

Guarana

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Appendix

Glossary of botanical terms

- Abaxial** On the side opposite the axis (the underside of leaves).
- Acaulescent** (of plants) Stemless or nearly so.
- Accrescent** (of a floral segment) Whose growth continues after fertilization.
- Acicular** Needle-shaped.
- Actinomorphic** (of flowers) With radial symmetry.
- Acuminate** The lamina of a leaf is said to be acuminate when it narrows abruptly to a thin point.
- Adaxial** On the side of the axis (the upper side of leaves).
- Adventitious** Refers to an organ that arises from an unusual position (e.g., adventitious roots from the stem of ivy).
- Adventive** (of plants) Not native and not purposely introduced; weed.
- Akene** (literally, which does not open) Dry indehiscent fruit whose seed is not fused to the pericarp. (If it is fused, the fruit is a caryopsis; e.g., wheat grain).
- Amplexicaul** (of leaves or bracts) With an enlarged base sheathing the stem.
- Androecium** Collective term for the male reproductive organs (stamens) of a flower.
- Anther** Terminal part of the stamen; consists of pollen locules.
- Anthesis** Flowering.
- Aril** Growth arising from the tegument, which develops at or around a seed after fertilization and never adheres to the seed.
- Axillary** Located in the axil of an organ, i.e., the angle between its upper side and the supporting stem.
- Berry** Fleshy fruit containing many seeds.
- Biennial** (of plants) Whose vegetative cycle takes 2 years (biennial plants bloom, bear fruits, and die in the second year).
- Bilabiate** (literally, two-lipped) Qualifies a calyx or corolla whose segments are fused in two groups with each group forming a lip.
- Bract** Small leaf (more or less modified) which subtends a flower or inflorescence in its axil. Bracts can be numerous (surrounding the capitulum of the Asteraceae), developed and sheathing (spathe of the Araceae), and so forth.
- Calyculus** Group of green leaf-like appendages below the calyx of certain Angiosperms (Malvaceae, Rosaceae).
- Calyx** Collective term for the external segments (sepals) of the perianth.
- Capitulum** Inflorescence consisting of sessile or subsessile flowers borne by the enlarged top of the peduncle (receptacle) (e.g., ox-eye daisy, thistle).
- Capsule** Dry dehiscent fruit that opens by slits or pores.

- Carpel** Specialized leaf bearing the ovules. Carpels are one or many, closed, more or less fused to one another, and they constitute the pistil or gynoecium of Angiosperm flowers.
- Catkin** Spike of unisexual, sessile or subsessile flowers (characteristic of most ligneous European species).
- Cauline** Pertaining to the upper part of a stem (cauline leaves, as opposed to basilar leaves).
- Cespitose** Forming tufts.
- Cluster** Indefinite inflorescence consisting of a peduncle bearing, in an alternate fashion, pedicellate flowers that blossom from the base to the top.
- Connate** (of opposite leaves) Fused at the base (e.g., honeysuckle).
- Connective** Part of the anther located between the two pollen locules.
- Cordate** Heart-shaped (= cordiform).
- Corolla** Internal part of the perianth, consisting of the petals.
- Cortical** Pertaining to cortex (bark).
- Corymb** Indefinite inflorescence. The insertion points of the peduncles are spread along the axis and the peduncles are of uneven length, so that all of the flowers are approximately at the same level.
- Cultivar** (Cultivated variety) Variety created by selection and propagated for its economical interest (cv.).
- Cuticle** Water-proof film on the epidermis.
- Cyme** Definite inflorescence bearing one flower (the oldest) at the apex of its principal axis. The lateral stems can develop only on one side (uniparous cyme), or on both sides and be opposite (biparous cyme). A cross-shaped cyme is referred to as scorpioid.
- Deciduous** (of foliage) Falling off during the year.
- Decurrent** (of leaf laminae) Extending along the petiole as small wings.
- Decussate** (of leaves) With successive pairs at right angles to one another.
- Dehiscent** (of fruit, anther, sporangium) Opening spontaneously.
- Dioecious** (of plants with unisexual flowers) Bearing male and female flowers on separate plants.
- Drupe** Fleshy fruit containing a unique seed enclosed in a stone (sclerified endocarp).
- Endocarp** The innermost part of the pericarp of a fruit (the endocarp of a drupe is sclerified [wall of the stone]).
- Epiphyte** (of plants) Growing on another plant (with no trophic relationship) (e.g., Bromeliaceae, Orchidaceae).

