.
ejemplar tipo. holotype.
elaioplasto. elaioplast.
elaminado. elaminate. without lamina.
elasticidad. resilience.
elástico. resilient.
eláter. elater.
elateróforo. elaterophore.
electrofisiología. electrophysiology.
electroforesis. electrophoresis.
electrolito. electrolyte.
electrólito. electrolyte.
electrólito anfótero. amphoteric electrolyte.
electrolito anfótero. amphoteric electrolyte.
electrón. electron.
electrotaxis. electrotaxis.
electrotropismo. electropism.
eleoplasto. elaioplast.
eleosoma. elaiosome.
elemento. element.
elemento esencial. essential element.
elemento químico. chemical element.
elemento transponible. transposable element.
elemento traza. trace element.
elemento de tubo-criboso. sieve-tube element.
elemento vaso. vessel element.

eleuteropetalo. eleutheropetalous.
elipsoide. ellipsoid.
elíptico. elliptic.
elongación. elongation.
el trópico. Tropics.
emarginado (enlámina). notched.
emarginado. emarginate.
emasculación. emasculation.
emasculador. emasculate.
embeber. imbibe.
embrión linear. linear embryo.
embirón plegado. folded embryo.
embrión rudimentario. rudimentary embryo.
embriófitas. embryophytes.
embriófitos. embryophytes.
embriogénesis. embryogenesis.
embriogenia. embryogeny.
embrioide. embryoid.
embriología. embryology.
embrionario. embryonic.
embrionia nuclelar. nucellar embryony.
embrión. embryo.
embrión espátulado. spatulate embryo.
embrión lateral. lateral embryo.
embrión micro. micro embryo.
embrional. embryonal.
embrión doblado. folded embryo.
embrión espátulado. spatulate embryo.
embrioniforme. embryoniform.
embrión lateral. lateral embryo.
embrión linear. linear embryo.
embrión micro. micro embryo.
embrión plegado. folded embryo.
embrión rudimentario. rudimentary embryo.
embriostegio. embryostega.
embriotegio. embryotega.
emergencia. emergence.
emergentes. emergents.
emisividad térmica. thermal emissivity.

empantanamiento. paludification.
empapar. imbibe.
emparejamiento. base pairing.
emulsina. emulsin.
emulsión. emulsion.
en el interior. with in.
en forma deshilada. strap-shaped.
enación. enation.
enacioestilo. enatiostylous.
enanismo. dwarfism, nanism.
enano. dwarf.
enano embrión. dwarf embryo.
enano vástago. dwarf shoots (spurs)
en barbecho. fallow.
encauzamiento. canalization.
encendido bacteriano. fire blight.
encerrar. encircle, surround.
encharcamiento. waterlogging.
encistamiento. encystment.
enclar (agrícola). lime (agricultural).
encogimiento residual. residual shrinkage.
encrustación. encrustation, adcrustation.
endarchar. endarch.
endecandro. endecandrous.
endémico. endemic.
endemismo. endemism.
endergónico. endergonic.
endo-. endo-.
endoasco. endoascus.
endobasidial. endobasidial
endobasidio. endobasidium.
endobiótico. endobiotic.
endocarp(i)o. endocarp.
endocarpico. endocarpous.
endocitosis. endocytosis.
endoconidio. endoconidium.
endodermis. endodermis.
endodermis interno. inner endodermis.
endoenzima. endoenzyme.
endofeloderma. endophelloderm.
endofelodermis. endophelloderm.
endofelodermo. endophelloderm.
endofilo. endophyllous.

endófito. endophyte.
endoforma. endoform.
endogamia. endogamy.
endogámico. inbred.
endogelatina. endogelatin.
endógeno. endogenic, endogenous.
endogonidio. endogonidium.
endolítico. endolithic.
endomicorriza. endomycorrhiza.
endomitosis. endomitosis.
endonucleasa. endonuclease.
endoparásitico. endoparasite.
endopeptidasa. endopeptidase.
endoperidio. endoperidium.
endoplacodial. endoplacodial.
endoplasma. endoplasm.
endopleura. endopleura.
endorizal. endorhizal.
endorizoide. endorhizoid.
endosapofitismo. endosaprophytism.
endosclerotio. endosclerotium.
endoscópico. endoscopic.
endosimbiosis. endosymbiosis.
endosito. endoparasite.
endosoma. endosome.
endosmosis. endosmosis.
endosperma. endosperm.
endosperma celular. cellular endosperm.
endospermo. endosperm.
endóspora. endospore.
endóstoma. endostome.
endotecial. endothelial.
endotecio. endothecium.
endotoxina. endotoxin.
endotrófico. endotrophic.
endotrófico micorriza. endotrophic mycorrhiza.
endótrofo. endotrophic.
endozoico. endozoic.
endurecido. indurated.
energéticos ecológico. ecological energetics.
energía. energy.
energía cinética. kinetic energy.

energía de activación. activation energy.

energía metabólica. metabolic energy.

energía potencial. potential energy.

energía radiante. radiant energy.

energía solar. solar energy.

enérgida. energid.

enervio. nerveless. veinless.

enfermedad. disease.

enfermedad carencial. deficiency disease.

enfermedad por carencia. deficiency disease.

en forma deshilada. strap-shaped.

engrosado. incrassate. thickened.

engrosamiento centrifugo. centrifugal thickening.

engrosamiento centripeta. centripetal thickening.

engrosamiento escalariforme. scalariform thickening.

engrosamiento primario. primary thickening.

engrosamiento reticulado. reticulate venation.

engrosamiento secundario. secondary thickening.

engrosamiento terciario. tertiary thickening.

enjambre de híbridos. hybrid swarm.

enlace. bond.

enlace bisulfito. disulfide bond.

enlace covalente. covalent bond.

enlace de hidrógeno. hydrogen bond.

enlace iónico. ionic bond.

enlace químico. chemical bond.

enmarañado. entangled. shaggy.

enolasa. enolase.

enmarañado. entangled.

enmohecido. moldy.

enneo-. ennea-.

enneofilo. enneaphyllus.

enquilema. enchylema.

enquistamiento. encystment.

enraizamiento. radication.

enraizando. rooting.

enredadera. twining.

enredado. tangled.

enredo. tangle.

enriquecimiento. enrichment.

enriquecimiento térmica. thermal enrichment.

enrollado. rolled. enrolled. coiled.

enrollado hacia adentro. inrolled.

enroscado. kinked.

ensiforme. ensiform. gladiate. sword-like.

ensilado. silage.

ensilaje. silage.

ensculptada. insculptate.

entelequia. entelechy.

entero. entire. undivided.

enterotoxina. enterotoxin.

entina.entine.

ento-. ento-.

entomófilo. entomophilous.

entomógeno. entomogenous.

entomófilo. entomophilous.

entomofilia. entomohily.

entoparásito. entoparasite.

entostroma. entostroma.

entozoico. entozoic.

entrada. influx.

entrecruzamiento. crossing over. inbreeding.

entrecruzamiento somática. somatic crossing-over.

entrelazarse. intertwine.

entrenudo. internode.

entresacar. thin out.

enucleación. enucleation.

envainador. sheathing.

envés. under surface.

envoltura. envelope.

envoltura floral. floral envelope.

envoltura nuclear. nuclear envelope.

envolver. enfold.

envolviendo. enfold.

envuelto. enclosed. surrounded.

enzima. enzyme.
enzima adaptiva. adaptive enzyme.
enzima amarillo. yellow enzyme.
enzima constitutiva. constitutive enzyme.
enzima de restricción. restriction enzyme.
enzima endocelular. endocellular enzyme.
enzima inducible. inducible enzyme.
enzima isocítrico. isocitric enzyme.
enzima isomerizante. isomerase.
enzima precursor. zymogen.
enzima proteolítica. proteolytic enzyme.
enzima represible. repressible enzyme.
enzima respiratorio. respiratory enzyme.
enzimático. enzymatic.
enzimología. enzymology.
epeciolado. epetiolate.
epeciolulado. epetiolulate.
epi-, epi-.
epiascidio. epiascidium.
epibasidio. epibasidium.
epibento. epibenthos.
epibionte. epibiont.
epibioses. epibioses.
epibiótico. epibiotic.
epiblasto. epiblast.
epicáliz. epicalyx.
epicarp(i)o. epicarp.
epicarpo. ectocarp.
epicormico. epicormic.
epicotilo. epicotyl.
epicótilo. epicotyl.
epictesis. epictesis.
epidérmico. epidermal.
epidérmico excrecencia. epidermal excrecence.
epidermis. epidermis.
epifilo. epiphyllous.
epifisis. epiphysis.
epifítico. epiphytic.

epífito. epiphyte.
epifitótico. epiphytotic.
epifloédal. epiphloedal.
epifoédico. epiphoeidic.
epifragma. epiphragm.
epigeico. epigeic.
epigénesis. epigenesis.
epigenética. epigenetics.
epigeno. epigenous.
epigeo. epigeal. epigeous. phanero-cotylar.
epigínia. epigyny.
epígino. epigynous.
epilimnion. epilimnion.
epimatio. epimatum.
epinastia. epinasty.
epinástico. epinastic.
epipélico. epipelic.
epipétalo. epipetalous.
epiplasma. epiplasm.
epiptero. epipteros.
epirrizo. epirhizal. epirhizous.
episépalo. episepalous.
episperma. episperm.
epispora. epispore.
epistasia. epistasis.
epistasis. epistasis.
epistático. epistatic.
epistrofa. epistropha.
epistroma. epistroma (*pl.* epistromata).
epitalino. epithalline.
epitalo. epithallus.
epiteca. epitheca.
epitecio. epithecium.
epitelio. epithelium.
epitelio scutelar. scutellar epithelium.
epitema. epithem.
epíteto específico. specific epithet.
epíteto. epithet.
epíteto específico. specific epithet.
epitrófico. epitrophic.
epitropo. epitropous.
epixilo. epixylous.
epizoico. epizoic.

época de lluvia. rainy season.

eporóforoso. sporophorous.

equilátero. equilateral.

equilibrio. equilibrium.

equilibrio de ligamiento. linkage equilibrium.

equilibrio fisiológico. physiological balance.

equilibrio gamético. gametic equilibrium.

equilibrio genético. genetic equilibrium.

equilibrio hidroestático. hydrostatic equilibrium.

equilibrio poligénico. polygenic balance.

equinoccial. equinoctial.

equipo investigador. research team.

equitante. equitant.

erecto. erect.

eremófilo. eremophilous.

ergastoplasma. ergastoplasm.

ericáceo. ericaceous.

ericetal. ericetal.

ericoide. ericoid.

erinoso. erinose.

erio-. erio-.

erióforo. eriophorous.

eritoso. erythrose.

eritro-. erythro-.

eritrofil. erythrophyll.

eritruoso. erythrulose.

erosión. erosion.

erosión eólica. wind erosion.

eroso. erose.

erizo. burr.

ermio. eremium.

erosión del suelo. soil erosion.

erosión eólica. wind erosion.

erosión. erosion.

eroso. erose.

erradicar. uproot.

errático. erratic.

error de muestreo. sampling error.

error muestral. sampling error.

errostro. erostrate.

erubescens. erubescens.

erumpente. erumpent.

esbelto. thin.

escaberluente. scaberlulent.

escaberúoso. scaberulous.

escabiosa. scabious.

escábrido. scabrid.

escabridúoso. scabridulous.

escabroso. scabrous.

escala de sociabilidad. sociability scale.

escalariforme. scalariform.

escaldadura. sun scald.

escaldadura foliar. leaf scorch.

escama. plates. scale. squama.

escama carpelar. carpellary scale.

escama gemaria. bud scale.

escama hoja. scale leaf.

escama ovulífero. ovuliferous scale.

escamaceo. squamaceous.

escamae. squamae.

escamiforme. scale-like hair.

escamosa. scurf. squamose. squamose. scaly.

escandente. scandent. climbing.

escapífero. scapose.

escapo. scape.

escaqueado. tessellated.

escar ramas. branch.

escarcha. frost. hoarfrost.

escarcha blanco. white frost.

escarificación. scarification.

escarificar. scarify.

escarioso. scarious.

escarlata (color). scarlet (color).

escasamente. slightly. sparingly.

escísil. scissle.

escisión gen(e). split gene.

escler-. scler-.

esclerantio. scleranthium.

esclereido. sclereid.

esclerencima. sclerenchyma.

esclerocaule. sclerocaulous.

esclerocio. sclerotium. sclerotic.

esclerofil. sclerophyll.
esclerófilo. sclerophyllous.
esclerófito. sclerophyte.
escleroide. scleroid.
esclerosado. sclerotic.
escleroso. sclerotic. sclerous.
esclerotesta. sclerotesta.
esclerótico. sclerotic.
esclerótico paréquima. sclerotic parenchyma.
exclusa. lock.
escobina. scobina.
escobinado. scobinate.
escorpioide. scorpoid.
escotadura (en lámina). notch.
escrobiculado. scrobiculate.
escrotiforme. scrotiform.
escuamelado. squamellate.
escuamiforme. squamiform.
escuamoso. squamose.
escuámula. squamella.
escuámulas. squamellae.
escuamulla. squamule.
escuamuloso. squamulose.
escuarroso. squarrose.
escuarroso. squarrose.
esculente. esculent.
esculado. seculat.
escutado. scutate.
escutelado. scutellate.
escuteliforme. scutelliform.
escutelo. scutellum.
escutiforme. scutiform.
es decir. i.e.
esencia. scent.
esfacelado. sphacelate.
esfaeráfido. sphaeraphide.
esfaerocárpico. sphaerocarpous.
esfaerocrystal. sphaerocrystal.
esfaeroquiste. sphaerocyst.
esfeno-. spheno-.
esfenoide. sphenoid.
esfera. sphere.
esfera atractiva. attraction sphere.
esférico. spherical.

esféridio. spheridium.
esferoidal. spheroidal.
esferoide. spheroid.
esferoma. spherome.
esferoplasto. spheroplast.
esferoproteína. globular protein.
esferosoma. spherosome.
esferulo. spherule.
esilado. stylate.
espaciado. spaced.
espacio de xílico. xylem gap.
espacio foliar. leaf gap.
espacio intercelular. intercellular space.
espádice. spadix.
espádiceo. spadiceous.
esparcidamente. sparsely. thinly.
esparcido. scattered.
espata. spathe.
espatáceo. spathaceous.
espatal. spathal.
espatela. spatella.
espatelula. spatellula.
espatiforme. spathiform.
espatulado. spathulate. spatulate.
especia. spice.
especiación. speciation.
especiación alócrona. allochronic speciation.
especiación alopatrico. allopatric speciation.
especiación casisimpátrico. quasi-sympatric speciation.
especiación direccional. directed speciation.
especiación fisiología. physiological speciation.
especiación parapátrico. parapatric speciation.
especiación cuántum. quantum speciation.
especiación rectangular. rectangular speciation.
especiación simpátrico. sympatric speciation.

especiado. speciate.
especialización. specialization.
especialización fisiológico. physiological specialization.
especializado (modificar). specialized (modified).
especializarse. specialize.
especie. species.
especie accidental. accidental species.
especie agregado. aggregate species.
especie aislado. occasional species.
especie amenazada. endangered species.
especie anfitropical. amphitropical species.
especie climax. climax species.
especie constante. constant species.
especie equilibrio. equilibrium species.
especie especialista. specialist species.
especie-específico. species-specific.
especie evolutiva. evolutionary species.
especie exclusivo. exclusive species.
especie fiel. faithful species.
especie fugitivo. fugitive species.
especie indiferente. indifferent species.
especie indexa. index species.
especie indicador. indicator species.
especie marginal. marginal species.
especie oportunista. opportunist species.
especie piedra angular. keystone species.
especie pionera. pioneer species.
especie preferente. preferential species.
especie selectivo. selective species.
especie subpiso. understory species.
especie sucesional. successional species.
especie termófilo. thermophilous species.
especie tipo. type species.
especie vagabundo. tramp species.

especie(s) amenazadas de extinción. threatened species.
especie-específico. species-specific.
especies accidental. accidental species.
especies indiferente. indifferent species.
especie vicario. vicarious species.
específico. specific.
especimen. specimen.
espectro biológico. biological spectrum.
espectro de acción. action spectrum.
espectrometría de masas. mass spectrometry.
esperanza de vida. life expectancy.
espermático. spermatophytic.
espermagonio. spermatogonium.
espermatio. spermatium (*pl.* spermata).
espermatóforo. spermatophore.
espermátocito. spermatocyte.
esperma(tó)fitas. Sperma(to)phyta.
espermátófito. spermatophyte.
espermátófito. spermatophyte.
espermátoplasto. spermatoplast.
espermatozoide. sperm. spermatozoid.
espermatozoo. spermatozoon (*pl.* spermatozoa).
espermio. sperm. spermium.
espermófito. spermatophyte.
espeso. thick.
espigiforme. spicate. spiciform. spike-like.
espico. spicous.
espicoso. spicose.
espícula. spicula.
espículado. spiculate.
espicular. spicular.
espícupe. spiculous.
espiculífero. spiculate.
espículo. spicule. spiculum.
espículoso. spiculose.
espiga. ear. spike.
espigado. spicate.

espiguilla. spikelet.
espina. spine.
espina. thorn. spine.
espinaceo. spinaceous.
espinesciente. spinescent.
espinícarpico. spinicarpous.
espinífero. spiniferous.
espiniforme. spiniform.
espinigero. spinigerous.
espinoso. spinose. spinous. spiny.
 thorny.
espinula. spinule.
espinulescente. spinulescent
espinuloso. spinulose.
espiral. spiral.
espiralado. spiralled.
espiral genética . genetic spiral.
espirema. spireme.
espiriculo. spiricle.
espirilio. spirillum (*pl.* spirilla).
espirógira. spirogyra.
espirólobo. spirolobous.
espirólobos. spirolobal.
espiroqueta. spiroch(a)ete.
espiroqueto. spiroch(a)ete.
espodograma. spodogram.
espongioplasma. spongioplasma.
esponjoso. spongiouse. spongy.
espontáneo. spontaneous.
espora. spore.
espora accesoria. accessory spore.
espora alfa. alpha spore.
esporabola. sporabola.
espora celular. cellular spore.
esporáceo. sporaceous.
esporación. sporation.
espora de invierno. winter spore.
espora de verano. summer spore.
esporádico. sporadic.
espora endógeno. endogenous spore.
espora en reposo. resting spore.
espora exógeno. exogenous spore.
espora fialomeristema. phialomeristem spore.
espora meristemo. meristem spore.

espora móvil. planont. swarm spore.
espora neutra. neutral spore.
esporangial. sporangial.
esporangífero. sporangiferous.
esporangio. sporangium.
esporangiocist. sporangiocyst.
esporangio germinal. germsporangium.
esporangióforo. sporangiophore.
esporangioid. sporangiod.
esporangióllo. sporangiolum.
esporangiólo. sporangiole.
esporangios. sporangia.
esporangióspora. sporangiospore.
espora polarilocular. polarilocular spore.
espora en reposo. resting spore.
espora rádula. radula spore.
espora secundario. secondary spore.
espora terminus. terminus spore.
esporas de fragmentación. fragmentation spores.
espori-. spori-.
esporiaridad. sporiparity.
esporidesmo. sporidesm.
esporidífero. sporidiferous.
esporidio. sporidium.
esporidios. sporidia.
esporido. sporid.
esporidolo. sporidole.
esporífero. sporiferous.
esporificación. sporification.
esporiparo. sporiparous.
esporo-. sporo-.
esporo. sporous.
esporoblasto. sporoblast.
esporocarp. sporocarp.
esporocita. sporocyte.
esporocladia. sporocladia.
esporoderma. sporoderm.
esporodochio. sporodochium.
esporófilo. sporophyll.
esporófita. sporophyta.
esporofítico. sporophytic.
esporófito. sporophyte.

esporóforo. sporophore.
esporóforoso. sporophorous.
esporógena. sporogen.
esporogénesis. sporogenesis.
esporógeno. sporogenic.
esporógeno. sporogenous.
esporogonia. sporogony.
esporogonio. sporogonium.
esporoide. sporoid.
esporoplasma. sporoplasm.
esporopolenin. sporopollenin.
esporoquiste. sporocyst.
esporosaco. sporosac.
esporulación. sporulation.
esqueje. cutting.
esqueje de hoja. leaf cutting.
esqueje selectivo. selective cutting.
esqueleto de carbonado. carbon skelton.
esquisto-. schisto-.
esquizo-. schizo-.
esquizocarp. schizocarp. schizocarpous.
esquizocotilia. schizocotyly.
esquizófito. schizophyta
esquizófito. schizophyto.
esquizogenico. schizognic.
esquizogeno. schizogenous.
esquizogonia. schizogony.
esquizomicetos. schizomycetous.
esquizonte. schizont.
esquizopétalo. schizopetalous.
estabilidad. stability.
establecimiento. establishment.
estabilidad. stability.
establización. stabilization.
estaca. cutting.
estación. season.
estación de lluviosa. rainy season.
estación de sequía. dry season.
estacional. seasonal.
estada lumínica. light stage.
estada rizopodal. rhizopodal stage.
estad(i)o juvenil. juvenile stage.
estado atmosférico. weather.

estado de ramillete. bouquet stage.
estado proviricia. proviral state.
estados de los postfertilización. post-fertilization stages.
estado vegetativa. vegetative state.
estambre. stamen.
estaminada. staminate.
estaminado. masculine.
estaminal. staminal.
estaminífero. staminiferous.
estaminodia. staminody.
estaminodio. staminode. staminodium.
estaminoso. staminose.
estancamiento. stasis.
estandarte. standard. vexillum.
estasisgénesis. stasigenesis.
estasispatrico. stasipatric.
estasis. stasis.
estatenquima. statenchyma.
estatismosporo. statismospore.
estato-. stato-.
estatocisto. statocyst.
estatulito. statolith.
estefanokonte. stephanokont.
estegio. stegium.
estegocarpico. stegocarpous.
estela. stele.
estela medular. medullary stela.
estelípila. stelipilous.
estelliforme. stelliform.
estellulado. stelluate.
esteno-. steno-.
estenobático. stenobathic.
estenocarpus. stenocarpus.
estenocio. sten(o)ecious.
estenófilo. stenophyllous.
estenohalino. stenohaline.
estenomorfo. stenomorph.
estenopétalo. stenopetalous.
estenosepalo. stenosepalous.
estenotermal. stenothermal.
estenotermico. stenothermic.
estenotemoso. stenothermous.
estenoteria. stenothery.
estenotermal. stenothermal.

estenotópico. stenotopic.
estenotrópico. stenotropic.
estepa. steepe.
éster. ester.
estereo-. stereo-.
estereoisómero. stereoisomer.
estereoma. stereome.
estereomorfo. stereomorphic.
estereotaxis. stereotaxis.
estereotrópico. stereotropic.
estereotropismo. stereotropism.
esterigma. sterigma.
esterigmas. sterigmata.
estéril. sterile. barren
esterilidad macho. male sterility.
esterilización. sterilization.
esterilización del suelo. soil sterilization.
esterilizar. sterilize.
esternotribu. sternotribe.
esteroide. steroid.
esterotropismo. stereotropism.
estigma. stigma.
estigmático. stigmatic.
estigmatífero. stigmatiferous.
estilar. stylar.
estilífero. styliferous.
estilo. style.
estilo terminal. terminal style.
estilocarpelo. stylocarpellous.
estilocarpépodico. stylocarpepodic.
estilodio. stylodious.
estilo lateral. lateral style.
estilopod. stylopod.
estilopódico. stylopodic.
estilopodio. stylopodium.
estilóspora. stylospore.
estilo terminal. terminal style.
estimular. stimulate.
estímulo. stimulation. stimulus.
estímulo difuso. diffuse stimulus.
estimuloso. stimulose.
estipela. stipel. stipellule.
estipelado. stipellate.
estipela envainador. sheathing stipel.

estipela vestigial. vestigial stipel.
estipelula. stipellule.
estipiforme. stipiform.
estipitado. stipitate.
estípите. stipe. stipe (fungal). peg.
estipitiforme. peg-like. stipitiform.
estípula. stipule.
estipula adnato. adnate stipule.
estipula basal. basal stipule.
estipulado. stipulate. stipulate.
estipula envainador. sheathing stipule.
estípula lateral. lateral stipule
estípula mediana. median stipule.
estipular. stipular.
estípula vestigial. vestigial stipule.
estipuliforme. stipuliform.
estirpe. race. clan.
estirpe ecológico. ecological race.
estivación. aestivation. estivation.
estivación abierta. open aestivation.
estivación contrahecho. twisted aestivation.
estivación descendente. descending aestivation.
estivación contorsionado. contorted aestivation.
estivación plegado. plicate aestivation.
estivación quincuncial. quincuncial aestivation.
estivación vexilar. vexillary estivation.
estival. aestival.
estival. estival.
esto es. i.e.
estolón subterráneo. underground stolon.
estolón. spur. stolon. runner.
estolonado. spurred.
estolonífero. stoloniferous.
estoloniforme. stoloniform.
estoma. stoma. stomate.
estomata. stomata.
estomático. stomatal.
estomatífero. stomatiferous.
estomatopodio. stomatopodium.
estomio. stomium.

estromata. stromata.
estromatiforme. stromatiform.
estrombo. strombus.
estrombulífero. strombuliferous.
estrombuliforme. strombuliform.
estructura. structure.
estructura cuaternaria. quaternary structure.
estructura del cuerpo. body structure.
estructura del suelo. soil structure.
estructura en doble hélice. double-helix structure.
estructura primaria. primary structure.
estructura terciario. tertiary structure.
estruma. struma.
estrumífero. strumiferous.
estrumoso. strumose.
estuario. estuary.
estuario de marea. tidal estuary.
estuche de espora. spore case.
estupeo. stupeous.
estuposo. stupose.
etanol. ethanol.
etanolamina. ethanolamine.
etapa. stage.
etapa seral. seral stage.
etapa uredo. uredo stage.
etene. ethene.
etileno. ethylene.
etiología. etiology.
etiología. etiology.
etnobotánica. ethnobotany.
etnoecología. ethnoecology.
etológico. etiological.
eu-, eu-
euapogamia. euapogamy.
euapogamia meiótica. meiotic euapogamy.
eubacterios. eubacteria.
eucamptódroma (nervadura). eucamptodromous (venation).
eucariota. eukaryote.

eucarpico. eucarpic.
eucaryota. eucaryote.
eucromatina. euchromatin.
eucromocentro. euchromocenter.
eucromosoma. euchromosome.
eufótica. euphotic.
euglena. euglena.
euglenoide. euglenoid.
eukaryotico. eukaryotic.
eumicetos. true fungi.
euploide. euploid.
euribático. eurybathic.
euiclico. eucyclic.
eufótica. euphotic.
eufotométrico. euphotometric.
eugeógeno. eugeogenous.
eugenético. eugenic.
euglena. euglena.
euglenoide. euglenoid.
eugonidio. eugonidium.
euhipmenial. euhymenial.
eukaryotico. eukaryotic.
eumicetos. eumycetae. true fungi.
eumitosis. eumitosis.
eumorfico. eumorphic.
euploide. euploid.
eupotamo. eupotamous.
euribático. eurbathic.
euriecio. euryecious.
eurihalino. euryhaline.
euritérmico. eurythermic.
eurítopo. eurytopic.
eusporangiado. eusporangiate.
eustela. eustele.
eutroficación. eutrophication.
eutrófico. eutrophic.
éutrofo. eutrophous.
eutropico. eutropic.
evaginación. evagination.
evaginado. evaginate.
evanescente. evanescent.
evaporación. evaporation.
evaporar. evaporate.
evapotranspiración. evapotranspiration.

evertado. everted.
evolución. evolution.
evolución convergente. convergent evolution.
evolución cuántica. quantum evolution.
evolución del cuanto. quantum evolution.
evolución divergente. divergent evolution.
evolución en mosaico. mosaic evolution.
evolución episódico. episodic evolution.
evolución filética. phyletic evolution.
evolución mantenimiento. maintenance evolution.
evolución paralela. parallel evolution.
evolución reticulado. reticulate evolution.
evolución simpátrico. sympatric evolution.
evolucionar. evolve.
evolvado. evolute.
ex-. ex-.
exageración. exaggeration.
exalbuminoso. exalbuminous.
exanillo. exannulate.
exarch. exarch.
exasperado. exasperate.
excelsus. excelsus.
excéntrico. eccentric.
exceso de población. overpopulation.
excípuo. exciple. excipulum.
excípuo talino. thalline exciple.
excipuliforme. excipuliform.
excitación. excitation.
exclerosado. sclerotic.
excleroso. sclerous.
exclusión alélica. allelic exclusion.
excrecencia. escrescence. outgrowth.
excrecencia pequeña. tubercle.

excreción. excretion.
excrecencia. outgrowth.
excescente. excrescent.
excretar. excrete.
excurrent. excurrent.
excurvado. excurved.
exendospermo. exendospermous.
exergónico. exergonic.
exestipulado. exstipulate.
exfoliación. exfoliation.
exfoliar. exfoliate.
exfoliativo. exfoliative.
exina. exine.
exindusiado. exindusiated.
existente. extant.
exo-. exo-.
exobasidial. exobasidial.
exobiología. exobiology.
exocarp(i)o. exocarp.
exocarpo. ectocarp.
exocitosis. exocytosis.
exocrina. exocrine.
exodermis. exodermis.
exoenzima. exoenzyme.
exofeloderma. exophelloderm.
exofelodermo. exophelloderm.
exogamia. exogamy. outbreeding.
exógeno. exogenous.
exogino. exogynous.
exoletto. exolete.
exón. exon.
exonucleasa. exonuclease.
exopeptidasa. exopeptidase.
exoperidio. exoperidium.
exoplasma. exoplasm.
explorador. pathfinder.
exoquito. exochite.
exoscópico. exoscopic.
exosmosis. exosmosis.
exóspora. exospore.
exosporio. exosporium.
exotecio. exothecium.

exótico. exotic. introduced. alien
exotoxina. exotoxin.
expandirse. expanded.
expectativa de vida. life expectancy.
explanta. explant.
exploración biogeoquímico. biogeochemical exploration.
exploración geobotánica. geobotanical exploration.
explosión demográfica. population explosion.
expresión (gen). expressivity (gene)
expresividad variable (gen). variable expressivity (gene).
exserto. exerted.
exsiccatu. exsiccatu.
extendido. extended.
externo membrana plasmática. external plasma membrane.
extina. extine.
extinción. extinction.
extinto. extinct.
extipulado. exstipulate.
extra-. extra-.
extra-axilar. extra-axillary.
extracelular. extracellular.
extracromosoma. extrachromosomal.
extramatricial. extramatricial.
extranjero. alien.
extranuclear. extranuclear.
extratropical. extratropical.
extremo adhesiva. sticky end.
extroso. extrorse.
exidación. exudation.
exudado. exudate.
exudado radical. root exudation.
exudar savia o resina. bleed.
exudar. exude.
exundado. exudate.
eyaculación. ejaculation.
eyección. ejection.

