



Top of the pots

In a few decades, moth orchids have gone from being the preserve of specialist growers to today's most popular UK house plant

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There has been a revolution in moth-orchid growing over the last 30 years. These beautiful, elegant plants, once restricted to the glasshouses of the wealthy or specialist orchid fanciers, have now taken up residence in our homes. They are given pride of place on windowsills and tables across the land, bringing a real touch of glamour. In the last few years, orchids have regularly topped the charts in polls to find the most popular house plant in the UK, the USA and many parts of Europe.

Moth orchids (*Phalaenopsis* and *x Doritaenopsis*) account for most orchids sold, and make the best house plants from the 880 or so genera that make up the largest and most diverse of plant families: the orchid family, or *Orchidaceae*.

Widespread appeal

Moth orchids are popular for several reasons. Their exotic flowers on graceful, arching stems last up to six months, yet plants cost little more than an average bunch of flowers, most of which last for a fortnight at best. A healthy *Phalaenopsis* holds

the promise of more blooms within a year – as quickly as two or three months if you trim the flower stem as the last blooms fade.

These plants tolerate neglect which, while not advised, is useful if going on holiday. They are suited to centrally heated homes (especially if they can be kept reasonably humid; see p33). They like indirect sun and warm temperatures, ideally 16–18°C (60–64°F) at night and 18–27°C (64–81°F) by day (brief falls to 13°C/55°F are tolerated). Breeding advances have led to strong, free-flowering hybrids that are easy to grow as >>



Moth orchids

Some names used here are of uncertain status and are styled as cultivar names in the absence of further information. More are pictured p32 and p35.

- 1 *Phalaenopsis* 'Fire Fighter'
- 2 *P.* 'Diane'
- 3 *P.* Sogo Snow
- 4 *P.* 'Silibama'

- 5 *P.* Brother Pico Sweetheart
- 6 *P.* 'Red Rust'
- 7 *P.* '311601'
- 8 *P.* 'Splash Dive'

- 9 *P.* 'Sun Passat'
- 10 *P.* 'Vivian'
- 11 *P.* Mini Mark

✦ Cultivar names are styled with quote marks, grex names have none; see box, p34 for more on naming.



Moth orchids

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- 12 *x Doritaenopsis*
Chian Xen Super Idol
13 *Phalaenopsis* 'Pink Pirate'
14 *P. Dragon's Charm*

- 15 *P. 'Rossini'*
16 *P. '331433'*
17 *P. 'Emotion'*
18 *P. Cool Breeze*

- 19 *P. Flare Spots*
20 *P. Jiaho's Pink Girl*
21 *x Doritaenopsis*
Yu Pin Natsume

✦ Orchid hybrids may be given a number as a cultivar name. Any later name is then likely to be a trade designation.

house plants, giving added appeal both for new enthusiasts and more experienced growers.

There is so much variety to choose from, with an ever-growing assortment of flower colours and patterns, on plants that range in size from miniatures (such as *Phalaenopsis* Little Lady, 15cm/6in tall in flower), to cascade types with flower stems almost a metre long and blooms 11cm (4½in) across, such as *x Doritaenopsis* Chian Xen Super Idol 12. It is no wonder the tentative first-time buyer tends to become a devotee, finding it ever harder to resist their allure.

Affordability adds more appeal. Production costs have been dramatically reduced by advances in technology. Most moth orchids are not grown from seed, but from a cluster of cells taken from the growing tip (meristem) of an outstanding parent plant. This process, known as mericlone, takes place in sterile laboratories. All the plants created from a piece of meristem tissue will be genetically identical clones of the

With its rather leafy, compact growth habit and randomly blotched flowers, *x Doritaenopsis* Yu Pin Natsume (below) displays traits that are subtly different from most *Phalaenopsis*.



parent (except an occasional 'sport' or mutant). This means the plants created have uniform size, with the desired flower colour and pattern, all flowering at the same time, making them a reliable, financially viable crop. Growing from seed is possible but results in variation – in flower colour, number, shape, size and markings – which is far less predictable, albeit ideal for breeding something new.

