
The genus Lycaste

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The genus *Lycaste*

Some of the more common *Lycaste* species in collection are:

Lycaste aromatica,
Lycaste bradeorum,
Lycaste cruenta,
Lycaste deppei,
Lycaste lassioglossa,
Lycaste macrophylla,
Lycaste tricolor.

I will cover some of these in this second part of the article, and touch on some of the less common next month. Less common in collections are:

Lycaste angelae (previously *brevispatha*),
Lycaste campbellii,
Lycaste candida,
Lycaste cochleata,
Lycaste crinita,
Lycaste dowiana,
Lycaste guatemalensis,
Lycaste leucantha,
Lycaste macrobulbon,
Lycaste measuresiana,
Lycaste oculata,
Lycaste panamensis,
Lycaste powelli,
Lycaste schilleriana,
Lycaste skinneri,
Lycaste viridescens

The most common *Lycaste* in collections in Perth are *Lycaste cruenta*, *Lycaste lassioglossa*, *Lycaste tricolor* and *Lycaste aromatica*. All three are easy to grow in a shadehouse, provided some protection from being constantly wet is provided during winter. All flower quite prolifically providing they receive a well-balanced fertiliser regime.

The first of these *Lycaste cruenta* (Lindl) was discovered in Guatemala by George Ure Skinner in 1842 and is often misidentified as *Lycaste aromatica* due to its coloration. In fact, Lindley in 1840 first described it as *Maxillaria skinneri*. It occurs as a lithophyte, terrestrial or epiphyte in Southern Mexico, Guatemala and El Salvador at 1000-1800m altitude in dry-humid forests. It is a variable species with several distinct varieties that vary in colour from yellow through yellow orange and occasional yellow green sepals. The species name *cruenta* is Latin for blood coloured referring to the red spotting at the base of the lip. This species has a strong cinnamon scent during bright daylight. The following image is from Wikimedia Commons and shows *Lycaste cruenta* at the Berlin Botanical Gardens - Orchid Exhibition.



The flowers of this species are strongly phototropic growing so that they face the sun, making them more visible to pollinators such as euglossine bees which are attracted by the cinnamon pheromones.

Like most members of this genus, it needs heavy watering and light shade (50% shadecloth) in summer, but protection from rain in winter when dormant to prevent bulb rot unless the pseudobulbs shrivel in which case

light watering is indicated. Once the plant shows active growth of either flower buds or new leaves, water and fertilise more frequently. *Lycaste cruenta* is generally resistant to many of the common insect pests, although the new, soft leaves are easily damaged by the sun. It is equally happy grown in either well-drained pot or slab culture (provided you can maintain humidity during summer) and being predominantly lithophytic, would probably be OK in a garden setting provided it can be given shelter in winter.

Lycaste lassioglossa is also quite common in local collections and can often be obtained from sales tables or our silent auction. This species has a more spectacular flower with shiny brown sepals in contrast with yellow petals and a bearded labellum flushed red.

This robust species is found in Mexico, Honduras and Cost Rica, epiphytic or lithophytic at altitudes of 800-1600m in warm humid forests. Identified by Reichenbach in 1872, the name is derived from the Greek for 'hairy tongue'. For those interested in breeding, the brown colour of the sepals is due to red pigment in the epidermis on the front side of the sepal overlying green pigment. As a result, this species has been widely used in breeding dark red show *Lycaste* with *Lycaste skinneri* (similar pigmentation occurs in *Lycaste macrophylla*). *Lycaste lassioglossa* is one of the simpler species to grow under similar conditions to those identified for *Lycaste cruenta*.



The image from Alan Black's Orchid Photo pages demonstrates the shiny character of the sepals.

Lycaste lassioglossa does not have the spines on the leafless pseudobulbs that *Lycaste cruenta* and some other species display.

Lycaste tricolor is smaller-flowered species from Central America, growing as an epiphyte in rainforest at 700-1000m altitude. Identified by Reichenbach, it is named for the three colours present in the flower - beige, white and pink, although these colours are not distinct and often merge into a pale pink. This species needs more sun than the previous two species described, as its natural habitat is open tropical forest with high light. It is said to require some heat and needs to be kept drier in our cold, dark, wet winter months. The plentiful, long-lasting flowers (up to 8 per pseudobulb) arise from the base of the mature pseudobulbs, so a mature plant can literally be ringed by flowers as shown the image from Jay Pfahl's Orchid Species Website.

Like *Lycaste lassioglossa*, this species also does not have the spines on the leafless pseudobulbs that *Lycaste cruenta* and some other species display.



The last species that I will cover in the section of the article is *Lycaste aromatica* which is also reasonably common in local collections. It was the first *Lycaste* to be described and is one of the simplest to grow and flower. As noted earlier, this species is often confused with *Lycaste cruenta*. It occurs from Southern Mexico through Guatemala, Belize, Honduras, Nicaragua, El Salvador (but not Costa Rica nor further south).

Lycaste aromatica is named for its profuse cinnamon/clove-scented flowers. The strong perfume is more pronounced when the plant is in sunshine. Up to 20 flowers appear from each mature pseudobulb, literally covering the plant in flowers. The misidentification occurs despite the distinctive slender flowers and large callus (even George Ure Skinner misidentified this species).