F

- F.** F.
F1. F1.
F2. F2.
faboide. faboid.
faceta. facet.
facies. facies.
factor. factor.
factor bios. bios factor.
factor biótico. biotic factor.
factor climático. climatic factor.
factor complementario. complementary factor.
factor de crecimiento. growth factor.
factor de lluvia. rain factor.
factor de transformación. transformation factor.
factor ecológico. ecological factor.
factor edáfica. edaphic factor.
factor extensión. extension factor.
factor físico. physical factor.
factor frecuencia. frequency factor.
factor hereditario. hereditary factor. gene.
factor interno. internal factor.
factor letal. lethal factor.
factor liberador. releasing factors.
factor limitador. limiting factor.
factor limitante. limiting factor.
factor mayor. master factor.
factor múltiple. multiple factors.
factor perturbador. disturbance.
factor sigma. sigma factor.
factors de liberación. releasing factors.
factors liberador. releasing factors.
facultativo. facultative.
FAD. FAD.
faenántero. phaenanthalous.
faenócarpo. phaenocarpous.
faenógamo. phaenogamous.
faeneología. phaenology.
faeo-, phaeo-.
faeofitina. phaeophytin.
faeoplasto. phaeoplast.
faespora. phaeosporous.
fago. phage. bacteriophage.
fagocitosis. phagocytosis.
fago lisogénico. lysogenic phage.
fago lítico. lytic phage.
fago temperado. temperate phage.
fagotrófico. phagotrophic.
fagótrofo. phagotroph.
fago virulento. virulent phage.
fagocitosis. phagocytosis.
fagotrófico. phagotrophic
fagótrofo. phagotroph.
Fahrenheit. Fahrenheit.
failido. phalide.
failospora. phailospore.
faja de protección. shelterbelt.
falange. phalange.
falcado. falcate.
falcado-secundo. falcato-secund.
falciforo. fleiphore.
falciforme. falciform. sickle-like.
falsa indusio. false indusium.
falsa septado. false septate.
falso eje. false axis.
falso septo. false septum.
falso. false.
falta. lack.
famético. gametic.
familia. family.
familia gene. gene family.
fanero-, phanero.
faneróantero. phaenanthalous.

fanerócarpo. phaenocarpous.
fanerófito. phanerophyte.
fanerógamia. phanerogam.
fangal. swamp.
farctado. farctate.
farinoso. farinose. farinaceous.
 farinous.
fasa. stage.
fasciación. fasciation.
fasciada. fasciated.
fasciado. fasciated.
fasciculada. fasciculate.
fascículado (tricoma). tufted.
fasciculado. fasciculate.
fascículo. fascicle.
fascículo. tuft.
fase. phase.
fase de acoplamiento. coupling phase.
fase de atracción. coupling phase.
fase de reposo. resting stage.
fase de retardo. lag-period.
fase dicariótica. dikarophase.
fase diploide. diplophase
fase haploide. haploid phase.
faseoliforme. phaseoliform.
fase metabólico. metabolic stage.
fase reproductora. reproductive phase.
fastigiada. fastigiate.
fatiscente. fatiscient.
faveolado. faveolate.
Fe. Fe.
fecundación. fecundation.
fecundación cruzada. cross fertilize.
 fecundación doble.
fecundación selectiva. selective fertilization.
fecundar. fecundate. fertilize.
fecundar mediante. cross fertilize.
fecundidad. fecundidad. fecundity.
fecundo. fecund.
fedundación doble. double fertilization.
feiculio. geniculum.
felem. phellem.

felio. phellium.
fellandrena. phellandrene.
fenocopia. phenocopy.
feloderma. phelloderm.
felógeno. phellogen.
feloide. phelloic.
fenestrada. fenestrate.
fenestrado. cancellate. fenestrate.
fenilalanina. phenylalanine.
fenilporpano. phenylpropane.
fenocopia. phenocopy.
fenol. phenol.
fenología. phenology.
fenotípico. phenotypic.
fenotipo. phenotype.
feofitos. brown algae.
fermentación. fermentation.
fermentación aerobio. aerobic fermentation.
fermentación alcohólica. alcoholic fermentation.
fermentar. ferment.
fermento amarillo. flavoprotein.
 yellow enzyme.
-fero. -ferous.
feromona. pheromone.
ferrodoxina. ferredoxin.
ferrugineo. ferruginous.
fértil. fertile.
fertilidad. fertility.
fertilidad de isla. island of fertility.
fertilización. fertilization.
fertilización cruzada. cross fertilization.
fertilización del suelo. soil fertilization.
fertilización doble. double fertilization.
fertilización reducido. reduced fertilization.
fertilización selectivo. selective fertilization.
fertilizante. fertilizer.
fertilizante orgánico. organic ferti-

lizer.
festoneado. scalloped.
fétido. fetid.
fiación de nitrógeno. nitrogen fixation.
fialide. phialid(e).
fialiforme. phialiform.
fialopora. phialopore.
fibra. fiber.
fibra bruta. crude fiber.
fibra cruda. crude fiber.
fibra del huso. spindle fiber.
fibre engrosamiento. thickening fiber.
fibra floema. phlem fiber.
fibra libriforme. libriform fiber.
fibra pericíclica. pericyclic fiber.
fibra septado. septate fiber.
fibra tráctil. tractile fiber.
fibrilar. fibrillar.
fibrilla. fibril.
fibriloso. fibrillose.
fibroso. fibrous. stringy.
fibrovascular. fibrovascular.
ficobilinas. phycobilins.
ficobilosomas. phycobilosomes.
ficocianina. phycocyanin.
ficocrisina. phycochrysin.
ficoeritrina. phycoerythrin.
ficología. phycology.
ficomicetes. phycompycetes.
ficomicetos. phycomyces. alga fungi.
ficopirina. phycopyrrin.
ficoxantina. fucoxanthin.
fidelidad. philopatry.
-fido. -fid.
fijación. fixation.
fijación de carbonado dióxido. carbon dioxide fixation.
fijación de nitrógeno. nitrogen fixation.
fiijo. fixed.
fil-. fil-.
filamento. filament.
filamento gonimoblasto. gonimoblast filament.
filamento intermedio. intermediate filament.

filamentoide. filamentoid.
filamentoso. filamentose. filamentous.
 stringy.
filar. filar.
filaria. phyllary.
filético. phyletic.
filación consanguinea. inbred line.
filicicoide. filicicoid.
filiciforme. fern-like. filiciform.
filifero. filiferous.
filiforme. filiform. thread-like.
filipéndulo. filipendulous.
-filo. -philous.
filo-. phyllo-.
filo. phylum.
filócladio. phylloclade.
filocladio. phyllocladium.
filocobionte. phycobiont.
filóclorina. phyllochlorin.
filodia. phyllody.
filodial. phyllodial.
filodio. phyllode. phyllodium.
filogénesis. phylogenesis.
filogénia. phylogeny.
filoide. phylloid.
filoma. phyllome.
filomania. phyllomania.
filón. phylon.
filoplasmodio. filoplasmodium.
filópodico. phyllopodic.
filopodio. phyllopodium.
filópodo. phyllopodium.
filosifiónico. phyllosiphonic.
filotaxia. phyllotaxy.
filotaxia quincuncial. quincuncial phyllotaxy.
filotaxis. phyllotaxis.
filum (pl. filums). phylum (*pl.* phyla).
fimbria. fringe.
fimbriado. fimbriate.
fimbrias. fimbria(e).
fimbricolo. fimbricolous.
fimbriado. fimbriolate.
finetario. finetarious.
fimícola. fimicolous. fimbricolous.

fisción. physcion.
fisible. fissile.
fis(i)ogonomía. physiogonomy.
fisiología vegetal. plant physiology.
fisión. fission.
fisión binaria. binary fission.
fisión de yema. bud-fission.
fisión ternario. ternary fission.
fisíparo. fissiparous. splitting.
fisología. physiology.
fisológico. physiologic(al).
fistulo. fistulose.
fistuloso. fistular. fistulous.
fistuloso (en órganos cilíndricos). hollowed.
fisura. fissure.
fitasa. phytase.
fitina. phytin.
fitness. fitness.
-fito. -phyte.
fito-. phyto-.
fitoalexina. phytoalexin.
fitobentón. phyto-benthon.
fitocenosis. phytocoenosis.
fitoncida. phytoncide.
fitocromo. phytochrome.
fitoecología. plant ecology.
fitófago. phytophage. phytophagous.
fitófilo. phytophilous.
fitogeografía. phytogeography.
fitografía. phytography.
fitohormona. phytohormone. plant hormone.
fítol. phytol.
fitolitología. phytolithology.
fitología. phytology.
fitólogo. botanist.
fitomitógenos. phytomitogens.
fitomorfología. phytomorphology.
fitoncida. phytoncide.
fitopatología. phytopathology.
fitoplancton. phytoplankton.
fitoquímica. phytochemistry.
fitoremediación. phytoremediation.
fitosterol. phytosterol.

fitosociología. phytosociology.
fitosteriina. phytosterol.
fitotaxonomía. plant systematics.
fitotomía. phytotomy.
fitotóxico. phytotoxic.
fitotoxina. phytotoxin.
fixativo. fixative.
flabelado. flabellate.
flabeliforme. flabelliform.
flabelinervio. flavellinerved.
flácido. flaccid. limp.
flacidez. flaccidity.
flácido. limp.
flagela. flagella.
flagelado. flagellate.
flagelar. flagellar.
flageliforme. flagelliform. whip-like.
flagelo. flagellum. whiplash.
flavelinervio. flabellinerved.
flavescente. flavidulous.
flavi-. flavi-.
flavina. flavin.
flavinas. flavins.
flavin-adenin-dinucleótido (FAD). flavin adenine dinucleotide (FAD).
flavin-mononucleótido (FMN). flavin mononucleotide (FMN).
flavona. flavone.
flavonoide. flavonoid.
flavoproteína. flavoprotein.
flavus. flavus.
fleco. fringe.
flequillo. fringe.
flexicaule. flexicaulis.
flexuoso. flexuous.
flobáfeno. phlobahene.
flocculente. flocculent.
floccoso. floccose.
floema. phloem.
floema interno. intrrenal phloem.
floema interxilaria. interxylary phloem.
floema primario. primary phloem.
floema secundario. secondary phloem.
foeniceus. phenocin.

foenocina. phenocin.
flocoterma. phloeoterma
flor. blossom. bloom. flower.
flor anual. summer annual.
flor estaminada. staminate flower.
flor polínica. pollen flower.
flor regular. regular flower.
flora. flora.
floración. blooming. flowering. efflorescence.
floración continua. perpetual flowering.
floración doble. double flower.
flora completa. complete flower. complete flower.
flora del suelo. soil flora.
flora hembra. female flower.
floral. floral.
floral capullo. floral bud.
floral yema. floral bud.
flora masculina. male flower.
flor con aroma. scented flower.
flor de agua. water bloom.
flor de alotropo. allotropic flower.
flor de mariposa. butterfly flower.
flor desnuda. naked flower.
flor doble. double flower.
florece constante. ever-blooming.
floreecer. bloom. flower.
florequilla. floret.
florequilla radial. ray flower.
florequita. floret.
flores del disco. disc flowers.
flor espiralada. spiral flowers.
forestación. forestation.
flor estaminada. staminate flower.
flor estéril. sterile flower.
floret. floscule.
floribundus. floribundus.
floridus. floridus.
florífero. floriferous. bearing.
florigeno. florigen.
flor incompleta. incomplete flower.
florístico. floristics.
flor lateral. lateral flower.

flor neutral. neutral flower.
flor neutro. neuter flower.
-floro. florous.
flor perfecta. perfect flower.
flor pistilada. pistillate flower.
flor radial. ray floret.
flor regular. regular flower.
flor singular. single flower.
flor terminal. terminal flower.
flor tubulosa. tubiform floret.
-florus. -florus.
flos. flos.
floscular. floscular.
flósculos. floscule.
flósculo disco. disk floret.
flósculo discoide. disk floret.
flósculo radial. ray floret.
flotante. floating.
fluitans. fluitans.
flujo de energía. energy flow.
flujo de gene. gene flow.
flujo de mucus. slime flux.
flujo de savia. sap flow.
flujo energético. energy flow.
flujo génico. gene flow.
flujo plasmático. protoplasmic streaming.
fluorescencia. fluorescence.
fluorescente. fluorescent.
FMN. FMN.
fobotactismo. phobotaxis.
fobotaxia. phobotaxis.
foliáceo. foliaceous.
foliación. foliation.
foliado. foliate. foliiferous. leafy.
foliar. foliar.
folice. follice.
folicole. folicolous.
folículo. follicle.
folículo. follicle.
folículo esquizocarpico. schizocarpic follicle.
foliífero. foliate. foliiferous.
foliiforme. foliiform. leaf-like
folio opuesto. oppositifolious.

foliado. foliolate.
folioform. folioform.
folíolo. foliole. leaflet.
folíolo secundario. secondary leaflet.
folíolo unifoliado. unifoliate leaflet.
folioloso. foliolose.
folioso. foliate. foliferous. foliose. leafy.
-folium. -folium.
follaje. foliage.
follaje aromático. scented foliage.
foma fisiológico. physiologic form.
fondo del mar. seafloor.
fondo genético. gene pool.
fondo marino. seafloor.
foramen. foramen.
forb. forb.
forcipado. forcipate.
forestación. forestation.
forficulado. forficulate.
forma. shape. form.
forma biológica. life form.
formación del suelo. soil formation.
forma de abanico. fan-shaped.
forma de crecimiento. growth form.
forma enol. enol form.
forma furanoso. furanose form.
forma hábitat. habitat group.
forma juvenil. juvenile form.
formación. formation.
formación celular libre. free cell formation.
formación del suel. soil formation.
formación gameto. gamete formation.
formación de puffs. puffing.
formaldehído. formaldehyde.
formativo. formative.
-forme. -form.
fórmula floral. floral formula.
forniculado. fornicate.
fornículo. fornicle.

fornix. fornix.
-foro. -phore.
forzado. forcing.
fosfatasa. phosphatase.
fosfátido. phosphatide.
fosfilipina. phosphilipine.
fosfolípido. phospholipid.
fosfonucleótido. phosphonucleotide.
fósfor ciclo. phosphorus cycle.
fosforilación. phosphorylation.
fosforilasa. phosphorylase.
fósforo. phosphorous.
fosforescencia. phosphorescence.
fosforescente. phosphorescent.
fosforilación. phosphorylation.
fosforilación oxidativa. oxidative phosphorylation.
fosforilasa. phosphorylase.
fósforo. phosphorus.
fosfoserina. phosphoserine.
fósil. fossil.
fósil característico. index fossil.
fósil viviente. living fossil.
fósiles combustibles. fossil fuels
fosilización. fossilization.
fosilizado. fossilized.
fot-. phot-.
fótic. photic.
fotoautótro. photoautotroph.
fotoautotrófico. photoautotrophic.
fotoautótrofo. photoautotroph.
fitobotánica. photobotany.
fitocinesis. photokinesis.
fitodinámico. photodynamic.
fitodisociación. photodissociation.
fotoéstato. photostage.
fitófilo. photophilous.
fitofosforilación. photophosphorylation.
fitofosforilación cíclica. cyclic photophosphorylation.
fitogénico. photogenic.
fitoheterótrofo. photoheterotroph.
fitoinhibición. photoinhibition.
fitolisis. photolysis.

fotólisis. photolysis.
fotolitotótrofo. photolithotroph.
fotomorfofis. photomorphosis.
fotomorfogénesis. photomorphogenesis.
fóton. photon.
fotonastia. photonasty.
fonegativo. photonegative.
foto-organótrofo. photo-organotroph.
fotooxidación. photooxidation.
fotopatía. photopathy.
fotoperceptor. photoperceptor.
fotoperiodicidad. photoperiodism.
fotoperiodismo. photoperiodism.
fotoperíodo. photoperiod.
fotopositivo. photopositive.
fotorecepción. photoreception.
fotoreducción. photoreduction.
foto(rre)ceptor. photo(re)ceptor.
fotorespiración. photorespiration.
fotosensibilidad. photosensitivity.
fotosíntesis. photosynthesis.
fotosintético. photosynthetic.
fototáctica. phototactic.
fototaxia. phototaxis.
fototaxis. phototaxis.
fototrofo. phototroph.
fototrópico. phototropic.
fototropismo. phototropism.
fóvea. fovea. pitt(ed).
fovéado. foveate.
fovéola. foveola.
foveolado. foveolate. pitted.
fovila. fovilla.
fragancia. fragrance.
fragancia. scent. fragrance.
fragante. fragrant. suaveolent.
fragmobasidio. phragmobasidium.
fragmentación. fragmentation.
fragmentación nuclear. nuclear fragmentation.
fragmento. fragment.
fragmoplasto. phragmoplast.
fragmospora. phragmospore.
franja. banded.

freatofito. phreatophyte.
frecuencia. frequency.
frecuencia de genes. gene frequency.
frecuencia de mutación. mutation rate. mutation frequency.
frecuencia de recombinación. recombination frequency.
frecuencia génica. gene frequency.
frecuencias de raíz. root frequency.
friable. friable.
frijol. bean.
fronda. frond.
fronda vegetativo. vegetative frond.
fronde. frond.
frondescencia. frondescence.
frondesciente. frondescient.
frondoso. frondose. frondescient.
fructífero. fructiferous.
fructificación. fructification. fruiting.
fructificación accesorio. accessory fructification.
fructofuranoso. fructofuranose.
fructopiranos. fructopyranose.
fructosa. fructose.
frústulo. frustule.
fruta colectiva. collective fruit.
fruta espora. spore fruit.
frutescente. frutescent.
frútice. frutex.
fruticola. fruticole.
fruticoso. fruticose.
fruto. fruit.
fruto accesorio. accessory fruit.
fruto agregado. aggregate fruit.
fruto alado. winged fruit.
fruto carnoso. fleshy fruit.
fruta colectiva. collective fruit.
fruto compuesto. composite fruit. compound fruit.
fruto falso. false fruit.
fruto mortar. mortar fruit.
fruto múltiple. multiple fruit.
fruto pireno. stone fruit.
fruto rincosporógeno. rhynchosporous fruit.

fruto sacciforme. saccate fruit.

fruto simple. simple fruit.

fruto verdadero. true fruit.

fuco. fucus.

fucoid. fucoid.

fucopiranos. fucopyranose.

fucosán. fucosan.

fucoso. fucose.

fucoxantina. fucoxanthin.

fuego bacteriano. fire blight.

fuego clímax. fire climax.

fuego superficie. surface fire.

fuerte. strong.

fugaz. fugacious.

fulcrado. fulcrate.

fulcrante (raíz). stilt.

fúlcrea. stilt.

fulcrado. fulcrate.

fulcro. fulcrum.

fuligno. fuliginous.

fumagino. fumaginous.

fumarasa. fumarase.

función. function.

función discriminante. discriminant function.

Fungi. Fungi.

fungicida. fungicide.

fúngico. fungal.

fungiforme. fungiform.

fungistático. fungistatic.

fungoide. fungoid.

funiculado. funiculate.

funicular. funicular.

funiculo. funicle. funiculus.

funiculoso. funiculose.

uniforme. uniform.

furipulado. furcipulate.

furfuráceo. furfuraceous.

furipulado. furcipulate.

fusiforme. fusiform. spindle-shaped.

fusión celular. cell fusion.

fusión céntrica. centric fusion.

fusión del protoplasto. protoplast fusion.

fusión doble. double fusion.

fusión triple. triple fusion.

fusionar(se). fuse.

fusionarse. coalesce. fused.

fusoide. fusoid.

fuste. bole.

fusus. spindle.

G

gajo. segment.
galactán. galactan.
galacto-. galacto-.
galactorarbán. falactoaraban.
galactolípido. galactolipid.
galactolipina. galactolipid.
galactopiranos. galactopyranose.
galactosa. galactose.
gálbulo. galbulus.
gálea. galea.
galeado. galeate.
galeiforme. galeiform. helmet-shaped.
galerculado. galerculate.
galeriforme. galeriform.
galvanotaxis. galvanotaxis.
galvanotropismo. galvanotropism.
gámeta. sex cell.
gametangio. gametangium (*pl.* gametangia).
gámeta. gamete.
gamético. gametic.
gameto. gamete. sex cell.
gametocito. gametocyte.
gameto facultativo. facultative gamete.
gametófito. gametophyte.
gametóforo. gametophore.
gametogénesis. gametogenesis.
gametogénico. gametogenic. gametogenous.
gameto no reducido. unreduced gamete.
gametrófico. gametrophic.
-gamia. - gamy.
gamo-. gamo-.
gamoclamideo. gamochlamydeous.
gamófase. gamophase.
gamófilo. gamophyllous.
gamogastro. gamogastrous.

gamogénesis. gamogenesis.
gamogénico. gamogenic.
gamopétalo. gamopetalous. synpetalous.
gamosépalo. gamosepalous.
gamostelia. gamostely.
gamotrópico. gamotropic.
ganchillo. hook.
ganchuelo. hook.
gangliforme. gangliform.
ganchudo. hooked.
garganta. throat.
gas de los pantanos. marsh gas.
gas invernadero. greenhouse gases.
gas metano. marsh gas.
geitonogamia. geitonogamy.
geitonógamo. geitonogamous.
gel. gel.
gelatinoso. gelatinous.
gel de agar. agar gel.
gelatinoso. gelatinous.
gema. gemma.
gemáceo. gemmaceous.
gemación. budding. gemmation.
gemación nuclear. nuclear budding.
gemado. gemmate.
gemelo. twins.
gemeta. gamete.
gemífero. gemmiferous.
gemificación. gemmification.
gemiflorado. gemmiflorate.
gemiflorme. gemmiform.
geminado. geminate. geminated.
geminifloro. bud-bearing.
geminifloro. bud-bearing. gemini-florous.
gemoide. gemmoid.
gémula. gemmule.

gen(e). gene.

gen artificial. artificial gene.

gen complementario. complementary gene.

gen de tipo silvestre. wild-type gene.

gen dominante. dominant gene.

generación sexuada. sexual generation.

generación sexual. sexual generation.

generación x. x generation.

gen estructural. structural gene.

gen letal. lethal gene.

gen mayor. major gene.

gen mutable. mutable gene.

gen operador. operator gene.

gen recesivo. recessive gene.

gen recíproco. reciprocal gene.

gen regulador. regulatory gene.

generación. generation.

generación agámico. agamic generation.

generación asexual. asexual generation.

generación espontáneo. spontaneous generation.

generación filial. filial generation.

generación paterna. parental generation.

generación sexuada. sexual generation.

generación sexual. sexual generation.

generador. generative.

generar. spawn.

generativo. generative.

genérico. generic.

género. genra. genus.

género forma. form genus.

género tipo. type genus.

génesis. genesis.

genética. genetic.

genética de (las) poblaciones. population genetics.

genética ecológico. ecological ge-

netics.

genética microbiana. microbial genetics.

genética molecular. molecular genetics.

genético. genetic.

génico. genic.

geniculado. geniculate.

genicular. genicular.

gen inestable. unstable gene.

genocentro. genecenter.

genoma. genom(e).

genoma antecedente. antecedent genom(e).

genotipo. genotype.

gens nuclear. nuclear genes.

gens polímero. polymeric genes.

gentianoso. gentianose.

genus. genera.

geo-. geo-.

geobotánica. geobotany.

geocarpelo. geocarpel.

geocarpia. geocarpy.

geófilo. geophilous.

geófita. geophyte.

geófito. geophyte.

geofloro. geoflorous.

geografía botánica. plant geography.

geografía orgánica. biogeography.

geonastia. geonasty.

geoplaiotrópico. geoplaiotropic.

geotactismo. geotaxis.

geotaxis. geotaxis.

geotropismo. geotropism.

geotropismo negativo. negative geotropism.

geotropismo transversal. plaiogeotropism.

geranial. geranial.

geraniol. geraniol.

germen. germ. germin.

germinación. germination.

germinación directa. direct germination.

germinación falso. false germination.
germinación hipogeo. hypogeal germination.
germinación inmediato. immediate germination.
germinado. geminate.
germinal. germinal.
germinar. germinate.
germinar. sprout.
germoplasma. germ plasma.
giberelina. gibberellin.
giboso. gibbose, gibbous.
gigante. gigantic.
gigantesco. gigantic.
gigantismo. gigantism.
gilvo. gilvous.
gimnocarpo. gymnocarpous.
gimnocidio. gymnocidium.
gimnocito. gymnocyte.
gimnogeno. gymnogynous.
gimnogino. gymnogynous.
gimnoplasma. gymnosplasm.
gimnosporo. gymnosporous.
gimnospermal. gymnospermal.
gimnospermas. gymnosperm.
gimnospermo. gymnospermous.
gimnostromo. gymnostromous.
gimnospora. gymnospore.
gin-, gyn-.
gináforo. gynaphore.
ginagamo. gynagamous.
ginagamocéfalo. gynagamocephalous.
ginandrial. gynandrial.
ginandro. gynandrous, gynandrium, gynostemial.
ginandróforo. gynandrophore.
ginania. gynandry
ginantero. gynantherous.
ginecandro. gynecandrous.
gineceo. gyn(o)ecium.
ginehermafrodicéfalo. gynehermaphrodicephalous.
ginehermafrodita. gynehermaphroditic.

ginobase. gynobase.
ginobásico. gynobasic.
ginodioecia. gynodioecy.
ginodioico. gynodioecious.
ginóforo. gynophore.
ginmo-. gymno-
ginomonoico. gynomonoecious.
ginostegio. gynostegium.
ginostemo. gynostemium.
gírar. gyrate.
girosa. gyrose.
glabrescente. glabrescent.
glabro. glabrate, glabrous, epilose, imberbate.
glande. glans.
glandiforme. glandiform.
glándula. gland.
glándula caliza. chalk gland.
glándula digestiva. digestive gland.
glándula salífera. salt gland.
glandular. glandular.
glanduloso. glandulose.
glaucéscent. glaucescent.
glauco. glaucous.
gleba. gleba.
glebula. glebula.
glebuloso. glebulose.
gliadina. gliadin.
gliceraldehído. glyceraldehyde.
glicerida. glyceride.
glicerol. glycerol.
glicina. glycine.
glicógeno. glycogen.
glicol. glycol.
glicólisis. glycolysis.
glicoproteído. glycoprotein.
glicoproteína. glycoprotein.
glicósido. glycoside.
gliotoxina. gliotoxin.
globoide. globoid.
globoso. globose.
globular. globular.
globulina. globulin.
glochidio. glochidium.
gloecistidio. gloecystidium.

glomerado. glomerate.
glomereular. glomereular.
glomérulo floral. flower cluster.
 glomerule.
glomerulus. glomerulus.
gloquidiado. glochidiate.
gloquidio. glochid.
gloso-, glosso-.
glosopodio. glossopodium.
glucan. glucan.
glucopiranos. glucopyranose.
glucoproteína. glucoprotein.
glucosa. glucose.
glucosamina. glucosamine.
glucosáns. gluosans.
glucósido. glucoside.
gluma. glume.
gluma estéril. empty glume. sterile glume.
gluma interno. inner glume.
glumáceo. glumaceous.
glumela florífera. flowering glume.
glumífero. glumiferous.
glutamina. glutamine.
glutation. glutathione.
glutational. glutathione.
gluten. gluten.
glutinoso. glutinous.
goma. gum.
gomífero. gummiferous.
gomosis. gummosis.
goni-, goni-.
gonidio. gonidium.
gonidióforo. gonidiophore.
gonioautoecio. gonioautoecious.
gonios. gones.
gonóforo. gonophore.
gonoplasma. gonoplasm.
gonosfera. gonosphere.
gonumo. gonimum.
gorra de cera. wax cap.
gospino. cottony. gossypine.
grabado espora. spore print.
gracilis. gracilis.
gradiente. gradient.

gradiente axial. axial gradient.
gradiente complejo. complex gradient.
gradiente de caracteres. character-gradient.
gradualismo filético. phyletic gradualism.
gradualismo. gradualism.
gradualismo filético. phyletic gradualism.
gradualmente. gradually.
grama. grass.
gramineo. gramineous.
graminiforme. graminiform. grass-like.
graminoso. grassy.
gran. great.
grana. grana.
granadina. grenadine.
grandi-, grandi-.
grandiflorus. grandiflorus.
grandifoliado. grandifoliate.
grandis. grandis.
grano. granum.
grano de almidón. starch grain.
grano de polen. pollen grain.
grano polínico. pollen grain.
granos de Palade. Palade's granules.
granular. granular.
granulífero. granuliferous.
gránulo. granule.
gránulo basal. basal granule.
gránulo metacromático. metachromatic granule.
gránulo plasmodico. plasmodic granule.
gránulos de volutina. volutin granules.
granuloso. granulose.
grasa. fat.
graso. greasy. unctuous.
grasoso. greasy.
gravedad. gravity.
graveolente. graveolent.
gravipercepción. graviperception.
gravitación. gravitation.

gravitacional. gravitational.

gravitropismo. gravitropism.

gredso. chalky.

gregario. gregarious.

grenadin. grenadin.

grieta interno. inner endodermis.

gruesamente. thickly.

grueso. thick.

grupo. clump.

grupo amino. amino group.

grupo apareamiento. mating group.

grupo carboxilo. carboxyl group.

grupo de esporas. spore group.

grupo de hermana. sister group.

grupo de ligamiento. linkage group.

grupo especie. species group.

grupo funcional. functional group.

grupo hábitat. habitat group.

grupo hermana. sister group.

grupo hidroxilo. hydroxyl group.

grupo prostético. prosthetic group.

grupo purina. purine group.

guanidina. guanidine.

guanina. guanine.

guí (del árbol). leader (of a tree).

guía del nectario. nectar guide.

guta. gutta.

gutación. guttation.

gutado. guttaate.

gutífera. guttifer.

gyttja. gyttja.

β -galactosidasa. β -galactosidase.

