Orchid Species Bulletin

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General Meeting – are held on the third Monday of each month at the Brisbane Botanical Gardens Auditorium, MtCoot-tha. The next meeting will be held on Monday 16 commencing at 7.45. The talks for the night will be by Gary Yong Gee with pictures from his visit to Costa Rica.

Fire Ant Rules – This is a reminder to all members to ascertain if they are in a Fire Ant Treatment Zone (a Restricted Area). A map is displayed next to the Members Register on meeting nights. Don't forget that all those in restricted areas must sign the register to affirm that they have read and understood the Approved Risk Management Plan (ARMP 2354).

Committee Meeting – Next committee meeting will be before the general meeting starting at 6.30 pm. We have plenty to discuss this meeting. All interested members are invited to attend.

Show Displays
The Orchid Species Society has displays of orchids at a few of the Orchid Society shows in the Brisbane area. In return these societies enhance the look of our show by having a display there. The display set-up involves either taking orchids and/or stands (& foam boxes etc) to the show on mostly a Friday and collecting them on a Sunday. If you cannot get to the show then talk to the committee member about getting them picked up

Help Wanted - Raffle Plant Carer.
Somebody is needed to look after the raffle plants purchased in bulk by the society between meetings and bring the requested number to each meeting.
Job Description : Look after the society seedlings between meetings. You can either purchase more plants as stocks get low (and be reimbursed by the treasurer) or they can be purchased for you.
If you cannot make a meeting then phone a society member who lives nearby to collect them off you. Do you think you can help the society by showing how much of a caring person you are?
See the committee at the next meeting and volunteer.

Email Address - Do you have email ?
Please send you email address to **secretary@orchidspeciessoc.org** & **treasurer@orchidspeciessoc.org** We will add the details to our membership data and later on there may be the option of receiving the bulletin electronically.

Coming Events

July 21 - 22 John Oxley District Orchid Society has a show at Mt Coot-tha auditorium Mt Coot-tha Botanic Gardens. **The Orchid Species Society has a display at this show. Please Help with plants and set-up 20th 2 pm -7:45 pm.**

August 17 - 19 QUEENSLAND ORCHID SOCIETY at the Botanic Gardens Auditorium, Mt. Coot-tha on Friday, Saturday and Sunday, 17th to 19th August next. Good prizes can be won in a wide range of classes for SPECIES and HYBRID ORCHIDS, as well as for FLORAL ART. Setting up is on Thursday, 16th August, from 3 pm till 8 pm when judging starts. This is also a good time to see what is on offer in the PLANT SALES section of the Show.

August 25 - 26 ANOS KABI Show at Lion's Hall, Lawnton Showground, Cnr Gympie Road & Dianne Street, Lawnton

August 25 - 26 North Brisbane Orchid Society show at Mt Coot-tha auditorium Mt Coot-tha Botanic Gardens. Opening Hours Saturday 8:30am-4pm & Sunday 9am-4pm

August 25 - 26 Logan & District Orchid Society at Logan Central Community Centre

August 29 - September 1 Redcliffe District Orchid Society at Peninsular Fair,Kippa-Ring

September 1-2 Beaudesert Districts Orchid & Foliage at Anglican Church Hall Albert Street Beaudesert

September 1-2 West Brisbane Orchid Society show at Mt Coot-tha auditorium Mt Coot-tha Botanic Gardens.

September 8-9 Orchid Species Society show at Mt Coot-tha auditorium Mt Coot-tha Botanic Gardens.

Trading Post—Wanted to Buy or Wanted to Sell

Wanted to buy.

Cattleya rex Cattleya mooreana
Cattleya gigas (warszewiczii) Cattleya dowiana
Juergen Heindke M.0417-021789 H. 02-66286356

To have your items in next month's issue either see Greg at the meeting or send the details to editor@orchidspeciessoc.org

Pepe Portilla's of Ecuagenera Orchids Nursery, Ecuador, visit

President Brian expresses his appreciation to all members who contributed their time and resources to make the four days of Pepe's visit to Brisbane a success. Eighty-eight enthusiastic and interested persons attended his lecture on Saturday Night travelling from Northern NSW, Toowoomba and surrounding districts of Brisbane. One could feel proud of the fellowship and spirit of friendship shown by all who attended.

Species Orchid Care.

If for some unexpected reason you cannot look after your orchids due to ill health, feel free to contact a committee member. The committee will then try to find someone in your vicinity who would be willing to temporarily help keep your orchids growing till you are well or other arrangements can be made.

