

Orchids as garden plants

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Introduction

Orchids are usually thought of as pot plants rather than something to be integrated into the garden as part of a larger picture. There are a few exceptions such as *Bletilla striata*, a hardy terrestrial orchid which is quite often found in borders, but this is unusual and even when grown outdoors most orchids are kept in pots.

I have little experience with growing native orchids and this article will generally ignore them in favour of introduced species and hybrids. It should be noted that while there are many species that can be grown, there are many hundreds of hybrids derived from these species and, more particularly, that hybrids are often less exacting in their requirements and while both parents of a primary hybrid (a hybrid between just two species) may be tricky their offspring may be much more adaptable.

While it is true there are few orchids that are easily used in traditional borders in New Zealand, there is a considerable variety that can be used in other situations, particularly where trees are grown with exposed trunks or bare lower branches to attach them to.

Gardens that incorporate rough rock or tree ferns close to paths can also be potential growing positions, and sloping gardens with retaining walls often provide well-drained situations where orchids can flourish and the flowers easily seen and enjoyed.

In this article I will cover some of the situations in which orchids can be grown in the garden, the conditions that might be needed, the care required, and some of the types that can be successfully used.

Orchids are typically classified as either terrestrial or epiphytic, that is they grow in the ground, or above ground on trees or rocks. (Rock growers are technically called

lithophytes but for this article they will be included with the epiphytes as they have similar requirements.)

I will begin with terrestrial orchids and discuss epiphytes/lithophytes later.

Terrestrial orchids

In general, non-native terrestrial orchids that might be grown in a New Zealand garden prefer a well-drained, humus-rich soil, with sun requirements varying with the species. Apart from *Bletilla striata*, which is fully deciduous and accustomed to being snow-covered in winter in its native habitat of China to Japan, a frost-free situation is usually required. This does not rule out as many areas as you might think, as under trees or against a wall there can often be no frost even though an open lawn nearby is quite white with it. Having said that, many orchids grow in places where they experience light frosts in winter but where the daytime temperatures rise quite rapidly as the day progresses. It is sustained, very low temperatures that cause the problem rather than a short dip. Also, an orchid that has grown well over the warmer months is much more likely to cope with a period of cold weather in winter.

Arundina graminifolia (Fig. 1) is a pan-Asian orchid that has a 'cane' style growth habit which reaches about one metre in typical New Zealand conditions, although it can reach twice that in tropical gardens where it is often found. The flowers are produced from terminal spikes that can flower progressively over a long period and they are usually pink/purple and about 5 cm across. A well-established clump could potentially have flowers all year round. This species seems rather less hardy than some I will mention and prefers full sun in a sheltered position. I've not yet seen it planted out but have had a plant growing very successfully on a sheltered deck and would be confident that in the right situation it would do well – but I would

expect that it would be important to keep the base of the clump open to the sun. Visitors to Pacific Islands will often encounter it growing on the roadside in quite heavy soil but in our cooler climate I would recommend a well-drained position in lighter soil.



Fig. 1 *Arundina graminifolia*.
Photo: © Geoffrey Marshall.

As mentioned earlier, *Bletilla striata* (Fig. 2) is easily accommodated in a border in sun or semi-shade in most areas and grows to about 30–45 cm with light purple flowers. There are white flowered forms sometimes available and also variegated leaf forms. It has attractive pleated leaves and flowers in early spring.



Fig. 2 *Bletilla striata* growing in a garden border. Photo: © Geoffrey Marshall.

Calanthe is a handsome genus of orchids which thrive in rich moist soil and light shade. They are concentrated in Southeast Asia, with some species extending into other tropical and subtropical regions including northern Australia. Of the ones we could potentially grow,

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C. arisanensis, a native of Taiwan, is desirable for coming into flower earlier than the others with the pretty white flowers starting to open in June, and in my Auckland garden (Fig. 3) it is still in flower at the start of October. It seems to be completely evergreen so is easy to fit into a lightly shaded border. *Calanthe striata* (Fig. 4; syn. *C. sieboldii*) and its hybrids are yellow or yellow/cream, and start flowering a little later – July to September usually – and are a bit bigger in both flower and leaf than *C. arisanensis* but enjoy similar conditions. They can be deciduous so don't worry if the leaves disappear in winter. Both groups look great in a woodland garden where the sometimes slightly tatty foliage is much less noticeable than in a more formal setting. *Calanthe discolor* can also be obtained in NZ and should do well but I've not seen it tried in the ground.



Fig. 3 *Calanthe arisanensis* growing in a mixed garden border with palms, begonias, hellebores, and vireyas. Photo: © Geoffrey Marshall.

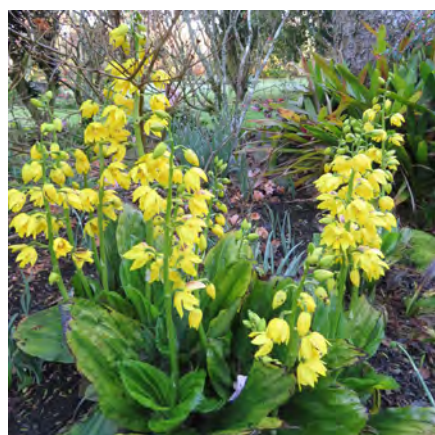


Fig. 4 *Calanthe striata* (syn. *C. sieboldii*) growing in a woodland area of the Jury's Tikorangi garden. Photo: © Abbie Jury.