H

H. H.

hábitat. habitat.

hábitat parcial. partial habitat.

hábito. habit.

habla local. vernacular.

hacecillo fibrovascular. fibrovascular bundle.

hacecillo vascular. vascular bundle.

hacia afuera. outward.

hadromasa. hadromase.

haliplancton. haliplankton.

halo-. halo-.

halobiontico. halobiontic.

halobiótico. halobiotic.

halófilo. halophilous. halophilic. halophile.

halófita. halophyte.

halófobo. halophobe.

halonado. halonate.

haloser(i)e. halosere.

hamoso. hamate. hooked.

hapaxántico. hapaxanthic.

hapaxanto. hapaxanthic.

haplo-. haplo-.

haplobionte. baplobiont.

haplocaulescente. haplocaulescent.

haplodioecia. haplodioecious.

haplodioplonte. haplodioplont.

haplofase. haplophase.

haplogonidio. gaplogonidium.

haploide. haploid.

haploidia. haploidy.

haplomonoeia. haplomonoeicous.

haplomorfo. haplomorphic.

haplonte. haplont.

haplopoliploide. haplopolyploid.

haplosinoecia. haplosynoecious.

haplosis. haplosis.

haplostela. haplostele.

haplostémono. haplostemonous.

haplostromatico. haplostromatic.

haploxílico. haploxylic.

hapterios. haptera.

haptonastia. haptonasty.

haptotropismo. haptotropism.

harinoso. mealy.

hastado. hastate.

hastiforme. hastiform.

haustórico. haustorial.

haustorio. haustorium (*pl.* haustoria).

hayucos. mast.

haz. bundle. upper surface.

haz abierta. open bundle.

haz anfigasal. amphivasal bundle.

haz axial. axial bundle.

haz bast. bast bundles.

haz caular. cauline bundle.

haz cerrado. closed (vascular) bundle.

haz común. common bundle.

haz concentrico. concentric bundle.

haz cortical. cortical bundle.

haz estípita. stipe bundles.

haz fibrovascular. fibrovascular.

haz medular. medullary bundle.

haz radial. radial bundle.

haz vascular. vascular bundle.

haz vascular abierto. open vascular bundle.

haz vascular hadrocentrico. hadrocentric vascular bundle.

haz vascular leptocentrico. leptocentric vascular bundle.

hebetado. hebetate.

hedeca-. hendeca-.

hediondo. fetid.

hekistotermia. hekistotherm.

helecho. fern.

helecho arborescent. tree fern.

helechos gimnogramoide. gymno-

grammoid ferns.
hélice alfa. alpha helix.
hélice. helix.
helicoidal. helical.
helicoide. helicoid.
heliófilo. heliophilous.
heliófita. heliophyte.
helioscífita. heliosciphyte.
heliospora. heliospore.
heliotaxis. heliotaxis.
heliotrópico. heliotropic.
heliotropismo. heliotropism.
helodrio. helodrilum.
helófito. helophyte.
helotismo. helotism.
helmintoide. helminthoid. worm-shaped.
hema. haem.
hemátina. haematin.
hematocromo. haematochrome.
hembra. female.
hemi-. hemi-.
hemiasca. hemiascus.
hemiasco. hemiascus.
hemianátropo. hemianatropous.
hemiautófito. hemiautophyte.
hemiangiocarpo. hemiangiocarpic.
hemicarpo. hemicarp. mericarp.
hemicelulosa. hemicellulose.
hemicíclico. hemicyclic.
hemicigoto. hemizygote.
hemicriptófito. hemicryptophyte.
hemiforme. hemiform.
hemigamo. hemigamous.
heminúcleo. hemikaryon.
hemiparásito. hemiparasite.
hemisaprófito. hemisaprophyte.
hemispora. hemispore.
hemítropo. hemianatropous. hemitropous.
hemizigótico. hemizygous.
hemizigoto. hemizygote.
hemocromógenos. haemochromogens.
hendecagio. hendecagynous.
hendecandro. hendecandrous.

hendido. cleft.
hendidura. slit.
hendidura branquial. gill cleft.
hendidura. slit.
hepta-. hepta-.
hepática. hepatica. liverwort.
heptamero. heptamerous.
heptandro. heptandrous.
heptapétalo. heptapetalous.
heptasépalo. heptasepalous.
heptaspermo. heptaspermous.
heptoso. heptose.
herangio. haerangium.
herangiomicetos. haerangiomicetes.
herbáceo. herbaceous.
herbario. herbarium.
herbicida. herbicide.
herbicidal. herbicidal.
herbívoros. herbivore.
herbolario. herbalist.
herborista. herbalist.
herborizar. botanize.
hercogamia. hercogamy.
heredabilidad. heritability.
heredable. heritable.
heredar de. inherit from.
hereditario. hereditary.
herencia. heredity. inheritance.
herencia alosómico. allosomal inheritance.
herencia alternativa. alternative inheritance.
herencia (cito)plásmico. (cyto)plasmic inheritance.
herencia cruzada. criss-cross inheritance.
herencia cualitativo. qualitative inheritance.
herencia cuantitativo. quantitative inheritance.
herencia discomico. disomic inheritance.
herencia intermedia. intermediate inheritance.
herencia intermediaria. intermediate

inheritance.

herencia maternal. maternal inheritance.

herencia materno. maternal inheritance.

herencia mendeliana. particulate inheritance.

herencia mezclada. blending inheritance.

herencia plastídica. plastid inheritance.

herida. wound.

heridado. inherited.

hermafrodita. hermaphroditic. hermaphrodite. monoclinal.

hermafroditismo. hermaphroditism; gynandry.

herrumbre (color). rust (color).

herrumbre. rubiginous. rust (color).

hesperidina. hesperidin.

hesperidio. hesperidium.

heter-. hetero-.

hetero-. hetero-

heterandro. heterandrous.

hetercromo. heterochromous.

hetergamético. heterogametic.

hetergamia. heterogamy.

hetero-. hetero-.

heteroalelo. heteroallele.

heteroalelo. heteroallele.

heterauxiana. heteroauxin.

heterobasidio. heterobasidium.

heterobraquial. heterobrachial.

heterocarión. heterokaryon.

heterocarionte. heterocaryon.

heterocariosis. heterokaryosis.

heterocarpia. heterocarp.

heterocarpo. heterocarpous.

heterocia. heteroecy.

heterocíclica. heterocyclic.

heterocigosis. heterozygosis.

heterocigótico. heterozygous.

heterocigoto. heterozygote.

heterocigoto doble. double heterozygote.

heterocinesis. heterokinesis.

heterociste. heterocyst.

heterocisto. heterocyst.

heteroclamideo. heterochlanydeus.

heterocromático. heterochromatic.

heterocromatina. heterochromatin.

hetercromo. heterochromous.

heterocromosoma. heterochromosomes.

heterocronia. heterochrony.

heterodinámico. heterodynamic hybrid.

heterodromo. heterodromous.

heteroestilismo. heterostylism. heterostyly.

heterofertilización. heterofertilization.

heterofilia. heterophylly.

heterófilo. heterophyllous.

heterogamético. heterogametic.

heterogameto. heterogamete.

heterogametangio. heterogametangic.

heterogamia. heterogamy.

heterógamo. heterogamous.

heterogeneidad. heterogeneity.

heterogéneo. heterogeneous.

heterogénesis. heterogenesis.

heterógeno. heterogeneous.

hetergénico. heterogenic.

heterogonia. heterogony.

heterógono. heterogonous.

heteroico. heteroecious. heteroxenous.

heterómero. heteromerous.

heteromórfico. heteromorphic.

heteromorfo. heteromorphous.

heterónomo. heteronomous.

heteropétalo. heteropetalous.

heteropicnosis negativo. negative heteropycnosis.

heteroploide. heteroploid.

heteroproteido. conjugated protein.

heteropucnosis. heteropucnosis.

heterosépalo. heterosepalous.

heterosinapsis. heterosynapsis.

heterosis. heterosis.

heterospóreo. heterosporous.

heterosporangia. heterosporangy.
heterosporia. heterosporry.
heterospórico. heterosporic.
heterospóro. heterosporous.
heterostilia. heterostyly. heterostylism.
heterostilia dimórfico. dimorphic heterostyly.
heteroestilismo. heterostylism.
heterostilo. heterostylous.
heterotálico. heterothallic.
heterotalismo. heterothalism.
heterotaxis. heterotaxis.
heterotípica (inflorescencia). heterotypic.
heterotrófico. heterotrophic.
heterótrofo. heterotroph. heterotropous.
heteroxenia. heteroxeny.
heterozigosis. heterozygosis.
heterozigótico. heterozygous.
heterozigotismo. heterozygo(s)ity.
heterozigoto. heterozygote.
hexa-. hexa-.
hexamero. hexamerous.
hexandro. hexandrous.
hexaploide. hexaploid.
hexaploidia. hexaploidy.
hexosa. hexose.
hexosáns. hexosans.
hexasómico. hexasomic.
hexoquinasa. hexokinase.
hialina. diaphanous. hyaline.
hialo-. hyalo-.
hialogénesis. hyalogenesis.
hialógeno. hyalogen.
hialoplasma. hyaloplasm.
hialosporo. hyalosporous.
hians. hians.
hiascente. hiascent.
hibernación. hibernation.
hibernáculo. hibernaculum.
hibernal. hibernal.
hibernante. hibernating.
hibernar. hibernate.
hibridación. hybridization.

hibridación imperfecto. imperfect hybridization.
hibridación introgresiva. introgressive hybridization.
hibridar. hybridize.
hibridez. hybridity.
hibridismo. hybridism.
híbrido. hybrid.
híbrido anficlino. amphiclinous hybrid.
híbrido de célula somática. somatic cell hybrid.
híbrido de injerto. graft hybrid.
híbrido derivado. derivative hybrid.
híbrido de estructural. structural hybrid.
híbrido doble. derivative hybrid.
híbrido falso. false hybrid.
híbrido homodinámico. homodynamic hybrid.
híbrido interespecie. interspecies hybrid.
híbrido interespecífico. interspecific hybrid.
híbrido numérico. numerical hybrid.
híbrido permanente. permanent hybrid.
hidatodo. hydathode. water pore.
hidatodo epitema. epithem hydathode.
hidatodo tricoma. trichome hydathode.
hidración. hydration.
hidrasa. hydrase.
hidratado. hydrous.
hidrato de carbono. carbohydrates.
hidro. hydric.
hidrocarburo. hydrocarbon.
hidrocarpico. hydrocarpic.
hidrocoro. hydrochoric.
hidrofitio. hydrophytium.
hidrofóbico. hydrophobic.
hidrofilico. hydrophilic.
hidrófilo. hydrophilous.
hidrófita. hydrophyte.
hidrofóbico. hydrophobic.
hidrogenión. hydrogen ion.

hidrógeno. hydrogen.
hidrogenliasa fórmico. formic hydrogenlyase.
hidrogenasa. hydrogenase.
hidroide. hydroid.
hidrolasa. hydrolase.
hidrólisis. hydrolysis.
hidrolítico. hydrolytic.
hidrolizar. hydrolyze.
hidropóni(c)a. hydroponics.
hidropota. hypopote.
hidroser(i)e. hydrosere.
hidrosfere. hydrosphere.
hidrotactismo. hydrotaxis.
hidrotaxis. hydrotaxis.
hidrotrópico. hydrotropic.
hidrotropism. hydrotropism.
hielo. frost.
hielo estante. shelf ice.
hielo marino. sea ice.
hiematis. hiematis.
hierba. herb.
hierro. iron.
hifa. hypha.
hifa espiralada. spiral hypha.
hifa fértil. fertile hypha.
hifa flexuoso. flexuous hypha.
hifa prodiplodizaci3n. prodiploidization hypha.
hifa receptivo. receptive hypha.
hifomiceto. hyphomycetous.
hifopodio. hyphopodium.
higo estrangulamiento. strangling fig.
higr3fano. hygrophanous.
higr3falo. hygrophilous.
higr3fita. hygrophilous.
higr3fobo. hygrophobe.
higrom3trico. hygrometric.
higroquistic. hydrochastic.
higrosc3pico. hygroscopic.
hija. daughter.
hijuelo. offset. tiller.
hilo. hilum. hylum.
hilodio. hylodium.

hil3fito. hylophyte.
himantoide. himantoid.
himenio. hymenium.
himen3podio. hymenopodium.
himen3pteros. hymenophore.
hinchado. distended. swollen.
hinchaz3n. swelling.
hipanto. hypanthium.
hipantodio. hypanthodium.
hiper-. hyper-.
hiperdiploidía. hyperdiploidy.
hipermorf. hypermorph.
hiperploide. hyperploid.
hiperparasíto. hyperparasite.
hiperplasia. hyperplasia.
hiperploide. hyperploid.
hiperquimera. hyperchimaera.
hipersisibilidad. hypersensitivity.
hiperstromático. hyperstromatic.
hipert3nico. hypertonic.
hipetr3fito. hypertrophyte.
hipetr3fia. hypertrophy.
hipnociste. hypnocyst.
hipn3spora. hypnospore.
hipn3cigo. hypnozygous.
hipo-. hypo-.
hipoascidio. hypoascidium.
hipobasidio. hypobasidium.
hipobiosis. hypobiosis.
hipocarp3geno. hypocarpogenous.
hipoc3tilo. hypocotyl. embryonic axis.
hipocrateriforme. hypocrateriform.
hipocraterimorfo. hypocraterimorphous. salverform.
hipocrepiforme. hippocrepiform.
hipodermal. hypodermal.
hipodermis. hypodermis.
hipodermo. hypodermis.
hipofloeodal. hypophloeodal.
hip3geno. hypogenous.
hipogeo. hypogean.
hip3geo. hypogeous.
hipoginia. hypogyny.
hipoginio. hypogynium.
hip3gino. hypogynous.

hipolimnion. hypolimnion.
hipomorf. hypomorph.
hiponastia. hyponasty.
hipofilo. hypophyllous.
hipoplasia. hypoplasia.
hiploide. hyploid.
hipopoliploide. hypopolyploid.
hipoquinoide. hypochnoid.
hipostasis. hypostasis.
hipostático. hypostatic.
hipostomática. hypostomatic.
hipostroma. hypostroma.
hipotalo. hypothallus.
hipoteca. hypotheca.
hipotecio. hypothecium.
hipótesis. hypothesis.
hipótesis de secuencia. sequence hypothesis.
hipotónico. hypotonic.
hipotrófia. hypotrophy.
hipoxiloide. hypoxylid.
hircinus. hircinus.
hirti-. hirti-.
hirsuto. hirsute.
hirsutidina. hirsutidin.
hirsútulo. hirsutulous.
hirtoso. hirtose.
hértulo. hirtellous.
hirtus. hirtus.
hispid. hispid.
hispidulo. hispidulous.
histeranto. hysternanthous.
histeresis. hysteresis.
histeriaceo. hysteriaceous.
histeriforme. hysteriiform.
histerófito. hysteroophyte.
histerotecio. hysterothecium.
histidina. histidine.
histocompatibilidad. histocompatibility.
histogénesis. histogenesis.
histogenia. histogeny.
histógeno. histogen.
histoide. histoid.
histólisis. histolysis.

histología. histology.
histona. histone.
histoquímico. histochemistry.
historia natural. natural history.
historia vivo. life history.
hoja. leaf.
hoja acicular. acicular leaf.
hoja acuática. water leaf.
hoja alado. winged leaf.
hoja almacenaje. storage leaf.
hoja articulado. articulate leaf.
hoja carpelar. carpophyll.
hoja compuesta. compound leaf.
hoja compuesta ternada. ternately compound leaf.
hoja compuesto tripalmado. tripalmately compound leaf.
hoja de pino. pine needle.
hoja deshilada. strap leaf.
hoja de reserva. storage leaf.
hoja de sombra. skiophyll.
hoja embrionaria. germ layer.
hoja emergida. emerged leaf.
hoja entera. entire leaf.
hoja exterior del perigonio. outer perigone leaf.
hoja floral. floral leaf.
hoja foliácea. foliaceous leaf.
hoja germinal. germ layer.
hoja hisofilaria. hysophyllary leaf.
hoja juvenil. juvenile leaf.
hoja laciniada. laccate.
hoja lateral. lateral leaf.
hoja linear. linear leaf.
hoja mediana. median leaf.
hoja palmado compuesta. palmately compound leaf.
hoja pinnado compuesta. pinnately compound leaf.
hoja primaria. primary leaf.
hoja primordial. primordial leaf.
hoja radical. root leaf.
hoja de semilla. seed leaf. seminal leaf.
hoja simple. simple leaf.

hoja terminal. terminal leaf.
hoja utricular. utricular leaf.
hoja vegetativa. foliage leaf.
hojarasca. litter layer.
hojas caulinares. stem leaves.
hojilla. leaflet.
hojoso. leafy.
holándrico. holandric.
holístico. holistic.
holo-. holo-.
holobasidio. holobasidium.
holobéntico. holobenthic.
holoblástico. holoblastic.
holocarpico. holocarpic.
holocéntrico. holocentric.
holoenzima. holoenzyme
holófita. holophyte.
holofítico. holophytic.
hologameto. hologamete.
hologamia. hologamy.
holosaprófito. holosaprophyte.
holótipo. holotype.
hom(e)ostasis genética. genetic
 hom(o)eostasis.
homeostasis. homeostasis.
homo-. homo-.
homoalelo. homoallele.
homobasidio. homobasidium.
homobio. homobium.
homocario. homocaryon. homokaryon.
homocarión. homocaryon. homokar-
 yon.
homocarpio. homocarpous.
homocigoto. homozygote.
homoclamideo. homochlamydeous.
homodroma. homodromous.
homoeosis. homoeosis.
homófilo. homophyllous.
homofítico. homophytic.
homogamético. homogametic.
homogamia. homogamy.
homógamo. homogamous.
homogéneo. homogeneous.
homogénesis. homogenesis.
homogénico. homogenic.

homogéneo. homogenous.
homoímero. homimerous.
homoinjerto. homograft.
homología. homology.
homólogo. homologous.
homologue. homolog(ue).
homomorfismo. homomorphism.
homomorfo. homomorphic.
homónimo. homonym.
homopétalo. homopetalous. isopetal-
 ous.
homoplásmico. homoplasmic.
homosigosis. homozygosis.
homosinapsis. homosynapsis.
homosporangico. homosporangic.
homosporia. homospory.
homospórico. homosporic.
homósporo. homosporous.
homeostasis. homeostasis.
homostilia. homostyly.
homostílo. homostylous.
homotalia. homothallism.
homotálico. homothallic.
homotalismo. homothallism.
homozigosis. homozygosis.
homozigótico. homozygous.
homozigotismo. homozygosity.
homozigoto. homozygote.
hongo. fungus. mushroom.
hongo de la raíz. root fungus.
hongo estante. shelf fungus.
hongo imperfecto. imperfect fungus.
hongo viscoso. slime fungus.
hongos. fungi.
hongos inferiores. lower fungi.
hongos superiores. higher fungi.
hongos tóxico. toadstool.
hongos venenosas. poisonous fungi.
hongos venenosos. poisonous fungi.
hongos verdaderos. true fungi.
hordeina. hordein.
horiticultura. horticulture.
horizontal. horizontal.
horizonte. horizon.
horizonte A. A-horizon.

horizonte C. C horizon.
horizonte edáfico. soil horizon.
horizonte sálico. salic horizon.
hormesis. hormesis.
hormociste. hormocyst.
hormogóneo. hormogonium.
hormogonio. hormogone.
hormona. hormone.
hormona florígena. florigen.
hormona vegetal. plant hormone.
hormospora. hormospore.
horológico. horological.
horotélico. horotelic.
horotémente. horotely.
hortensis. hortensis.
horticola. horticultural.
hortus siccus. hortus siccus.
hospedero. host.
hospedero-específico. host-specific.
hueco. hollow.
hueso. pit. stone.
huésped. host.
huésped alternativo. alternate host.
 alternative host.

huésped diferencial. differential host.
huevo. egg. ovum (*pl.* ova).
huida. escape.
humedad. humidity. moisture.
humedad relativa. relative humidity.
húmedo. humid. moist. wet.
humico. humicolous.
humificación. humification.
humifusus. humifusus.
humilis. humilis.
humina. humin.
humo. smoke.
humus. humus.
humus ácido. mor. acid humus.
humus bruto. mor.
huso acromático. achromatic spindle.
huso inicial. initial spindle.
huso meiótico. meiotic spindle.
huso microtubular. microtubular spindle.
huso mitótico. mitotic spindle.
huso nuclear. nuclear spindle.

I

i.e. i.e.

ICHS. ICSH.

identificación. identification.

idioblasto. idioblast.

idiocromatina. idiochromatin.

idioplasma. idioplasm.

idoses. idoses.

igual. equal.

lluvia polen. pollen rain.

lluvioso. rainy.

inflorescencia mixto. mixed inflorescence.

imbibición. imbibition.

imbricación. imbrication.

imbricado. imbricate.

imerbe. imberbate.

imina. imine.

imitación. imitation.

imitativa. imitative.

immobilis. immobilis.

imparipinnado. imparipinnate. odd-pinnate.

imperfección. blemish. imperfection.

imperfecto (flor). imperfect (flower).

imperforado. imperforate.

impermeabilidad. impermeability.

impermeable. impervious.

impermeable. impermeable.

implicado. implicate.

impreso. impressed.

impurificar. pollute.

impurificación. pollution.

inactividad. inactivity.

inaequale. inaequale.

inarticulada. inarticulate.

incano. incanous.

incanus. incanus.

incapaz de reproducir. unable to reproduce.

incertae sedis. incertae sedis.

incicador anillo anual. tree ring index.

inciso. incised

incisión. incision.

inclinado. cernous. inclinate. drooping.

incluido. included.

inclusión. inclusion.

inclusión celular. cell inclusion.

inoloro. colorless. achroous. achromic.

incompatibilidad (flor). incompatibility (floral).

incompatibilidad (injerto). incompatibility (graft).

incompatibilidad floral. floral incompatibility.

incompatibilidad heteromórfico. heteromorphic incompatibility.

incompatibilidad homomorfo. homomorphic incompatibility.

incompleto. incomplete.

inconspicuamente. obscurely.

incontaminado. unpolluted.

incrustación. incrustation.

incubo. incubous.

incumbente. incumbent.

incurvado. incurved.

indehiscente. indehiscent.

independencia. independence.

independiente de la densidad. density independent.

indeterminado. indeterminate. indefinite.

indicado ecológico. ecological indicator.

indicador anillo anual. tree ring index.

índice (de superficie) foliar. leaf area index.

índice de aridez. aridity index.

índice de creimiento. growth rate.

índice de diversidad. diversity index.

índice de diversidad Shannon-Wiener. Shannon-Wiener index of diversity.

índice de eficiencia. efficiency index.

índice del área foliar. leaf area index.

índice de respiratorio. respiratory index.

índice mitótico. mitotic index.

indiferenciado. undifferentiated.

indígen. native.

indígena. indigenous.

individuo. individual.

inducción. induction.

inducción de la floración. induction of flowering.

inducción de mutaciones. induction of mutation.

inducción fototrópico. phototropic induction.

inductor. inducer. inductor.

indumento. indumentum. vestiture.

induplicado. induplicate.

indusio. indusium.

indusio falsa. false indusium.

indusio verdaderos. true indusium.

inequilátero. inequilateral.

inercia. inertia.

inerm. inermous. unarmed.

inermis. inermis.

inerte. inert.

infección. infection.

infección ectótrofo. ectotrophic infection.

infecundo. infertile.

inferior. inferior. lower.

infero (relativo al ovario). inferior.

infértil. infertile.

infestar. blight.

infiltración de agua. infiltration of water.

inflado. inflated.

inflexo. inflexed.

inflorescencia. inflorescence.

inflorescencia acropetal. acroptean inflorescence.

inflorescencia centrífugo. centrifugal inflorescence.

inflorescencia centripeta. centripetal inflorescence.

inflorescencia definida. definite inflorescence.

inflorescencia indefinida. indefinite inflorescence.

inflorescencia indeterminado. indeterminate inflorescence.

inflorescencia mixto. mixed inflorescence.

inflorescencial simpódica. sympodial inflorescence.

inflorescente. inflorescent.

inflorescencia centripeto. centripetal inflorescence.

informosoma. informosome.

infr-. infra-.

infra-. infra-.

infracto. infracted.

inframedio. inframedial.

infrapetiolar. infrapetiolar.

infrarroja. infrared.

infraspécifico. infraspécific.

infrutescencia. infructescence.

infundibuliforme. funnel-shaped. funnellform. infundibular

infundíbulo. infundibulum.

ingeniería forestal. forestry.

ingeniería genética. genetic engineering.

inhibición competitiva. competitive inhibition.

inhibición no competitiva. noncompetitive inhibition.

inhibición de contacto. contact in-

hibition.
inhibición no competitiva. noncompetitive inhibition.
inhibición por retroacción. feedback inhibition.
inhibidor. inhibitor.
inhibidor metabólica. metabolic inhibitor.
inhibir. inhibit.
iniciadora. starter.
inicial cámbial. cambium initial.
inicial del cuello. neck initial.
inicial radial. ray initial.
inicio. initiator.
injertar. graft.
injertar corona. crown graft.
injerto de yema. budding.
injerto. grafting.
inmaculado. immaculate.
inmadurez. immaturity.
inmaduro. immature. unripe.
inmarginado. immarginate.
inmaturo. immature.
inmigración. immigration.
inmovilización. immobilization.
immune. immune.
inmunidad. immunity.
inmunológico. immunological.
innato. innate.
inoculación. inoculation.
inocular. inoculate.
inóculo. inoculum.
inordinado. inordinate.
inodoro. inodorous. scentless. odorless.
inoperculado. inoperculate.
inorgánico. inorganic.
inositol. inositol.
insectívoro. insectivore. insectivorous.
inseminar. inseminate.
inserción. insertion.
insertado. inserted.
inserto. inserted.
insignis. insignis.
insipido. insipid.

insolación. insolation.
insolubilidad. insolubility.
insoluble. insoluble.
insparcido. inspersaed.
insular. insular.
insulto ambiental. environmental insults.
integrifolius. integrifolius.
integumento. integument.
intemperado fago. intemperate phage.
intensidad. intensity.
intenso. deep (color).
inter-. inter-.
interacción sinérgico. synergistic interaction.
interacción. interaction.
interactura. interact.
intercalar. intercalar.
intercalario. intercalary.
intercambio de apareamiento. exchange pairing.
intercambio de bases. base exchange.
intercambio de gas. gas exchange.
intercambio de segmentos. segmental interchange.
intercinesis. interkinesis.
interconectar. network.
intercostal. intercostal.
intercromocentre. interchromocenter.
intercruzada. intercross.
interfase. interphase.
interferencia. interference.
interferencia cromatídica. chromatid interference.
interferencia quiasmática. chiasma interference.
interferencia quiasmática negativa. negative chiasma interference.
interferencia quiasmática positivo. positive chiasma interference.
interfértil. interfertile.
interfoliar. interfoliar.
intergenérico. intergeneric.
intergradción. intergradation.
intergrado. intergrade.

intermolecular. intermolecular.
internervadura. intervein.
internodal. internodal.
internodio. internode.
internuclear. internuclear.
interpeciolar. interpetiolar.
interprogenie. interbreed.
interrumpido. intermittent.
interrumpido. interrupted.
interseleccionar. interbreed.
intersexo. intersex.
intersexuado. intersex.
intersticial. interstitial.
intervarietal. intervariatal.
intina. intine.
intorsión. intorsion.
intort. intort.
intra-. intra-.
intracelular. intracellular.
intraespecífico. intraspecific.
intraespecie. intraspecies.
intraestaminal. intrastaminal.
intrafoliar. intrafoliar.
intramarginal. intramarginal.
intramolecular. intramolecular.
intranuclear. intranuclear.
intrapeciolar. intrapetiolar.
intravaginal. intravaginal.
intrincado. intricate.
intro-. intro-.
introducido. introduced. alien.
introgresante. introgressant.
introgresión. introgression.
introrso. introrse.
intrusión de agua salada. saltwater intrusion.
intumescencia. intumescence.
intususcepción. intussusception.
inulasa. inulase.
inulina. inulin.
inundado. waterlogged.
invaginación. invagination.
invarianza. invariance.
invasión. invasion.
invasor. invader.

inversión de pericéntrico. pericentric inversion.
inversión térmica. thermal inversion.
invernación. overwinter.
invernante. hibernating.
invernar. hibernate.
inversión. inversion.
inversión de pericéntrico. pericentric inversion.
inversión de temperatura. temperature inversion.
inversión paracéntrico. paracentric inversion.
inversión térmica. thermal inversion.
inverso. inverted.
invertasa. invertase.
invertido. inverted.
invertir. invert.
investigación. research.
investigador científico. researcher.
inviabilidad. inviability.
inviable. inviable.
invierno. winter.
in vitro. invitro.
in vivo. in vivo
involucela. involucel(lum).
involucelo. involucel(lum).
involución. involution.
involucrado. involucrate.
involucral. involucral.
involucro. involucre.
involuta. involute.
ion. ion.
ión. ion.
ion de zwitter. zwitter ion.
ión dipolar. dipolar ion.
ion dipolar. dipolar ion.
ion hidrógeno. hydrogen ion.
iónico enlace. ionic bond.
ionizar. ionize.
ions no canjeable. non-exchangeable ions.
iridiscente. iridescent.
iridoide. iridoid.
irorado. irrorate.

irradiación. irradiation

irregular (flor). irregular (flower).

irregular. irregular.

irrigación. irrigation.

irritabilidad. irritability.

irritable. irritable.

irritar. irritate.

irrupción. irruption.

isadelfo. isadelphous.

isidio. isidium.

isla. island.

isla floema. phloem island.

islote de vena. vein islet.

ismorfismo. isomorphism.

iso-. iso-.

isobilateral. isobilateral.

isobraquial. isobrachial.

isocárpico. isocarpic.

isoconto. isokont.

isocotiledóneo. isocotylous.

isocótilo. isoctylous.

isocro. isochrous.

isocromosoma. isochromosome.

isodiamétrico. isodiametric.

isodínamo. isodynamous.

isoenzima. isoenzyme.

isoenzima. isozyme.

isofase. isophase.

isogametangico. isogametangic.

isogameto. isogamete.

isogamia. isogamy.

isogamo. isogamous.

isogenia. isogeny.

isogénico. isogenic.

isogéno. isogenous.

isogenomatico. isogenomatic.

isolación sexual. sexual isolation.

isolateral. isolateral.

isoleucina. isoleucine.

isomerasa. isomerase.

isómero. isomer.

isomero. isomerous.

isomorf. isomorph.

ismorfismo. isomorphism.

isomorfo. isomorphic.

isopétalo. isopetalous.

isóporo. isosporous.

isopreno. isoprene.

isoprenoide. isoprenoid.

isoreactivo. isoreagent.

isostémono. isostemonous.

isotónico. isotonic.

isótopo. isotope.

istmo. isthmus.

J

jaculator. jaculator.

jaspeado. variegated.

jicaro. gourd.

jugo celular. cell sap.

juego de cromosomas. set of chromosomes.

jugo nuclear. nuclear sap.

jugum. jugum.

julaceo. julaceous.

juncous. juncous.

juncia. sedge.

junco. juncous. rush. sedge.

juncoide. juncoid. rush-like.

jungla. jungle.

juventud. juvenility.

K

K. K.

kelp. kelp.

kinase. kinasa.

kino. kino.

krummholz. krummholz

L

L. L.

labelado. labellate.

labelo. labellum. lip.

labiado. labiate. lipped.

labial. labial.

labio. labium (*pl.* labia). lip.

labio superior. upper lip.

labirintiforme. labyrinthiform.

labium. labellum. lip.

laccado. laccate.

lacerado. lacerate.

lacieo. lacyeous.

lacinia. lacinia.

laciniado. laciniate.

laciniforme. laciniform.

lacinla. lacinla.

lacrimación. bleeding.

lacrimiforme. lacrimiform.

lactasa. lactase.

lactescencia. lactescence.

lactífero. lactiferous.

lactífico. lactific.

lactoflavina. lactoflavin.

lactona. lactone.

lacustre. lacustrine.

ladera. slope.

lado ventral. ventral side.

ladrillo (color). rusty (color). ruginous.

ladrillo. ruginous. rusty (color).

laevi-. laevi-.

laevigado. laevigate.

lageniforme. flask-shaped.

lageniforme. lageniform.

lago. lake.

lago mesótrofo. mesotrophic lake.

lago salino. salt lake.

lago salobre. salt lake.

lagua de aguas residuales. wastewater

lagoon.

laguna. lacuna (*pl.* lacunae).

lagunar. lacunose.

larmarckismo. lamarckism.

lamarquismo. lamarckism.

lamela medio. middle lamella .

lamelado. lamellate.

lamelar. lamellar.

lameliforme. lamelliform.

lameloso. lamellose.

lámina. blade. lamina.

lámina celular. cell plate

lámina de agua. water table.

lámina de hoja. leaf blade.

lámina entero. undivided blade.

lámina foliar. leaf blade.

laminación. lamination.

laminado. laminate.

laminar. laminar.

laminarina. laminarin.

laminilla. fungal gill. gill. lamella (*pl.* lamellae).

laminilla intergranular. intergranular lamella.

laminilla primario. primary lamella.

lana. wool.

lanceolado. lanceolate.

lanceoloide. lanceoloid.

lanci-. lanci-.

lani-. lani-.

lanoso. wooly.

lanso. lanate.

lanuginoso. lanuginose. wooly.

lanugo. lanugo.

lanuloso. lanulose.

lapidicólo. lapidicolous.

lasio-. lasio-.

lastre genético. genetic load.

latencia. dormancy. latent.

latencia invernal. winter dormancy.

la teoria del big bang. big bang theory.

lateral. lateral.

látex. latex (*pl.* latices).

latexosis. latexosis.

lati-. lati-.

latiacostillado. laticostate.

laticífero. laticifer. laticiferous.

latidentado. latidentate.

latitud. latitude.

latifolio. broad-leaved. latifoliate.

latifolioso. broad-leaved.

latifolius. latifolius.

latihoja. broadleaf.

latiofolioso. latifolious.

latiseptado. latiseptate.

latitud. latitude.

latón de color. aenius.

latrorso. latrorso.

laurio. laurium.

lavar. leach.

laxamente. loosely.

laxi-. laxi-.

laxo. lax. loose.

lecanorina. lecanorine.

lecho de un río. riverbed.

lecho marino. seafloor.

lecideina. lecideine.

lecitoproteína. lecithoprotein.

lecitina. lecithin.

lecitinasa. lecithinase.

lectina. lectin.

lectotipo. lectotype.

legumbre (enleguminosas). pod.

legumbre. legume.

leguminosa. leguminous.

leio-. leio-.

leiosporo. leiosporous.

lema. lemma.

leña. wood.

leña de otoño. latewood.

leña de primavera. earlywood (spring wood). primary wood.

leña de verano. summer wood.

leña estrecho. latewood.

leña picnoxílico. pyroxylic wood.

leña tardío. latewood. summer wood.

leña temprano. earlywood (spring wood). primary wood.

lengua. tongue.

lengua de compensación. compensation tongue.

leñosa. hardwood. lignified.

leñoso. ligneous. woody.

lenteja. lentil.

lenticela. lenticel.

léntico. lentic.

lenticular. lenticular.

lentiforme. lentiform.

lentiginoso. lentiginous.

leonado. tawny.

lepido-. lepid-.

lepidoto. lepidote.

lepis. lepis.

leproso. leprose.

lepto-. lepto-

leptoderma. leptodermous.

leptófilo. leptophyllos.

leptoforma. leptiform.

leptoma. leptome.

leptonema. leptonema.

leptosporangiado. leptosporangiate.

leptóteno. leptotene.

leptótico. leptotichous.

lesión. wound.

letal. lethal.

letal equilibrado. balanced lethal.

letargo. dormancy.

letargo estival. summer dormancy.

leucina. leucine.

leuco-. leuco-.

leucoanto. leucoanthous.

leucoplasto. leucoplast.

leiosporo. leucosporous.

levadura. yeast.

levana. levan.

levigado. levigate.

levovoluble. sinistrorse.

levulosa. levulose.

ley biogenética fundamental. bio-genetic law.

ley de Hardy-Weinberg. Hardy-Weinberg law.