- Filament** Lower part of the stamen; bears the ovary.
- Floret** One of the flowers that make up a capitulum.
- Folicle** Each division of a compound leaf.
- Follicle** Dry fruit, consisting of each of the multiple non-fused carpels of a gynoecium, dehiscent by a unique slit.
- Glomerule** Inflorescence consisting of numerous sessile flowers all inserted at the same level on the axis.
- Gynoecium** Collective term for the female organs of the flower, in other words the carpels.
- Hilum** Small mark or scar on the surface of a seed, where a structure (the funicle) formerly connected the ovule to the wall of the ovary.
- Hispid** With long hairs (trichomes).
- Imparipinnate** (of compound pinnate leaves) With a terminal foliole, in other words with an odd number of folioles.
- Indehiscent** Not opening spontaneously (see akene).
- Indusium** Membranous structure of ferns that protects the sporangia sori.
- Inflorescence** Collective term for the flowers grouped on the same axis. May be definite (apex bears a bud, oldest flowers are at the base of the axis) or definite (apex bears a flower, flowers blossom from apex to base). Indefinite inflorescences: cluster (and spike), corymb, umbel, capitulum. Definite inflorescence: cyme.
- Involucre** Collective term for the bracts grouped at the base of an umbel or a capitulum.
- Lamina** Flat and enlarged part of a leaf; blade.
- Lenticel** Pore that allows gaseous exchanges through the suber.
- Ligule** Corolla of certain Asteraceae with 5 petals fused into a tongue bent to one side (the "white petals" of the ox-eye daisy are in fact the ligules of the peripheral flowers of the capitulum).
- Monoecious** (of plants with unisexual flowers) Bearing male and female flowers on the same individual.
- Obtuse** Ending in a rounded point.
- Palmate** (of leaves) With a lamina divided into segments gathered at the petiole like the fingers of a hand (e.g., chestnut tree leaf). The depth of the divisions is described by the adjectives palmatisect, - partite, - lobate, -fid.
- Panicle** Indefinite inflorescence derived from the spike (flowers isolated or grouped, pedunculate).
- Pappus** Hairy tuftlike appendage of certain fruits or seeds, that facilitates their dispersal by the wind.

Peduncle

Axis that bears the flower, then the fruit.

Peltate

A leaf is peltate if the petiole is connected to the middle of the lamina (water lily, nasturtium).

Perianth

Collective term for the protective segments of a flower.

Pericarp

Wall of the fruit (epicarp + mesocarp + endocarp).

Petiole

Part of the leaf that becomes narrow as it connects the lamina to the stem.

Pinnate

(of compound leaves) Whose folioles are arranged on each side of the main axis.

Pinnatisect

-partite, -lobate, -fid. Adjectives used to describe the degree of division of the lobes of a pinnate leaf. Also apply to nervation.

Pistil

Gynoecium.

Pod

Dry fruit generally dehiscent, consisting of a unique carpel and opening by two slits.

Pubescent

Covered with trichomes.

Pyxis

Capsule that opens by an operculum that falls off.

Raceme

Cluster.

Rachis

Extension of the petiole onto which the folioles are inserted (compound pinnate leaf).

Raphid

Calcium oxalate crystal shaped like a very fine needle.

Receptacle

Enlarged end of the floral peduncle (planar, concave, convex, or other).

Reflexed

Curved backwards (at 180°).

Rhizome

Subterranean stem from which aerial stem and adventitious roots grow annually.

Samara

Akene with a membranous wing.

Scarious

Membranous, thin, and transparent.

Sclerified

With walls hardened with lignin.

Sessile

(of organ) inserted directly on the axis (with no petiole or peduncle).

Spadix

Indefinite inflorescence with unisexual sessile flowers on a more or less fleshy axis (Araceae, Palmae).

Spathe

Large bract surrounding the inflorescence of Araceae.

Spike

Indefinite inflorescence consisting of an axis bearing sessile flowers or groups of flowers (spikelet) spread along the axis (the rachis) (Poaceae, Polygonaceae).

Stamen

Male organ of a flower.

Stigma

Apical part of the gynoecium, receptive to pollen.

- Stipe**
In Angiosperms, a structure mimicking a trunk. For example, the cylindrical axis of palm trees or yuccas, marked with the scars of fallen leaves.
- Stipule**
Leafy or membranous appendages, sometimes thorny, at the base of the leaf stalk. Stipules are often paired and they can be deciduous or indeciduous.
- Stomata**
Pore in the epidermis; allows gaseous exchanges.
- Style**
Narrow part between the ovary and the stigma.
- Taxon**
Taxonomic category. Common taxa are the genus, subgenus, species, subspecies, and variety.
- Tepal**
Segment of a perianth in which petals and sepals are similar (tulip).
- Tomentose**
Covered with long, soft, and downy hairs.
- Tuber**
An organ, often subterranean, cauline, and swollen, in which reserves are stored.
- Umbel**
Indefinite inflorescence with flowers at the same level, borne on peduncles all inserted at the same point. An umbel can be simple or compound, consisting of umbellules. Since each peduncle arises from the axil of a bract, there is generally an involucre at the base of the umbel (and an involucre at the base of the umbellule).
- Whorl**
Collective term for organs (stems, leaves, floral segments) arranged in a circle around an axis, all at the same level.
- Zygomorphous** (of irregular flowers) With non-axial symmetry. The symmetry is often bilateral and sometimes nonexistent.

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