Cymbidiums, particularly hybrid forms, are very common in NZ as pot-plants but not used as often as they could be in the garden. It is another genus centred in tropical and subtropical Asia but extending to Australia. Many species are cultivated in New Zealand, but it is the hybrids that are

most commonly sold (Fig. 5–7). They are generally easy to grow but their integration into a garden scene does require some thought. As always, a well-drained humus-rich soil is better although I have seen them growing in very little topsoil over clay. The flower spikes on cymbidiums can be quite upright, up-and-arching, or arching-out-and-down. Each of these forms suggests a different setting.



Fig. 5 *Cymbidium* Devon Odyssey growing on top of a staghorn fern attached to a pōhutukawa. Photo: © Geoffrey Marshall.



Fig. 6 *Cymbidium* × *Langleyensis* growing in a hollow *Cyathea medullaris*. (Probably *Cymbidium* Jean Brummitt but that name seems unknown in the NZ trade.) Photo: © Geoffrey Marshall.



Fig. 7 An unnamed *Cymbidium* hybrid growing on top of a staghorn fern attached to a pōhutukawa. Photo: © Geoffrey Marshall.

They do not, in my opinion, look good in any sort of traditional border but are better used among plants with strong looking foliage where the large flowers can take their place without dominating. This is often a subtropical style border but plants like *Daphne*, *Farugium*, *Liriope*, and ferns might also be good companions.

Those with upright spikes can be comfortably placed at ground level in a flat garden amongst similarly scaled plants, whereas those with upright-arching spikes are better used where they are raised somewhat above the surrounding plants. Cymbidiums with out-and-down arching spikes want to be placed on top of a retaining wall or on a steeply sloping garden, perhaps among rocks, where the flowers can hang freely. This last group can also look very good as epiphytes but I will write more about that later.

Epidendrum is a diverse genus from tropical and subtropical America and the 'reed stem' selections, derived from *E. radicans*, *E. ibaguense*, and several others have long been grown outdoors in NZ, although mostly in pots. They are best grown in full sun and have been used very effectively in the rock garden at Ayrilies but they also lend themselves to a tighter planting where they can be tied to a support (Fig. 8). All of them produce aerial growths from the stem just above where the leaves stop, usually after flowers on that stem have finished. Some selections produce roots only from the base of new stems while others produce roots at almost every leaf node – a characteristic derived from *E. radicans*. The former are better garden plants as the clumps retain a more attractive appearance.



Fig. 8 A hybrid reed-stem *Epidendrum* planted where it can be tied to a downpipe, is mixed in with several other lightly growing climbers using the same support. Photo: © Geoffrey Marshall.

Paphiopedilum is a genus of orchids from East Asia that are commonly known as 'slipper orchids' because of the distinctive pouch in the centre of the flower. *P. insigne* (Fig. 9) is a widely grown species that I have seen growing very successfully in several gardens, although I don't seem to have the right conditions in my garden. A lighter soil in very bright light to partial sun should suit it and it is a plant that, when happy, increases quite quickly, making a good-sized clump. There are many hybrids derived from *P. insigne* that could be happy but I think that most look rather 'over bred' and likely to look out of place in a garden setting.

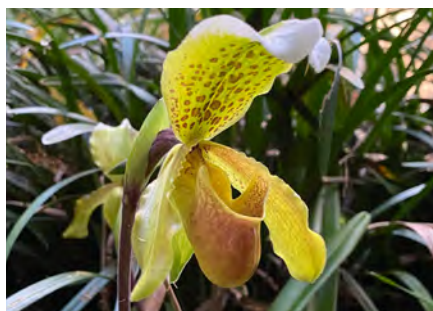


Fig. 9 *Paphiopedilum insigne* is a short orchid and wants placing where it can be easily enjoyed. Photo: © Geoffrey Marshall.

Pleione is a genus of small deciduous orchids usually grown as terrestrials although in nature (Himalaya to Central China and Indo-China) they can also be found growing on mossy rocks and trees. The usual species available is *P. formosana* (Fig. 10) and its white variant 'Alba'. I have seen both these naturalised in well-drained light soil and half sun where they flowered very well every year and multiplied. There are now numerous beautiful hybrids available but I would suggest proving your conditions before trying the more expensive hybrids.



Fig. 10 *Pleione formosana*. Photo: © Geoffrey Marshall.

Much less easily found, but much more spectacular, are various species and hybrids of *Sobralia*, a genus native to Mexico, Central and South America. The ones suitable for our gardens have cane-like stems growing 80–100 cm high, depending on the light, topped with large flowers 15–25 cm across in white, yellow, and shades of pink/purple. The individual flowers only last a few days but each cane usually has three flowers in succession, and a large clump may produce flowers for two months. I keep most of my sobralias in large pots but have found that they are quite happy planted out in rich well-drained soil where their large root systems can freely roam. They grow well in a light shade but are probably best with partial sun when the canes are stiffer. *Sobralia macrantha* is the main species to be found in New Zealand, although *S. xantholeuca* with rich yellow flowers is also around. The hybrids × *Mirabilis* (Fig. 11) and × *Yellow Kiss* (Fig. 12) can be found and do well. All these are summer flowering, sometimes starting in late December but mainly flowering through January, February, and March with occasional late flowers in April. *Sobralia* × *Puanani* is also available and differs in that it doesn't usually start flowering until February but continues to put out flowers until July – I have even had flowers in August and September.

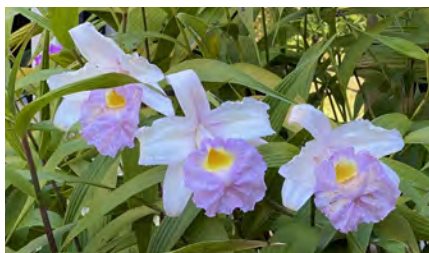


Fig. 11 *Sobralia* × *Mirabilis*. Photo: © Geoffrey Marshall.