Ley de las herencia de Mendel. Mendel's Law of Inheritance.

leyes de Mendel. Mendel's laws.

leyes de Galton. Galton's laws.

liana. liana.

liasa. lyase.

liber. liber. bast.

liber duro. hard bast.

liberación. liberation.

liberar. liberate.

libra. free.

libriforme. libriform.

LIC. ICF.

licopina. lycopene.

licopino. lycopene.

líea evolutiva. evolutionary lineage.

ligado al sexo. sex-linked.

ligado-X. X-linked.

ligado-Y. Y-linked.

ligamiento. linkage.

ligamiento al sexo. sex-linkage.

ligande. ligand.

ligasa. ligase.

ligeramente pédulo. nutant.

lignescente. lignescient.

lignícola. lignicolous.

lignificación. lignification.

lignificarse. lignify.

ligniforme. ligniform.

lignina. lignin.

lignocelulosa. lignocellulose.

lígula. ligule.

ligulada. ligulate.

ligulado. bearded.

ligular. ligulate (of shape).

liguliflorado. liguliflorate.

liguliforme. liguliform.

lila (color). lilac (color).

lima (fruta). lime (fruit).

limbato. limbate.

limbo (foliar). leaf blade.

límb. limb.

limero. lime tree.

limícola. limicolous.

limitación. restraint.

limitado por el sexo. sex-limited.

límite de arbol. limit of trees.

límite del arbolado. tree-line.

límite de tolerado. tolerance limit.

límite de tolerancia. tolerance limit.

límite del arbolado. timberline. tree-line.

límites de tolerado. limits of tolerance.

límites de tolerancia. limits of tolerance.

limivoro. mull.

limnético. limnetic.

limnio. limnium.

limnodio. linmodium.

limnología. limnology.

limón. lemon.

limoniforme. limoniform.

linaje. lineage.

linaje celular. cell lineage.

linaje evolutivo. evolutionary lineage.

linamarina. linamarin.

línea. line.

línea celular. cell line.

línea consanguínea. inbred line.

linéa de nieve. snow-line.

línea pura. pure line.

líneas zona. zone lines.

lineado. lineate.

lineal. linear (leaf).

linear (hoja). linear (leaf).

lineolado. lineolate.

lingúiforme. linguiform.

lingulado. lingulate.

linina. linin.

linkage. linkage. ligamiento.

linkage iónico. ionic linkage.

Linnaeus. Linnaeus.

lipasa. lipase.

lipocondria. lipochondria.

lípid. lipid(e).
lipocromo. lipochrome.
lipóide. lipid.
lipofílico. lipophilic.
lipoxidasa. lipoxidase.
lipoproteína. lipoprotein.
liposoma. liposome.
liquen. lichen.
liquenícola. lichenicolous.
liquenina. lichenin.
liqueno. lichenous.
liquenología. lichenology.
liquenometría. lichenometry.
lirado. lyrate.
lirella. lirella.
liriforme. lyriform.
lisina. lysine.
lisis. lysis.
liso. even. smooth.
lisogenia. lysogeny.
lisosoma. lysosome.
lisozima. lysozyme.
listado. streaked. striped.
litófilo. lithophilous.
litófito. lithophyte.
litoral. littoral.
litoral zona. littoral
litosere. lithosere.
litoserie. lithosere.
litótrofo. lithotroph.
lituado. lituate.
liturado. liturate.
liveus. liveus.
lixivación. leaching.
lixiviar. leach.
llanura. moor. prairie.
lluvia. rain.
lluvia ácido. acid rain.
lluvioso. rainy.
lobado. lobate.
lobo. lobe.
lobo cáliz. calyx lobe.
lobo lateral. lateral lobe.
lobulada. lobed.
lobulado. lobulate.

lobular. lobular.
lóbul. lobule.
localización. localization.
localizado. localized.
locelado. locellate.
loehmio. loehmium.
loci. loci.
locomoción. locomotion.
loculación. loculation.
loculado. loculate.
locular. locular.
loculación. loculation.
loculatus. loculatus.
loculicida. loculicidal.
lóculo. locule (*pl.* loculi). loculus.
 cell.
lóculo de semilla. seed cavity.
loculoso. loculose.
locus. locus (*pl.* loci or loca).
locus activo. active site.
locus de gene. gene locus.
locusta. locusta.
lodícula. lodicule.
lófilo. lophium.
lofótrico. lophotrichous.
lomentáceo. lomentaceous.
lomento. loment(um).
longevidad. longevity.
longi-. longi-.
longicólo. longicollous.
longiflor(o)(a). longiflorous.
longitud. longitude.
lorado. liguliform.
loriforme. lorate. loriform.
lotico. lotic.
lubrico. lubricous.
luciferasa. luciferase.
luciferina. luciferin.
lucífugo. lucifugous.
lugar receptivo. receptive spot.
lumen. lumen.
luminescencia. luminescence.
luminescente. luminescent.
lunular. crescentric. lunate. cres-
 cent-shaped.

lustroso	580	luz polrizada
lustroso.		(UV light).
luz.		lumen.
luz ultraviolete (UV).		ultraviolet light
		luz polrizada.

polarized light. ????

M

macollamiento. tillering.
macrfile. macrophyllous.
macrfile. macrophyll.
macro-, macro-.
macroalga. macroalgae.
macroandro. macrandrous.
macrobiótica. macrobiotic.
macrocéfalo. macrocephalous.
macrocíclico. macrocyclic.
macroclima. macroclimate.
macroclimático. macroclimatic.
macrocíclico. macrocyclic.
macroconideo. macroconidium.
macro de medio ambiente. macro-environment.
macroecológico. macroenvironment.
macroelemento. macroelement.
macroestilo. macrostyle.
macroevolución. macroevolution.
macrofibrilla. macrofibril.
macrofile. macrophyllous.
macrofilo. macrophyll.
macrofilina. macrophylline.
macrofitas. macrofungi.
macrofito. macrophyte.
macroflora. macroflora.
macrofósil. macrofossil.
macrogameto. macrogamete.
macrogametócito. macrogametocyte.
macrogametófito. macrogametophyte.
macrogonidio. macrogonidium.
macrohábitat. macrohabitat.
macrohongos. macrofungi.
macromicetos. macromycetes.
macromolécula. macromolecule.
macromolecular. macromolecular.
macronutriente. macronutrient.
macropodio. macropodous.
macroápodo. hypocotylespermous.

macropodial.
macroquiste. macrocyst.
macroscópico. macroscopic.
macrospora. macrospore.
macrosporangio. macrosporangium.
macrosporofilo. macrosporophyll.
macrotaxonomía. macrotaxonomy.
mácula. macula. spot.
maculación. maculation.
maculada. maculate.
maculado. blotched. spotted.
maculatus. maculatus.
maculícolo. maculicolous.
madera. wood.
madera manoxílico. manoxylic wood.
madera radial. wood ray
madra del espora celular. spore Mother Cell.
madre. mother.
madra del espora celular. spore Mother Cell.
maduración. maturation. ripening.
madurez. maturity. ripeness.
madurez reproductiva. reproductive maturity.
maduro. mature (fruit, vegetables). ripe.
magnesio. magnesium.
magnoliófita. magnoliophyta.
moho. mold. mould.
maiz. corn. maize.
majus. majus.
mal formado. mal formed.
mala hierba. weed.
malcófilia. malacophily.
malcófilo. malacophyllous.
malacoide. malacoid.
maleza. weed.
malformación. deformation. mal-

formation.
málico. malic.
maloláctico. malolactic.
maloloroso. malodorous.
malpigiáceo. dolabrata.
maltasa. maltase.
maltosa. maltose.
maltotriosa. maltotriose.
malvidina. malvidin.
malvito. maranta.
mamiforme. breast-shaped.
mamila. mammilla.
mamilae. mammillae.
mamilar. mammillar.
mamilifero. mammillate.
mamiforme. mammiform. breast-shaped.
mamoso. mammosa.
manchado. mottled. speckled.
mancha ocular. eye-spot.
manchón. stand.
madura manoxílico. manoylic wood.
manejo del suelo. soil management.
manganeso. manganese.
mangle. mangrove.
manipulación genética. genetic engineering.
manitol. mannitol.
manociste. manocyst.
manon. mannon.
manosa. mannose.
mantillo. humus. mull.
mantillo de hoja. leaf mold.
mantillo humus. mor.
manubrio. handle-shaped. manubrium.
mapa cromosómico. chromosome map.
mapa genético. gene mapping.
mapa génico. genetic map.
mapa ligamiento. linkage map.
mapaje genético. gene mapping.
maranta. maranta.
marcadamente. strongly. distinctly.
marca de tétrada. tetrad scar.
marcador. tracer.

marcador genético. genetic marker.
marcescente. marcescent.
marchitado. fading. wilting.
marchitamiento. wilt disease. withering.
marchitar. wither.
marchitarse (hoja). shrivel (leaf).
marchitarse. wilt.
marchitez. wilt disease.
marchitez permanente. permanent wilting.
marchito. faded. wilted. withered. shriveled.
marea roja. red tide.
marea. tide.
marfil vegetal. vegetable ivory.
marga. marl.
margen. riverbank.
margen (márgenes). margin.
margen de talino. thalline margin.
margen foliar. leaf margin.
margen lobulada. lobed margin.
margen sobrelapado. obvolute.
marginado. bordered. edged. marginate.
marginal. marginal.
marina. marine.
marino. marine.
marino biología. marine biology.
marisma (sal). swamp. salt marsh.
marisma emergencia. emergence marsh.
marisma sumergimiento. submergence marsh.
marítimo. maritime.
marsupio. marsupium.
masa radical. root mass.
masculino. male. masculine.
mastigonemo. mastigoneme.
mastoide. mastoid.
másula. massula.
mata. bush.
mata de hierba. tussock.
materia orgánico. organic matter.
matizado. suffused.

matorral. copse. matorral. scrub.
matorral espinoso. thorny bush.
matriz. matrix.
matriz cromosómico. chromosome matrix.
matroclino. matroclinus.
matromórfico. matromorphic.
matutino. matutinal.
maximus. maximus.
mayor. major.
mazo. skein.
mazaedio. mazaedium.
mazorca (del cacao). pod.
mecanismo aislante. isolating mechanism.
mecanismo aislante reproductivo. reproductive isolating mechanism.
mecanismo catapulta. catapult mechanism.
mecanismo de aislamiento. isolating mechanism.
mecanismo de retroacción negativa. negative feedback mechanism.
media luna. crescent-shaped.
media raza. half-race.
medida de densidad. density measure.
medina. median.
medio. medial.
medio-. medio-.
medioambiental. environmental.
medio ambiente. environment.
medio ambiente genotípica. genotypic environment.
medio ambiente xeric. xeric environment.
medio de enraizamiento. rooting medium.
medio ambiente. environment.
medio-inferior. half-inferior.
medio interno. internal environment.
mediolitoral. mediolittoral.
medio (de cultivo) mínimo. minimal medium.
médula. medulla. pith.

médula de reserva. storage pith.
médula esponjoso. spongy pith.
médula mixto. mixed pith.
medulado. medullate. pithy.
medular. medullary.
meduloso. medullose.
mega-. mega-.
megaesporófilo. megasporophyll.
megaesporogénesis. megasporogenesis.
megafanerófito. megaphanerophyte.
megafil. megaphyll.
megagameto. megagamete.
megagámeta. megagamete.
megagametófito. megagametophyte.
megagametogénesis. megagametogenesis.
mega(lo)-. mega(lo)-.
megalogonidio. megalogonidium.
megafilo. megaphyllous.
megáspora. megaspore.
megáspora célula madre. megaspore mother cell.
megasporangio. megasporangium (*pl.* megasporangia).
megasporócito. megasporocyte.
meiocito. meiocyte.
meioesporangio. meiosporangium.
meiofase. meiophase.
meiometro. meiomerous.
meiosis. meiosis.
meiosis cigótico. zygotic meiosis.
meiospora. meiospore.
meiotaxia. meiotaxy.
meiótico. meiotic.
mejora convergente. convergent improvement.
mejorador de semillas. seed breeder.
mejoramiento. breeding.
mela(no)-. mela(no)-.
melanosporo. melanosporous.
melibiosa. melibiose.
melieus. melieus.
mella (margen). indentation (margin).

mellizo. twins.
membral. membral.
membrana. membrane.
membrana celular. cell membrane.
membrana de fucundación. fertilization membrane.
membrana de la punteadura. pit membrane.
membrana de soral. soral membrane.
membrana elemental. unit membrane.
membrana espora. spore membrane.
membrana nuclear. nuclear membrane.
membrana obturante. closing membrane.
membrana oclusiva. closing membrane.
membrana plasma. plasma membrane.
membrana plasmática. plasma membrane.
membrana semipermeable. semipermeable membrane.
membrana unidad. unit membrane.
membrana unitaria. unit membrane.
membrana vacuolar. vacuolar membrane.
membranáceo. membranaceous.
membrano. membranous.
membrano de sótano. basement membrane.
meniscoidal. meniscoidal.
menor. smaller.
mensajero maternal. maternal messenger.
meoso-. meso-.
mentón. chin. mentum.
merenquima. merenchyma.
mericarpo. mericarp.
mericarpo esquizocarpic. schizocarpic mericarp.
mericlonación. mericlone.
merisomo. merism.
merismatoide. merismatoid.
merispora. merispore.
meristela. meristele.

meristema apical. apical meristem.
meristema intercalar. intercalary meristem.
meristema secundario. secondary meristem.
meristemático. meristematic.
meristemo. meristem.
meristemo cambial. cambial meristem.
meristemo cilindro central. central cylinder meristem.
meristemo de crecimiento apical. growth apical meristem.
meristemo del suelo. ground meristem.
meristemo lateral. lateral meristem.
meristemo primario. primary meristem.
meristema primordial. primordial meristem.
meristemoide. meristemoid.
merístico. meristic.
meristogenético. meristogenetic.
meristógeno. meristogenous.
-mero. -merous.
merogamia. merogamy.
meromíctico. meromictic.
meronte. meront.
merosporangio. merosporangium.
mésico. mesic.
meso-. meso-.
mesocarp(i)o. mesocarp.
mesócito. mesochite.
mesoclima. mesoclimate.
mesofanerófito. mesophanerophyte.
mesófil en empalizada. palisade mesophyll.
mesofilico. mesophil(e).
mesófilo. mesophyll.
mesófilo esponjoso. spongy mesophyll.
mesófita. mesophyte.
mesófito. mesophyte.
mesogelatina. mesogelatin.
mesohalino. mesohaline.
mesolegumbre. mesopod.
mesomitosis. mesomitosis.
mesosaprobio. mesosaprobe.

mesosoma. mesosome.
mesospora. mesospore.
mesosporio. mesosporium.
meta-, meta-.
metabasio. metabasidium.
metabiosis. metabiosis.
metabolía. metaboly.
metabólico. metabolic.
metabolismo. metabolism.
metabolismo asimilador. constructive metabolism.
metabolismo celular. cellular metabolism.
metabolismo constructivo. constructive metabolism.
metabolismo destructivo. destructive metabolism.
metabolito. metabolite.
metacelulosa. metacellulose.
metacéntrico. metacentric.
metacinesis. metakinesis.
metacromatina. metachromatin.
metafase. metaphase.
metafilo. metaphyll.
metafisis. metaphysis.
metafloema. metaphloem.
metagénesis. metagenesis.
metamitosis. metamitosis.
metamorfosis. metamorphosis.
metano. methane.
metanogénico. methanogenic.
metanótrofo. methanotroph.
metaplasma. metaplasma.
metaproteína. metaprotein.
metasíndesis. metasynthesis.
metaxenia. metaxenia.
metaxilema. metaxylem.
meteorización. weathering.
metionina. methionine.
métoda de selección. breeding method.
método de fitomejoramiento. breeding method.
método de ordenación. ordination method.
método de científico. scientific

method.
metoecio. metoecious.
metoxeno. metoxenous.
metoxona. methoxone.
metromórfico. metromorphic.
metula. metula.
metuliforme. metuliform.
metuloide. metuloid.
meurte súbita. damping-off.
mezcla bordeado. bordeaux mixture.
mezcla borgoña. burgundy mixture.
Mg. Mg.
mic(et)-. myc(et)-.
micaceo. micaceous.
micela. micella.
micelio. mycelium (*pl.* mycelia).
 spawn.
micelio aéro. aerial mycelium.
micelioide. mycelioid.
micelio primario. primary mycelium.
micelio secundario. secondary mycelium.
micelio substrado. substrate mycelium.
micelle. micelle.
miceloconidio. myceloconidium.
micetismo. mycetism.
micetoma. mycetome.
micobionte. mycobiont.
micobiota. mycobiota.
micocecidio. mycocecidium.
micocrinia. mycocriny.
micoderma. mycoderma.
micoelemento. trace element.
micofagia. mycophagy.
micófitas. fungi.
micótas en empalizada. palisade fungi.
micofitos roya. rust fungi.
micofitoro. mycophthorous.
micófitos. fungi.
micógeno. mycogenous.
micología. mycology.
micoplasma. mycoplasma(a).
micorriza. mycorrhiza.
micorriza ectótrofo. ectotrophic

mycorrhiza.
micorriza endófito. endophytic mycorrhiza.
micosina. mycosin.
micosis. mycosis.
micoso. mycose.
micostática. mycostatic.
micotico. mycotic.
micotoxina. mycotoxin.
micotrófico. mycotrophic.
micovirus. mycovirus.
micranthous. micranthous.
micro-. micro-
microaerobio. microaerobic.
microaerófilo. microaerophile.
microambiental. microenvironmental.
microbio. microbe.
microbiano. microbial.
micróbico. microbic.
microbiología. microbiology.
microbiota. microbiota.
microcíclico. microcyclic.
microciste. microcyst.
microclima. microclimate.
micrococo. micrococcus.
microcolonia. microcolony.
microconidio. microconidium.
microconsumidor. microconsumer.
microcultivo. microculture.
microecología. microecology.
microecosistema. microsystem.
microelemento. microelement.
microespecie. microspecies.
microevolución. microevolution.
microfanerófito. microphanerophyte.
microfibrilla. microfibril.
microfilamento. microfilament.
microfilina. microphylline.
microfilo. microphyll.
micrófito. microphyte.
microflora. microflora.
microfloral. microfloral.
microfósil. microfossil.
microgametangio. microgametangium.
microgameto. microgamete.

microgametócito. microgametocyte.
microgametófito. microgametophyte.
microgametogénesis. microgametogenesis.
microgonidio. microgonidium.
microhábitat. microhabitat.
microhongos. microfungus.
micromedio. microenvironment.
micromedioambiental. microenvironment.
micronemo. micronemous.
micronutriente. micronutrient.
microorganismo. microorganism.
microparásito. microparasite.
micrópilar. micropylar.
micrópilo. micropyle.
micropoblación. micropopulation.
microquímica. microchemistry.
microscopia de luminoso. light microscopy.
microscopia de luz. light microscopy.
microscopia de luz transmitida (MLT). transmission electron microscopy (TEM).
microscopio de luz ultravioleta. ultraviolet microscope.
microsoma. microsome.
micróspora célula madre. microspore mother cell.
micróspora. microspore.
micróspora célula madre. microspore mother cell.
microsporangiado cono. microsporangiate (male) cone.
microsporangio. microsporangium.
microsporocito. microsporocyte.
microsporofilo. microsporophyll.
microsporogénesis. microsporogenesis.
microterm. microtherm.
micrótopo. microtome.
microtubular. microtubular.
microtubúlos. microtubules.
mictohaplonte. miktohaplont.
miembro. member.
miembro elemento. vessel member.

migar. migrate.
migración. migration.
mildiú. mildew.
milita. myllita.
mimesis. mimesis.
mimético. mimetic.
mimetismo. mimicry.
mimetizar. mimic.
mineralización. mineralization.
miofilo. myiophyllous.
mirmecófila. myrmecophily.
mirmecófilo. myrmecophilous.
mirosporo. myriosporous.
mitriforme. mitriform.
misdivisión. misdivision.
mistus. mistus.
mitiliforme. mytiliform.
mitocondria. mitochondrion (*pl.* mitochodria).
mitogénico. mitogenic.
mitosis. mitosis.
mitosis premeiótico. premeiotic mitosis.
mitosis somática. somatic mitosis.
mitosoma. mitosome.
mitriforme. mitriform.
mixameba. myxamoeba.
mixobacteria. myxobacteria.
mixocromosma. mixochromosome.
mixomicetos. myxomycete. slime molds.
mixoploide. mixoploid.
mixoquim(a)era. mixochim(a)era.
mixta. mixed.
Mn. Mn.
Mo. Mo.
modelo monoclimática. monoclimal model.
moder. moder.
modificación. modification.
modificador de gen. modifier gene.
modificación duradera. dauemodification.
modo. mode.
modo reproducción. reproductive

method.
mofología. morphology.
moho. mold (mould).
moho cubierto de hollín. sooty mold.
moho de agua. water mold.
moho de hoja. leaf mold.
mohoes mucosos. slime molds.
moho viscoso. slime mold.
mohoso. moldy.
mojado. moist. wet.
molécula. molecule.
molécula prot(in)ica. protein molecule.
molécula proteína. protein molecule.
molecular. molecular.
molécula polar. polar molecule.
molendiáceo. molendinaceous.
molibdeno (Mo). molybdenum (Mo).
mollis. mollis.
mónada. monad.
monadelfo. monadelphous.
monalélico. monoallelic.
monandria. monandry.
monandro. monandrous.
monangial. monangial.
monarca. monarch.
monato. monanthous.
monecio. monecious.
monerana. moneran.
mongermen. monogerm.
moniliforme. bead collar. moniliform.
mono-. mono-.
monoalélico. monoallelic.
monocario. monocaryon. monokaryon.
monocariótico. monokaryotic.
monocarpelar. monocarpellate.
monocarpelaria. monocarpellary.
monocárpico. hapaxanthic. monocarpic.
monocarpo. monocarp.
monocarpogónico. unicarpellous.
monocasío. monochasium.
monocaule. monocaulous.
monocéfalo. monocephalic.

monocelular. unicellular.
monocéntrica. monocentric.
monocíclico. monocyclic.
monocigótico. monozygotic.
monoclamideo. monochlamydeous.
monoclino. monoclinous.
monocot. monocot.
monocotiledónea. monocotyledon.
monocotiledóneas. Monocotyledoneae.
monocotiledóneo. monocotyledonous.
monocromático. monochromatic.
monocultivo. monoculture.
monodesmico. monodesmic.
monoestilo. monostylous.
monofactorial. monofactorial.
monófago. monophagous.
monofilético. monophyletic.
monofiletismo. monophyletism.
monofilo. monophyllous.
monogenérico. unigeneric.
monogénesis. monogenesis.
monogénico. monogenic.
monogenocéntrico. monogenocentric.
monogermen. monogerm.
monogino. monogynous.
monohíbrido. monohybrid.
monoico. monoecious.
monómero. monomeric.
monomicelial. monomycelia.
monomítico. monomitic.
monomórfico. monomorphic.
mononucleado. mononucleate.
monopétalo. monopetalous.
monoplanético. monoplanetic.
monoploide. monoploid.
monopodial. monopodial.
monopódico. monopodial.
monopodio. monopodium.
monosa. monose.
monosacárido. monosaccharide.
monosépalo. monosepalous.
monosia. monosy.
monosimétrico. monosymmetrical.
monosoma. monosome.
monosomia. monosomy.

monosómico. monosomic.
monospermo. monospermous.
monospora. monospore.
monosporo. monosporous.
monosporangio. monosporangium.
monostela. monostele.
monostico. monostichous.
monoestilo. monostylous.
monoteca. monotheca.
monotípico. monotypic.
monotrico. monotrichous.
monoxero. monoxerous.
montaña. mountain.
montano. montane. mountain.
montanus. montanus.
morador. denizen.
moriforme. moriform.
morf. morph.
morfogénesis. morphogenesis.
morfología. morphology.
morfología vegetal. plant morphology.
morfológico. morphological.
morfosis. morphosis.
morfospecie. morphospecies.
mosaicismo. mosaicism.
mosaico. mosaic.
mosaico de hoja. leaf mosaic.
mosaico de vegetación. vegetation mosaic.
mosqueado. speckled.
moteado. speckled.
moteado. speckled. spotted.
motil. motile.
motilidad. motility.
movimiento acrópetal. acropetal movement.
movimiento basípetal. basipetal movement.
movimiento de Brownian. Brownian movement.
movimiento de sueño. nyctinasty. sleep movement.
movimiento de turgencia. turgor movement.
movimiento efímero. ephemeral

movement.
movimiento espontáneo. spontaneous movement.
movimiento filócarpo. phyllocarpic movement.
movimiento flagelar. flagellar movement.
movimiento nástico. nastic movement.
movimiento nictinástico. nyctinasty. sleep movement.
movimiento postfloral. post-floral movement.
movimiento turgente. turgor movement.
mucedineo. mucedineous.
mucho. many.
mucilaginoso. mucilaginous. mucoid.
mucílago. mucilage.
mucoproteína. mucoprotein.
mucoso. mucous. slimy.
mucrón. mucro.
mucronato. mucronate.
mucronulado. mucronulate.
mudar. shed.
muerte. death.
muesca (en fruto). notch.
muestra. sample.
muestra al azar. random sample.
muestra aleatoria. random sample.
muestra regular. regular sample.
muestra sistemático. systematic sample.
multi-. multi-.
multiacostillado. multicostate.
multialelo. multiallele.
multiapical. multiapical.
multicarpelar. multicarpellate.
multicaule. many-stemmed. multicaulous.
multicelular. multicellular.
multiciliado. multiciliate.
multidentado. multidentate.
multifactorial. multifactorial.

multífero. multifерous.
multífido. multifid.
multiflora. multiflora.
multifloro. multiflorous.
multiforme. multiform.
multigénico. multigenic.
multilobular. multilobate.
multilocular. multilocular.
multinodal. multinodal.
multinucleado. multinecleate(d).
multinuclear. multinecleate(d).
multiparo. multiparous.
multiperenne. multiperennial.
multiplicación. multiplication.
multiplicación accesorio. accessory multiplication.
multirradiado. multiradiate.
multiseptado. multiseptate.
multiseriado. multiseriate.
multivalente. multivalent.
multiseptado. multiseptate.
muralis. muralis.
muricado. muricate.
muriculado. muriculate.
muriforme. muriform.
murran. murren.
muscariforme. muscariform.
muscarina. muscarin(e).
muscícola. muscicolus.
muscología. muscology.
musgo. moss.
musgo de pantano. peat moss.
musgo de turba. peat moss.
musgo esfágneo. sphagnum moss.
muscícola. muscicolus.
mustio. faded. wilted.
mutación. mutation. sport.
mutación de brotes. bud mutation.
mutación de estructural. structural mutation.
mutación de yema. bud mutation.
mutación errónea. missense mutation.
mutación espontáneo. spontaneous mutation.

mutación génica. gene mutation.

mutación letal. lethal mutation.

mutación numérico. numereical mutation.

mutación plastidial. plastid mutation.

mutación plastídica. plastid mutation.

mutación puntiforme. point mutation.

mutación puntual. point mutation.

mutación reversiva. reverse mutation.

mutación revertida. back mutation.

mutación silencioso. silent mutation.

mutación sin sentido. nonsense mutation.

mutación somática. somatic mutation.

mutación supresor. suppressor mutation.

mutación transversión. transversion

mutation.

mutafaciente. mutafacient.

mutagénesis. mutagenesis.

mutágeno. mutagen.

mutante. mutant. sport.

mutante con sentido erróneo. missense mutant.

mutante de inserción. insertion mutant.

mutante delección. deletion mutant.

mutante errónea. missense mutant.

mutante transversional. transversional mutant.

mutar. mutate.

mutar revertida. back mutate.

mutarotación. mutarotation.

mútico. muticous.

mustio. faded. withered. shriveled. wilted.

mutón. muton.

mutualismo. mutualism.