Breeding advances

The first man-made *Phalaenopsis* hybrid, *P. Harriettiae*, was created in the mid-1880s at the legendary Veitch Nurseries in England. Now there are more than 30,000 moth orchid hybrids registered with the RHS, which acts as the International Cultivar Registration Authority for Orchid Hybrids. The Orchid Registrar, Julian Shaw, calculates that moth orchids represent more than a fifth of all registered orchid hybrids; each month about 100 new names are registered. Breeders in the Far East register 50–80 of their best hybrids each year.

Older *Phalaenopsis* hybrids often have large white or pale pink flowers, similar to the species from which they were bred: white-flowered *P. amabilis*, and pale pink *P. schilleriana* and *P. sanderiana*. In 1923 *Phalaenopsis* was first crossed with plants from the closely related *Doritis* genus. Their intergeneric offspring are called *x Doritaenopsis*. They look like *Phalaenopsis* but usually inherit traits from *Doritis* such as compact plant size, upright flower stems, clusters of smaller flowers on shorter stems, and rich colours including shocking pink. They are commonly used in modern breeding, often by being crossed again with *Phalaenopsis* selections.

Almost 125 years of breeding has expanded the range of moth orchid colours to include semi-alba types (white with a coloured lip such as *P. Luchia Lip* 22), blooms of magenta, claret, pale primrose, bright buttercup yellow and lime green. In the last few years, sunset shades of orange and rich red have been added; there are even lilacs and near blues such as *P. violacea* 'Blue Chip'. ➤

Caring for your plant

Light: No direct sun. The low light of a north-facing window is ok, but east- or west-facing is better. In winter, move plants to a brighter, south-facing spot.

Temperature: Winter low 18°C (65°F), summer high 27°C (80°F). Cooler or hotter conditions are survivable but flowering can often be inhibited.

Humidity: High; stand pots on a layer of wet pebbles, and group plants together. Mist leaves and exposed roots in the morning.

Watering: If roots inside the pot are green and plump, the plant does not need watering. Water if compost looks dry, and roots silvery. Allow excess water to drain; do not let plants stand in water or splash water into the leaf rosette.

Feeding: Little and often, with specialist orchid fertiliser, or quarter-strength plant food. Follow directions closely; over-feeding reduces flowering.

Pots: Transparent pots allow you to see when to water, when to repot, and if roots are healthy. Some roots will not penetrate the compost; this is normal. Standing a plant in a ceramic cachepot will aid stability, especially when it is in flower.

Reflowering: When the last blooms fade, cut off the stem below the node from which the lowest flower or branchlet came, about 2.5cm (1in) above the next node down. Usually the plant will branch from this node in a month or two, rather than taking up to eight months to grow a new stem. Move plants to a



Phalaenopsis need fresh compost every couple of years.

cooler spot (16–18°C /60–65°F) for three weeks in autumn to promote flowering.

Repotting: Do this every year or two, after flowering; you seldom need a bigger pot, just fresh compost. Use orchid compost that is predominantly bark chips. Tip the plant out, shake off old compost and cut off roots that

are dead, damaged or soggy. *Phalaenopsis* grow new roots each year; healthy roots have green tips. Wash the pot and position your plant so its leaves are upright with most roots inside the pot; long ones can be trimmed. Firm in the moistened bark chips, so the plant does not wobble; the lowest leaves should rest on the bark surface.

Patterned flowers

As for patterns, the vast assortment includes candy-striped blooms, mostly derived from striped *P. lindenii*. There are picotees and finely spotted sorts, as well as those with bars (markings across petals and sepals rather than along their length) and even the chequerboard effect of selections such as *P. 'Red Rust'*, known as French spots or Taiwanese spots. A recent breakthrough has been a white lip on a pink flower, seen in *P. Sogo Snow* 3, a feature that first appeared on *P. Hilo Lip*, a hybrid bred in Hawaii in the mid-1980s and named after a city on the Big Island.

Making a big impact on moth orchid breeding are two current trends. First are the Harlequin moth orchids, many with inkblot-like markings, usually differing from flower to flower up the stem, as in x *Doritaenopsis* Yu Pin Natsume 21 and x D I-Hsin Red Rose 22. This is partly due to their complex genetic make-up; the plants originated from a mericlone batch of *P. Golden Peoker 'Brother'* in which a single, chance-plant's fine spots had run together, forming blotches. The plant was mericlone and similar mutations occurred in several offspring, leading to intensive hybridizing, cloning, and the resulting treasure trove of yet more new and exciting patterns.