Neolauchea pulchella Kraenzl. By Michael Zink

This quaint little miniature is endemic to the state of Parana, and down the mountainous areas leading to the Rio Grande Do Sol in southern Brazil.It occurs at moderate to high altitudes growing in oak forests as well as other native timbers, in my culture, I find it grows well on callistemon viminalis(Bottlebrush) although there is no reason to suggest that it wouldnt do equally as well on other species in the genus or related genera, as I also have it growing on a slab of bark from Eucalyptus leucoxylon var macrocarpa (pink flowering Ironbark).The name Neolauchea has been a difficult one to decipher,Kraenzlin first described the species in 1897 and it was unclear as to whether he named the plant in honour of Lauche, or after the Spanish Laucha* (mouse) in reference to its hairy pseudobulb and singular terete and coriaceous (leather like) leaf, or the Spanish Lauchea (struggling) as the plant is somewhat difficult to establish(*1).The prefix Neo of course means new, and pulchella translated into English means beautiful. After a reasonable investigation and the help of a colleage, it was discovered that the plant was indeed named after Lauche, director of the Liechtenstein Botanical Gardens. It is a monotypic, creeping species which enjoys plenty of room to move, so its best to pick a mount large enough (almost to the point of looking ridiculous) to accommodate at least 5 years growth.Plants enjoy abundant moisture all year round and this only being withheld on the coldest of days. 50-80% shade is adequate, and good air movement is also recommended. Once established,this species is fast growing and easily maintained and will reward the grower with an abundance of its small but brilliant purple flowers.

Neolauchea pulchella Kraenzl.

* Oxford Spanish Dictionary 1997
(*1) Orchids of the World (Hodgson/Paine/Anderson).

PLANT COMMENTARY Gary Yong Gee

Rarely do I go to one of our Society meetings and not see something new, or that has never been benched previously. New timers included our Australian native *Oxysepala windsorensis* [syn. *Bulb. windsorense*] and *Urochilus sanguineus* [syn. *Pterostylis sanguinea*]. The former plant had a couple of small cream-yellow spiders nestled at the rhizome and the latter was a first-flowering seedling, which had a reddish-orange hooded bloom on a short stem. Although found in the Brisbane region, a small pot of *Acianthus fornicatus* was shown for the first time. The small transparent flowers resemble mosquitoes and are pollinated by tiny gnats that are attracted to the labellum nectar. A colourful example of *L. anceps* subsp. *dawsonii* fma. *chilapensis* was shown with a single flower. This choice form has broad segments on large flowers that have darker-tipped petals and a velvety purple lip.

Urochilus sanguineus (D.L.Jones & M.A.Clem.) D.L.Jones & M.A.Clem.

For the time being, I have adopted the name *Monanthus erectifolius* for the *Monanthus* species [syn. *Dendrobium* sp.] from East Arwin, Papua New Guinea. This species sporadically produces dark red-brown flowers along its fine leafy stems.

I believe that that the plant shown as *Cirrhopetalum makoyanum* was *Cirr. brevibrachiatum*. In additon, there was a lovely mounted specimen of *Cirr. skeatianum* with half daisy-like umbels of brilliant yellow marked with red-purple stripes near the centre. In the past, I have incorrectly identified this species as *Cirr. retusiusculum*. I have keyed out the unidentified *Bulbophyllum* from section *Careyana* [sect. *Racemosae*], with small clustered red-speckled yellow flowers as *Bulb. sichyobulbon*.

Well-flowered specimens were *Octomeria grandiflora* and *Ceratostylis senilis*, which were both dotted with crystalline cream-white amongst the foliage. A compact pot of *Hoffmannseggella fournieri* was also blanketed with white, whilst a clean plant of *Dendrochilum javieri* radiated with brilliant yellow chains. If not grown with sufficient water and good air circulation during summer, the leaf tips of *Ddc. javieri* often die-back and become black. The potful of *Diplodium alveatum* with 5 dark green hoods on tall stems was benched last month, which shows how long the flowers last. *Mobilabium hamatum*, another of our Aussie natives carried a stack of sprays of pale yellow blooms.

Monanthos erectifolius (J.J.Sm.)

With the short time remaining at the end of the meeting, I selected a range of the tabled species for some comments. Plant of Interest for June was Brian and Lynn Ross' *Dendrobium fytchianum*. The leafless, dead-looking stems sported a cluster of about 10 glistening snow-white full-shaped blooms. I had only seen photographs of this species previously and was intrigued to see the yellowish hairs on the lip. Cultural Plant of the Month was Michael Zink's gorgeous specimen of *Neolauchea pulchella*. Michael's plant was growing on hardwood and dotted throughout with iridescent violet-red.

CYPRIPEDIOIDEAE

Paphiopedilum gratrixianum (Masters) Rolfe

COELOGYNEAE

Dendrochilum cobbianum Rchb.f. [2]
Ddc. convallariaeforme Schauer var. *convallariaeforme* [2]
Ddc. convallariaeforme var. *convallariaeforme* fma. *aureum* [2]
Ddc. javieri Magrath, Bulmer & I.Shafer [4]
Ddc. longifolium Rchb.f. [2]
Ddc. uncatum Rchb.f. var. *uncatum* [2]

CYMBIDIEAE

Galeandra dives Rchb.f. & Warsz.