N

n. n.
N. N.
Na. Na.
naciente. nascent.
nacreo. nacreous.
NAD. NAD
NADP. NADP.
nanismo. nanism.
(e)nanandrio. nannandrium.
(e)nanocito. nannocyte.
(e)nano- nano-.
(e)nanofanerofito. nanophanerophyte.
(e)nanófilo. nanophylous.
(e)nanofosil. nanofossil.
nanus. nanus.
napiforme. napiform.
naranja (color). orange (color).
nastia. nasty.
nástico. nastic.
natans. natans.
natante. natant.
nativo. indigenous. native.
natural. natural.
naturalizaar. naturalize.
naturalizado. naturalized.
nautiloide. nautiloid.
navicular. navicular.
nebuloso. nebulous.
necario. nectary.
necrohormona. wound hormone.
necrosis. necrosis.
necrótico. necrotic.
necrotrófico. necrotrophic.
néctar. nectar.
nectarífero. nectariferous.
nectario. nectary.
nectario extrafloral. extrafloral
nectary.
necton. necton. nekton.

nefro- nephro-.
nefroide. nephroid.
negativo. negative.
negruzco. nigrescent.
nematecio. nemathecium.
memoral. nemoral.
nenúfar. water lily.
neo- neo-.
neogénesis. neogenesis.
neoglucogénesis. gluconeogenesis.
neomorf. neomorph.
neoplasma. neoplasm.
neotypic. neotype.
nerítico. neritic.
nermalizar. vernalize.
nervado. costate. veined. nervose.
nervate. ribbed.
nervado libre. free veins.
nervadura. nervation. nervature.
venation. vein.
nervadura-aclarado. vein-clearing.
nervadura de banda. vein-band.
nervadura espuria. false vein.
nervadura media. midvein.
nervadura paralela. parallel vena-
tion.
nervadura reticulada. net-veined.
nerval. veinal.
nervicolo. nervicolous.
nerviforme. nerviform.
nervio. nerve. nerved.
nervio foliar. nervure.
nervio medio. midrib.
nérvulo. veinlet.
netaplasmodio. netplasmodium.
netro. netrum.
neucecilla. nucule. nutlet.
neumátodo. pneumathode.
neumatóforo. pneumatophore.

neumotaxis. pneumotaxis.
neumotropismo. pneumotropism.
neurotoxina. neurotoxin.
neuston. neuston.
neutra. neuter.
neutralismo. neutralism.
neutro. agamous.
neutrófilo. neutrophilous.
neutrón. neutron.
nicho. niche.
nicho ecológico. ecological niche.
nicotina. nicotine.
nicotinamida-adenina-dinucleótido (NAD). nicotinamide adenine dinucleotide (NAD).
nicotinamida-adenina-dinucleótido-fosfato (NADP). nicotinamide adenine dinucleotide phosphate (NADP).
nictanto. nyctanthous.
nictígamo. nyctigamous.
nictinastia. nyctinasty.
nictitrópico. nyctitropic.
nictonastia. nictonasty.
nido. nidus.
nidoso. nidose.
nidulante. nidulant.
niebla. fog.
niebla tóxica. smog.
nieve amarillo. yellow snow.
nieve rojo. red snow.
niger. niger.
ninfea. water lily.
niple. nipple.
nítido. nitid.
nitrate. nitrate.
nitrificación. nitrification.
nitrificar. nitrify.
nitrito. nitrite.
nitrobacteria. nitrobacterio.
nitrobacterio. nitrobacteria.
nitrófilo. nitrophilous.
nitrogenado. nitrogenous.
nitrogenasa. nitrogenase.
nitrógeno. nitrogen.

nitrógeno atmosférica. atmospheric nitrogen.
nitrógeno de fijación. fixation of nitrogen.
nitrosación. nitrosation.
nivalis. nivalis.
nivel de agua freática. ground water table.
nivel del mar. sea level.
nivel freático. ground water table.
nivel trófico. trophic level.
niveus. niveus.
no apareamiento homólogo. non-homologous pairing.
no articulado. non-articulate.
no celular. noncellular.
non-cíclico fotofosforilación. non-cyclic photophosphorylation.
no conjunción. non-conjunction.
nocturno. nocturnal.
nodal. nodal.
no deciduo. indeciduous.
nodífero. nodiferous.
nodo. nodum.
nodoso. nodose.
nodulación. nodulation.
nodulado. nodulate.
nodular. nodular.
nódulo. geniculum, nodule.
nódulo polar. polar nodule.
nódulo radical. root nodule.
noduloso. nodulose.
no disyunción. nondisjunction.
nombre científico. scientific name.
nombre específico. specific name.
nombre genérico. generic name.
nombre vulgar. common name.
nomen. nomen.
nomenclatura. nomenclature.
nomenclatura binomial. binomial nomenclature.
no modificar. non-modified.
non-. non-.
non-cíclico fotofosforilación. non-cyclic photophosphorylation.

nondisyunción. nondisjunction.
nondisyunción meiótico. meiotic nondisjunction.
nondisyunción meyótico. meiotic nondisjunction.
nondisyunción mitótico. mitosis nondisjunction.
nonmotil. nonmotile.
no polar. non-polar.
no poroso. impervious. impermeable.
no protínico. non-protein.
no reducción. non-reduction.
norma. norm.
no sensibilidad. non-sensibility.
no septado. unseptate.
no sexual. nonsexual.
no simétrico. unsymmetrical.
notado. notate.
novem-. novem-.
no vascular. avascular. non-vascular.
novem-. novem-.
no viable. non-viable.
nucela. nucellus.
nucelar. nucellar. nuclear.
nucleolar. nucleolar.
nucleoide. nucleoid.
nucifero. nuciferous.
nuciforme. nuciform.
nucleado. nucleate.
nuclear. nuclear.
nuclei conjugado. conjugate nuclei.
nuclei polar. polar nuclei.
núcleo. nucleus (pl. nuclei).
núcleo de fusión. fusion nucleus.
núcleo del tubo polínico. tube nucleus.
núcleo difuso. diffuse nucleus.
núcleo en reposo. resting nucleus.
núcleo espermaático. sperm nucleus.
núcleo generativo. generative nucleus.
núcleo hermana. sister nucleus.
núcleo hijo. daughter nucleus.
núcleo humus. humus nucleus.

nucleolado. nucleolate.
nucleolar. nucleolar.
nucleolina. nucleoline.
núcleolo. nucleolus.
nucleolocentrosoma. nucleolo-centrosome.
nucleoma. nucleome.
núcleo metabólica. metabolic nucleus.
nucleoplasma. nucleoplasm.
nucleoplasmático ratio. karyoplastic ratio.
núcleo polar. polar nucleus.
núcleolo polienégida. polyenergic nucleus.
nucleoproteína. nucleoprotein.
nucleoquilema. nucleochylema.
núcleo restitución. restitution nucleus.
núcleo secundario. secondary nucleus.
núcleo vegetativo. tube nucleus.
nucleósido. nucleoside.
nucleosoma. nucleosome.
nucleótida. nucleotide.
nucleótido. nucleotide.
núcleo vegetativo. tube-nucleus. vegetative nucleus.
núcula. nucule. nutlet.
núcleo. nutlet.
nudación. nudation.
nudi-. nudi-.
nudicaule. nudicaul.
nudo. joint. knot. node.
nudo de macollamiento. tillering node.
nudo neta. net knot.
nudo primario. primary node.
nudoso. knotty. knotted.
nuececilla. nutlet.
nuececilla esquizocarpic. schizocarpic nutlet.
nuez. nut.
nuez alado. winged nut.
nuliplexo. nulliplex.
nulisómico. nullisomic.
número cigótico. zygotic number.

número cromosómico. chromosome number.

número gamético. gametic number.

numero fotosintético. photosynthetic number.

numeroso. numerous.

nutación. nutation.

nutante (ligeramente pédulo). nutant.

nutrición. nutrition.

nutriente. nutrient.

nutrimento. nutriment.

nutrientes unasilable. unavailable nutrients.

nutrientes undisponible. unavailable nutrients.

nutritivo limitante. limiting nutrient.

nuz. nut.

nyctanto. nyctanthous.

nyctígamo. nyctigamous.

nyctitrópico. nyctitropic.

O

O. O.**oasis.** oasis.**ob-**, **ob-**.**obclaviforme.** obclavate.**obcomprimido.** obcompressed.**obcónico.** obconic.**obcordiforme.** obcordiform.
obcordate.**obdeltatdo.** obdeltate.**obdeltoide.** obdeltoid.**obdiplostémono.** obdiplostemonous.**obelítico.** obelliptic.**oblanceolado.** oblanceolate.**oblanceoloide.** oblanceoloid.**oblato.** oblate.**oblicuo.** oblique.**obligado.** obligate.**obliterado.** obliteration.**oblongo.** oblong.**obovado.** egg-shaped. obovate.**obovoide.** egg-shaped. obovoid.**obpiramidal.** obpyramidal.**obpiriforme.** knob-like. obpiriform.**oscuro.** obscure.**obsolescencia.** obsolescence.**obsolescente.** obsolescent.**obsoleto.** obsolete.**obtriangular.** obtriangular.**obtrulado.** obtrullate.**obtruncado.** obtruncate.**obtus.** obtuse.**obvoide.** egg-shaped.**occidentalis.** occidentalis.**oceánico.** oceanic.**océano de desierto.** ocean desert.**oceanografía.** oceanography.**oceanógrafo.** oceanographer.**oceanología.** oceanology.**ocelado.** ocellated.**ocelo.** ocellus.**ocheria.** ochery.**ochrosporo.** ochrosporous.**ocre.** ochre. ochre.**ócrea.** ochrea. ocrea.**ocreado.** ochreate. ocreate.**ocreocarp.** ochrocarpous.**ocreolado.** ocreolate.**octamero.** octamerous.**octandro.** octandrous.**octapéptido.** octapeptide.**octo-**, **octo-**.**otógino.** octogynous.**otolocular.** octolocular.**octomero.** octomerous.**octapéptido.** octapeptide.**octopetalar.** octopetalous.**octoploidia.** octoploidy.**otoradio.** otoradiant.**octosépalo.** octosepalous.**octosporo.** octosporous.**ocusión.** occulsion.**ocurrir.** occurs.**odonto-**, **odonto-**.**odontoide.** odontoid.**oferta.** tender.**officinales.** officinales.**ofio-**, **ophio-**.**-oide.** -oid. -ose.**oidia.** oidium.**ojo (yema).** eye (bud)**oleaginoso.** oleaginous.**oleiferus.** oleiferus.**oleína.** olein.**oleosoma.** oleosome.**olesa.** oil.**oidiosporo.** oidiospore.

olig- . -oligo.	oo- . oo-.
oligo- . -oligo.	ooblasto . ooblast.
oliocarpia . oligocarpý.	oocito . oocyte.
oliorárpico . oligocarpous.	oofito . oophyte.
oligoelemento . minor element.	oogameto . oogamete.
oligofilo . oligophyllous.	oogamia . oogamy.
oligogen . oligogene.	oógamó . oogamous.
oligohalino . oligohaline.	oogenético . oogenetic.
oligómero . oligomerous.	oogénesis . oogenesis.
oligomictico . oligomictic.	oogonia . oogonium.
oligonucleótida . oligonucleotide.	oolisis . oolysis.
oligonucleótido . oligonucleotide.	ooplasma . ooplasm.
oligopéptido . oligopeptide.	oosfera . oosphere.
oligopétalo . oligopetalous.	oosfera céntrica . centric fusion.
oligosacárido . oligosaccharide.	oosfera compuesta . compound oosphere.
oligosépalo . oligosepalous.	oosfera subcéntrica . subcentric oosphere.
oligósida . oligosaccharide.	oospora . oospore.
oligospermo . oligospermous.	oótida . ootid.
oligosporo . oligosporous.	opaco . dull. opaque.
oligostémono . oligostemonous.	operador . operator.
oligotaxia . oligotaxy.	operculado . operculate.
oligotrofia . oligotrophy.	operculiforme . operculiform.
oligotroficación . oligotrophication.	opérculo . lid. operculum.
oligotrófico . oligotrophic.	operón . operon.
oligótrofo . oligotrophic.	-opsis . -opsis.
oligotrofófito . oligotrophophyte.	opsis-forma . opsism-form.
oliorápico . oligocarpous.	opuesto . opposite. averse.
oliorhalino . oligohaline.	orbicular . orbicular. orbiculate. disc- shaped.
oliváceo . olivaceous.	orbitario . orbital.
olor . odor. scent.	orculiforma . orculiform.
olorifero . odoriferous.	orden . order.
oloroso . fragrant. scented.	ordinal . ordinal.
ombligo . umbilicus.	oreo- . oreo-.
ombrófila . ombrophilous plant.	orgadio . orgadium.
ombrófilo . ombrophilous. rain-loving.	órgan de sujeción . holdfast.
ombrófito . ombrophyte.	organela . organelle.
ombrófobo . ombrophobe.	organela sensorial . sense organelle.
omnivoró . omnivore. omnivorous.	orgánico . organic.
ondulación . corrugation.	organismo . organism.
ondulado . corrugated.	organismo pionera . pioneer organ- ism.
ondular . undulate.	organización . organization.
onduloso . wavy.	
ontogenético . ontogenetic.	
ontogenia . ontogeny.	
ontogénesis . ontogenesis.	

organizado. organized.
organizador. organizer.
organizar. organize.
órgano. organ.
órgano acoplamiento. attachment organ.
órgano anexo. accessory organs.
órgano fijador. holdfast.
organogenia. organogeny.
organogénesis. organogenesis.
organografía. organography.
órgano invernante. perennating organ.
organología. organology.
órganos esencial. essential organs.
órgano sensorial. sense organ.
órganos no esencial. non-essential organs.
organótrofo. organotroph.
órgano vestigial. vestigial organ.
orgánulo. organelle.
orgánulo sensorial. sense organelle.
oria. fringe.
orientale. orientale.
orientación. orientation.
orilla del mar. seashore.
orificio eisodal. eisodal aperature.
ornitina. ornithine.
ornito-. ornitho-.
ornitocoprófilo. ornithocoprophilous.
ornitófilo. ornithophilous.
ornitófilia. ornithophilous.
orófilo. orophilous.
orófito. orophyte.
orófitio. orophyte.
orquídea. orchid.
ort-. ortho-.
ortiga. nettle.
orto-. ortho-.
ortoclado. orthocladous.
ortogénesis. orthogenesis.
ortogeotropismo. orthogeotropism.
ortoselección. orthoselection.
ortósticos. orthostichies.
ortótropico. orthotropous.
ortotrópo. orthotropic.

ortotropismo. orthotropism.
ortótropo. orthotropous.
ósculado. osculate.
osculante. osculant.
ósculo. oscule (*pl.* oscula).
oscuro. dark.
óseo. osseous.
osículo. ossiculus.
osiforme. ossiform.
-osis. -osis.
osmofílico. osmophilic.
osmoregulación. osmoregulation.
osmosis. osmosis.
ósmosis. osmosis.
osmótico. osmotic.
osmotrófico. osmotrophic.
osteosclereida. osteosclereide.
ostilo. ostiole.
ostiólado. ostiolate.
otoñal. autumnal.
otoño. autumn. fall.
outbreeding. outbreeding.
outliera. outlier.
ovado. ovate.
ovalado. oval.
ovarícolo. ovaricolous.
ovario. ovary.
ovario compuesta. compound ovary.
ovario infero. inferior ovary.
ovario súpero. superior ovary.
ovi-. ovi-.
oviforme. oviform.
ovisac. ovisac.
ovocélula. egg cell.
ovogénesis. ovogenesis.
ovogenético. ovogenetic.
ovoide. ovoid.
ovótida. ootid.
ovulado. ovulate.
ovular. ovular.
óvulo. cell. ovule.
óvulo anfitropo. amphitropous ovule.
oxi-. oxy-.
oxibiosis. aerobiosis.
oxicromatina. oxychromatin.

oxidación. oxidation.

oxidación beta. beta oxidation.

oxidante. oxidant.

oxidar. oxidize.

oxidasa. oxidase.

oxidasa polifenol. polyphenol oxidase.

oxidoreductasa. oxidoreductase.

oxígeno atmosférica. atmospheric

oxygen.

oxígeno. oxygen.

oxilófito. oxylophyte.

oxitaxis. oxytaxis.

oxodio. oxodium.

ozona. ozone.

ozonósfera. ozonosphere.

β -oxidación. β -oxidation.

P

P. P.

pagina. pagina.

paidogénesis. p(a)edogenesis.

pajizo. stramineous.

paladar. palate.

pal(a)eoclimnología. pal(a)eoclimnology.

pal(a)eoecología. pal(a)eoecology.

pal(a)eospecie. pal(a)eospecies.

pal(a)eofitología. pal(a)eophytology.

pal(a)eoflora. pal(a)eoflora.

pal(a)eola. pal(a)eola.

pal(a)eolado. pal(a)eolate.

pal(a)eolae. pal(a)eolae.

pal(a)eomorfo. pal(a)eomorphic.

pal(a)eontología. pal(a)eontology.

pal(a)eotropical. pal(a)eotropical

paladar. palate.

palaéáceo. paleaceous.

pálea. palea.

palea inferior. inferior palea.

paleáceo. chaffy.

paleo-. paleo-.

paleoa. paleoa.

paleobotánica. paleobotany.

paleobotánico. paleobotanical.

paleocronología. paleochronology.

palescente. pallescent.

paliforma. paliform.

palingénesis. palingenesis.

palinología. palynology.

pallens. pallens.

pálido. pallid.

palinología. palynology.

palma. palm.

palnado. palmate.

palnado. webbed.

palnado-pinnado. palmate-pinnate.

palmaticompuesta. palmately com-

pound leaf.

palmatifido. palmatifid.

palmatiforme. palmatiform.

palmatisecto. palmatisect.

palmeado. webbed.

palmela. palmella.

palmeloide. palmeloid.

palmera. palm.

palúdico. paludal.

paludícola. palustrine.

paludícolo. paludicolous.

pampinodia. pampinody.

panal. faveolate.

pandurado. pandurate.

panduriforme. panduriform.

panfotométrico. panphotometric.

pangénesis. pangenesis.

panicoide. panicoid.

panícula. panicle.

paniculado. paniculate.

paniculiforme. paniculiform.

paniform. panniform.

panmixes. panmixes.

panmixia. panmixes.

pannosus. pannosus.

pantano. bog. marsh. swamp. wetland.

pantano de manglar. mangrove swamp.

pantano interior. inland wetland.

pantano salada. salt marsh.

pantanoso. marshy. paludal.

panto-. panto-.

pantófago. pantophase.

pantropical. pantropical.

papaina. papain.

papila. papilla (*pl.* papillae).

papila dehiscencia. dehiscense papilla.

papila receptivo. receptive papilla.
papilionácea. papilionaceous.
papiloso. papillate. papillose.
papiráceo. papery. papyraceous.
papo. pappus.
paposo. pappose.
papular. papular.
paqui-, paqui-.
paquicarpo. pachycarpous.
paquicaule. pachycaulous.
paquiclado. pachycladous.
paquífilo. pachyphyllous.
paquínemo. pachynema.
paquípleuro. pachypleurous.
paquíteno. pachytene.
paquíteno. pachytene.
para-, para-.
parabólico. parabolic.
paracárpico. semicarpous.
paracorola. paracorolla.
paradesmosa. paradesmose.
paráfilo. paraphyllum.
paráfisis. paraphysis.
parafisoide. paraphysoid.
parafisos. paraphyses.
parafototrópico. paraphototropic.
paragino. paragynous.
paralelinervio. parallelodromous.
paralelo. parallel.
paralelódromo. parallelodromous.
paralelotrópico. parallelotropic.
parámetro. parameter.
paramilo. paramylum.
páramo. fell. moor.
paranema. paranema.
parapatrico. parapatric.
paraplasma. paraplasma.
paraplecténquima. paraplectenchyma.
parasimbiosis. parasymbiosis.
parasíndesis. parasyndesis.
parasito. parasite.
parásito espacial. space parasite.
parásito de herida. wound parasite.
parásito facultativo. facultative parasite.

parásito internal. endoparasite.
parásito obligado. obligate parasite.
parásito parcial. partial parasite.
paraspora. paraspore.
parasporangio. parasporangium.
paratecio. parathecium.
parásticos. parastichies.
paratipo. paratype.
paratónico. paratonic.
paratraqueal. paratracheal.
parchada. patchy.
parche. patch (*pl.* patches).
parcial. partial.
parcial velo. velum parziale.
par de bases. base pair.
par de genes. gene pair.
pardo (color). brown (color).
pardo-amarillento (color). tan. fulvous (color).
pardo oscuro (color). fuscous (color).
pardo rojizo. tawny.
pardusco. brownish.
pareado. paired.
pared. wall.
pared celular. cell wall.
pared celular primario. primary cell wall.
pared celular secundario. secondary cell wall.
pared celular. cell wall.
pared delgada. thin-walled.
pared dorsal. dorsal wall.
pared espesa. thick-walled.
pared grueso. thick-walled.
pared primario. primary wall.
pared radial. radial wall.
pared secundario. secondary wall.
pared ventral. ventral wall.
pareja de bases. base pair.
parénquima. parenchyma.
parénquima conjuntivo. conjunctive parenchyma.
parénquima de suelo. ground parenchyma.
parénquima en empalizada. pali-

sade parenchyma.
paréquima esponjoso. spongy parenchyma.
parénquima floema. phloem parenchyma.
parénquima de madera radial. wood ray parenchyma.
parénquima xilema. xylem parenchyma.
parequimato. parenchymatous.
parichinos. parichinos.
parietal. parietal.
parimarca. parichinos.
paripinnado. even-pinnate. paripinnate.
paroico. paroicous.
parte de la playa entre la pleamar y la bajamar. foreshore.
parte. part.
parte espora. part spore.
partenoapogamia. parthenoapogamy.
partenocarpia. parthenocarpý.
partenocarpico. parthenocarpic.
partenodo. parthenote.
partenogénesis. parthenogenesis.
partenogénético. parthenogenetic.
partenóspora. parthenospore.
partición. partition.
partícula transportadora de electrones, PTE. electron transport particle, ETP.
partícula vírica. virus particle.
partículas subatómico. subatomic particles.
partido. divided. parted.
partim. partim.
pas(m)osere. psammosere.
pasando. merging.
past excesiva. overgrazing.
paste(u)rización del suelo. soil pasteurization.
pastizal. grassland. meadow.
pasto. herb. lawn.
patela. patella.
pateliforme. patelliform.

patente. patent.
patogénico. pathogenic.
patógeno. pathogen.
patología vegetal. plant pathology.
patología. pathology.
patroclino. patroclinal.
patromorfo. patromorphic.
patrón. rootstock.
patron. understock.
patulo. patulous.
pauci- pauci-.
paucifloro. pauciflorous.
pauciflorus. pauciflorus.
pauciverticilo. pauciwhorls.
parvi- parvi-.
parviflorus. parviflorus.
parvifoliado. parvifoliolate.
peciulado. petiolate.
peciolar. petiolar.
peciolo (enhelechos). stipe.
peciolo. petiole. leafstalk.
peciolo. stalk (petiole).
peciolo secundario. secondary petiole.
peciolulado. petiolulate.
peciolulo. petiolule.
pectina. pectin.
pectinasa. pectinase.
pectinado. pectinate. comb-like.
pedafido. pedafid.
pedato. pedate.
pedicelado. pedicellate.
pedeogénesis. pedogenesis.
pedicelado. pedicelate.
pedicelo. pedicel.
pediculado. pediculate.
pedículo. pedicle. stalk.
pedículo de semilla. seed stalk.
pedogamia. pedogamy.
pedogénesis. p(a)edogenesis.
pedigree. pedigree.
pedología. pedology.
pedunculado. pedunculate.
pedúnculo. peduncle. stalk (peduncle).
pedúnculo desnuda. naked stalk.
pedúnculo floral. flower stalk.

pedúnculo secundario. secondary peduncle.

pegajosidad. stickiness.

pegajoso. sticky.

pelado. bald.

pelágico. pelagic.

pelágio. pelagium.

pelargonidina. pelargonidin.

películo. pellicle.

peligro. hazard.

pelo. fur.

pelo absorbente. root hairs.

pelo escamoso. scale hair.

pelófilo. pelophile.

pelo malpigiáceo. malpighiaceous hair.

pelo radical. root hairs.

pelo radicular. root hairs.

peloria. peloria.

peloso (en general). pubescent.

peloso. hairy.

peloso-glandular. glandular-pubescent.

pelotón. peloton.

pelo urticante. stinging hair.

peltado. peltate.

peltafido. peltafid.

peltiforme. peltiform.

pelúcido. pellucid.

pelusa. bloom.

pendiente. pendent.

péndulo. nodding. pendent. suspended.

penetración (génica). penetrance (genetic).

penetración completa. complete penetrance.

penetración radical. root penetration.

penicil. penicil.

penicillio-psina. penicillio-psin.

peniclina. penicillin.

penicilado. penicillate. penicilliform.

pennatinervio. penninerved.

penni-. penni-.

penniforme. penniform.

penninervado. penninerved.

penta-. penta-.

pentacarpelar. pentacarpellary.

pentacíclico. pentacyclic.

pentacocco. pentacoccous.

pentadactilo. pentadactylous.

pentadelfo. pentadelphous.

pentágino. pentagynous.

pentagonal. pentagonal.

pentámero. pentamerous.

pentandro. pentandrous.

pentapétalo. pentapetalous.

pentaploide. pentaploid.

pentasépalo. pentasepalous.

pentosa. pentose.

pentosana. pentosan.

peonidina. peonidin.

pepa. stone.

pepita. kernel. pip.

pepónida. pepo.

péptido. peptide.

peptono. peptone.

pequeña. small.

per-. per-.

percepción. perception.

percolación. percolation.

percurrente. percurrent.

perennado. perennate.

perenne. perennial.

perennidad. perennation.

perennifolio. evergreen. indeciduous.

perfecta. perfect.

perfil del suelo. soil profile.

perfoliado. perfoliate.

perforación. perforation.

perforado. perforated.

perforación. perforation.

perfumado. scented.

pergelico. pergelic.

peri-. peri-.

periantrado. chlamydeous. with perianth.

perianto. perianth.

perianto persistente. persistent peri-

anth.
periblema. periblem.
pericaetio. perichaetium.
pericámbo. pericambium.
pericarpo. pericarp.
pericarpio. pericarp.
periciclo. pericycle.
pericládico. pericladial.
periciclo. pericycle.
períciloso. perichylous.
periclinal. periclinal
periderm. periderm.
peridermal. peridermal.
peridinina. peridinín.
peridio. peridium.
peridiolo. peridiolum.
periferia. periphery.
periférico. peripheral.
perifises. periphyses.
perigamio. perigamium.
periginio. perigynium.
perigino. perigynum.
perigino. perigynous.
perigonio. perigone. perigonium
perina. perine.
perinio. perinium.
periodicidad. periodicity.
período crítico. sensitive period.
período de compensación. compensation period.
período de crecimiento. growing season.
período de generación. generation time.
período de incubación. incubation period.
período de latencia. latent period. rest(ing) period.
período de reposo. resting period.
período de sensitivo. sensitive period.
período de vida media. half-life.
período sensible. sensitive period.
periplasma. periplasm.
periplasmodia. periplasmodium.

periplástico. periplastic.
periplasto. periplast.
perisperma. perisperm.
perispermo. perisperm.
perispermado. perispermous.
perispora. perispore.
peristoma. peristome.
peristomado. peristomate.
peristromio. peristromium.
peritecio. perithecium.
peritríco. peritrichous.
permafrost. permafrost.
permeabilidad. permeability.
permeabilidad del suelo. soil permeability.
permeabilidad diferencial. differential permeability.
permeable. permeable. pervious.
permeable parcialmente. partially permeable.
permeasa. permease.
pernicioso. pernicious.
peronado. booted.
peroxidasa. peroxidase.
peroxisoma. peroxisome.
perpusillus. perpusillus.
perumpente. perrumpent.
persistente. persistent.
personado. personate.
pertecia. perthecia.
pertófito. perthophyte.
pertusato. pertusate.
pérula. bud scale.
perulado. perulate.
perulo. perule.
petaláceo. petaliferous.
petalantero. petalantherous.
petalia. petaly.
pétalo. petal.
petalo. petalous.
petalodia. petalody.
petalodio. petalode.
petaloide. petal-like. petaloid.
petalomania. petalomania.
pétalo opuesto. oppositipetalous.

petalostémono. petalostemonous.
petinate. comb-like.
petraeus. petraeus.
petrificación. petrification.
petrificado. petrified.
petrio. petrium.
pezizoide. pezizoid.
pezón. mammilla.
pH (potencial de hidrógeno). pH
 (hydrogen ion concentration).
pH. pH.
picar. sting.
picaro. rogue.
picnidio. pycnidium.
picnio. pycnium.
picocondio. pycnocondium.
picnóforo. pycnidiophore.
picnogonidio. pycnogonidium.
picnosis. pycnosis.
picnóspora. pycnidiospore.
 pycnospore.
picnotecio. pycnothecium.
picro-, picro-,
pictus. pictus.
pie. foot. understock. rootstock.
pedra calcárea. limestone.
pedra caliza. limestone.
piel. skin.
pigmentación. pigmentation.
pigmento. pigment.
pigmento accesorio. accessory pig-
 ments.
pigmento respiratorio. respiratory
 pigment.
pigmentos primaria. primary pig-
 ments.
pigmentosa. pigmentosa.
pileado. pileate.
pilifero. piliferous.
piliforme. hair-like. piliform.
pilo. pilus (*pl.* pili).
pilocistidio. pilocystidium.
piloso. pilose.
pimpollo. blossom. a flower.
piña. pine cone.

pinada desigualmente. unequally
 pinnate.
pinar. pine forest.
pinas de sabanas. pine barrens.
pinna (pl. pinnas). pinna (*pl.* pin-
 nae)
pinnación. pinnation.
pinnado. pinnate.
pinnado abrupto. abruptly pinnate.
pinnado compuesta interrumpido.
 interrupted pinnately compound.
pinnatifido. pinnatifid.
pinnatilobado. pinnatilobate.
pinnatinervio. penninerved.
pinnatisecto. pinnatisect.
pinnula. pinnule.
pino. pine.
pinocitosis. pinocytosis.
pionnado. pionnate.
pipa. pipe.
piperidina. piperidine.
piramidal. pyramidal.
pirámide alimenticia. food pyramid.
pirámide de la biomasa. biomass
 pyramid.
pirámide de la energía. energy pyra-
 mid.
pirámide de los números. numbers
 pyramid.
pirámide ecológico. ecological pyra-
 mid. Eltonian pyramid.
pirámide numérica. numerical pyra-
 mid.
pirámide trófica. food pyramid.
pirenio. pyrenium.
pirano. pyran.
pireno. putamen. pyrene. stone.
pirenocarpo. pyrenocarp.
pirenoide. pyrenoid.
pirenoide compuesto. compound
 pyrenoid.
pirenoide polar. polar pyrenoid.
piriforme. pear-shaped. piriform.
 pyriform.
pirenomicetos. pyrenomycetes.

pirimidina. pyrimidine.
primino. primine.
primitivo. primitive.
primordial. primordial.
piro-. pyro-.
pirófilo. pyrophilous.
pirofito. pyrophyte.
pisáceo (color). pisaceous (color).
pisífero. pisiferous.
pisiforme. pea-shaped. pisiform.
piso de vegetación. storey.
pistilada. female.
pistilado. pistillate.
pistilidio. pistillidium.
pistilo. pistil.
pistilo compuesto. compound pistil.
pistiloidio. pistillode.
pixidado. pyxidate.
pixidio. pyxidium. pyxis. pixide.
placa. plaque.
placa celular. cell plate.
placa cribosa. sieve plate.
placa ecuatorial. equatorial plane. equatorial plate.
placa intercalar. intercalary plates.
placa metafase. metaphase plate.
placa nuclear. nuclear plate.
placa postcingular. postcingular plate.
placa precingular. precingular plate.
placea. plakea.
placenta. placenta (*pl.* placentae).
placenta péndulo. suspended placenta.
placentación. placentation.
placentación apical. apical placentation.
placentación basal. basal placentation.
placentación centro. central placentation.
placentación laminado. laminate placentation.
placentación marginal. marginal placentation.
placentación parietal. parietal

placentation.
placentación ventral. ventral placentation.
placentífero. placentiferous.
placentiforme. placentiform.
placodiode. placodiod.
placodiomorf. placodiomorph.
plagio-. plagio-.
plagióclimax. plagioclimax.
placodio. placodium.
plagiotropico. plagiotropic.
plagiotropismo. plagiotropism.
plagiótropo. plagiotropous.
planado. plane.
placentación axil. axile placentation.
placentación axial. axile placentation.
plancton. plankton.
planetismo. planetism.
plano-. plana-.
plano. plano. applanate.
planocigoto. planozygote.
planocito. planocyte.
plano de sección. plane of section.
plano ecuatorial. equatorial plane.
planoespora. planospore.
planogameto. planogamete.
plano oblicuo. oblique plane.
planosoma. planosome.
planozigoto. planozygote.
planta. plant.
planta ácido. acid plant.
planta aclimatado. naturalized plant.
planta aérea. air plant.
planta aéreo. aerial plant.
planta de almidón. starch plant.
planta amida. amide plant.
planta brevidiurna. short-day plant.
planta calcífuga. calciphobe.
planta caracol. snail plant.
plantación de bosques. afforestation.
planta corto-día. short-day plant.
planta de crecimiento erecto. up-right plant.

planta de día intermedio. interme-
diate-day plant.

planta de día corto. short-day plant.

planta de noche-corta. short-night
plant.

planta de día largo. long-day plant.

planta de noche larga. long-night
plant.

planta de playa. strand plant.

planta de semillero. young plant.

planta de sol. sun plant.

planta de sombra. shade plant.

planta de tallos suculento. stem
succulent.

planta esciófila. skiophyte.

planta macrohémera. long-day plant.

planta madre. parent.

planta microhémera. short-day plant.

planta ombrófito. ombrophilous plant.

planta palustre. marsh plant.

planta parásita. parasitic plant.

planta promogénitor. parent.

planta rastrera. creeper.

planta rupestre. epilithic plant.
rupicolous. petrophyte.

planta rupícola. petrophilous.

planta saprófita. saprophytic plant.

planta sensitiva al frío. chilling-
sensitive plant.

planta vascular. vascular plant.

planta voluntario. volunteer plant.

plantas de cereal. cereal plants.

plantas de día-neutro. day-neutral
plants.

plantas en almohadilla. cushion plant.

plantas pulvinadas. cushion plant.

plantas pulviniformes. cushion plant.

plantas de semilla. seed plant.

plantas social. social plants.

plantel. seedbed.

plantilla. template.

plantilla ARN. template RNA.

plantio. seedbed

plantón. plantlet.

plántula. plantule. seedling. young

plant.

plántula. young plant.

plasma. plasm(a).

plasmagel. plasmagel.

plasmagen(e). plasmagen(e).

plasma germinal. germ plasm.

plasmalema. plasmalemma.

plasmasol. plasmasol.

plasmatoogosis. plasmatoogosis.

plasmatóparo. plasmatoparous.

plásmido. plasmid.

plasmoderma. plasmoderm.

plasmodesma. plasmodesma.

plasmodesmo. plasmodesma.

plasmodesmata. plasmodesmata.

plasmodio. plasmodium (*pl.* plasmio-
dia)

plasmodiocarpo. plasmodiocarp.

plasmodio tapete. tapetal plasmio-
dium.

plasmólisis. plasmolysis.

plasmólisis incipiente. incipient
plasmolysis.

plasmón. plasmon.

plasmosoma. plasmosome.

plasogamia. plasogamy.

plasticidad. plasticity.

plástico. plastic.

plastido. plastid.

plastidoma. plastidome.

plastina. plastin.

