

# Comprehensive Orchid Glossary

## Aerial Root (Beginner)

Definition: Roots that grow above the substrate or ground, often covered with velamen; absorb moisture and nutrients from air or rain.

Reference: Arditti, J. (1992). *Fundamentals of Orchid Biology*. Wiley.

[<https://www.wiley.com/en-us/Fundamentals+of+Orchid+Biology-p-9780471504470>]

## Anthesis (Advanced)

Definition: The period during which a flower is fully open and functional.

Reference: Dressler, R.L. (1993). *Phylogeny and Classification of the Orchid Family*. Cambridge University Press. [<https://doi.org/10.1017/CBO9780511525390>]

## Anther Cap (Advanced)

Definition: A covering over the pollinia in the column; it protects the pollen until removed by a pollinator.

Reference: Arditti, J., & Ghani, A.K.A. (2000). Tansley Review: Numerical and Physical Properties of Orchid Pollen. *New Phytologist*, 145(3), 367-421. [<https://doi.org/10.1046/j.1469-8137.2000.00587.x>]

## Autogamy (Advanced)

Definition: Self-pollination within a single flower; rare in most orchids but present in some species.

Reference: Dressler, R.L. (1990). *The Orchids: Natural History and Classification*. Harvard University Press.

## Axil (Intermediate)

Definition: The angle between a leaf and the stem, often where inflorescences or keikis emerge.

Reference: Esau, K. (1977). *Anatomy of Seed Plants*. Wiley.

## Backbulb (Beginner)

Definition: An older pseudobulb that has lost leaves but may still store nutrients and produce new growth.

Reference: Baker, M., & Baker, C. (2008). *Orchid Species Culture*. Timber Press.

## Basal Keiki (Beginner)

Definition: A keiki emerging from the plant's base, near the root zone.

Reference: American Orchid Society. (n.d.). Keiki and Keiki Growth. [<https://www.aos.org/>]

## Bract (Intermediate)

Definition: A small, modified leaf at the base of a flower stalk or bud.

Reference: Fahn, A. (1990). *Plant Anatomy*. Pergamon Press.

## Capsule (Intermediate)

Definition: The seed pod of an orchid, typically containing thousands to millions of dust-like seeds.

Reference: Dressler, R.L. (1993). *Phylogeny and Classification of the Orchid Family*. Cambridge University Press.

## Chlorophyll (Intermediate)

Definition: The green pigment in leaves and stems that captures light energy for photosynthesis.

Reference: Taiz, L., & Zeiger, E. (2015). *Plant Physiology and Development*. Sinauer Associates.

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## Column (Beginner)

Definition: A unique orchid structure combining male (anther) and female (stigma) parts into one organ.

Reference: Dressler, R.L. (1981). *The Orchids: Natural History and Classification*. Harvard University Press.

## Cross-pollination (Intermediate)

Definition: Transfer of pollen between flowers of different plants, often enhancing genetic diversity.

Reference: van der Cingel, N.A. (2001). *An Atlas of Orchid Pollination*. Balkema.

## Cultivar (Beginner)

Definition: A cultivated variety selected for unique traits, named in single quotes.

Reference: Brickell, C.D., et al. (2016). *International Code of Nomenclature for Cultivated Plants*.

## Deciduous (Intermediate)

Definition: A plant that naturally sheds its leaves seasonally (e.g., certain *Dendrobium* species).

Reference: Fahn, A. (1990). *Plant Anatomy*. Pergamon Press.

## Division (Intermediate)

Definition: A propagation method where a mature plant is split into sections, each with roots and growth points.

Reference: American Orchid Society. (n.d.). *Dividing Orchids*. [<https://www.aos.org/>]

## Endemic (Intermediate)

Definition: Species native to and restricted to a specific geographic location.

Reference: Myers, N. et al. (2000). Biodiversity hotspots for conservation priorities. *Nature*, 403, 853-858.

## Epiphyte (Beginner)

Definition: A plant growing upon another plant for support, not parasitic; common in tropical orchids.

Reference: Benzing, D.H. (1990). *Vascular Epiphytes*. Cambridge University Press.

## Flask (Intermediate)

Definition: A sealed container used in orchid seed germination and tissue culture.

Reference: Arditti, J., & Ernst, R. (1993). *Micropropagation of Orchids*. Wiley.

## Genus (Beginner)

Definition: A taxonomic rank grouping closely related species.