Fig. 12 Sobralias grow well in a humus rich, well-drained soil in bright light. This is *Sobralia* × *Yellow Kiss* with flowers about 100–150 mm across. Photo: © Geoffrey Marshall.

Zygopetalum hybrids (Fig. 13) – derived primarily from *Z. maculatum* (syn. *Z. mackayi*), a South American (northern Peru to Brazil) species – have become quite commonly sold in garden centres in recent years and are proving to be robust and easily re-flowered even when pots are left outside during winter in warmer gardens. They are naturally terrestrial with vertical flower spikes and should suit a semi-shaded position in, as usual, rich, well-drained soil. The flowers are a bit unusual and mostly delightfully fragrant so the plants are well worth trying. They are not large plants – about 30–40 cm high – so would be best placed towards the front of a garden or, better, on top of a suitable wall where the scent could be more easily enjoyed.



Fig. 13 *Zygopetalum* Blue Eyes. Photo: © Geoffrey Marshall.

Epiphytic orchids

Growing epiphytic orchids in the garden generally requires a bit more thought and preparation than growing terrestrials, although some of the Australian dendrobiums are very easy to establish and are widely grown successfully. It should be remembered that epiphytes only use their host to perch on and do not cause them any harm or take any nourishment from them. When choosing epiphytic orchids for garden use some knowledge of their natural habitat helps enormously. Naturally, some grow directly on tree branches with their roots running over the bark surface, drying rapidly after rain; some grow in the leaf litter that accumulates in the crooks of branch junctions and can stay moist; and others might grow on tree ferns or very mossy branches where they stay moist but there is plenty of air around the roots. There are different rainfall conditions to consider also – some will come from places where it rains every day, or where there is a regular heavy mist, whereas others might come from an

environment where it is dry for months of the year and the plants are adapted to seasonal drought. And there is also a great variation in the amount of sun a species will naturally get. An awareness of these origins will help in choosing the right orchid for the right situation – or with finding the best place to try an orchid you've decided you have to have.

Perhaps the most important thing to remember is that orchids grown epiphytically generally dry quite quickly and, as most orchids grow when it's warm, it is necessary to water regularly in summer unless there is rain.

While epiphytic orchids don't need a lot of feeding, they certainly benefit from some. Orchids mounted on a tree fern will have more access to natural food but for plants mounted on branches I find it easy to use a 5 L sprayer with half-strength fertiliser to spray the roots weekly or fortnightly.

The best way to introduce epiphytic orchids into your garden is by using existing trees which have lost their lower foliage, or had it removed, giving generally bright light and possibly allowing morning or afternoon sun to directly get to the planting spot. Rock walls and rocky slopes are also good places, with many orchids happy to adapt to those situations even when they don't actually prefer it. And rocks that get exposure to the sun absorb warmth which is released as the day cools down and this can contribute greatly to the plants' success. Another easy way to do it is to place tree fern logs upright in a shady garden amidst lower growing plants where they can be used not only to grow orchids but also bromeliads and ferns, and in this situation can quickly look like part of a natural forest remnant. *Dicksonia* logs are often available in garden centres as a by-product of forestry and are particularly good. They frequently come carrying fern spores, and with the regular watering that the orchids like a nice variety of native aspleniums may appear.

The best time to attach an orchid to a host is when it is actively growing new roots, at which time it establishes most quickly. The plant should be removed from its pot, the mix shaken off it, and then tied tightly to the host with the base of the pseudobulbs

(the fat stems) against the tree. Once new roots have grown and attached the plant firmly to the host, the ties can be removed. Regular watering in the first year will greatly speed up their establishment. Galvanised fence staples can also be used to help with mounting, particularly where it may be difficult to get a tie around a trunk or large branch. Where the pseudobulbs are well-spaced a staple can often be put over the rhizome and nailed into the host, or staples may be put in on either side and a tie put across the whole plant – but it is very important that whatever technique is used, the plant is held firmly so that the new root tips are not rubbed off by plant movement.

Bifrenaria harrisoniae (Fig. 14) is a Brazilian species which is tough and easily grown on a rough-barked tree or pitted rock where the roots can dry quickly in winter after rain – this encourages the formation of the flowers which are produced for me in late spring. It likes strong, indirect light to partial sun and plenty of water in summer.



Fig. 14 *Bifrenaria harrisoniae*.
Photo: © Geoffrey Marshall.

Brassias are sometimes known as 'spider orchids', supposedly because the spidery-looking flowers attract certain species of spiders which pollinate them. They are native from southern Florida, Mexico, to northern South America. *Brassia verrucosa* (Fig. 15) and *B. brachiata* are almost identical (many botanists treat *B. brachiata* as a synonym) and both are attractive with large flowers; the hybrid *Brassia* × *Rex* (Fig. 16) has even larger flowers. All three have

cream flowers with maroon spots.



Fig. 15 *Brassia verrucosa*.
Photo: © Geoffrey Marshall.



Fig. 16 *Brassia* × *Rex* growing low on a large pōhutukawa tree along with other orchids, bromeliads and a staghorn fern.
Photo: © Geoffrey Marshall.

Coelogyne is a tropical and subtropical Asian and western Pacific genus with several species that do well in gardens (Fig. 17–18). *C. cristata* and *C. cristata* 'Alba' (Fig. 18) are often seen in hanging baskets under trees in northern gardens but do equally well established on trees if they get plenty of water in summer when they are growing. Much smaller are *C. fimbriata* and *C. ovalis* which do very well mounted on tree fern logs, and with summer watering they soon make large autumn flowering clumps. Another tough one is *Coelogyne tomentosa* which doesn't mind the cold, and with regular water can grow quickly and may flower more than once a year.