In recent years, smaller-flowered, more-compact selections (below right) have been developed. These may prove more easy to accommodate in the house than traditionally sized plants (below left).



Smaller selections

The second dominant trend in *Phalaenopsis* breeding today is that of miniature and multiflora plants, more suited to windowsills than their larger relatives. They have smaller leaves and branched stems bearing multitudes of flowers 2.5–7.5cm (1–3in) across, such as *P. Jiaho's Pink Girl* 20 (below). Compact *P. equestris* has been used in many of these breeding lines.

With an ever-expanding range of colours, patterns and plant sizes for breeders to cross and cross again, moth orchids are endlessly changing. While growers have the power of potentially near-infinite future variation, using new reds, blues, violets and harlequins, and plants with silver or gold leaf variegation, delighted buyers will continue to be willingly seduced ever deeper into a mesmerising relationship with beautiful moth orchids. 0

More from the RHS For other good orchids for the home visit 'Latest issue' at: www.rhs.org.uk/thegarden

Naming of orchids

Orchids have a genus and species name as other plants, (see RHS Advice, p22) but their hybrid names follow different rules. When two named orchids (for example, *Phalaenopsis* Micro Nova and *P. philippinensis*) are cross-pollinated, all offspring will be given the same name, a grex name (in this case, *P. Mini Mark* 11). The Latin word *grex* means 'group'. Given that there can be up to a million seeds per orchid seed pod, there may be great variation in flower colour, shape and quality within a grex. The best plants will be selected for breeding, showing or selling and given a cultivar name, such as *P. Mini Mark 'Holm'*, to distinguish them from siblings.

Grex names are registered with the RHS as the International Cultivar Registration Authority for Orchid Hybrids and become official. If the same combination of breeding is repeated at a later date, pollen from *Phalaenopsis philippinensis* pollinating *P. Micro Nova*, all offspring are again given the grex name *P. Mini Mark*.

Grex and cultivar names are written in a language other than Latin, using capital letters for the first letter of each word. The cultivar name has single quote marks around it.

Intergeneric crosses (between two or more different genera) such as x *Doritaenopsis* are common in orchids and are shown by the x before the intergeneric name.

FURTHER INFORMATION

❖ *The Orchid Review* A quarterly RHS journal, filled with information about orchids, priced £29 per year. Subscribe online www.rhs.org.uk/orchidreview, or tel 020 7821 3401.

❖ *RHS London Orchid Show*, 16–17 March, RHS Lawrence Hall, Westminster, London SW1P 2QD 10am–5pm, £5. www.rhs.org.uk/shows-events or tel 08456 121253.

❖ To join a local orchid society or the Orchid Society of Great Britain, visit: www.british-orchid-council.info

❖ For more on the process of orchid hybrid registration and to search the orchid register, visit www.rhs.org.uk/Plants/Plant-science/Plant-registration/Orchids



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- 22 *Phalaenopsis* 'Indiana'
- 23 *P. 'Moon Halo'*
- 24 *P. Pebble Beach*
- 25 *P. 'Ibiza'*

- 26 *P. Brother Pico Chip*
- 27 x *Doritaenopsis* I-Hsin Red Rose
- 28 *Phalaenopsis* 'Genki'

- 29 *P. Timothy Christopher*
- 30 *P. '351485'*
- 31 *P. 'Fantastic'*
- 32 *P. Luchia Lip*

❖ With thanks to Burnham Nurseries of Newton Abbott, Riley Growers of Newent, and Orchids by Peter White of Banbury.



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Wild homes of moth orchids

The genus was named *Phalaenopsis* in 1825 by German botanist Carl Blume who likened the flowers of *P. amabilis* to butterflies or moths, hence the common name moth orchid, and the genus name, which he based on two Greek words, *phalaina*, meaning moth, and *opsis*, meaning appearance.

There are around 60 species, mostly from warm, humid, forested areas of southeast Asia where there can be as much as 2m (78in) of rainfall a year. They grow as epiphytes, their roots wrapping around branches (left), absorbing moisture from the air.