This species is primarily epiphytic, growing at altitudes of 700-2,000 m in damp, cool oak woodlands, or occasionally lithophytically in thick humus on limestone cliffs. Oakley says that he has seen this species growing in light woodland along with *Laelia* spp, with the roots embedded in cracks in the bark, and often covered by mosses and lichens. He says that during the dry season, this species loses its leaves and the pseudobulbs, with their protective spines mimic xerophytic cacti until the rains return. This species is also pollinated by euglossine bees. In his book, Oakley provides a description of the complex pollination process.

Some of the less common (but for orchid species enthusiasts, more desirable) *Lycaste* species follow:

Lycaste angelae (previously *Lycaste brevispatha*) is a compact deciduous epiphyte from Costa Rica with small green, pink and white flowers. This species, which has been in cultivation for more than 100 years was generally misidentified as *Lycaste candida*, and has been named after Dr Angela Ryan, a UK fragrance chemist and research botanist whose thesis was on *Lycaste* and *Anguloa*. The difference is a vestigial flat callus and rudimentary lateral lobes. It is found at 1000-1700m in light shade with year-round high humidity and displays the characteristic leaf abscission spines. *Rubra* and *alba* forms also exist.

Lycaste angelae

Photo source: *Lycaste*, *Ida* and *Anguloa*. H Oakley



Lycaste campbellii is a deciduous epiphyte from Colombia and

Panama at sea level. The small yellow, soap-scented flowers arise from the base of the leafless pseudobulbs. Like many of this genus, it is very floriferous with up to eight flowers from each pseudobulb at the onset of new growth. It also has the characteristic leaf abscission spines on the leafless pseudobulbs and needs to be kept dry while in its leafless state to avoid soft rots.

Photo source: PiotrM's photostream

Lycaste candida is also a deciduous epiphyte or lithophyte from Costa Rica, Nicaragua and Panama, found in woodlands or full sun at 900-1200m. It is similarly floriferous, carrying up to eight, soap-scented flowers per mature pseudobulb at the onset of new growth.

Lycaste candida was discovered by Joseph van Warszewicz and named by Lindley, although erroneously thought to be synonymous with *Lycaste leucantha*. During the next 130 years, taxonomists including Reichenbach, Lankester and Schlechter all published conflicting views about the three species, *Lycaste brevispatha*, *candida* and *leucantha*. I have accepted Oakley's identification for the purposes of this article.



As can be seen from the photo to the left this species carries red/brown colouration in both the petals and sepals, with the form *Lycaste candida* var *rubra* having dark red-brown sepals with green margins and bright crimson petals with white margins. An alba form also exists.

Photo source: <http://www.flickr.com/photos/afriorchids/1101102263/sizes/m/in/photostream/> ©

Lycaste schilleriana has the largest flowers in the genus at up to 22cm. This striking species is found in Colombia growing lithophytically at altitudes of 1400m. It was originally introduced into cultivation by Skinner in the 1850s and described by Reichenbach in 1855. However, despite its large flowers, it is not a particularly large plant. Its large green to tan sepals are very prominent, setting off the white/pink petals. There are several varietal forms including alba and rosea, however, as Oakley says, this species remains rare in cultivation.



Photo source: <http://www.flickr.com/photos/ericinsf/116616228/sizes/m/in/photostream/>
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Lycaste skinneri is one of the best-known species, although is not common in collections, but is present in many of the popular *Lycaste* hybrids. *Lycaste skinneri* is found in Guatemala, Mexico, Honduras and El Salvador as an epiphyte or lithophyte in deep leaf litter in cool cloud forest at 1500-2000 m (it is the national flower of Guatemala). This habitat has constant mist or light rain and is densely shaded. Cool night temperatures 5-10°C



are needed for vigorous growth and regular flowering. It was named for George Ure Skinner who discovered it in 1840, and it was described by Bateman in the same year. In the early 1900s, several superior plants appeared at shows, one of these, *Lycaste skinneri* Ms G Hamilton-Smith which had been awarded in 1927 was present in many collections (divisions of the original plant) until the 1960s.

Photo source: http://www.authenticmaya.com/images/lycaste_skineri_rosa7.jpg

Lycaste skinneri was also called *Lycaste virginialis* for much of the period between 1860 and 1970 as a result of an ongoing debate about who first discovered it. Linden claimed that he had discovered the species and named it in 1840, but later research shows that he was unaware of Bateman's 1840 publication. The confusion continues and often one will see plants advertised as *Lycaste virginialis* - these are in fact likely to be *Lycaste skinneri* var *alba*.



Photo source:

<http://www.sborchid.com/plantdisplay.php?ocode=LYC000041>

Following its discovery, large quantities were taken from the wild and imported into Europe by George Skinner and his successors. Some reports indicate that consignments of up to 100,000 plants were sold at auction in the late 19th century. It is little wonder therefore that it is no longer common in the wild, and for a time, was listed in Appendix 1 of CITES.

While the line breeding in the later 19th and most of the 20th century was conducted by Santa Barbara Estate and Cal Orchids in California and Wylde Court Orchids in UK, the line breeding is now being done in Japan and some very superior forms are now available. Several colour forms exist including alba and some rarer forms including a pink form with an alba labellum. Oakley says that many of the *Lycaste skinneri* varietal epithets attributed in the period 1850-1950 are only horticultural cultivars not botanical varieties. However, more than 40 cultivars have been awarded by the RHS. This important species is present in many of the present show winning hybrids.