

# Phalaenopsis

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| <span><span><span></span></span></span> Phalaenopsis             |
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| <span></span> <div>Closeup of a <i>Phalaenopsis</i> flower</div> |
| Scientific classification  |
| Kingdom: <a href="#">Plantae</a>                                 |
| Division: <a href="#">Magnoliophyta</a>                          |
| Class: <a href="#">Liliopsida</a>                                |
| Order: <a href="#">Asparagales</a>                               |
| Family: <a href="#">Orchidaceae</a>                              |
| Subfamily: <a href="#">Epidendroideae</a>                        |
| Tribe: <a href="#">Vandaeae</a>                                  |
| Subtribe: <a href="#">Aeridinae</a>                              |
| Alliance: <i>Phalaenopsis</i>                                    |
| Genus: <i><b>Phalaenopsis</b></i>                                |
| Species  |
| See text   |

*Phalaenopsis* ([Blume](#) 1825) is a [genus](#) of approximately 60 species of [orchid](#) (family Orchidaceae).

The generic name originates from the Greek *phalaina*, "moth" and *opsis*, "like", descriptive of the inflorescences of some species, which resemble [moths](#) in flight. For this reason, the species are sometimes called **Moth orchids**.

They are native throughout southeast [Asia](#) from the [Himalayan](#) mountains to the islands of [Polillo](#) and [Palawan](#) of the [Philippines](#) and northern [Australia](#). [Orchid](#)



*Phalaenopsis amabilis* (Moon Orchid)

Most are [epiphytic](#) shade plants; a few are [lithophytes](#). In the wild they are typically found below the canopies of moist and humid lowland forests, protected against direct sunlight.

*Phalaenopsis* shows a [monopodial](#) growth habit. An erect growing [rhizome](#) produces from the top one or two alternate, thick and fleshy, elliptical [leaves](#) a year. The older, basal leaves drop off at the same rate. The plant retains in this way four to five leaves. If very healthy, they can have up to ten or more leaves! They have no [pseudobulbs](#). The [raceme](#) appears from the [stem](#) between the leaves. They bloom in their full glory for several weeks. If kept in the home, they usually last two to three months, which is considered quite a long time.

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## Classification

The species can be classified into two groups :

- A group with a long, branched inflorescence (up to 1 m long) and large, almost round flowers with rose or white tints.
- A group with short stems and less rounded, waxy flowers with more pronounced colors.

In terms of particular lifeform terminology, one can also characterize these plants as hemicryptophyte or chamaerophyte :

- [hemicryptophyte](#) (abbr.: hemicr.) : biennial or perennial plants with herbaceous stems. These stems die off after the growing season, while the shoots survive at soil level. The resting buds are just above or below soil level.
- [chamaephyte](#) (abbr. cham.) : low-growing plants with herbaceous and/or woody stems, that persist for several years. Their buds are on soil level or just above; but never above 50 cm.

Intensive cross-fertilization has produced a great number of [hybrids](#) in all colors and variations. These are usually more adaptable to artificial conditions than their botanical ancestors. Most are hybrids of *Phalaenopsis amabilis* with *Phalaenopsis schilleriana* or *Phalaenopsis stuartiana*.

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## Growing phalaenopsis

*Phalaenopsis* are among the most popular orchids sold as potted plants owing to the ease of propagation and flowering under artificial conditions. They were among the first tropical orchids in [Victorian](#) collections. They are extremely easy to grow and flower in the home, as long as some care is taken to provide them with conditions that approximate their native habitats. In nature, they are typically fond of warm temperatures (20 to 35 °[C](#)), but are adaptable to conditions more

comfortable for human habitation in temperate zones (15 to 30 °C); at temperatures below 18 °C watering should be reduced to avoid the risk of root rot. *Phalaenopsis* requires high humidity (60-70%) and low light of 12,000 to 20,000 [lux](#). Flowering is triggered by a night-time drop in temperature of around 5 to 6 degrees over 2 to 4 consecutive weeks, usually in the fall.

*Phalaenopsis* prefer to be potted in fir bark, which is more free-draining than the sphagnum moss. Keep them in pots with a lot of drainage. One of the most numerous blunders that new growers make is to rot the roots. Overwatering and poor drainage cause the roots to deteriorate, therefore killing the plant. Being careful to water when you feel the soil is dry through and through is the safest thing to do.