Fig. 17 *Coelogyne mooreana* planted in a *Dicksonia* pot placed at ground level.
Photo: © Geoffrey Marshall.



Fig. 18 *Coelogyne cristata* 'Alba'.
Photo: © Geoffrey Marshall.

Earlier I mentioned cymbidiums as terrestrials. While they generally need humus to grow, they are also very fond of rotting wood. Some of the best naturally cultivated cymbidiums I've seen have been growing on rotting stumps or in the rotting wood where a branch has died and rot has got into the centre of a still living tree. If you have a tree that has died or needs to be cut down, consider keeping the bottom few metres as a potential host for orchids and other epiphytes. Staghorn ferns are readily established on trees and are also good hosts for orchids which can be planted on top of them. Cymbidiums, particularly those with pendant flower spikes, look very good in this situation. *Cymbidium lowianum* (Fig. 19) is a species which thrives when grown in this way.



Fig. 19 *Cymbidium lowianum* growing on the rotting stump of a *Schinus* tree. Its roots are feeding on the rotting wood inside the stump.
Photo: © Geoffrey Marshall.

Dendrobium is a huge, very diverse, and widely distributed Austro-Asian genus and there are many that will happily find a home in your garden. There is one New Zealand species, *D. cunninghamii*, which can occasionally be found for sale, but it should only be obtained from a legitimate source as it is illegal to remove native orchids from the wild.

The best known dendrobiums in New Zealand are two Australian species, *D. kingianum* and *D. speciosum*, which, with their many hybrids, are easy to grow and quite adaptable. *D. kingianum* is so common in New Zealand that many assume it's a native. It grows to about 30 cm high with pink spotted flowers, bulks up quickly, and may be directly attached to tree branches or palm trunks in sun or semi-shade.

D. speciosum – the Australian rock lily – is a much bigger plant growing up to nearly a metre high, depending on the variety, with spectacular long flower spikes having many flowers of cream to yellow and which have a strong scent. As its common name suggests, it's very happy to grow on rocks but is equally at home on a tree. Either way it prefers plenty of sun and air movement.

D. × Bardo Rose, *D. × delicatum* (Fig. 20), and *D. × Golden Arch* (Fig. 21), are examples of the many hybrids in this group that are easy to grow.

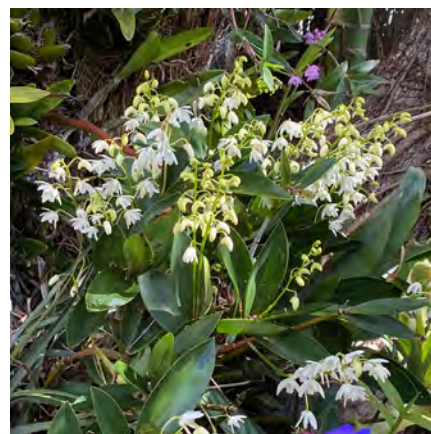


Fig. 20 *Dendrobium × delicatum* low on a pōhutukawa trunk with other orchids and bromeliads. Photo: © Geoffrey Marshall.

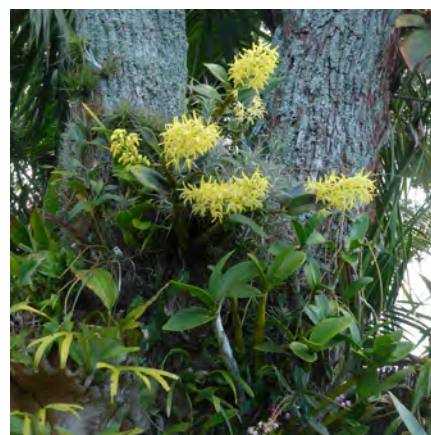


Fig. 21 *Dendrobium*, probably *D. × Golden Arch*, mounted high on the side of a pōhutukawa with other ferns and orchids.
Photo: © Geoffrey Marshall.

Dendrobium × Hilda Poxon (*D. speciosum × tetragonum*) is a hybrid with a distinctively different flower closer to *D. tetragonum*. It seems quite easy to grow and can flower at any time, often more than once a year.

There are many so-called soft-cane dendrobiums which could be happy in our gardens but those which are derived primarily from *D. nobile* prefer a dry winter and don't flower well unless this condition can be met. However, if they are mounted in a situation where the roots can dry rapidly after rain, some flowering can be achieved.

A beautiful hybrid that is easy to grow is *D. × cassiope* and while it flowers better with minimal winter moisture, it is definitely worth trying.

I've had great success with *D. glomeratum* growing high on a tree fern log (Fig. 22). This species has long pendant canes producing bright purple flowers off and on from mid-summer through to mid-winter.

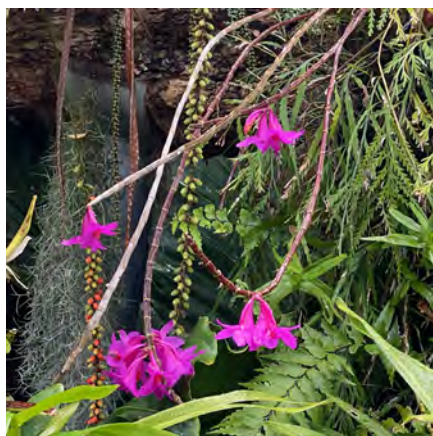


Fig. 22 *Dendrobium glomeratum* growing mounted on an upright *Dicksonia* log with naturally occurring aspleniums. The berries on the left are from the palm *Linospadix monostachyos*. Photo: © Geoffrey Marshall.