-plasto. -plast.

plasto. plastid.

plastocianina. plastocyanin.

plastoconte. plastocont.

plastocrona. plastochrone.

plastógeno. plastogene.

plastonema. plastonema.

plastoquinona. plastoquinone.

plastosoma. plastosome.

plati-, platy-.

platicarpico. platycarpous.

platífilo. dplatyphyllous.

platisperma. platysperm.

platiforme. platyform.

playa. beach.
plecténquima. plectenchyma.
plectostela. plectostele.
pleiandro. pleiandrous.
pleio-. pleio-.
ple(i)ócasio. pleiochasium.
ple(i)ofilo. pleiophyllous.
ple(i)ómero. pleiomorous.
ple(i)omórfico. pleomorphic.
ple(i)omorfo. pleiomorphy.
ple(i)opétalo. pleiopetalous.
ple(i)osépalo. pleiosepalous.
pleiospora. pleiosporous.
ple(i)otaxia. pleiotaxy.
pleiotomia. pleiotomy.
ple(i)otropia. pleiotropy.
ple(i)otropico. pleiotropic.
pleiotropismo. pleiotropism.
plegado. pleated. plicate.
pleio-. pleio-.
pleófago. pleophagous.
pleomorfa. pleomorphic.
pleomorfismo. pleomorphism.
pleroma. plerome.
plerótico. plerotic.
plesiómorf. plesiomorph.
plesiomorfo. plesiomorphic.
pletismotalo. plethysmothallus.
pleuracrógino. pleuracrogynous.
pleur(o)-. pleur(o)-.
pleurocárpico. pleurocarpous.
pleurocárpico moss. pleurocarpous moss.
pleurógeno. pleurogenous.
pleurorizal. pleurorhizal.
pleurospora. pleurosporous.
pleurótropo (dorsal). pleurotropic (dorsal).
pleurótropo (ventral). pleurotropic (ventral).
plegado. plicate.
plexiforme. plexiform.
pleyotaxis. pleiotaxy.
plococarpia. plococarpium.
pluma. plume.

plumbeus. plumbeus.
plumoso. plumose. feathery.
plúmula. plumule.
pluri-. pluri-.
pluricélula. pluricelled.
pluricelular. pluricellular. multi-cellular.
plurifolículo. follicetum.
plurilocular. plurilocular. multilocular.
plurinucleado. multinecleate(d).
pluripotente. pluripotent.
plurisámara. samaracetum.
pluriseriado. pluriseriate.
plurisporo. plurisporous.
plurivalente. plurivalent.
plurivoro. plurivorous.
pluvioso. rainy.
pluv(i)selva. rain forest.
po(te)tómetro. potometer.
población. population.
población abierto. open population.
población cerrado. closed population.
población vegetal. stand.
poco profundo. shallow.
poculiforme. poculiform.
poda. pruning.
podar. prune.
podetio. podetium.
podio. podium.
podo-. podo-.
podocarp. podocarp.
podogiene. podogyne.
podredumbre de la madera causada por un hongo. wet rot.
poio. poium.
polar. polar (sperm).
polaridad. polarity.
polarilocular. polarilocular.
polarinucleado. polarinucleate.
polarización. polarization.
polen. pollen.
polen alimenticio. food pollen.
poli-. poly-.
poliad. polyad.

poliadelfo. polyadelphous.
poliandria. polyandry.
poliandro. polyandrous.
polianto. polyanthous.
poliasca. polyascus.
poliasco. polyascus.
policario. multinecleate(d).
policárpico. polycarpic.
policarpelar. polycarpellary.
policarpia. polycarpy.
policarpo. polycarpous.
policásio. polychasium.
policáteo. polychateous.
policefálo. polycephalous.
policéntrico. polycentric.
policíclico. polycyclic.
policiliado. multiciliate.
policlimax. polyclimax.
policormico. polycormic.
policotiledón. polycotyledon.
policotiledóno. polycotyledonous.
policromo. polychrome.
polieder. polyeder.
poliembriónado. polyembryonate.
poliembriónia. polyembryony.
polienégida. polyenergid.
poliespora. polyspore.
poliesporangio. polysporangium.
poliestilo. polystylous.
polifactorial. polyfactorial.
polifagia. polyphagy.
polifenol. polyphenol.
polifilético. polyphyletic.
polifiletismo. polyphyletism.
polifilo. multifoliate. polyphyllous.
políforo. polyphore.
polígamo. polygamous.
poligamodioico. polygamodioecious.
poligamomonoico. polygamomonoecious.
poligen(e). polygene.
poligen. multiple factors.
poligénico. polygenic.
poligino. polygynous.
poligonal. polygonal.

polihalino. polyhaline.
polihaploide. polyhaploid.
poliholósido. polysaccharide.
poliloidia. polyploidy.
polimerasa ARN. RNA polymerase.
polimerasa. polymerase.
polimeria. polymery.
polímero. polymer. polymerous.
polímictico. polymictic.
polimitosis. polymitosis.
polimorfismo equilibrado. balanced polymorphism.
polimorfismo foliar. heterophylly.
polimorfismo genética. genetic polymorphism.
polimorfismo transeúnte. transient polymorphism.
polimorfismo. polymorphism.
polimorfismo cromosómico. chromosome polymorphism.
polimorfismo foliar. heterophylly.
polimorfismo transeúnte. transient polymorphism.
polimorfo. polymorphic.
polinifero. polleniferous.
polinio. pollinium (*pl.* pollinia).
polinización. pollination.
polinización cruada. cross pollinate.
polinización cruzada. cross-pollination.
polinización entomófila. entomophily.
polinización ilegítimo. illegitimate pollination.
polinización regulada. controlled pollination.
polinizante. pollinator.
polinizar. pollinate.
polinizar cruada. cross pollinate.
polinodio. pollinodium.
polinucleado. polynucleate.
polinucleolus. polynucleus.
polioicio. polyoicius.
polioplasma. polioplasm.
poliócido. polysaccharide.
polipéptido. polypeptide.

polipétalo. polypetalous.
poliplanetismo. polyplanetism.
poliploide. polyploid.
poliploide desequilibrado. unbalanced polyploid.
polipodiáceo. polypodiaceous.
poliribosoma. polyribosome.
polisacárido. polysaccharide.
polisaprobio. polysaprobe.
polisépalo. polysepalous.
polisifono. polysiphonous.
polisimétrico. polysymmetrical.
polisoma. polysome.
polisómico. polysomic.
polispermia. polyspermy.
polispermo. polyspermous.
polispora. polyspore.
polistémono. polystemonous.
polístico. polystichous.
politético. polythetic.
politípico. polytypic.
politipismo. polytypism.
polítomo. polytomous.
politopismo. polytopism.
politus. politus.
poluar. pollute.
poluyente. pollutant.
poluante no degradable. nondegradable pollutant.
polo. pole.
polocito. polocyte.
poluante no degradable. nondegradable pollutant.
polución del agua. water pollution.
polución del atmosférica. air pollution.
polución térmica. thermal pollution.
polución. pollution.
polución térmica. thermal pollution.
polucionar. pollute.
poluyente. pollutant.
poluyente del aire primaria. primary air pollutant.
poluyente del aire secundario. secondary air pollutant.

poluyente secundaria. secondary pollutant.
pomáceo. pomaceous.
pomiforme. pomiform.
pomo. pome.
pomología. pomology.
porandro. porandrous.
porcentaje de marchitamiento. wilting percentage.
porfina. porphin.
porfirina. porphyrin.
poricida. poricidal.
poriforme. poriform.
pormotora. promoter.
poro areolado. bordered pit.
porofilo. porophyllous.
poro germinal. germ pore.
poroide. poroid.
poro nuclear. nuclear pore.
poro. pore.
porofilo. porophyllous.
porogamia. porogamy.
porosidad. porosity.
porosidad del suelo. soil porosity.
poros difusos. diffuse-porous.
poros dispersos. diffuse-porous.
poroso. porous.
porrecto. porrect. salient.
portado. borne.
portador. bearer. carrier.
portadora deslizante. sliding carrier.
portado de defusión. diffusion carrier.
portainjerto. rootstock.
portógino. protogynous.
posición. postion.
posición de día. day position.
posición fijo de luce. fixed light position.
posición perfil. profile position.
positivo. positive.
postclímax. postclimax.
posterior. posterior.
postal. postical.
postico. posticous.

postmaduración. after-ripening.
postrado. prostrate.
postventitio. postventitious.
potamio. potamium.
potamoplacton. potamoplankton.
potasio (K). potassium (K).
potencial biótico. biotic potential.
potencial de soluto. solute potential.
potencial del agua. water potential.
potencial de inóculo. inoculum potential.
potencialidad. potency.
potencial osmótica. osmotic potential.
potencial redox. redox potential.
potencial de matriz. matrix potential.
po(te)tómetro. potometer.
postreducción. post-reduction.
potrero. pasture.
pousieroide. poussieroid.
pradera. grassland. range. prairie.
pradera temperado. temperate grassland.
prae-. prae-.
praecox. praecox.
pratal. pratal.
pratensis. pratensis.
pre-. pre-.
prebiótico. prebiotic.
preciólo. leafstalk.
precipitación. precipitation.
precipitación pluvial. rain.
preclimax. preclimax.
precocidad. precocity.
precoz. early. precocious.
prefloración. prefloration.
prefoliación. prefoliation.
premature. premature.
premoso. praemorse. premorse.
prensil. prehensile.
prepotencia. prepotency.
prerreducción. prereduction.
pre-reducción. prereduction.

presere. prisere.
presión de mutación. mutation pressure.
presión de succión. suction pressure.
presión de turgencia. turgor pressure.
presión endodermal. endodermal pressure.
presión osmótica. osmotic pressure.
presión parietal. wall pressure.
presión potencial. pressure potential.
presión radical. root pressure.
presión selección. selection pressure.
presión túrgida. turgor pressure.
prevernal. prevernal.
Prueba Fehling. Fehling's Test.
prevernal. prevernal.
primario. primary.
primavera. spring.
primera ley de Mendel. Mendel's first law.
primino. primine.
primitivo. primitive.
primordio. primordium (*pl.* primordia).
primordio de hoja. leaf primordium.
primordio floral. floral primordium.
primordio foliar. leaf primordium.
primospora. primospore.
principio de exclusión. exclusion principle.
principio de Gause. Gause principle.
principio de la exclusión competitiva. competitive exclusion principle.
pirámide de la biomasa. biomass pyramid.
priser(i)e. prisere.
prismático. prismatic.
pristino. pristine.
pro-. pro-.
proantesis. proanthesis.
probasidio. probasidium.
probar. taste.
procambio. procambium.

procariotas. procaryotes. procariotas.
procaríotico. prokaryotic.
procaríoto. prokaryote.
procarpo. procarp.
procedencia. provenance.
procerus. procerus.
procromosoma. prochromosome.
procumbente. procumbent.
producción primaria. primary production.
producir. breed.
producir. spawn.
productividad. productivity.
productividad primaria. primary productivity.
productor. producer.
producto sustancia contaminadora. contaminant.
proembrión. proembryo.
proenzima. proenzyme.
profago. prophage.
profase. prophase.
profilo. prophyll.
profundamente. profoundly.
profundidad compensación. compensation level.
progagar. propagate.
progametangia. progametangia.
progametangio. progametangium.
progenie. offspring.
prohíbrido. prohybrid.
prolado. prolate.
prolamina. prolamine.
prole. offspring.
proléptico. proleptic.
proletarian. proletario.
prolificación. proliferation.
prolífico. proliferous.
prolina. proline.
promeristemo. promeristem.
prometafase. prometaphase.
promicelio. promycelium.
prominencia. projection. protrusion.
prominente. prominently.
promitosis. promitosis.

promotor. promoter.
promotora. promoter.
propagación vegetativa. vegetative propagation.
propagación. propagation.
propagar. breed. propagate.
propágulo. propagule. propagulum.
proplastido. proplastid.
proplectéquima. proplectenchyma.
proporción de asimilación. assimilation ratio.
proporción de crossing-over. crossover value.
proporción de (los) sexos. sex ratio.
proporción sexual. sex ratio.
prosénquima. prosenchyma.
prosozo. prosorus.
prosporangio. prosperangium.
prosporia. prospory.
prosteca. prostheda.
protálio. prothallium.
protálo. prothallus.
protamina. protamine.
protandria. protandry.
protándrico. proterandrous.
protandro. protandrous.
proteasa. protease.
protección de la naturaleza. conservationist.
proteína. protein.
proteína conjugada. conjugated protein.
proteína de transporte. transposable element.
proteína fibrosa. fibrous protein.
proteína globular. globular protein.
proteína nativa. native protein.
proteína nuclear. nucleoprotein.
proteinasas. proteinase.
proteolisis. proteolysis.
proteólisis. proteolysis.
proteosa. protease.
proteranto. protantherous.
proterógino. proterogynous.

protistas. protists. Protista.
protistos. protists.
proto- proto-.
protobasidio. protobasidium.
protoblematógeno. protoblemma-togen.
protocooperación. proto-cooperation.
protocormo. protocorm.
protoderma. protoderm.
protoecidio. protoaecium.
protófil. protophyll.
protófito. protophyte.
protofloema. protophloem.
protogamia. protogamy.
protoginia. protogyny.
protógino. protogynous.
protogonidia. protogonidium.
protogonidio. protogonidium.
protohimenial. protohymenial.
protolisis. protolysis.
protón. proton.
protonema. protonema (*pl.* protonemata).
protopectina. protopectin.
proto-peritécio. proto-perithe-cium.
protoplasma. protoplasm.
protoplasma germinal. germinal protoplasm.
protoplasto. protoplast.
protosoma. protosoma.
protospora. protospore.
protostela. protostele.
prototalo. protothallus.
prototipo. prototype.
prototrofo. prototroph.
protouredinio. protouredium.
protoxilema. protoxylem.
protozoario. protozoa.
protozoo. protozoa.
protuberancia. protrusion. protu-berance. process.
provincia florística. floral province.
provirus. provirus.
proximal. proximal.
próximo. near. proximate.

proyectado. salient.
prueba cis-trans. cis-trans test.
prueba de complementación. com-plementation test.
prueba de descendencia. progeny test(ing).
prueba de progenie. progeny test(ing).
pruina. bloom.
pruinoso. pruinose.
prulaurasina. prulaurasin.
prunasina. prunasin.
pruniforme. pruniform.
pruriens. pruriens.
psa(m)mon. psammon.
(p)samófil. psammophile.
psamófilas. sand plants.
(p)samófilo. psammophilous.
psamófitas. psammophytes.
psa(m)mosere. psammosere.
psicrófilo. psychrophilic.
psicrófilo. psychrophile.
psicrófito. psychrophyte.
psicrótrofo. psychrotroph.
psilio. psilium.
psilófilo. psilophilous.
pterado. pterate.
pteridofita. pteridophyte.
pteridología. pteridology.
ptero- ptero-.
pterocarpo. pterocarpous.
pterocaulo. pterocaulous.
pteroide. pteroid.
pteridospermas. pteridosperms.
pterópsidos. pteropsida.
pterospermo. pterospermous.
ptixis. ptxyis.
púa. quill-like.
púa de injerto. scion.
puberulento. puberulent.
pubescente (en particular). pubes-cent.
putrición de las plántulas. damp-ing-off.
punte de hidrógeno. hydrogen bond.
pulchellus. pulchellus.

pulpa. flesh. pulp.
pulpejo. fleshy.
pulpo. pulpos.
pulso. pulse.
pulsulo. pulsule.
pululación. pullulation.
pululado. pullulate.
pulular. pullulate.
pulverulento. powdered. pulverulent.
pulvinado. pulvinate.
pulvinforme. pulviniform.
pulvinular. pulvinar.
pulvinulo. pulvinule.
pulvínulo. pulvinus.
pumilus. pumilus.
punctato. dotted.
punctum vegetationis. punctum vegetationis.
punteado. punctate.
punctiforme. punctiform.
puniceus. puniceus.
punto radial. radial dot.
punta radicular. root tip.
punteado. punctate. dotted.
punteado-glandular. glandular-punctate.
punteadura areolada. bordered pit.
punteadura táctil. tactile pit.
punticulado. puncticulate.

punctiforme. punctiform.
punto (eado). pitted.
punto culminante. acme.
punto de compensación. compensation point.
punto de contacto. contact point.
punto de marchitez. wilting point.
punto de marchitez permanente. permanent wilting point.
punto isoelectrico. isoelectric point.
punto vegetativo. growing point.
puntos cardinal (temperatura). cardinal points (temperature).
punzante. pungent.
pura. true.
purina. purine.
puro. true.
púrpura (color). purple (color).
purpúreo. purplish.
purpureus. purpureus.
pusillus. pusillus.
pústula. pustule.
pústula bolsa. sack-pustule.
pustulado. pustulate. pustulose.
pustuloso. pustulose.
pusulo. pusule.
puteado. dotted.
putrefacción. putrefaction.
pygmaeus. pygmaeus.

Q

Q₁₀, Q₁₀.**quántum.** quantum.**quebradizo.** brittle.**quela.** chela.**quelación.** chelation.**quelado.** chelate.**queliforme.** cheliform. pincer-like.**quemadura foliar.** leaf scorch.**quemadura por el sol.** sun scald.**queta.** chaeta. bristle. seta.**quetífera.** chaetiferous.**quetona.** ketone.**quetoplancton.** chaetoplankton.**quetosa.** ketose.**quiasma.** chiasma (*pl.* chiasmata).**quiasmata.** chiasmata.**quiescencia.** quiescence.**quilla.** carina. keel.**quilocalia.** chylocauly.**quilófilia.** chylophyllly.**quimera.** chimera.**quimera cromosomal.** chromosomal chim(a)era.**quimera diploclamideo.** diplochlamydeous chim(a)era.**quimera haploclamideo.** haplochlamydeous chim(a)era.**quimera mericlinal.** mericlinal chim(a)era.**quimera periclinal.** periclinal chim(a)era.**quimera policlamideo.** polychlamydeous chim(a)era.**quimera sectorial.** sectorial chim(a)era.**química.** chemistry.**química orgánica.** organic chemistry.**químico.** chemical.**quimiluminiscencia.** chemiluminescence.**quimiluminiscente.** chemiluminescent.**quimioautótrofo.** chemoautotroph.**quimioautotrófico.** chemoautotrophic.**quimioheterótrofo.** chemoheterotroph.**quimiolitotrófico.** chemolithotrophic.**quimiolitótrofo.** chemolithotroph.**quimionastia.** chemonasty.**quimioósmosis.** chemosmosis.**quimioosmosis.** chemosmosis.**quimiorganótrofo.** chemoorganotroph.**quimiosíntesis.** chemosynthesis.**quimiotaxis.** chemotaxis.**quimiotaxonomía.** chemotaxonomy.**quimiótrofo.** chemotroph.**quimiotropismo.** chemotropism.**quimonófilo.** chimonophilous.**quinado.** quinate.**quinaria.** quinary.**quincuncial.** quincuncial. quincunx.**quinetócoro.** kinetochore.**quinina.** kinin.**quinona.** quinone.**quinque-.** quinque-.**quinqueacostillado.** quinquecostate.**quinquefario.** quinquefarius.**quinquefido.** quinquefid.**quinquefoliado.** quinquefoliate.**quinelobado.** quinelobate.**quinelocular.** quinelocular.**quinenervio.** quinenerved.**quinepartitia.** quinepartite.**quineyugado.** quinejugate.**quintuplinervio.** quintuplinerved.**quiropterófilo.** chiropterophilous.**quiste.** cyst.**quitina.** chitin.

R

rabdocarpo. rhabdocarpous.

rabillo. stalk.

racemación. racemation.

racemífero. racemiferous.

racemiforme. racemiform.

racemoso. racemose. racemous.

racemula. racemule.

racimo. raceme.

racimo foliar. leaf raceme.

radiación. radiation.

radiación adaptivo. adaptive radiation.

radiación ultravioleta. ultraviolet radiation.

radiacione ionizante. ionizing radiation.

radiactividad. radioactivity.

radioactivo. radioactive.

radiado. radial.

radiado (verticilado). radiate (whorled).

radiado-vena. radiate-veined.

radial. radial.

radial agregado. aggregate ray.

radial simetría. radial symmetry.

radiante. radiant.

radiatiforme. radiatiform.

radicación. radication.

radical (basal). radical (basal).

radicante. radicant.

radicícola. radic(i)olous.

radicelosa. radicellose.

radicífero. radiciferous.

radicifloro. radiciflorous.

radiciforme. radiciform.

radicela. radicel.

radícula. radicle.

radícula súpero. superior radicle.

radicular. radicular.

radiculoso. radiculose.

radio. radius.

radiobiología. radiobiology.

radiocarbono. radioactive carbon – 14.

radioecología. radiation ecology. radioecology.

radiocronometría. radiocarbon dating.

radioisótopo. radioisotopes.

radio medular primario. primary medullary ray.

radioisótopo. radioisotopes.

ragadioso. rhagadiose.

raidosperma. radiosperm.

rayo medular primario. primary medullary ray.

rafal. raphal.

rafe. raphe. rhaphe.

rafidios. raphides.

rafinosa. raffinose.

raicilla. radicel. rootlet.

raíz. radix. root.

raíz adventicia. adventitious root.

raíz aérea. aerial roots. aerate roots.

raíz aérea de sostén. prop root.

raíz axonomorfa. tap root.

raíz central. tap root.

raíz contráctil. contractile root.

raíz de apoyo. prop root.

raíz de rama. branch roots.

raíz del tallo. stem root.

raíz epigea. aerial root.

raíz fibrosa. fibrous root.

raíz fulcrante. stilt root.

raíz fúlcrea. buttress root. stilt root. prop root.

raíz lateral. lateral root.

raíz nutrifera. feeder root.

raíz pivotante. tap root.

raíz primario. primary root.

raíz rama. branch roots.
raíz secundaria. secondary root.
raíz sesentativa. prop root.
raíz suculenta. fleshy root.
raíz sustentativa. prop root.
raíz tabla. plank root.
raíz tabular. tabular root.
raíz terciario. tertiary root.
raíz tuberosa. tuberous root.
raíz venítica. adventitious root.
raíz zanco. buttress root. prop root.
 stilt root.
ralear. thin out.
rama. branch. ramus (*pl.* ramuli).
rama desnuda. naked branch.
rama lateral. lateral branch.
raramaduro. rareripe.
rama primario. primary branch.
ramas del estilo. style branch.
rameal. ramal. rameous.
ramentáceo. ramentaceous.
ramento. ramentum.
ramentoso. ramentaceous.
rameto. ramet.
rami-. rami-.
ramifero. ramiferous.
ramifia. ramify.
ramificación. branching. ramification.
ramificación al azar. random branching.
ramificación dicotómico. dichotomous ramification.
ramificación helicoidé anádromico. anadromic helicoid branching.
ramificada. branched. ramose.
ramificar(se). branch out.
ramificarse. ramificated.
ramifloro. ramiflorous.
ramiforme. ramiform.
ramillete. spray. cluster.
ramita. twig.
ramito. sprig.
ramnosa. ramnose.
ramo. twig.

ramoconidio. ramocondium.
ramoso. ramose.
ramula. branchlet. ramulus.
ramular. ramular.
ramuloso. ramulose.
ramuscule. ramuscule.
randomización. randomization.
raquilla (inflorescencia). rachilla (inflorescence).
raquilla (foliar). rachilla (leaf).
raquillar. rhachilla.
raquis (foliar). rachilla (leaf).
raquis (inflorescencia). rachis (inflorescence). rhachis.
raquitico. stunted.
raquitismo. stunt.
raramaduro. rareripe.
rastrera. trailing. creeping.
rastrero. creeping. ramulus. repent.
rastro foliar. leaf trace.
ratio absorción. absorption ratio.
raveneline. ravenelin.
rayado. striped. streaked. variegated.
rayo. ray.
rayo floema. phloem ray.
rayos gamma. gamma rays.
rayo médula. pith ray.
rayo medularia. medullary ray.
rayo medular primario. primary medullary ray.
rayo xilema. xylem ray.
rayos mitogenéticos. mitogenetic rays.
rayos mitógenos. mitogenetic rays.
rayos ultravioleta. ultraviolet rays.
rayos vascular. vascular rays.
rayos X. x rays.
rayuelos. raylets.
raza. race. strain.
raza fisiología. physiological race.
RDF. RDF.
re-. re-.
reacción. reaction.
reacción "oscura". dark reaction.
reacción de Hill. Hill reaction.
reacción del biureto. biuret reac-

tion (test).
reacción de respuesta. response.
reacción endergónico. endergonic reaction.
reacción exertónico. exergonic reaction.
reacción fotoquímico. photochemical reaction.
reacción luminica. light reaction.
reacción luminica dependiente. light dependent reaction
reacción luminica independiente. light independent reaction.
reacción luminosa. light reaction.
reacción metabólica. metabolic reaction.
reacción negativo. negative reaction.
reacción "oscura". dark reaction.
reacción positivo. positive reaction.
reacción química. chemical reaction.
reacción redox. redox reaction.
reacción violenta ecológico. ecological backlash.
reactante. reactant.
realimentación positivo. positive feedback.
realzado. flanged.
rebasar. exceed.
reborde. flange.
rebrote. shoot.
recedente. recedent.
receptaculares. receptacular.
receptáculo. receptacle.
receptaculo. receptaculum.
receptáculo común. common receptacle.
receptividad. receptiveness.
recesivo. recessive.
recesivo doble. double recessive.
reclinado. reclinate. reclining. recumbent.
recolonización. recolonization.
recombinación (gen). recombination (gene).
recombinación genética. genetic

recombination.
recombinación homólogo. homologous recombination.
recombinante. recombinant.
recombinar. recombine.
recombinasa. recombinase.
recón. recon.
recostado. recumbent.
recta de regresión. regression coefficient.
rectangular. rectangular.
rectinerviado. rectinerved.
rectipetalía. rectipetaly.
rectiseral. rectiseral.
recto. straight.
recurrente. recurrent.
recurso continua. perpetual resource.
recursos finito. finite resources.
recursos genética. genetic resources.
recursos naturales. natural resources.
recursos renovable. renewable resource.
recurvado. recurvate. upcurved.
recurvo. recurved.
redecilla nuclear. nuclear reticulum.
redondeado. rotundate. rounded.
reducción. reduction.
reducción-oxidación. oxidation-reduction.
reducido. reduced. slight.
reductante. reductant.
reductasas. reductases.
redundancia de gene. gene redundancy.
reduplicación. reduplication.
reduplicado. reduplicate.
r-enzima. r-enzyme.
refescente. rufescent.
reflexo. reflexed.
refoliado. refoliate.
reflorescencia. reflorescence.
reforestación. reforestation.
refracto. refracted.
refringente. refringent.
refugio. refuge.

refugios. refugia.
regeneración. regeneration.
regenerar. regenerate.
región. region.
región del organizador nucleolar (RON). nucleolus organizer region (NOR).
región formativo. formative region.
región micelar. micellar region.
región neotrópica. neotropical region.
registro genealógico. pedigree.
regma. regma.
regresión. regression.
regulación gene. gene regulation.
regulación por retroacción. feedback regulation.
regulación regulativo. feedback regulation.
regulador de crecimiento. growth regulator.
regulador de crecimiento vegetal. plant growth regulator.
regular. regular.
regularidad. regularly.
regularmente. regularly.
rehetropismo. rehetropism.
reino. kingdom.
reino floral. floral kingdom.
reino vegetal. Plant Kingdom. vegetable kingdom.
rejuvenecimiento. rejuvenescence.
relación (cito)plasmática. nucleocytoplasmic ratio.
relicto. relic(t).
reloj biológico. biological clock.
remoto. remote.
reniforme. reniform.
renuevo. sobol(e). surculose.
reotaxia. rheotaxis.
reotaxis. rheotaxis.
reotropismo. rehetropism.
repando. repand.
repartición extendido. wide distribution.

repetición. repetition.
replicación. replication.
replicación semiconservativa. semiconservative replication.
replicado. replicate.
repleo. replum.
repoblación forestal. reafforestation. reforestation.
reposo invernal. winter dormancy.
representación de sobre. overrepresentation.
represor. repressor.
reproducción. reproduction.
reproducción agámico. agamic reproduction.
reproducción asexual. asexual reproduction.
reproducción diferencial. differential reproduction.
reproducción sexual. sexual reproduction.
reproducción vegetativa. vegetative reproduction.
reproducirse. breed.
reproducirse. reproduce.
reproductivo. reproductive.
reproductocentro. reproductocenter.
reproductor. reproducer. reproductor.
reptante. reptant. creeping.
repulsión. repulsion.
rescarse (fruto). shrivel (fruit).
reserva natural. nature reserve.
reservorio. reservoir.
resina. resin.
resina damar. dam(m)ar resin.
resináceo. resinaceous.
resinofero. resiniferous.
resinoforme. resiniform.
resinogenico. resinogenic.
resinoso. resinous.
resistencia. resistance.
resistencia a la tracción. tensile strength.
resistencia al frio. winter hardiness.
resistencia ambiental. environmental

resistance.
resistencia del ambiente. environ-
mental resistance.
resistente a las heladas. hardy.
respiración. respiration.
respiración aeróbica. aerobic respi-
ration.
respiración anaeróbica. anaerobic
respiration.
respiración celular. cell respiration.
cellular respiration.
respiración intramolecular. intramo-
lecular respiration.
respiración plasmática. protoplas-
mic respiration.
responsivo al fotoperiodo. photope-
riod responsive.
respuesta. response.
respuesta de herida. wound reponse.
respuesta lisogénico. lysogenic re-
sponse.
respuesta lítico. lytic response.
respuesta trópica. tropic response.
restans. restans.
restitución. restitution.
reestructuración genética. genetic
rearrangement
resultante. resultant.
resupinación. resupination.
resupinado. resupinate.
retardante del crecimiento. growth
retardant.
retardo del crecimiento. stunted
growth.
retícula. lattice.
retículo nuclear. nuclear reticulum.
reticulación. reticulation.
reticulado. reticulate.
reticulado evolución. reticulate evo-
lution.
reticular. reticular.
retículo. reticulum.
retículo endoplásmico. endoplasmic
reticulum.
retiforme. retiform.

retinacular. retinacular.
retináculo. retinaculum.
retinervio. retinerved.
retoño. offshoot. shoot.
retoño prematuro. premature sprout-
ing.
retorcido. twisted.
retral. retral.
retraso del desarrollo. delayed de-
velopment.
retraso del herencia. delayed inher-
itance.
retro-. retro-
retrobarbado. retrorsely barbellate.
retroceder. retrogress.
retrocrenado. retrorsely crenate.
retrocruzamiento. backcross.
retrocultura. retroculture.
retrocurvado. retrocurved.
retroflexo. retroflexed.
retrogradación. retrogression.
retroinhibición. feedback inhibition.
retromente. retrorsely.
retromutación. back mutation.
retroorso. retrorse.
retroserrado. retrorsely serrate.
retroserrate.
retuso. retuse.
revegetar. revegetate.
reversión. reversion.
reverso. reverse.
revertante. revertant.
revoluto. revolute.
rexígeno. rhexigenous.
rhzóforo. rhizophore.
riachuelo. stream.
ribera. riverbank. shoreline.
ribereño. riparious.
ribereño. riparian.
ribitol. ribitol.
riboflavina. riboflavin.
ribonucleasa. ribonuclease.
ribosa. ribose.
ribosoma. ribosome.
ribulosa difosfato. ribulose diphos-

phate.
ricto, rictus.
rigens, rigens.
rigescente, rigescent.
rigidamente, stiffly.
rigidez, rigidity.
rigido, rigid. stiff.
rigor, rigor.
rimo, rimous.
rimoso, rimose.
rímula, rima.
rimuloso, rimulose.
rincosporógeno, rhynchosporous.
ringente, ringent.
rio, river.
ripario, riverside. actophilous.
ripidado, rhipidate.
ripidio, rhipidium.
risomorfo, rhizomorph. rhizo-
 morphous.
risoxfera, rhizosphere.
ritido-, rhytido-.
ritidoma, rhytidome.
ritidoma anular, ring bark.
ritidoma escamoso, scale bark.
ritmo circadiano, circadian rhythm.
rivalis, rivalis.
rivuloso, rivulose.
rizanto, rhizanthous.
rizino, rhzino.
rizo-, rhiz(o)-.
rizobio, rhizobium.
rizoblasto, rhizoblast.
rizocalina, rhizocaline.
rizocárpico, rhizocarpic.
rizocarpo, rhizocarpous.
rizocormo, rhizocorm.
rizodermis, rhizodermis.
rizofilo, rhizophyllous.
rizófilo, rhyzophilous.
rizoflora, rhizoflora.
rizóforo, rhizophore. rhizophorous.
rizogénico, rhizogenic.
rizógeno, rhizogen.
rizoide, rhizoid.

rizoma, rhizome. root stock.
rizomatoso, rhizomatous.
rizomicelió, rhizomycelium.
rizomorfo, rhizomorph.
rizópino, rhizopin.
rizoplana, rhizoplane.
rizoplasto, rhizoplast.
rizopodo, rhizopod(ium).
rizosfera, rhizosphere.
rizotaxia, rhizotaxy.
rizotaxis, rhizotaxis.
roble, oak.
roble-musgo, oak-moss.
roble-nuez, oak-nut.
robusto, robust.
robusto, stout.
roca madre, parent material.
rocío, dew.
rodear, around. surround.
rodilla, knee.
rodilla ciprés, cypress knee.
rodo-, rhodo-.
ródoplasto, rhodoplast.
rodósporo, rhodosporous.
roesteloide, roesteloid.
roestelia, roestelia.
roio, rhoium.
rojizo, reddish. rubiginous.
rojo (color), red (color).
rojo-pardusco, rufous.
rómbico, rhombic.
rómboide, rhomboid.
RON, NOR.
roña, scab.
rórido, roridous.
róridulado, dewy.
roridulado, roridulate.
rosado (color), pink (color). pink-
 ish (color).
roselado, rosellate.
roseta, rosette.
roseta basal, basal rosette.
roseta foliar, leaf rosette.
rostelado, rostellate.
rostelo, rostellum.

rostilliforme. rostelliform.

rostrado. beaked. rostrate. rostriform.

rostriforme. rostriform.

rostro. beak. rostrum.

rotáceo. rotate.

rotación. rotation.

rotundi. rotund.

rotundifolio. rotundifolious.

roya (enfermedad). rust (disease).

rubens. rubens.

rubiginoso. rubiginose.

ruborizarse. rubescent.

ruderal. ruderal.

rudimentario. rudimentary.

rudimento. rudiment.

rugoso. scabrous.

ruminado. ruminant.

runcinado. runcinate.

rupestro. rupestral.

rupícola. epipetric. rupicolous.
petrophilous.

rúptil. ruptile.

ruptura del estanque. breaking of
meres.

ruptura-reunión. breakage-reunion.

ruptura y reunión. breakage and
reunion.

ruralis. ruralis.

ruta metabólica. metabolic pathway.