Light is quite vital to the well-being of the *phalaenopsis* orchid. Keep it in indirect light near a southern window. Be sure the sun does not directly reach the leaves, which will cause burning and ugly brown marks. If the leaf feels hot to the touch, move it away immediately! On the other hand, *phalaenopsis* grown in poor dark areas tend to grow floppy dark green leaves and rarely flower.

*Phalaenopsis* roots are quite thick, and the green point at the ends signifies that the root is actively growing. It is okay for them to climb out of the pots. Keep the plant fertilized with a 1/4 diluted strength balanced fertilizer three times out of four waterings.

The flower spikes appear from the pockets near the base of each leaf. The first sign is a light green "mitten-like" object that protrudes from the leaf tissue. In about three months, the spike enlongates until it begins to swell fat buds. The buds will thus bloom. Usually you can tell what color the *phalaenopsis* is by looking at the bud color. After the flowers fade, some people prefer to cut the spike above the highest node (section). This may produce another flower spike or more rarely a keiki (a baby orchid plant that can be planted). However, the flower spike produced this way will not yield good quality flowers.

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## Species



*Phalaenopsis* 'Barbara Moler' x 'Johanna' (a hybrid cultivar)

- *Phalaenopsis amabilis* (**Moon Orchid**; Malaysia to Papuaia)
  - *Phalaenopsis amabilis* subsp. *amabilis* (Malaysia to Papuaia).
  - *Phalaenopsis amabilis* subsp. *moluccana* (NE. Borneo to Maluku).
  - *Phalaenopsis amabilis* subsp. *rosenstromii* (New Guinea to N. & NE. Queensland).
- *Phalaenopsis amboinensis* (Sulawesi to Maluku).
  - *Phalaenopsis amboinensis* var. *amboinensis* (Sulawesi to Maluku).
  - *Phalaenopsis amboinensis* var. *flavida* (Sulawesi)
- *Phalaenopsis aphrodite* (SE. Taiwan to Philippines).
  - *Phalaenopsis aphrodite* subsp. *aphrodite* (Philippines).
  - *Phalaenopsis aphrodite* subsp. *formosana* (SE. Taiwan).
- *Phalaenopsis appendiculata* (Pen. Malaysia).
- *Phalaenopsis bastianii* (Philippines - Sulu Arch.).



*Phalaenopsis* 'Everspring King Lee' (a hybrid cultivar)

- *Phalaenopsis bellina* (Borneo).
- *Phalaenopsis borneensis* (Borneo).
- *Phalaenopsis braceana* (E. Himalaya to China - Yunnan).
- *Phalaenopsis buyssoniana* (Indo-China).

- *Phalaenopsis celebensis* (Sulawesi).
- *Phalaenopsis chibae* (Vietnam).
- *Phalaenopsis cochlearis* (Pen. Malaysia to Borneo).
- *Phalaenopsis corningiana* (**Red Moon Orchid**; Borneo - Sarawak).
- *Phalaenopsis cornu-cervi* (Indo-China to W. Malesia and Philippines).
- *Phalaenopsis deliciosa* (Indian Subcontinent to Malesia).
  - *Phalaenopsis deliciosa* subsp. *deliciosa* (Indian Subcontinent to Malaysia). Hemicr. or cham.
  - *Phalaenopsis deliciosa* subsp. *hookeriana* (E. Himalaya to SC. China). Hemicr. or cham.
- *Phalaenopsis doweryensis* (Borneo - Sabah).



*Phalaenopsis* 'Lipperose' - a hybrid cultivar

- *Phalaenopsis equestris* (Taiwan ([Hsiao Lan Yü](#)) to Philippines).
- *Phalaenopsis fasciata* (Philippines).
- *Phalaenopsis fimbriata* (W. Malaysia).
- *Phalaenopsis florensensis* (Lesser Sunda Is.).
- *Phalaenopsis fuscata* (Vietnam to W. & C. Malaysia)
- *Phalaenopsis gibbosa* (Vietnam).
- *Phalaenopsis gigantea* (Borneo).
- *Phalaenopsis hainanensis* (Hainan, China - Yunnan).
- *Phalaenopsis hieroglyphica* (Philippines).
- *Phalaenopsis honghenensis* (China - Yunnan).
- *Phalaenopsis javanica* (W. Java).
- *Phalaenopsis kunstleri* (Myanmar to Pen. Malaysia).
- *Phalaenopsis lamelligera* (N. Borneo).
- *Phalaenopsis lindonii* (Philippines).
- *Phalaenopsis lobbii* (E. Himalaya to Myanmar).
- *Phalaenopsis lowii* (Myanmar to W. Thailand).
- *Phalaenopsis lueddemanniana* (Philippines).