The Australian 'pencil orchids', sometimes hived off as dockrillias, are dendrobium allies which produce a hanging curtain of wiry stems and grow easily attached to branches if you can keep the snails away – I often find the growing eyes and root tips eaten away but they are a group that is well worth trying. The flowers, which are usually cream with some degree of spotting or streaking, are big enough to make them worth growing, particularly as they are produced in late winter to early spring (Fig. 23).



Fig. 23 *Dendrobium fairfaxii* (syn. *Dockrillia fairfaxii*, left) and × *Brassocattleya* Sea Urchin (right) growing on a pōhutukawa with curtains of *Tillandsia usenoides* (background). Photo: © Geoffrey Marshall.

Epidendrums were mentioned as terrestrials but the same cane-stem varieties are also quite happy growing as epiphytes, particularly where their roots can find a humus pocket. Planted into the top of a staghorn fern for instance, they will arch out and down with their flowers bobbing in the breeze.

Many of the species in *Epidendrum* have been moved to related genera. An unusual looking member is

Prosthechea cochleata (Fig. 24; syn. *Epidendrum cochleatum*), sometimes known as the cockleshell orchid, which is happy in partial sun on the side of a tree. It produces its flowers from late January to August on a continually lengthening spike for me, but in a slightly warmer situation I understand that the flowering can go on much longer.



Fig. 24 *Prosthechea cochleata* (syn. *Epidendrum cochleatum*). Photo: © Geoffrey Marshall.

Laelia anceps (native from Mexico to Honduras) is a very easy orchid to grow and flower (Fig. 25–26) and it soon makes a large plant when established on a bare branch with plenty of light. It needs room as the pseudobulbs are typically 5–10 cm apart, meaning that after a few years the plant gets quite wide. The flower spikes can be 50 cm long with 3 or 4 showy pink flowers creating a lovely sight. This one looks very good planted with small dark red epiphytic bromeliads, where the slightly lumpy-looking orchid is partially buried within the bromeliads and the flowers look great set against the red-bronze of the bromeliad foliage.

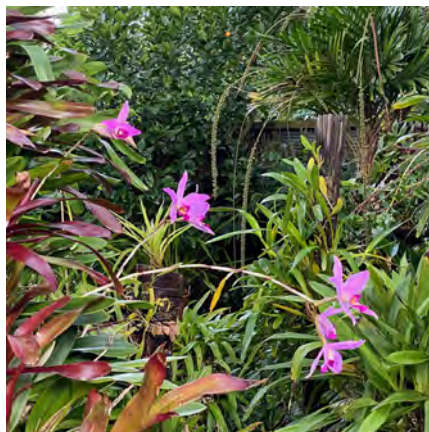


Fig. 25 *Laelia anceps* is very easy to grow and flower, and the long flower spikes make the flowers sit in space. Photo: © Geoffrey Marshall.



Fig. 26 *Laelia anceps* 'Alba' growing among dendrobiums and tillandsias high in a pōhutukawa. Photo: © Geoffrey Marshall.

Masdevallias are beautiful and distinctive Mexican and South American orchids that have surged in popularity recently. They grow as a tuft of leaves in a slowly spreading clump and the flowers typically have long tails and are brightly coloured (Fig. 27). They are quite happy outside in frost-free areas and tolerate dry periods very well. While tolerant of quite moist conditions, they resent airless wet conditions around their roots so need establishing where water drains away well, leaving air around their roots.



Fig. 27 *Masdevallia coccinea* 'Red Glow'. Photo: © Geoffrey Marshall.

Maxillaria is a large and diverse genus primarily from Central and South America, where, along with East and South East Asian genera, the majority of the most beautiful orchids come from. This is a genus which has not been extensively hybridised but there are many species which are quite happy in a temperate/subtropical garden and the lack of hybridisation means that the varieties available to grow tend to be quite distinct from each other and so are more interesting. They typically like bright indirect light to partial sun with

ample water and are very suited to growing on a tree fern. Species that I have found easy include the following: *M. grandiflora* (Fig. 28) has large white flowers with a red and yellow lip and can look like a nun facing a wind. *M. meleagris* has smaller pink spotted flowers with a deep maroon lip. *M. nigrescens* (Fig. 29) has striking rusty-maroon flowers that can look as if they're marching out to get you. *M. picta* has maroon-banded white flowers with a lovely scent. *M. porphyrostele* (Fig. 30) has mostly yellow flowers that sit amongst the foliage and is particularly good for growing on a vertical surface.



Fig. 28 *Maxillaria grandiflora* flowers low, almost beneath its leaves, and is best mounted near eye level for the best viewing. Photo: © Geoffrey Marshall.



Fig. 29 *Maxillaria nigrescens* growing in a *Dicksonia* stump. Photo: © Geoffrey Marshall.



Fig. 30 *Maxillaria porphyrostele* is well suited to growing vertically where the flowers are more easily seen. Photo: © Geoffrey Marshall.

M. sophronitis (Fig. 31) is a small growing plant that will quickly clump up as a mat and the bright red flowers, although small, show up very well in contrast to the leaves.



Fig. 31 A group of various bromeliads and orchids growing on a pōhutukawa branch. The red flowers of *Maxillaria sophronitis* can be seen in the centre. Photo: © Geoffrey Marshall.

M. variabilis is well known as the chocolate-scented orchid and grows quickly and easily, although I find you have to get quite close to enjoy the scent.