Reference: Judd, W.S., et al. (2016). *Plant Systematics: A Phylogenetic Approach*. Sinauer Associates.

## Hybrid (Beginner)

Definition: Offspring resulting from the cross of two species or genera.

Reference: Royal Horticultural Society. *International Orchid Register*. [<https://www.rhs.org.uk/plants/Orchids>]

## Inflorescence (Beginner)

Definition: A flowering stem bearing one or more flowers.

Reference: Weberling, F. (1992). *Morphology of Flowers and Inflorescences*. Cambridge University Press.

## Intergeneric Hybrid (Intermediate)

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**Definition:** A hybrid created by crossing orchids from different genera.

**Reference:** Royal Horticultural Society. (n.d.). Orchid Hybrid Registration.

## Keiki (Beginner)

**Definition:** A plantlet developing on an orchid's stem, spike, or pseudobulb.

**Reference:** American Orchid Society. (n.d.). Keiki. [<https://www.aos.org/>]

## Labellum (Lip) (Beginner)

**Definition:** The distinctive, often showy, modified petal aiding pollinator attraction.

**Reference:** Dressler, R.L. (1993). *Phylogeny and Classification of the Orchid Family*. Cambridge University Press.

## Lip Callus (Advanced)

**Definition:** Thickened tissue on the labellum, often serving as a landing platform for pollinators.

**Reference:** van der Pijl, L., & Dodson, C.H. (1966). *Orchid Flowers: Their Pollination and Evolution*. University of Miami Press.

## Lithophyte (Advanced)

**Definition:** An orchid that grows on rocks, drawing nutrients from rainwater and decaying organic matter.

**Reference:** Benzing, D.H. (1990). *Vascular Epiphytes*. Cambridge University Press.

## Meristem Propagation (Advanced)

**Definition:** A tissue culture technique producing clones from actively dividing shoot tissue.

**Reference:** Arditti, J., & Ernst, R. (1993). *Micropropagation of Orchids*. Wiley.

## Monopodial (Intermediate)

**Definition:** Vertical growth from a single stem with leaves emerging alternately.

**Reference:** American Orchid Society. (n.d.). Growth Habits. [<https://www.aos.org/>]

## Mycorrhiza (Advanced)

**Definition:** A symbiotic relationship between orchid roots and fungi, essential for seed germination.

**Reference:** Rasmussen, H.N. (1995). *Terrestrial Orchids: From Seed to Mycotrophic Plant*. Cambridge University Press.

## Node (Intermediate)

**Definition:** A point on a stem from which leaves, flowers, or keikis may emerge.

**Reference:** Esau, K. (1977). *Anatomy of Seed Plants*. Wiley.

## Ovary (Intermediate)

**Definition:** The part of the orchid flower below the column that develops into the seed capsule after pollination.

**Reference:** Esau, K. (1977). *Anatomy of Seed Plants*. Wiley.

## Peloric (Advanced)

**Definition:** A flower with radial symmetry caused by genetic variation; in orchids, often seen as extra lips.

**Reference:** Royal Horticultural Society Orchid Committee Notes.

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## Pollinia (Advanced)

Definition: Waxy pollen masses that are transferred as a unit during pollination.

Reference: Arditti, J. (1992). *Fundamentals of Orchid Biology*. Wiley.

## Protocorm (Advanced)

Definition: An early developmental stage of an orchid seedling before true leaves and roots form.

Reference: Rasmussen, H.N. (1995). *Terrestrial Orchids*. Cambridge University Press.

## Pseudobulb (Beginner)

Definition: Swollen stem segment functioning as a water and nutrient storage organ.

Reference: Baker, M., & Baker, C. (2008). *Orchid Species Culture*. Timber Press.

## Resupination (Advanced)

Definition: The twisting of the developing flower so the lip faces downward.

Reference: Dressler, R.L. (1993). *Phylogeny and Classification of the Orchid Family*. Cambridge University Press.

## Rhizome (Beginner)

Definition: Horizontal stem from which roots and pseudobulbs arise.

Reference: Esau, K. (1977). *Anatomy of Seed Plants*. Wiley.

## Scape (Advanced)

Definition: A leafless flowering stem; in orchids, often refers to spikes from monopodial plants.

Reference: Weberling, F. (1992). *Morphology of Flowers and Inflorescences*. Cambridge University Press.