*Phalaenopsis* 'Mambo' (a hybrid cultivar)

- *Phalaenopsis luteola* (NW. Borneo).
- *Phalaenopsis maculata* (Pen. Malaysia, Borneo).
- *Phalaenopsis malipoensis* Z.J.Liu & S.C.Chen (Yunnan, China South-Central)
- *Phalaenopsis mannii* (E. Nepal to China - S. Yunnan).
- *Phalaenopsis mariae* (Borneo to Philippines).
- *Phalaenopsis mastersii* (Assam to Myanmar).
- *Phalaenopsis micholitzii* (Philippines).
- *Phalaenopsis modesta* (Borneo).
- *Phalaenopsis mysorensis* (S. India).
- *Phalaenopsis pallens* (Philippines).
- *Phalaenopsis pantherina* (Borneo).
- *Phalaenopsis parishii* (E. Himalaya to Myanmar, Vietnam).
- *Phalaenopsis philippinensis* (Philippines - Luzon).
- *Phalaenopsis pulcherrima* (Hainan to W. Malaysia).
- *Phalaenopsis pulchra* (Philippines).
- *Phalaenopsis regnieriana* (Thailand).
- *Phalaenopsis reichenbachiana* (Philippines - Mindanao).



*Phalaenopsis* 'Nivacolor' (a hybrid cultivar)

- *Phalaenopsis robinsonii* (Maluku -Ambon).
- *Phalaenopsis sanderiana* (Philippines).
- *Phalaenopsis schilleriana* (Philippines).
- *Phalaenopsis speciosa* (Andaman Is., Nicobar Is).
- *Phalaenopsis stuartiana* (Philippines).
- *Phalaenopsis sumatrana* (S. Sumatra).

- *Phalaenopsis taenialis* (Himalaya to SC. China)
- *Phalaenopsis tetraspis* (Andaman Is., Nicobar Is., NW. Sumatra).
- *Phalaenopsis venosa* (Sulawesi).
- *Phalaenopsis violacea* (Pen. Malaysia to Sumatra.).
- *Phalaenopsis viridis* (Sumatra).
- *Phalaenopsis wilsonii* (SE. Tibet to SC. China to W. Guangxi).
- *Phalaenopsis zebrina* (Indo-China to W. Malesia).

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## Natural hybrids



A *Phalaenopsis* hybrid

- *Phalaenopsis* × *amphitrita* (*P. sanderiana* × *P. stuartiana*; Philippines).
- *Phalaenopsis* × *gersenii* (*P. sumatrana* × *P. violacea*; Borneo, Sumatra).
- *Phalaenopsis* × *intermedia* (*P. aphrodite* × *P. equestris*; **Star of Leyte**; Philippines).
- *Phalaenopsis* × *leucorrhoda* (*P. aphrodite* × *P. schilleriana*; Philippines).
- *Phalaenopsis* × *singuliflora* (*P. bellina* × *P. sumatrana*; Borneo).
- *Phalaenopsis* × *veitchiana* (*P. equestris* × *P. schilleriana*; Philippines).

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## Post-pollination changes in *Phalaenopsis* orchids

*Phalaenopsis* are not only outstanding in their beauty, but also unique in their photosynthetic mechanism. As in many other plants, the petals of the orchid flowers serve to attract pollinating insects and protect essential organs. Following



pollination, petals will usually undergo senescence (i.e. wilt and disintegrate) because it is metabolically expensive to maintain them.

In many *Phalaenopsis* species such as *P.violacea*, the petals and sepals found new uses following pollination. They turn green, become fleshy and apparently



*Phalaenopsis violacea*

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## External links

- [Moths \(Phalaenopsis\): The easiest house orchid](#) from The Monday Garden
- [Phalaenopsis Orchid Forum](#)

[\[edit\]](#)

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