Oncidiums are a diverse group native to tropical and subtropical America. They include the yellow dancing lady orchids that have been popular as cut flowers. The dancing lady types – largely derived from *Gomesa flexuosa* (Fig. 32; syn. *Oncidium flexuosum*) and *Gomesa varicosa* (syn. *Oncidium varicosum*) – are easily grown on tree fern stumps or trees, preferring full to half sun and mounted similarly to the dendrobiums. As with other orchids with long flower stems, wind can be a problem and some wind protection is preferable. Many of this group have widely spaced pseudobulbs and these need plenty of space to expand.



Fig. 32 *Gomesa flexuosa* (syn. *Oncidium flexuosum*) growing in the stronger light at the top of a *Cyathea* stump. Photo: © Geoffrey Marshall.

Another group of oncidiums worth growing are the many forms of the primary hybrid *O. × Twinkle* (Fig. 33). These are small oncidiums with flowers that range in colour from white to gold to rosy red and are usually delightfully scented and prolific when growing happily.



Fig. 33 *Oncidium × Twinkle* 'Pink Profusion' will make dense displays of its flowers when growing well – this is just starting to get established. Photo: © Geoffrey Marshall.

There are many hybrids in the *Oncidium* group of related genera now being produced and sold in NZ and most of the ones that are easily available are worth attempting.

Pleurothallis restrepioides (a north eastern South American species, considered by some as a complex involving *Stelis restrepioides*) is the most commonly encountered member of this large genus with 150 mm long leaves at the end of 300 mm stems. From the base of the leaves long flower spikes are produced with many deep crimson bell-like flowers (Fig. 34). When grown on a tree or fern trunk, the whole plant arches out and down so that the flowers can catch the light and glow. Mature stems can produce multiple flower spikes and flower for several years.



Fig. 34 *Pleurothallis restrepioides* (syn. *Stelis restrepioides*).
Photo: © Geoffrey Marshall.

Restrepias (Fig. 35–36; native from southern Mexico to western South America and Venezuela) are often called cockroach orchids because of a supposed resemblance, but this denigrates a lovely group of easily-grown small members of the pleurothallis group that can flower at any time of the year and will flower repeatedly from mature stems. While quite drought resistant they will do better with regular watering on a mount that they can get their roots into – a tree fern stump or a tree with finely craggy bark in bright light will suit them well.

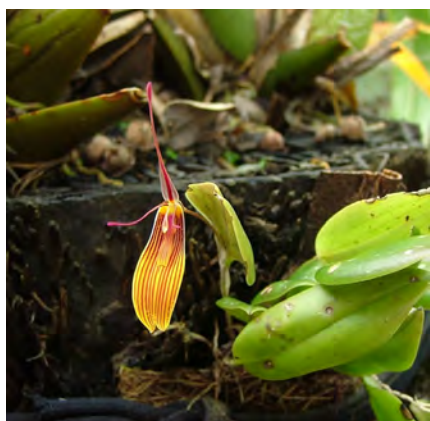


Fig. 35 Restrepias are surprisingly tolerant of dryness and will grow quite happily on the hard but rough surface of an old *Cyathea medullaris*. This is *Restrepia brachypus* (syn. *R. striata*). Photo: © Geoffrey Marshall.

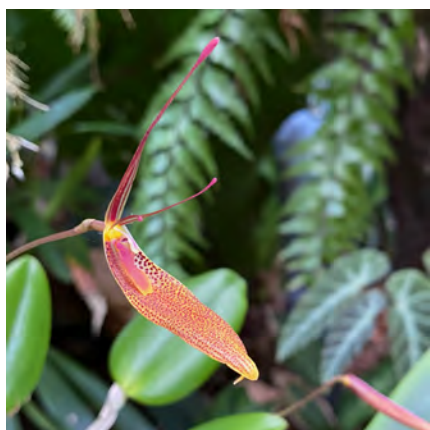


Fig. 36 *Restrepia guttulata*.
Photo: © Geoffrey Marshall.

Another group of Australian orchids that can do very well are *Sarcophilus* (Fig. 37). These are nice looking little plants that, unlike all the other orchids mentioned, grow a continually lengthening stem and produce flower spikes from between the leaves. They branch from low down and so produce neat clumps with arching spikes of flowers generally about 2 to 3 cm across, mostly in whites, pinks and reds. They like a moisture-retentive, shadier spot, and the best clump I've ever seen was growing in the leaf litter that had accumulated in the crook of an old tōtara in quite shady conditions. I don't believe that this was ever watered but the humus would have retained moisture for some time after rain.



Fig. 37 *Sarcophilus* are neatly growing, mounding plants. This is *S. hartmannii*.
Photo: © Geoffrey Marshall.

Resources

Apart from specialist orchid books, there are a number of online sources for information on cultivation.

The first listed website (<https://orchidculture.com/COD/sheetlist.cgi.html>) is a paid-for service that offers full descriptions of most cultivated species with detailed notes on the climate where they grow and these are extremely helpful for achieving best results. There are free sample sheets so that you can see if you like the idea.

There are two free sites that also offer good but more limited information: www.orchidspecies.com and <https://travaldo.blogspot.com/p/orchid-plant-care-and-culture.html>.

The International Orchid Foundation website (www.orchids.org) has comprehensive information. It is a free site although you have to sign up for some features such as posting orchids for sale. Buying orchids from

overseas sources may be illegal, due to New Zealand's strict biosecurity regulations and the fact that many orchid species are endangered and may be CITES-listed.

All of the plants mentioned in this article are cultivated in New Zealand, but few are easily obtained from regular garden centres. They may be found on sale tables at orchid shows, or through online sites from smaller growers.