S

sabana. savannah.
sabuloso. sabulose.
sacarobiosa. saccharobiose.
sacárido. saccharide.
sacáрино. saccharine.
sacarolítico. saccharolytic.
sacarosa. sucrose.
sacaromices. saccharomyces.
saccífero. sacciferous.
sacciforme. saccate. sacciform.
saco embrinario. embryo sac.
saco embrional. embryo sac.
saco ovigero. egg sac.
saco polínico. pollen sac.
sacrocaule. sarcocaulous.
saculado sacculate.
sacular. saccate. sacciforme.
sáculo. saccule.
sagitado. sagittate. sagittiform. arrow-shaped.
sal. salt.
saladar ó marisma. salt marsh.
salida repetido. repeated emergence.
saliente. salient.
saliente proyectado. projected.
salina. salina.
salinación. salination.
salinidad. salinity.
salinidad del suelo. soil salinity.
salinización. salinization.
salino. saline.
salir. emersed.
salobre. brackish. oligohaline. salt-water.
salpicado. spot. spotted.
salsugino. salsuginous.
salsuginosus. salsuginosus.
saltante. saltant.
saltación. saltation.

sámara equizocarpic. schizocarpic samara.
sámara. samara. winged fruit.
samariforme. samariform.
samaroide. samaroid.
sangradura. bleeding.
sanguineo. sanguineous.
sanguineus. sanguineus.
saori-. sapro-.
sapido. sapid.
sapidus. sapidus.
saponaceo. saponaceous.
saporo. sapor.
sapró-. sapro-.
saprobio. saprobe.
saprobiótico. saprobiotic.
saprófajo. saprophage.
saprófilo. saprophyllous.
saprófito obligado. obligate saprophyte.
saprófitico. saprophytic. saprophytic plant.
saprófito. saprophyte.
saprófito facultativo. facultative saprophyte.
saprógeno. saprogenous.
saproplankton. saproplankton.
saprotrof. saprotroph.
sapróvoro. saprovore.
saprozoico. saprozoic.
sarco-. sarco-.
sarciniforme. sarciniform.
sarcocarpo. sarcocarp.
sarcocaulmente. sarcocauly.
sarcodia. sarcody.
sarcotesta. sarcotesta.
sarmentoso. sarmentose.
sarmiento. sarment. branch tendril.
sarmentoso. sarmentose.

saskab. marl.
satélite. satellite.
sativus. sativus.
saturación de agua en el suelo. waterlogging.
saturación de zona. zone of saturation.
saturar. saturate.
saturnino. saturnine.
savia. sap.
savia celular. cell sap.
savia descendente. phloem sap.
savia elaborado. phloem sap.
saxatiles. saxatiles.
saxícola. saxicolous.
scafoide. scaphoid.
scalpeliforme. scalpelliform.
scandens. scandens.
scapiforme. scapiform.
scapigero. scapigerous.
scia-. scia-.
scifi-. scyphi-.
scififero. scyphiferous.
sciafilico. sciaphilic.
scififorme. scyphiform.
scififoro. scyphiphorous.
scifus. scyphus.
sciófito. sciophyte.
sciofitio. sciophytium.
sciuroide. sciuroid.
sclerosis. sclerosis.
scobiforme. scobiform.
scolécito. scolecite.
scolecospora. scolecospore.
scolecósporo. scolecosporous.
scopífero. scopiferous.
scopiforme. scopiform.
scopulado. scopulate.
scotófile. scotophil.
scotófito. scotophyte.
scruposo. scrupose.
scuto. scutum.
Se. Se.
sebáceo. sebaceous.
sebífero. sebiferous.

sebo. tallow.
secadera de las plántulas. damping-off.
secamiento. wilting.
secarse. shrivel (leaf).
sección. section.
sección tangente. tangential section.
secreción. secretion.
secreción láctea. milk secretion.
secretar. secrete.
secuencia de aminoácidos. amino acid sequence.
secuencia de Embden Meyerhop-Parnas. Embden-Meyerhop-Parnas sequence.
secuencia remolque. trailer sequence.
secundiflora. flower secund.
secundino. secundine.
seda. seta(e). silk.
sedentario. sedentary.
sedohepuloso. sedohepulose.
sedoso. silky.
segetalis. segetalis.
segmenado. segmented.
segmentación. segmentation.
segmento. segment.
segmento diferencial. differential sement.
segregable. segregable.
segregación. segregation.
segreación secundario. secondary segregation.
segregación somática. somatic segregation.
segregante. segregant.
segunda ley de Mendel. Mendel's second law.
s(e)imonastía. seimonasty.
selección. breeding. selection.
selección artificial. artificial selection.
selección canalizante. canalizing selection.
selección direccional. directional selection.
selección disruptiva. disruptive se-

lection.
selección en tandem. tandem selection.
selección estabilizadora. stabilizing selection.
selección germinal. germinal selection.
selección natural. natural selection.
seleccionar. breed.
selenífero. seleniferous.
selenio. selenium.
selenífero. seleniferous.
selenófito. selenophyte.
selva. forest (tropical). jungle. selva.
selva alta o mediana subcaducifolia. semi-evergreen seasonal forest.
selva alta perennifolia. moist evergreen forest. rain forest.
selva alta perennifolia tropical. tropical wet forest.
selva baja caducifolia. deciduous forest.
selva hilera. fringe forest.
selva mediana o baja perennifolia. montane rain forest.
selva monzónica. monsoon forest.
selva tropical. rain forest.
selva tropical ombrófila. tropical rain forest.
selva virgen. old-growth forest. virgin forest.
semátaxis. semataxis.
sembrando ramitos. sprigging.
sembrar. (to) plant.
semejante. similar.
semen. semen.
sementera. seedling.
semi-. semi-.
semiacuática. semiaquatic.
semiamplexicaule. semiamplexicaul.
semianual. semiannual.
semiapogamia. semiapogamy.
semiárido. semi-arid.
semicélula. semicell.
semicélula de segmento. segment half-cell.
semicraspedódromo. semicraspedo-

dromous.
semidoble. semidouble.
semidominancia. semi-dominance.
semiesfrico. semi-spherical.
semiespecie. semi-species.
semiestéril. semisterile.
semiífero. subinferior.
semileñoso. softwood.
semilla. seed.
semilla alado. winged seed.
semilla desnuda. naked seed.
semilla germinal. germ seed.
semilla oscuro. dark seed.
semilla recalcitrante. recalcitrant seed.
semillero. seedbed.
semilunar. semilunar.
seminal. seminal.
seminífero. seminiferous.
semiparásita. semi-parasite.
semiperíodo. half-life.
sempërmeable. semi-permeable.
semirrolizo. semiterete.
semisiempreverde. semievergreen.
semiterete. semiterete.
semiterrestre. semiterrestrial.
semitrepador. clambering.
semitropical. semitropical.
semper-. semper-.
semperfloro. semperflorous.
sempervirens. sempervirens.
sempervirente. evergreen.
señal del néctar. honey guide. nectar guide.
sencilla. simple. single.
senescencia. senescence.
senescente. senescent.
senilidad. senility.
seno. sinus.
sensible. sensible. tender.
sensibilidad. sensibility. sensitiv-ity.
sensitivo. sensitive.
sepalino. sepaline.
sépalo. sepal.
sepaloides. sepaloid.

sepalodia. sepalody.
sépalo opuesto. oppositisepalous.
separación. separation.
separación de cromosomas. disjunction.
separación reductora. reduction separation.
separado. separate.
septa. septa.
septado. septate.
septado falsa. false septate.
septal. septal.
septem-. septem-.
septem(i)fido. septem(i)fid.
septentado. septentate.
septicida. septicidal.
septifolio. septifolious.
septifrago. septifragal.
septo. septum (*pl.* septa).
septo falso. false septum.
septo replicado. replicate septum.
septulado. septulate.
sequía. drought.
sequía fisiología. physiological drought.
sere. sere.
sere primario. primary sere.
seriado. seriate.
serial. superposed.
seríceo. sericeous.
serie. rank.
serie de soluciones alcohólicas. alcohol series.
serie del suelo. soil series.
serie de taxonómico. taxonomic series.
serie genético. genetic complex.
serina. serine.
serología. serology.
serotaxonomía. serotaxonomy.
serótino. serotinal. serotinous.
serotonina. serotonin.
serpenteante. sinuous.
serpenteo. winding.
serra. serra.
serrado. serrate.

serrado glandular. glandular serrate.
serrífero. serriferous.
serriforme. serriform.
serrulación. serrulation.
serrulado. serrulate.
sesamoide. sesamoid.
sésil. sessile.
sesil-. sessile-.
seta. seta(e).
setas venenosas. toadstools.
setáceo. setaceous.
setífero. setiferous.
setiforme. setiform.
setoso. setose.
setula. setula.
setuloso. setulose.
seud-. pseud-
seudantio. pseudanthium.
seudeje. pseudaxis.
seudo-. pseudo-.
seudoacuático. pseudoaquatic.
seudoaetalio. pseudaeathalium.
seudoamitosis. pseudoamitosis.
seudoapogamia. pseudoapogamy.
seudoaposporia. pseudoapospory.
seudobaya. pseudoberry.
seudobulbilo. pseudobubil.
seudobulbo. pseudobulb.
seudocapilicio. pseudocapillitium.
seudocarp. pseudocarp.
seudocifela. pseudocypbella.
seudocilio. pseudocilium.
seudocolumela. pseudocolumella.
seudodrupa. pseudodrupe.
seudoepitecio. pseudo-epthecium.
seudoescapo. pseudoscape.
seudoespermio. pseudosperm.
seudofisis. pseudophysis.
seudogamia. pseudogamy.
seudogen. pseudogene.
seudoidio. pseudiodium.
seudomarina. pseudomarine.
seudomicelio. pseudomycelium.
seudomicorriza. pseudomycorrhiza.
seudomixis. pseudomixis.

seudomonómero. pseudomonomerous.
seudomorf. pseudomorph.
seudonucléolo. pseudonucleolus.
seudoparáfisis. pseudoparaphysis.
seudoparénquima. pseudoparenchyma.

seudoperianto. pseudoperianth.
seudoperidio. pseudoperidium.
seudoperitecio. pseudoperithecium.
seudoplasmodio. pseudoplasmodium.
seudopicnidio. pseudopycnidium.
seudopodio. pseudopodium.

seudorafe. pseudoraphe.
seudoriza. pseudorhiza.
seudoramulo. pseudoramulus.

seudoseptado. pseudoseptate.
seudosepto. pseudoseptum.

seudospora. pseudospore.
seudostípula. pseudostipule.
seudotalo. pseudostem.

seudoverticilado. pseudoverticillate.
seudoverticilo. pseudowhorl.

seudozoospora. pseudozygospore.

sex-. sex-.

sexangular. sexangular.

sexfario. sexfarious.

sexintergrado. sex-intergrade.

sexo. sex.

sexpartito. sexpartite.

sexual. sexual.

sexual-connexión. sex-linkage.

sexualidad relativa. relative sexuality.

sexual-limitado. sex-limited.

seyugo. sejugous.

Si. Si.

siccus. siccus.

sichnocárpico. sychnocarpous.

sicono. syconium. syconus.

siempre esta mutando. ever-sporting.

siempreverde. evergreen.

sifón. siphon.

sifón pericentral. pericentral siphon.

sifonáceo. siphonaceous.

sifoneo. siphoneous.

sifonostela. siphonostele.

sigmoide. s-shaped.

sigmoidea. sigmoid.

silice. silica.

silíceo. siliceous. silicious.

silicificado. silicified.

silicio. silicon.

silicólo. silicolous.

silicua. silique.

silícula. silicle.

silvestre. wild.

silvicultor. forester.

silvicultura. silviculture. forestry.

simbionte. symbiont.

simbiosis. symbiosis.

simbiosis antagonista. antagonist symbiosis.

simbiosis mutualista. mutualism.

simbiosis radical. root symbiosis.

simbiótico. symbiotic.

símbolo. symbol.

simetría. symmetry.

simetría bilateral. bilateral symmetry.

simetría dorsiventral. dorsiventral symmetry.

simetría irregular. irregular symmetry.

simétrico. symmetric. symmetrical.

simfógeno. symphogenous.

simiente. seed.

similar. similar.

simpatri. sympatry.

simpátrico. sympatric.

simpétalo. sympetalous.

simplasto. symplast.

simple. simple.

simplejo. simplex.

simplesiomorfo. symplesiomorphous.

simpodial. sympodial.

simpódico. sympodial.

simpodio. sympodium.

sin-. syn-.

sinandro. synandrium.

sinandro. synandrous.

sinantero. synantherous.
sinangio. synangium.
sinanto. synanthous.
sinape. synapsis.
sinapomorfo. synapomorphic.
sinápteno. synaptene.
sin arilo. exarillate.
sincarion. sinkaryon.
sincárpia. syncarpy.
sincárpico. syncarpous.
sincarpo. syncarp.
sin cilios. eciliate.
sinciteo. syncytium.
sinclado. syncladous.
sin clorofila. achlorophyllous.
sin color. achroos. colorless.
sinconio. synconium.
sincotile. syncotylous.
sin cultivar. wild.
sinecología. synecology.
sindesis. syndesis.
sin dientes. edentate.
sindiploidía. syndiploidy.
síndrome. syndrome.
sinecología. synecolgy.
sinema. synema.
sinergia. synergy.
sinérgide. synergid.
sinérgismo. synergism.
sinérgístico. synergistic.
sinespermía. synspermy.
sinespermo. synspermous.
sin espina. spineless.
sinfisis. symphysis.
singamía. syngamy.
singámico. syngamic.
singamo. syngamous.
singénésico. syngenesious.
singino. syngynous.
sin hojas. aphyllous. leafless.
sinistrorso. sinistrorse.
sinísis. synizesis.
sin lámina. bladeless.
sin ligula. eligulate.
sin litoral. landlocked.

sinnema. synnema.
sinobásico. synobasic.
sinocio. synoecious.
sinoecia. synoecy.
sinónimo. synonymous. synonym.
 synonymy.
sinovarios. synovarious.
sin pálea. epaleate.
sin paposo. epappose.
sin pelo. bald.
sin pepitas. seedless.
sinpétalo. synpetalous.
sin quilla. ecarinate.
sin rostro. erostrate.
sin salida al mar. landlocked.
sin semillas. seedless.
sinsépalo. synsepalous.
sinstemono. synstemonous.
sinstilovarios. synstylovarious.
sin tallo. stalkless. stemless. acauline.
sintasa. lyase.
sintenia. synteny.
sinténico. syntenic.
sintépalo. syntepalous.
síntesis. synthesis.
sintetasa. synthetase.
sintetasa glutamina. glutamine syn-
 thetase.
sintetizar. synthesize.
sintípico. syntype.
sinuado. sinuate.
sinuoso. sinuous. winding.
sinusia. synusia.
siquiótico. sikyotic.
sirtidio. syrtidium.
sistema. system.
sistema de genética. genetic system.
sistema ecológico. ecological sys-
 tem.
sistema ecológico climax. climax
 ecosystem.
sistema enzimático complejo.
 multienzyme system.
sistema de foto I. photo system I.
sistema de foto II. photo system II.

sistema poligénico. polygenic system.

sistema redox. redox reaction.

sistema tejido. tissue system.

sistema trófico. food web.

sistema vascular. vascular system.

sistemas de motor. motor systems.

sistemático. systematic.

sistemático filogenético. phylogenetic systematics.

sistemáticos. systematics.

sistémica. systemic.

sistilo. systylous.

sistrof. systrophe.

sitio. site.

situado. positioned.

sizna. subula.

smaragdino. smaragdine.

sobole. sobol(e).

sobolífero. soboliferous.

sobrecruzamiento. crossing over. crossover.

sobrecruzamiento desigual. unequal crossing-over.

sobredominancia. overdominance.

sobrepasar. exceed.

sobrepasto. overgrazing.

sobrepuesta (yema). superposed.

sobresaliendo. protruding.

sobreviven al invierno. overwinter.

social (botánica). social (botany).

sociedad. society.

sociedad complementario. complementary society.

sodicación. sodication.

sódico cloruro. sodium chloride.

sodio. sodium.

sol. sun.

solarización. solarization.

sole. sole.

soleado. sunny.

solenostela. solenostele.

soliflucación. soliflucation.

solitario. solitary.

solo. alone. sola. solum. single.

solopatogénico. solopathogenic.

soluble. soluble.

solución. solution.

solución de Fehling. Fehling's Solution.

solución del suelo. soil solution.

solución iniciadora. starter solution.

soluto. solute.

solvente. solvent.

soma. soma (*pl.* somata).

somatotropismo. somatotropism

somático. somatic.

sombra. shade.

sombra de lluvia. rain shadow.

sombreado. shady.

sombrerete de cera. wax cap.

sombrerete. cap. pileus.

sonda. probe.

soralio. soralium (*pl.* soralia).

sorbitol. sorbitol.

sórdido. sordid.

sordidus. sordidus.

soredia. soredia.

sorediado. sorediate.

soredio. soredium.

sori. soros.

sorífero. soriferous.

soro. sorus.

soro acrosticoide. acrostichoid sorus.

sorocarp. sorocarp.

soroesfera. sorosphere.

soróforo. sorophore.

soro gradato. gradate sorus.

soro mixto. mixed sorus.

soros. sori.

sorosa. sorose.

soro simple. simple sorus.

sorosis. sorosis.

sosa. saltwort.

sostenible de gestión. sustainable management.

sotavento. leeward.

sotobosque. underbrush.

speciosus. speciosus.

spectabilis. spectabilis.

spectaus. spectaus.
speirantia. speiranthy.
splendens. splendens.
sporonte. sporont.
sport. sport.
sport mutación de yema. bud sport.
superorden. superorder.
squarrosus. squarrosus.
s-RNA. ARN soluble.
 β -galactosidase. β -galactosidase.
stacio-. stachyo-.
stadistica. statistice.
stalagmoide. stalagmoid.
stereida en emplaizada. palisade tissue.
sticio. stichidium.
sticobasidio. stichobasidium.
sticto-. sticto-.
stigmatocisto. stigmatocyst.
stilboide. stilboid.
stilidio. stylidium.
stipado. stipate.
stipuloso. stipulose.
strictus. strictus.
striolado. striolate.
suave. soft.
suave liber. soft bast.
suaveolente. suaveolent.
sub-. sub-.
subacueo. subaqueous.
subagudo. subacute.
subalpino. subalpine.
subalterno. subalternate.
subapical. subapical.
subaqueo. subaqueous.
subarbusto. subshrub. suffrutex. undershrub.
subartico. subartic.
subaxilar. subaxillary.
subbasal. subbasal.
subbasifijo. subbasifixed.
subblanceolado. oblancoeloid.
subcapitado. subcapitate.
subcelular. subcellular.
subcilindrico. subcylindric.

subclase. subclass.
subclimax. subclimax.
subconjunto. subgroup.
subcordato. subcordate.
subcorimboso. subcorymbose.
subcortezal. subcortical.
subcultivo. subculture.
subdispersión. underdispersion.
subdominancia. underdominance.
subentero. subentire.
subepidérmica. subepidermal tissue.
súber. cork. suber.
súber cicatrizal. wound cork.
suberecto. suberect.
subereo. subereous.
suberificación. suberification.
suberificar. suberize.
suberina. suberin.
suberina de laminilla. suberin lamella.
suberización. suberization.
suberizar(se). suberize.
suberofelodérmica. phellogen.
sub-eroso. sub-erose.
suberoso. corky. suberose.
suberosus. suberoso.
subescapífero. subscapose.
subespecie. subspecies.
subespigado. subspicate.
subfamilia. subfamily.
subfoliáceo. subfoliaceous.
subformación. sub-formation.
subgénero. subgenus.
subglabrescente. subglabrate.
subgloboso. subglobose.
subherbáceo. subherbaceous.
subhimenio. subhymenium.
subhúmedo. subhumid.
subiculo. subiculum.
subinferior. subinferior.
subleñoso. sublignous.
sublitoral. sublittoral.
submarginal. submarginal.
submarino. submarine.
suborden. suborder.

subpeciolar. subpetiolar bud.
subpetiolado. subpetiolate.
subpiso. underwood. understory.
subpotencia. subpotency.
subramoso. subramose.
subredondeado. subrotundate.
subrizomatoso. subrhizomatous.
subsero. subsere.
subsésil. subsessile.
subspontáneo. subspontaneous.
substitución par de bases. base-pair substitution.
substrado. substrate.
subsuelo. subsoil.
subtemplado. subtemperate.
subterete. subterete.
subterráneo. subterranean.
subtracción. subtraction.
subtropical. subtropical.
subulado. subulate.
subvalvado. subvalvate.
subvariedad. subvariety.
subyacente. subtending.
succineus. succineus.
sucesión. succession.
sucesión ecológica. ecological succession.
sucesión ecológic primario. primary ecological succession.
sucesión primario. primary succession
sucesión progresiva. progressive succession.
sucesión secundario. secondary succession.
sucesión vegetal. plant succession.
suciz. succise.
sucrasa. saccharase. sucrase.
súcubo. succubous.
suculento. succulent.
suelo. ground. land. soil.
suelo ácido. acid soil.
suelo álcali. alkali soil.
suelo alcalino. alkaline soil.
suelo anegado. waterlogged soil.
suelo arenoso. sandy soil.

suelo de volcánico. volcanic soil.
suelo del aire. soil air.
suelo neutro. neutral soil.
suelo orgánico. organic soil.
suelo pedregoso. stony soil.
suelo permeable. permeable soil.
suelo salino. saline soil.
suelo salino-sodico. saline-sodic soil.
suelo saturado. saturated soil.
suelo sodico. sodic soil.
suelo superficial. top soil.
suelo termogénico. thermogenic soil.
suelo virgen. virgin soil.
suelo zonal. zonal soil.
sufrutcoso. suffrutescent.
sufrutescente. suffrutescent.
sufrútice. subshrub. suffrutex.
sufruticoso. suffruticose.
sujetar. attach.
sujeto. attached.
sulcado. grooved. sulcate.
sulcus. sulcus.
sulfatasa. sulfatase.
sulfureo. sulphureous.
sumergido. immersed. submerged.
sueño del día. day sleep.
super-. super-.
superaxilar. superaxillary.
superclase. superclass.
superdominancia. superdominance.
superespecie. superspecies.
superfamilia. super family.
superficial. superficial. shallow.
superficie. surface.
superficie de la hoja. leaf surface.
superficie de reconocimiento. recognition surface.
superficie foliar. leaf surface
supergen(e). supergene.
superhelicoidal. superhelical.
superhélice. superhelix.
superior. upper. face.
súpero. superior.
superorden. superorder.
superparasito. superparasite.

superparasitismo. superparasitism.
supervivencia del másto. survival
of the fittest.
supervoluto. supervolute.
supino. supine.
supinus. supinus.
supra-. supra-.
supraaxilaria. supraaxillary.
suprabasal. suprabasal.
supracelular. supracellular.
suprafoliáceo. suprafoliaceous.
supragenico. supragenic.
supraligular. supraligular.
supramolecular. supramolecular.
supresión. suppression.
supresivo. suppressive.
suprimido. suppressed.
supresor. suppressor.
sur-. sur-.
surco. groove.
surcos. fossae.
surcula. surcle.
surculigero. surculigerous.
surculo. surculus.
súrculo. sucker. surculose.
súrculo-prolífico. surculose-
proliferous.
surculum. surculum.

surcurrente. surcurrent.
surficial. surficial.
suscept. suspect.
susceptibilidad. susceptibility.
suspensor. suspensor.
sustancia de crecimiento. growth
substance.
sustancia ergástico. ergastic sub-
stance.
sustancia inhibidor del crecimiento.
growth inhibiting substance.
sustancia mutágena. mutagen.
sustancia péctica. pectic substances.
sustancia portadora. carrier.
sustancia promotor del crecimiento.
growth promoting substance.
sustancia tóxica. toxic substance.
sustancia transmisora. transmitter
substance.
sustancia trazadora. tracer.
sustancia vegetal en descomposición.
moder.
sustitución cromosómico. chromo-
some substitution.
sutura. suture.
sutura ventral. ventral suture.
sym-. sym-.