## Sepal (Beginner)

Definition: One of the three outer floral segments protecting the bud and contributing to the flower's shape.

Reference: Esau, K. (1977). *Anatomy of Seed Plants*. Wiley.

## Sheath (Intermediate)

Definition: A protective covering around developing inflorescences or leaves.

Reference: American Orchid Society. (n.d.). *Orchid Anatomy*. [<https://www.aos.org/>]

## Species (Beginner)

Definition: The most specific rank in classification, identifying an individual natural plant type.

Reference: Judd, W.S., et al. (2016). *Plant Systematics: A Phylogenetic Approach*. Sinauer Associates.

## Spur (Advanced)

Definition: A tubular extension of the lip or sepal, often containing nectar.

Reference: van der Pijl, L., & Dodson, C.H. (1966). *Orchid Flowers: Their Pollination and Evolution*.

## Stigma (Intermediate)

Definition: Receptive part of the column where pollinia are deposited.

Reference: Dressler, R.L. (1993). *Phylogeny and Classification of the Orchid Family*.

## Sympodial (Beginner)

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Definition: Growth habit where the plant expands laterally, producing successive shoots from rhizomes.

Reference: American Orchid Society. (n.d.). Growth Habits. [<https://www.aos.org/>]

### Taxon (Intermediate)

Definition: Any unit used in classification, from species to higher ranks.

Reference: Judd, W.S., et al. (2016). Plant Systematics: A Phylogenetic Approach.

### Terete Leaf (Advanced)

Definition: A cylindrical, pencil-like leaf structure adapted for water conservation.

Reference: Benzing, D.H. (1990). Vascular Epiphytes. Cambridge University Press.

### Tepal (Intermediate)

Definition: Petals and sepals when they are similar in shape and color.

Reference: Esau, K. (1977). Anatomy of Seed Plants. Wiley.

### Throat (Intermediate)

Definition: The interior opening of the flower, often brightly colored or patterned.

Reference: van der Pijl, L., & Dodson, C.H. (1966). Orchid Flowers: Their Pollination and Evolution.

### Totipotency (Advanced)

Definition: The ability of a single plant cell to develop into a complete plant-basis for tissue culture.

Reference: George, E.F., et al. (2008). Plant Propagation by Tissue Culture. Springer.

### Velamen (Beginner)

Definition: Spongy root covering aiding in water absorption and root protection.

Reference: Benzing, D.H., Ott, D.W., & Friedman, W.E. (1983). Roots of *Sobralia macrantha*. American Journal of Botany.

### Vegetative Growth (Intermediate)

Definition: Growth of leaves, stems, and roots rather than flowers.

Reference: Taiz, L., & Zeiger, E. (2015). Plant Physiology and Development. Sinauer Associates.

### Viridescent (Advanced)

Definition: Flowers that open green and may change color over time.

Reference: Royal Horticultural Society Orchid Committee Notes.

### Rostellum (Advanced)

Definition: A flap of tissue in the orchid column that separates the male anther from the female stigma, preventing self-pollination.

Reference: Dressler, R.L. (1993). Phylogeny and Classification of the Orchid Family. Cambridge University Press.

### Viscidium (Advanced)

Definition: A sticky pad that attaches the pollinia to pollinators, ensuring effective pollen transfer.

Reference: van der Pijl, L., & Dodson, C.H. (1966). Orchid Flowers: Their Pollination and Evolution. University of Miami Press.

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### **Clinandrium (Advanced)**

Definition: A cavity or depression in the orchid column where the anther is housed.

Reference: Dressler, R.L. (1993). *Phylogeny and Classification of the Orchid Family*. Cambridge University Press.

### **CAM Photosynthesis (Advanced)**

Definition: Crassulacean Acid Metabolism, a water-efficient photosynthesis pathway common in many epiphytic orchids.

Reference: Taiz, L., & Zeiger, E. (2015). *Plant Physiology and Development*. Sinauer Associates.

### **Anthocyanin (Advanced)**

Definition: A class of pigments responsible for red, purple, and blue colors in orchid flowers.

Reference: Davies, K.M. (2004). An introduction to plant pigments. *New Zealand Journal of Forestry Science*.

### **Polyploidy (Advanced)**

Definition: The condition of having more than two complete sets of chromosomes, sometimes induced in orchid breeding.

Reference: Soltis, D.E., & Soltis, P.S. (2000). The role of genetic and genomic attributes in the success of polyploids. *PNAS*.