It is worthwhile joining your local orchid society, or at least joining good Facebook groups, where much information can be found, as well as increased access to plants. Two good groups are:

New Zealand Orchid Collectors: www.facebook.com/groups/199574380379702/

Orchids For Sale New Zealand: www.facebook.com/groups/171279906614075/

Lists of orchids to grow

Orchids that I have had good or reasonable success with, or have seen others grow well:

Angraecum didieri
Angraecum germinyanum (Fig. 38)
Arundina graminifolia (Fig. 1)
Bifrenaria aureofulva
Bifrenaria harrisoniae (Fig. 14)
Bletilla striata (Fig. 2)
Brassia aurantiaca
Brassia brachiata (treated by some as a synonym of *B. verrucosa*)
Brassia keiliana
Brassia verrucosa (Fig. 15)
Brassia × *Rex* (Fig. 16)
 × *Brassocattleya* Sea Urchin (Fig. 23)
Calanthe arisanensis (Fig. 3)
Calanthe striata (syn. *C. sieboldii*) (Fig. 4)
Calanthe × *Higo* (Fig. 39)
Cattleya bicalhoi (syn. *Laelia dayana*)
Cattleya coccinea (syn. *Sophranitis coccinea*)
Cattleya intermedia
Cattleya jongheana (syn. *Laelia jongheana*)
Cattleya loddigesii
Cattleya lundii (syn. *Laelia lundii*)
Cattleya pumila (syn. *Laelia pumila*) (Fig. 40)
Cattleya × *fidensis* (syn. *Laelia* × *fidensis*)
Cattleya × *Jinn* (Fig. 41)
Cattleya × *Valentine*
Cattleya × *venosa*
Coelogyne cristata (Fig. 18)
Coelogyne fimbriata

- Coelogyne mooreana* (Fig. 17)
Coelogyne ovalis
Coelogyne tomentosa
Coelogyne × *Unchained Melody*
Cuitlauzina pulchella
(syn. *Odontoglossum pulchellum*)
Cymbidium Devon Odyssey
(Fig. 5)
Cymbidium elegans
Cymbidium erythrostylum
Cymbidium iridioides
Cymbidium lowianum (Fig. 19)
Cymbidium tracyanum
Cymbidium × *Langleyensis*
(Fig. 6)
Cymbidium × *Lowio-grandiflorum*
Dendrobium fairfaxii
(syn. *Dockrillia fairfaxii*)
(Fig. 23)
Dendrobium falcorostrum
Dendrobium glomeratum (Fig. 22)
Dendrobium hancockii
Dendrobium hercoglossum (Fig. 42)
Dendrobium infundibulum
Dendrobium kingianum
Dendrobium linguiforme
(syn. *Dockrillia linguiformis*)
Dendrobium nobile
Dendrobium schoeninum
(syn. *Dockrillia schoenina*)
Dendrobium speciosum
Dendrobium subclausum (Fig. 43)
Dendrobium teretifolium
(syn. *Dockrillia teretifolia*)
Dendrobium Virginia Jupp (Fig. 44)
Dendrobium × *Bardo Rose*
Dendrobium × *cassiope*
Dendrobium × *delicatum* (Fig. 20)
Dendrobium × *Golden Arch* (Fig. 21)
Dendrobium × *gracillimum*
Dendrobium × *Hilda Poxon*
Dendrobium × *Kuniko*
Dendrobium × *Pukekura*
Earina autumnalis
(a NZ native species)
Earina mucronata
(a NZ native species)
Encyclia tampensis
Epidendrum ciliare
Epidendrum parkinsonianum
Epidendrum xanthinum
Gomesa crispa
Gomesa flexuosa (syn. *Oncidium flexuosum*) (Fig. 32)
Gomesa longipes
(syn. *Oncidium longipes*)
Gomesa radicans
(syn. *Ornithophora radicans*)
Gomesa recurva
Gomesa varicosa
(syn. *Oncidium varicosum*)
Gongora galeata
Holcoglossum kimballianum (Fig. 45)
Isabelia pulchella
Isochilus aurantiacus
Isochilus linearis
Laelia anceps (Fig. 25–26)
Laelia autumnalis
Laelia × *gouldiana*
× *Laeliocattleya Intercepts*
Lycaste aromatica
Lycaste cruenta
Masdevallia species (Fig. 27)
Maxillaria grandiflora (Fig. 28)
Maxillaria meleagris
Maxillaria nigrescens (Fig. 29)
Maxillaria picta
Maxillaria porphyrostele (Fig. 30)
Maxillaria sophronitis (Fig. 31)
Maxillaria subulata (syn. *M. acicularis*)
Maxillaria tenuifolia
Maxillaria variabilis
Miltonia clowesii
Miltonia flavescens
Miltonia spectabilis
Miltonia × *bluntii*
Miltonia × *Moirmoir* (Fig. 46)
× *Odontioda Heatonensis* (Fig. 47)
× *Odontioda Stirbic*
Oncidium cariniferum
Oncidium cheiroporum
Oncidium incurvum
Oncidium sotoanum (Fig. 48)
Oncidium × *Sweet Sugar*
Oncidium × *Twinkle* (Fig. 33)
Otoglossum serpens
(syn. *Oncidium serpens*)
Paphiopedilum insigne (Fig. 9)
Pleione formosana (Fig. 10)
Pleurothallis restrepioides
(syn. *Stelis restrepioides*)
(Fig. 34)
Pleurothallis truncata
Polystachya neobenthamia
(syn. *Neobenthamia gracilis*)
Promenaea xanthina (Fig. 49)
Promenaea Crawshayana
Prosthechea baculus
(syn. *Encyclia pentotis*)
Prosthechea calamaria
(syn. *Encyclia calamaria*)
Prosthechea cochleata
(syn. *Encyclia cochleata*,
Epidendrum cochleatum)
(Fig. 24)
Prosthechea fragrans
(syn. *Encyclia fragrans*)
Prosthechea garciana (syn. *Encyclia garciana*) (Fig. 50)
Restrepia brachypus (syn. *R. striata*)
(Fig. 35)
Restrepia cuprea
Restrepia guttulata (Fig. 36)
Restrepia iris
Restrepia sanguinea
Restrepia teaguei
Restrepia trichoglossa
Rodriguezia decora
Sarcochilus falcatus
Sarcochilus fitzgeraldii
Sarcochilus hartmannii (Fig. 37)
Sobralia macrantha
Sobralia xantholeuca
Sobralia × *Mirabilis* (Fig. 11)
Sobralia × *Puanani*
Sobralia × *Yellow Kiss* (Fig. 12)
Stanhopea oculata
Stelis sclerophylla
(syn. *Pleurothallis sclerophylla*)
Zygopetalum maculatum
(syn. *Z. mackayi*)