T

- tabashir.** tabashir.
tabescente. tabescent.
tabla de agua. water table.
tabular. tabular.
táctil de cerda. tactile bristle.
tactismo. taxis.
tafonomía. taphonomy.
tafrio. taphrium.
taiga. taiga.
tálamifloral. thalamifloral.
tálamio. thalamium.
tálamo. thalamous. thalamus.
tálasio. thalassium.
talasófito. thalassophyte.
taliforme. thalliform.
talli. thalli.
tallo. stalk. stem.
tallo de la hoja. leafstalk.
tallo embrional. tigellum.
tallo florífero. flowering stem.
tallo sencillo. single stemmed.
tallo subterráneo. stock.
talo. thallus (*pl.* thalli).
talo endógeno. endogenous thallus.
talo estratificado. stratified thallus.
talo estratoso. stratose thallus.
talo exógeno. exogenous thallus.
talófito. thallophyte.
talo monoaxial. monoaxial thallus.
talo monosifono. monosiphonous thallus.
talo multiaxial. multiaxial thallus.
taloso. thalloid. thallose.
talospora. thallospore.
tamaño. size.
tamaño de la población. population size.
tampón. buffer.
tanífero. tanniferous.
tanino. tannin.
tapadera. lid.
tapete. tapetum. tapetal.
tapón de mucus. slime flux.
taquisporo. tachysporous.
taquítemente. tachytely.
tarde. late.
tardío. late.
tartaro. tartarous.
tasa de crossing-over. crossover value.
tasa de renovación. turnover rate.
tautónimo. tautonym.
taxa. taxa.
taxia. taxis.
taxinomía. taxonomy.
taxinómico. taxonomic.
taxis. taxis.
taxón. taxon.
taxonomía. taxonomy.
taxonomía alfa. alpha taxonomy.
taxonomía botánica. plant taxonomy.
taxonomía numérica. numerical taxonomy.
taxonomía vegetal. plant taxonomy.
taxónomico. taxonomic.
taxonomista. taxonomist.
taxónomo. taxonomist.
teca. theca.
tecal. thecal.
tecar. thecate.
tecas. thecae.
tecaspora. thecaspore.
tecífero. theciferous.
tecio. thecium.
tecnológico transgénico. transgenic technology.
tecto. tectum.
tefro-. tephro-.
tegmen. tegmen.

tegmental. tegmental.
tegmento. tegmentum.
tegula. tegule.
tegulicole. tegulicolous.
tegumento. seed coat. tegument. testa.
tejido. layer. tissue.
tejido acuoso. aqueous tissue.
tejido accesoria. accessory tissue.
tejido acuífero. water storing tissue.
tejido celular. cell tissue.
tejido complejo. complex tissue.
tejido complementario. complementary tissue.
tejido conductor. conductive tissue.
tejido cribosa. sieve tissue.
tejido difuso. diffuse tissue.
tejido de esporógeno. sporogenous tissue.
tejido de transfusión. transfusion tissue.
tejido en empalizada. palisade tissue.
tejido embrionario. embryonic tissue.
tejido falso. false tissue.
tejido fundamental. fundamental tissue.
tejido de herida. wound tissue.
tejido lignificado. woody tissue.
tejido mecánico. mechanical tissue.
tejido meristemático. meristematic tissue.
tejido permanente. permanent tissue.
tejido protector. protective tissue.
tejido provascular. provascular tissue.
tejido secretora. secretory tissue.
tejido secundario. secondary tissue.
tejido simple. simple tissue.
tejido somático. somatic tissue.
tejido vascular. vascular tissue.
tejidos primario. primary tissue.
teléforo. thelephorous.
teleoblema. teleoblema.

teleología. teleology.
telemorfosis. teleomorphosis.
teleutóetapa. teleutostage.
teleutósoro. teleutosorus.
teleutósora. teleutospore. teliospore.
teleutóspore. winter spore.
telial. telial.
telio. teleutosorus. telium. teliosorus.
telioetapa. telioistage.
teliosoro. teliosorus.
teliospora. teliospore. teleutospore. winter spore.
telitocia. thelytoky.
telitoq. thelytokous.
telitoquia. thelytoky.
telmatio. telmatium.
telofase. telophase.
telofase I. telophase I.
telofase II. telophase II.
telómero. telomere.
telomitico. telomitic.
telosinapsis. telosynapsis.
telotactismo. telotaxis.
telotaxia. telotaxis.
temperado. temperate.
temperatura. temperature.
temperatura ambiente. ambient temperature.
temperatura letal (TL). thermal death point (TDP).
tendencia evolutiva. evolutionary trend.
tensión salada. salt stress.
tensión tejido. tissue tension.
tentacular (hoja). tentacular (leaf).
tentáculo. tentacle.
tenellus. tenellus.
tenue. faint.
tenui-. tenui-.
tenuo. tenuous.
teoría celular. cell theory.
teoría climax. climax theory.
teoría cromosómica de la herencia. chromosome theory of inheritance.
teoría de la presencia-ausencia.

presence and absence theory.
teoría de la recapitulación. recapitulation theory.
teoría de la tensión-cohesión. cohesion-tension theory.
teoría de precocidad. precocity theory.
teoría mutación. mutation theory.
tépalo. tepal.
tépalo. fall. tepal.
tercera ley de Mendel. Mendel's third law.
terebrado. terebrate.
terebrador. terebrator.
tereno salobreño. salt marsh.
terete. terete.
tergifero. tergiferous.
terio. therium.
termico. thermic.
termifolius. termifolius.
terminal. terminal.
terminals. terminals.
terminalización. terminalization.
termoclina. thermocline.
termodurico. thermoduric.
termóetapa. thermostatage.
termófilo. thermophile.
termófito. thermophyte.
termógrafo. thermograph.
termonastia. thermonasty.
termoperiodismo. theromoperiodism.
termoperíodo. thermoperiod.
termotactismo. thermotaxis.
termotaxia. thermotaxis.
termotaxis. thermotaxis.
termotolerante. thermotolerant.
termotropismo. thermotropism.
tern-. tern-.
ternado. ternate.
ternario. ternary.
ternatopinnado. ternatopinnate.
terófilo. therophyllous.
terófito. therophyte.
teronina. theronine.
terpeno. terpene.
terpenoide. terpenoid.

terracuoso. terraqueous.
terreno. land.
terreno salobreño. salt marsh.
terrestre. terrestrial.
terrícola. terricolous.
territorio. territory.
tertrafilo. tetraphyllous.
teselado. tessellate. tessellated.
testa. seed coat.
testa. testa.
testaceo. testaceous.
tetra-. tetra-.
tetracarpelar. tetracarpellary.
tetracíclico. tetracyclic.
tetracístico. tetraschistic.
tetracito. tetracyte.
tetracocco. tetracoccous.
tetraconton. tetrakonton.
tetracuetro. tetraquetrous.
tétrada. tetrad.
tétrade linear. linear tetrad.
tétrade espora. spore tetrad.
tetradidimo. tetradidymous.
tetradímo. tetradymous.
tetradínamo. tetradynamous.
tetradíno. tetradinous.
tetraédrico. tetrahedral.
tetrafilo. tetraphyllous.
tetragino. tetragynous.
tetragono. tetragonous.
tetragonico. tetragonal.
tetramerico. tetrameric.
tetramero. tetramerous.
tetrandro. tetrandrous.
tetrapétalo. tetrapetalous.
tetrapireno. tetrapyrenous.
tetrapirole. tetrapyrrole.
tetraploide. tetraploid.
tetraploidia. tetraploidy.
tetrapolar. tetrapolar.
tetraptero. tetrapterous.
tetrarea. tetrarch.
tetrasacarido. tetrasaccharide.
tetrasepalo. tetrasepalous.
tetrasómico. tetrasomic.

tetraspermo. tetraspermous.
tetraspora. tetraspore.
tetrasporangio. tetrasporangium.
tetrasporangina. tetrasporange.
tetrasporófita. tetrasporophyte.
tetrastachio. tetrastachyous.
tetráster. tetraster.
tetrástico. tetrastichous.
tetrathecal. tetrathecal.
tetraxial. tetraxial.
tetraxon. tetraxon.
tetroalélico. tetro-allelic.
tetroso. tetrose.
textura. texture.
textura del suelo. soil texture.
tiamina. thiamin(e).
tiempo de duplicación. doubling time.
tiempo de generación. generation time.
tiempo de latencia. latent period.
tiempo de presentación. presentation time.
tiempo de reacción. reaction time.
tiempo de renovación. turnover time.
tiempo de temperatura letal. thermal death time.
tiempos de duplicación. doubling time.
tierra. land.
tierra aluvial. alluvial soil.
tierra cultivable. tilth.
tierras que quedan inundadas durante la crecida de un río. floodplain.
tífo. tiphium.
tigmorfogénesis. thigmorphogenesis.
tigmotaxia. thigmotaxis.
tigmotaxis. thigmotaxis.
tigmotropismo. thigmotropism.
tila (británico). linden tree (British).
tilacoide. thylakoid.
tilis. tyloses.
tilo-. tylo-.
tilo. tyloses.

tilo (británico). lime tree (British).
timina. thymine.
timpániforme. tympaniform.
tinción vital. vital staining.
tintura feulgen. feulgen stain.
tiobacteria. thiobacteria.
 típico (estambre). typical.
tipo. type.
tipo ejemplar. type specimen.
tipio apareamiento. mating type.
tipo básico. basic type.
tipo biológico. biotype.
tipo de suelo. soil type.
tipo ejemplar. type specimen.
tip primo. prime type.
tipo salvaje. wild type.
tipo silvestre. wild type.
tiramina. tyramine.
tirosina. tyrosine.
tiriotecio. thyriothecium.
tirosina. tyrosine.
tirsífero. thersiferous.
tirsiforme. thyriform.
tirso. thyrses.
tirsoide. thyrsoid.
tirsula. thyrsula.
tizón. smuts.
tizón de fuego. fire blight.
T.L. T.D.P.
tocoferol. tocopherol.
tolerancia. tolerance.
tolerante. tolerant.
tomenta. tomenta.
tomenteloso. tomentellous.
tomento. tomentum.
tomentoso. tomentose.
tomentuloso. tomentulose.
tono(color). hue (color).
tonoplasto. tonoplast.
topografía. topography.
topoisomerasa. topoisomerase.
topotaxis. topotaxis.
topotipo. topotype.
torcido. bent.
toric. toric.

toro. torus.
toroso. torose.
tormentoso. tormentose.
torrentícola. lotic.
tortuoso. tortuous.
torula. torula.
toruliforme. toruliform.
toruloso. torulose.
torsión. torsion.
torula. torula.
toruliforme. toruliform.
toruloso. torulose.
totipotencia. totipotence.
totipotencia. totipotency.
totipotente. totipotent(ial).
toxicidad. toxicity.
tóxico. toxic.
toxicología. toxicology.
toxigenidad. toxigenicity.
toxígeno. toxigenic.
toxina. toxin.
TPN. TPN.
trabécula (ósea). trabecula.
trabécular. trabecular.
trabedulado. trabeculate.
traducir. translate.
traductor. translator.
trama. trama.
trans-. trans-.
transaminación. transamination.
transaminasa. transaminase.
transcribir. transcribe.
transcripción. transcription.
transcriptasa reversa. reverse transcriptase.
transducción. transduction.
transecar. transect.
transecto aislamiento. isolation transect.
transeptado. transeptate.
transeúnte. transients.
transferasa. transferase.
transformación. transformation.
transglucosilación. transglycosylation.
transición. transition.

translación. translation.
translocación. translocation.
translocación de grupo. group translocation.
translocación recíproca. reciprocal translocation.
translocaso. translocase.
translúcido. diaphanous. translucent.
transformación. transformation.
transgénico. transgenic.
transglucosilación. transglycosylation.
transición. transition.
translúcido. translucent.
transmutación. transmutation.
transondulado. transcorrugated.
transparente. transparent.
transpícuo. transpicious.
transpiración. transpiration.
transpiración absoluto. absolute transpiration.
transpiración cuticular. cuticular transpiration.
transpirar. transpire.
transplantar. transplant.
(trans)portador. electron carrier.
(trans)portador de electrones. electron carrier.
transportado por el viento. wind-borne.
transporte. transport.
transporte activo. active transport.
transporte de electrones. electron transport.
transporte pasivo. passive transport.
transporte polar. polar transport.
transporte selectivo. selective transport.
transposición. transposition.
transposone. transposon.
transversal. transverse.
trapeziforme. trapeziform.
trapezio. trapezium.
trapezoide. trapezoid.
tráquearia. tracheary.

traquicárpo. trachycarpous.
traquispermo. trachyspermous.
tráquea. trachea. wood vessel.
 tracheary.
traqueida. tracheid.
traqueida de reserva. storage
 tracheid(e).
traqueida espiralada. spiral
 tracheid(e).
traqueida fibriforme. fiber tracheid(e).
traqueida radial. ray tracheid(e).
traqueida vasiforme. vasiform
 tracheide(e).
traqueófito. tracheophyte.
traqui-. trachy-.
traspírar. transpire.
trasplantar. transplant.
tratamiento (por el) frío. cold treat-
 ment.
traumático. traumatic.
traumatonastia. traumatonasty.
trauma(to) tropismo. trauma(to) tro-
 pism.
traumotaxis. traumotaxis.
traza. trace.
traza ventral. ventral trace.
trazador. tracer.
traza foliar. leaf trace.
traza rama. branch trace.
traza ramular. ramular trace.
traza stipular. stipular trace.
trazador. tracer.
trazador radiativo. radioactive tracer.
treconina. threconine.
trehaloso. trehalose.
tremelloide. tremelloid.
trementina. turpentine.
trenza. plait.
trepador. scandent. climbing. scram-
 ble. climber.
tres-rango. three-ranked.
tri-. tri-.
triádelfo. triadelphous.
tri(o)ecio. tri(o)ecious.
trialdo. tripterous.

trialélico. triallellic.
triacilglicerido. triacylglyceride.
triáda. triad.
trialdo. tripterous.
triandro. triandrous.
triangular. triangular. triangulate.
triángulo. triangle.
trianto. trianthous.
triaristado. triaristate.
triáster. triaster
tribu. tribe.
tricamero. tricamerous.
tricarinado. tricarinate.
tricarpelar. tricarpellary.
tricasio. trichasium.
trichidio. trichidium.
trícíclico. tricyclic.
trícito. trichite.
trico-. tricho-.
tricoblasto. trichoblast.
tricocárpico. trichocarpous.
trícoco. tricocceous.
trícófilo. trichophyllous.
trícóforo. trichophore.
trícógina. trichogyne.
trícógino. trichogyne.
tricolor. tricolor.
tricolpado. tricolpate.
tricoma. hair. trichome. tricoma.
trícostado. tricostate.
tricotecina. trichothecin.
tricotiledóno. tricotyledonous.
trícótomo. trichotomous.
trieróico. trichroic.
tridentado. tridentate.
tridigado. tridigitate.
tridínama. tridynamous.
tri(o)ecio. tri(o)ecious.
trienial. triennial.
trifario. trifarious.
trífido. trifid.
trífilo. triphyllous.
trifloral. three-flowered.
trifloro. triflorous.
trifoliada. trifoliolate.

trifoliado. trifoliolate.
trifoliolado. trifoliolate.
trifosfopiridina-nucleótido (TPN).
 triphosphopyridine nucleotide
 (TPN).
trifurcado. trichotomous. trifurcate.
trigamo. trigamous.
trigeminado. tergeminate.
trigenico. trigenic.
trigonal. trigonal.
trigono. trigonous.
trihíbrido. trihybrid.
trilete. trilete.
trillizo sensorial. sense triplet.
trilobado. trilobate.
trilocular. trilocular.
trima. tryma.
trimembre. trimerous.
trímero. trimerous.
trimitico. trimitic.
trimonecio. trimonecious.
trimorfismo. trimorphism.
trimorfo. trimorphic.
trinervado. trinervate.
trinervino. trinerved.
trioico. trioecious.
trioleína. triolein.
triosa. triose.
triosa fosfato. triose phosphate.
tripalmado. tripalmate.
tripartido. tripartite.
tripétalo. tripetalous.
tripetaloid. tripetaloid.
tripinado. tripinnate.
tripinatifido. tripinnatifid.
tripinatisecto. tripinnatisect.
triplete. triplet.
triplexo. triplex.
triplinervado. triplinervate.
triplinervino. triplinerved.
triploide. triploid.
triploidia. triploidy.
tripsina. trypsin.
triptámina. tryptamine.
triptófano. tryptophan.

triptófito. thryptophyte.
triquetro. triquetrous.
trirradiado. triradiate.
trisacárido. trisaccharide.
trisekar. trisect.
trisépalo. trisepalous.
triseptado. triseptate.
triseriado. triserial. triseriate.
trisomia. trisomy.
trisómico. trisomic.
trisómico primario. primary trisomic.
trisperma. trispermous.
trisporina. trisporin.
trístico. tristichous.
tristis. tristis.
trisulcado. trisulcate.
triternado. triternate.
triterpena. triterpene.
trivalente. trivalent.
trivial. trivial.
trivial nombre. trivial name.
triyugado. trijugate.
trochleado. trochleate.
trocLEAR. trochlear.
trófico. trophic.
trofociste. trophocyst.
trofocondrioma. trophochondriome.
trofocromatina. trophochromatin.
trofocromidia. trophromidia.
trofofilo. trophophyll.
trofófito. trophophyte.
trofogonio. trophogonium.
trofoplasma. trophoplasm.
trofoplasto. trophoplast.
trofotropismo. trophotropism.
tronco. trunk.
trópica. tropic.
tropical. tropical.
tropismo. tropism.
tropófilo. trophophilous.
tropófitico. trophophytic.
tropófito. trophophyte.
tropotaxia. tropotaxis.
tropotaxis. tropotaxis.
trucado. truated.

trulado. trullate.
trum. thrum.
truncado. truncate.
tuberculación. tuberculation.
tuberculado. tuberculate.
tubercular. tubercular.
tubercularoide. tubercularoid.
tubércula. tubercule.
tubérculo. tuber.
tubérculo caulinar. stem tuber.
tubérculo de tallo. stem tuber.
tubérculo radical. root tubercle.
tubérculo radicular. root tuber.
tuberiforme. tuberiform.
tuberoide. tuberoid.
tuberosidad. tuberosity.
tuberoso. tuberiferous. tuberous.
tubifloro. tubilflorous.
tubiforme. tubiform.
turbinado. turbinate.
tubline. tubulin.
tubo. tube.
tubo cáliz. calyx tube.
tubo conjugación. conjugation tube.
tubo copulación. copulation tube.
tubo criboso. sieve tube.
tubo de germinación. tube germination.
tubo de salida. exit tube.
tubo estaminal staminal tube.
tubo germinal. germ tube. germinal tube.
tubo infección. infection tube.
tubo lactífero. lactiferous tube.
tubo látex. latex duct.

tubo laticífero. laticiferous duct.
tubo polínico. pollen tube.
tubular. tubular.
tubule. tubulous.
tubulifloro. tubuliflorous.
tubuline. tubulin.
tubulus. tubulus.
tugor. tugor.
tumescence. tumescent. tumid.
tumor. tumor.
tundra. tundra.
tundra pantanoso. marshy tundra.
túnica. tunic. tunica.
tunicadado. tunicated.
tunicado. tunicate.
turba. peat.
turba de caña juncia. reed sedge peat.
turba de juncia. sedge peat.
turba lacustre. lacustrine peat.
turba topogeno. topogenous peat.
turbera. fen.
turbera de esfagnales. peat bog.
turbera ombrógeno. ombrogenous peat bog.
turbinado. turbine.
turgente. turgent.
turgescencia. turgescence.
turgescence. turgescent.
turgidez. tugor.
túrgido. turgid.
turión. turion.
turional. turioniferous.
tyndallización. tyndallization.

U

ubiquinol. ubiquinol.
ubiuo. ubiquitous.
ubiquinona. ubiquinone.
uliginoso. uliginose.
ulmina. ulmin.
última. ultimate.
ultra-. ultra-.
ultracentrifugador. ultracentrifuge.
ultramicroscopio. ultramicroscope.
ultramicroscopico. ultramicroscopic.
ultrasomo. ultrasome.
ultraestructura. ultrastructure.
ultraviolados. ultraviolet rays.
umbela. umbel.
umbela compuesto. compound umbel.
umbela parcial. partial umbel.
umbela radiante. radiant umbel.
umbela simple. simple umbel.
umbelado. umbellate. umbellulate.
umbelifero. umbelliferous.
umbeliforme. umbelliform.
umbélula. umbellet. umbellule.
umbelulado. umbellulate.
umbilicado. umbilicate.
umbiliforme. umbiliform.
umbón. umbo.
umbonado. umbonate.
umbonula. umbonule.
umbonulado. umbonulate.
umbracúlido. umbraculate.
umbraculífero. umbraculiferous.
umbraculiforme. umbraculiform.
umbraculo. umbraculum.
umbral. threshold.
umbral característica. threshold trait.
umbrinus. umbrinus.
umbrófilo. sciophilous. shade-loving.
umbroso. shady.
umbrosus. umbrosus.

uña. claw.
uncado. uncate.
uncinado. hooked. uncinate. uncin-
 nate.
uncinulado. barbed.
uncinulo. barb.
unguiculado. ungiculate.
ungula. ungula.
ungulado. ungulate.
uni-. uni-.
uniaristado. uniaristate.
uniaxial. uniaxial. monoaxial.
uniáxico. monaxial. uniaxial.
unicarpelar. unicarpellate.
unicarpogónico. unicarpellous.
unicaule. unicaulous.
unicelular. one-celled. unicellular.
 single celled.
unicolor. unicolored.
unidad de crossing-over. crossover
 unit.
unidad de sobrecruzamiento. crosso-
 ver unit.
unidad fotosintético. photosynthetic
 unit.
unido. affixed. joined. united.
unifactorial. unifactorial.
unifloro. uniflorous.
unifoliado. unifoliate.
unifoliolado. unifoliolate.
uniforme. even.
uniformemente. evenly.
unilateral. one-sided. unilateral.
 secund.
uniloculado. uniloculate.
unilocular. one-celled. unilocular.
uninervado. unicastate.
uninucleado. uninucleate.
unión. union.
unión fibular. clamp-connection.

nodose-septum.

uniovular. uniovular.

unipétalo. unipetalous.

unipolar. unipolar.

unirama. uniramous.

uniseptado. uniseptate.

uniseriado. uniseriate.

unisexual. unisexual.

uni(e)stratificado. unistratose.

unitunicado. unitunicate.

univalente. univalent.

univoltino. univoltine.

unixial. monaxial.

uniyugado. unijugate.

untuoso. greasy. unctuous.

untuoso. unctuous.

urecicolo. urecicole.

uracilo. uracil.

urceo. urceus.

urceolado. urceolate.

urceolo. urceolus.

ureasa. urease.

uredinial. uredinial.

uredinio. uredinium. uredium.

uredinioespora. urediniospore.

uredo primario. primary uredo.

urediospora. urediospore.

uredóspora. uredospore.

uredosoro. uredosorus.

uredóspora. uredospore.

uridina. uridine.

urna. urn.

urniforme. urn-shaped.

uro-. uro-.

urticado. urticate.

urticante. urent.

utriculiforme. utriculiform.

útero. uterus.

utricular. utricular.

utriculiforme. utriculiform.

utrículo. utricle.

utriforme. utriform.

uva. uva.

uvarious. uvarious.

V

vacuola. vacuole.
vacúola. vacuole.
vacuola autofágico. autophagic vacuole.
vacuola de gas. gas vacuole.
vacúolo de gas. gas vacuole.
vacuolado. vacuolate.
vacuolar. vacuolar.
vacuolización. vacuolization.
vágil. vagile.
vagilidad. vagility.
vagina. vagina.
vaginado. vaginate.
vaginífero. vaginiferous.
vaginula. vaginule.
vaina. pod. sheath.
vaina de almidón. starch sheath.
vaina de la hoja. leaf sheath.
vaina de la rameal. rameal sheath.
vaina fascicular. bundle sheath.
vaina floral. flower sheath.
vaina foliar. leaf sheath.
vaina medular. medullary sheath.
vaina péctica. pedtic. sheath.
vaina radical. root sheath.
valecula. vallecula.
valecular. vallecular.
valeculado. valleculate.
valencia. valence.
válido. valid.
valina. valine.
valor (color). value (color).
valor adaptativo. adaptive value.
valor central. median.
valor de adaptación. adaptive value.
valor medio. mean.
valor selectivo. selective value.
valsoide. valsoid.
valva. valve.
valvar. valvate. valvular.

vara. twig.
varec. seaweed.
variable. variable.
variabilidad. variability.
variación. variation.
variación adquirido. acquired variation.
variación analógico. analogous variation.
variación continua. continuous variation.
variación definida. definite variation.
variación de sustantivo. substantive variation.
variación de yema. bud variation.
variación discontinuo. discontinuous variation.
variación fenotípico. phenotypic variation.
variación genética. genetic variation.
variación genotípica. genotypic variation.
variación homólogo. homologous variation.
variación meristemático. meristematic variation.
variación transgresión. transgression variation.
variancia. variance.
variante. variant.
varianza. variance.
varicoso. varicose.
variedad. breed. variety.
variedad +. +strain.
variedad de las mareas. tidal range.
variedad fisiológico. physiologic variety.
variedad precoz. early.

variegación. variegation.
variegado. variegated.
varietal. varietal.
vasco de semilla. seed vessel.
vascular. vascular.
vasculiforme. vasculiform.
vasculo. vasculum.
vasculoso. vasculose.
vasicentrico. vasicentric.
vaso. vessel.
vaso punteado. pitted vessel.
vástago. shoot. sprout.
vástago de agua. water sprouts.
vástago de yema largo. long bud shoot.
vástago epicormico. epicormic shoot.
vástago lamas. lammas shoot.
vástago largo. long shoots.
vástago lateral. lateral shoot.
vástago multinodal. multinodal shoot.
vástago sileptico. sylectic shoots.
vector. vector.
vegetación. vegetation.
vegetación climácica. climax vegetation.
vegetación climax. climax vegetation.
vegetación de unidad. unit of vegetation.
vegetación esclerofilo. sclerophyllous vegetation.
vegetación marisma. salt-marsh vegetation.
vegetación matorrales. scrub vegetation.
vegetal. vegetable. vegetal.
vegetativo. vegetative.
vehículo. vehicle.
vejiga llenade aire. air bladder.
velado. velate.
velamen. velamen.
vello. bloom.
vellosidad. villi.
velo. velum. veil.
velo mrginal. marginal veil.

velo parcial. partial veil.
velo universal. universal veil. velum universale.
velo universal primario. primary universal veil.
velocidad de crecimiento. growth rate.
velodidad de evolución. evolution-ary rate.
velutino. velutinous. velvety.
vena. vein.
vena-aclarado. vein-clearing.
vena estéril. sterile vein.
venación. venation.
venación neta. net venation.
venación simple. simple venation.
venal. veinal.
venenatus. venenatus.
veneno. poison.
venenosa. poisonous.
venenoso. venomous.
venia. veiny.
venosa. venous.
venoso. venose.
ventaja selectiva. selective advantage.
ventir. venter.
ventral. ventral.
ventricoso. ventricose.
ventricosus. ventricosus.
ventricular. ventricular.
ventriculoso. ventriculose.
vénula. venule. venulose.
vénulo. venulous.
verano. summer.
verdadero. true.
verde. green. unripe. virens.
verde lima. lime green.
verdoso. greenish.
verdura. vegetable.
vermicular. vermicular.
vermiforme. vermiform.
vernación. veneration.
vernación doblado. folded veneration.
vernación plegado. folded veneration.

vernal. vernal.	viejo. senescent.
vernalis. vernalis.	viento. wind.
vernalización. vernalization.	vigor híbrido. hybrid vigor.
vernalizar. vernalize.	vilano. pappus.
verriga. wart.	villus. villus.
verruciforme. verruciform.	viloso. villose. villous.
verrucoso. warty.	vilosule. villosulous.
verruculoso. verruculose.	vimen. vimen.
verruga. verruca. wart.	vimina. vimina.
verrugoso. verrucose.	vimineo. vimineous.
versátil. versatile.	vinaceo. vinaceous.
versicolor. versicolor.	vinculo peptideo. peptide bond.
versicoloro. versicolorous.	vinicolor. vinicolor.
versiforme. versiform.	violaceo. violaceous.
vertex. vertex.	viral. viral.
vertical. vertical.	virDESCENTE. virDESCENT.
vértice. vertex.	viRENS. viRENS.
verticilado. verticillate. vesiculose. whorled.	viRESCENCIA. viRESCENCE.
verticilastro. verticillaster.	viRESCENTE. viRESCENT.
verticilo. verticil. whorl.	virgatus. virgatus.
verticilo falsa. false whorl.	virgen. virgin.
vesícula. vesicle. bladder.	virguliforme. virgate. virguliform.
vesícula germinal. germinal vesicle.	vírico. viral.
vesícula subsporangial. subsporangial vesicle.	viridi-. viridi-.
vesiculado. bladder-like. vesiculose.	virión. virion.
vesicular. vesicular.	viROGEN. viROGENE.
vesiculiforme. bladder-shaped.	viROIDE. viROID.
vesiculoso. bladder-like.	viROLOGÍA. viROLOGY.
vespertino. vespertine.	viROLÓGICO. viROLOGICAL.
vestigial. vestigial.	viROLOGISTA. viROLOGIST.
vestigio. vestige.	virulencia. virulence.
veteado. marbled. variegated.	virulento. virulent.
vexilar. vexillary. vexillar.	virus. virus.
vexilo. vane. vexillum.	virusoide. virusoid.
via metabólica. metabolic pathway.	visco. viscous.
viabilidad. viability.	víscido. viscid.
viable. viable.	viscidosus. viscidosus.
vicariade. vicariad.	viscidulado. viscidulum.
vicariancia. vicariance.	viscina. viscin.
vicilina. vicillin.	viscoide. viscid.
vicinismo. vicinism.	viscosidad. stickiness. viscosity.
vidrioso. glassy.	viscotaxis. viscotaxis.
	visible. visible.
	vita. vitta.
	vitado. vitate.

vitamina. vitamin.
vitamina C. Vitamin C.
viti-, viti-.
vitelina. vitelline.
vitreo. vitreous.
vivíparo. viviparous.
viviporoso. viviporous.
volatilización. volatilization.

volubilis. volubilis.
voluble. climbing. voluble. twin-
 ing.
voludo. volute.
volva. volva.
volvado. volvate.
vulgaris. vulgaris.
vulviforme. vulviform.

W

W. W

Watson-Crick. Watson-Crick.

X

x. x.
xanteína. xanthein.
xantina. xanthin(e).
xant(o)-. xanth(o)-.
xantocárpico. xanthocarpous.
xantofila. xanthophyll.
xantofilaico. xanthophyllic.
xantóforo. xanthophore.
xantospermo. xanthospermous.
xenia. xenia.
xenobiótico. xenobiotic.
xenogamia. xenogamy.
xenógamo. xenogamous.
xenogen(e). xenogenesis.
xerico. xeric.
xero-, xero-.
xerófile. xerophile.
xerófilo. xerophilous.
xerófita. xerophyte.
xerofitismo. xerophytism.
xerófito. xerophytic.
xeromorf. xeromorph.
xeromorfismo. xeromorphy.
xeromorfo. xeromorphic.
xerosere. xerosere.

xeroserie. xerosere.
xerotermo. xerothermic. xero-
 thermous.
xifófilo. xiphophyllous.
xifoide. xiphoid.
xilan. xylan.
xilema. xylem.
xilema centrífugo. centrifugal
 xylem.
xilema centripeta.
xilema primario. primary xylem.
xilema radial. wood ray.
xilema secundario. secondary
 xylem.
xilo-, xylo-.
xilocárpico. xylocarpous.
xilocarpo. xylocarp.
xilocromo. xylochrome.
xilófilo. xylophilous.
xilógeno. xylogen. xylogenous.
xiloide. xylloid.
xilología. xylology.
xiloma. xyloma.
xilosa. wood sugar. xylose.

Y

yema. bud. gemma.
yema accesorio. accessory bud.
yema axilar. axillary bud.
yema central. central bud.
yema colateral. collateral bud.
yema de invierno. winter bud.
yema desnuda. naked bud.
yema en reposo. resting bud. dormant.
yema floral. flower bud.
yema floral de hoja. floral leaf bud.
yema floral terminal. floral terminal bud.
yema florífera. flower bud.
yema foliar. leaf bud.
yema hibernate. winter bud.

yema invermante. perennating bud.
yema lateral. lateral bud.
yema mixta. mixed bud.
yema perenne. teleutobud.
yema radical. root bud.
yema reproductora. brood bud.
yema serie. serial bud.
yema seudoterminal. pseudoterminal bud.
yema terminal. terminal bud.
yema testa. seed bud.
yema vegetativa. vegetative bud.
yermo. wilderness.
yerbatera. herbalist.
yerbatero. herbalist.
yugado. jugate. paired.

Z

zacate delgado. slender grass.
zanco. stilt.
zancuda. stilt.
zanto-. zantho-.
zarcillado. tendrillate.
zarcillo. tendril.
zarcillo de tallo. stem tendril.
zarcillo-pinada. tendril-pinnate.
zarcillo ramoso. branch tendril.
zarza. bramble.
zarzamora. bramble bush.
zeatina. zeatin.
zeaxantol. zeaxanthol.
zecanina. zecanin.
zedoario. zedoary.
zeinda. zein.
zeitgeber. zeitgeber.

zerófile. zerophile.
zerófito. zerophyte.
zeromorf. zeromorph.
zeugito. zeugite.
Z-esquema. Z- scheme.
zigomorfa. zygomorphic.
zigomorfo. zygomorphic.
zigomórfica. zygomorphic.
zigosis. zygosis.
zigóspora. zygosporangium.
zigósporangio. zygosporangium.
zigóteno. zygote.
zigótico. zygotic.
zigoto. zygote.
zigoto diploide. diploid zygote.
zima. zyme.
zimasa. zymase.

zinc. zinc.

Zn. Zn.

zoide. zoid.

zona. range. region. zone.

zona abisal. abyssal zone

zona afótica. aphotic zone.

zona afuera de costa. offshore zone.

zona altitudinal. altitudinal zone.

zona aplino. alpine zone.

zona biológica. life zone.

zona de altitud. altitudinal zone.

zona de (entre)marea. intertidal zone.

zona de abscisión. abscission zone.

zona de altitud. altitudinal zone.

zona de crecimiento. growing zone.

zona de liquen. lichen zone.

zona de refugio. refuge.

zona de saturación. zone of saturation.

zona de transición. transition zone.

zona disfótica. disphotic zone.

zona epilitoral. epilittoral zone.

zona eufótica. euphotic zone.

zona fótica. photic zone.

zona generatriz. cambium.

zona híbrida. hybrid zone.

zona intermareal. intertidal zone.

zona limnética. limnetic zone.

zona litoral. zone littoral.

zona perimedular. perimedullary zone.

zona profunda. profundal zone.

zona resbaloso. slippery zone.

zona supralitoral. supralittoral zone.

zona templada. temperate zone.

zona tórrido. torrid zone.

zonación. zonation.

zonado. zonate.

zonal. zonal.

zoobiótico. zoobiotic.

zoocoro. zoochorous.

zoofilia. zoophily.

zoófilico. zoophilic.

zoófilo. zoophile. zoophilous.

zoófito. zoophyte.

zoogameto. zoogamete.

zooglea. zoogl(o)ea.

zoospora. zoospore.

zoosporangial. zoosporangial.

zoosporangio. zoosporangium.

zoosporico. zoosporic.

zoospora. zoospore.

zwitterion. zwitterion.