A further list of plants that I think would be worth trying:

- × *Bardendrum* Kitty
Barkeria × *Erika*
Barkeria scandens
Barkeria spectabilis
Brassia villosa
Calanthe discolor
Cattleya × *fidensis*
(syn. *Laelia* × *fidensis*)
Cattleya longipes
(syn. *Laelia lucasiana*)
Cattleya sincorana
(syn. *Laelia sincorana*)
Coelia bella
Cymbidium goeringii
Cymbidium hybrids in general
(Fig. 5–7)
Dendrobium hybrids derived from
D. nobile
Dendrobium hybrids derived primarily
from *D. infundibulum* and related
species
Dendrobium hybrids derived
primarily from *D. kingianum* and
D. speciosum
Dendrobium kauldorumii
Dendrobium loddigesii
Dendrobium mayandyi
Dendrobium moniliforme
Dendrochilum species
Encyclia microbulbon
Epidendrum centropetalum
(syn. *Oerstedella centradenia*)
Epidendrum cristatum
Epidendrum verrucosum
(syn. *Oerstedella verrucosa*)
× *Laeliocattleya* hybrids – depending
on background species
Oncidium × *Charlesworthii*
Oncidium hallii
(syn. *Odontoglossum hallii*)
Oncidium manuelariasii
(syn. *Odontoglossum ariasii*)
Pabstiella leucopyramis
(syn. *Pleurothallis pterophora*)
Pholidota chinensis
Pleurothallis allenii
Rhynchostele bicktoniensis
(syn. *Lemboglossum bicktoniense*)
Rhynchostele cordata
(syn. *Lemboglossum cordatum*)
Sarcochilus ceciliae
Stanhopea – most species available
in NZ
Zygopetalum hybrids (Fig. 13)



Fig. 38 *Angraecum germinyanum* growing mounted on a *Dicksonia* stump amongst aspleniums that grew from spores that came with the trunk. Photo: © Geoffrey Marshall.



Fig. 43 *Dendrobium subclausum* mounted on a *Cyathea dealbata* where it flowers reliably every autumn. Photo: © Geoffrey Marshall.



Fig. 47 *Odontioda x heatonensis* is easy and prolific, here growing on a fern stump. Photo: © Geoffrey Marshall.



Fig. 39 *Calanthe*, probably *C. x Higo* growing in the woodland at Jury's Tikorangi garden. Photo: © Abbie Jury.



Fig. 44 *Dendrobium* Virginia Jupp growing above *Tillandsia malleontii* on a pōhutukawa. Photo: © Geoffrey Marshall.



Fig. 48 *Oncidium sotoanum* is one of the parents of the hybrid x Twinkle and will make large displays of its small flowers when growing well. Photo: © Geoffrey Marshall.



Fig. 40 *Cattleya pumila* (syn. *Laelia pumila*), although small, really stands out amongst other plants. Here with ageing *Brassia* flowers in the foreground. Photo: © Geoffrey Marshall.



Fig. 45 *Holcoglossum kimballianum* needs a warmish spot in good light but does flower each year from its pōhutukawa perch. Photo: © Geoffrey Marshall.



Fig. 49 *Promenaea xanthina* growing in an old *Cyathea* trunk. It will need renewing from time to time as dense humus builds up around its roots and airflow is impeded. Photo: © Geoffrey Marshall.

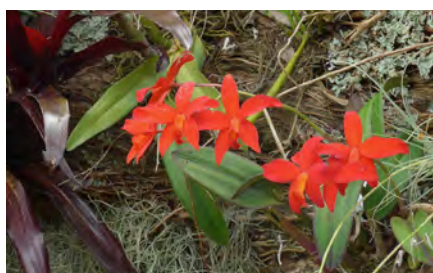


Fig. 41 *Cattleya x Jinn* growing on a horizontal pōhutukawa branch with *Aechmea* 'Foster's Favourite', *Tillandsia usenoides*, and *Dendrobium Yachiyo*. Photo: © Geoffrey Marshall.



Fig. 46 *Miltonia x Moir* growing on a thin stump with many other orchids. Berries from *Linospadix monotachyos* hang in the background. Photo: © Geoffrey Marshall.



Fig. 50 *Prosthechea garciana* (syn. *Encyclia garciana*), although a species it can flower at almost any time. Photo: © Geoffrey Marshall.



Fig. 42 *Dendrobium hercoglossum* perched on top of a *Dicksonia* log. Photo: © Geoffrey Marshall.