DENDROBIEAE

Bulbophyllum lasiochilum Parish & Rchb.f.
Bulb. sichyobulbon Parish & Rchb.f.
Chromatotriccum subclausum (Rolfe) M.A.Clem. & D.L.Jones [syn. *Den. subclausum* Rolfe]
Monanthos erectifolius (J.J.Sm.) Rauschert
Mth. malbrownii (Dockr.) Rauschert [1, 8]
Oxysepala schilleriana (Rchb.f.) D.L.Jones & M.A.Clem. [syn. *Bulb. schillerianum* Rchb.f.] [1, 9]

Cirrhopetalum brevibrachiatum Schltr. [3, 5]
Cirr. skeatianum (Ridl.) Rolfe [6]
Davejonesia prenticei (F.Muell.) M.A.Clem. [syn. *Den. prenticei* (F.Muell.) Nicholls] [1, 2]
Dendrobium fytchianum Bateman [7]
Den. lancifolium A.Rich.
Den. oligophyllum Gagnep.
Oxysepala windsorensis (B.Gray & D.L.Jones) D.L.Jones & M.A.Clem. [syn. *Bulb. windsorense* B.Gray & D.L.Jones] [1, 3]
Sayeria alexandrae (Schltr.) Rauschert [syn. *Den. alexandrae* Schltr.]
Stilbophyllum toressae (F.M.Bailey) M.A.Clem. & D.L.Jones [*Den. toressae* (F.M.Bailey) Dockrill] [1]

EPIDENDREAE

Acianthera alligatorifera (Rchb.f.) Pridgeon & M.W.Chase [syn. *Pths. alligatorifera* Rchb.f.]
Barkeria lindleyana Bateman ex Lindl.
Bark. whartoniana (C.Schweinf.) Soto Arenos [10]
Cattleya forbesii Lindl.
C. loddigesii Lindl. [2]

EPIDENDREAE (cont.)

C. walkeriana Gardner [2, 11]
Epidendrum calanthum Rchb.f. & Warsz.
Epi. coriifolium Lindl. [2, 12]
Hoffmannseggella fournieri (Cogn.) Chiron & V.P.Castro
Laelia anceps Lindl. subsp. *anceps* 'Wallbrun' [2, 3]
L. anceps subsp. *dawsonii* Rolfe fma. *chilapensis* Soto Arenas [2, 3]
Neolauchea pulchella Kraenzl.
Octomeria grandiflora Lindl. [2]
Pleurothallis stricta Luer [13]
Prosthechea cochleata (L.) W.E.Higgins
Psh. garciana (Garay & Dunst.) W.E.Higgins [2]
Psh. glumacea (Lindl.) W.E.Higgins [2, 14]
Sophronitis cernua Lindl.
Specklinia hypnicola (Lindl.) F.Barros [syn. *Pths. hypnicola* Lindl.]
Zootrophion atropurpureum (Lindl.) Luer [15]

ONCIDIEAE

Aspasia psittacina (Rchb.f.) Rchb.f. [16]
Brasilidium forbesii (Hook.) Campacci [syn. *Onc. forbesii* Hook.]
Oncidium hyphaematicum Rchb.f. [2]
Onc. maculatum (Lindl.) Lindl. [2]

VANDEAE

Aërangis citrata (Thouars) Schltr. [17]
Gastrochilus acutifolius (Lindl.) Kuntze [2]
Mobilabium hamatum Rupp [1, 2]
Pelatantheria insectifera (Rchb.f.) Ridl.
Trichoglottis geminata (Teijsm. & Binn.) J.J.Sm. [2, 18]
Vanda denisoniana Benson & Rchb.f. var. *hebraica* Rchb.f. [2]
V. lamellata Lindl. var. *boxallii* Rchb.f. [2]
V. lamellata var. *remediosae* Ames & Quisumb. [2, 19]
V. suavis Lindl. [syn. *V. tricolor* Lindl. var. *suavis*] [2]

OTHER TRIBES

Acianthus fornicatus R.Br. [1, 3, 20]
Ceratostylis retisquama Rchb.f.
Css. senilis Rchb.f.
Cestichis condylobulbon (Rchb.f.) M.A.Clem. & D.L.Jones[syn. *Liparis condylobulbon* Rchb.f.] [1, 2]
Diplodium alveatum (Garnet) D.L.Jones & M.A.Clem. [syn. *Pterostylis alveata* Garnet] [1]
Dpl. reflexum (R.Br.) D.L.Jones & M.A.Clem. [syn. *Ptst. reflexa* R.Br.] [1]
Dpl. sp. aff. *longipetalum* [syn. *Ptst.* sp. aff. *longipetala*] [1]
Lycaste candida Lindl. ex Rchb.f. [2]
Polystachya piersii P.J.Cribb [2]
Taurantha ophioglossa (R.Br.) D.L.Jones & M.A.Clem. [syn. *Ptst. ophioglossa* R.Br.] [1]
Urochilus sanguineus (D.L.Jones & M.A.Clem.) D.L.Jones & M.A.Clem. [syn. *Ptst. sanguinea* D.L.Jones & M.A.Clem.] [1, 3]

NOTES:

1. Australian native orchid
2. Scented. I would welcome comments from readers who know of species having scents when I have not shown them to be scented.

3. Species or colour form not shown previously at our Society meeting.

4. ***Dendrochilum javieri*** **Magrath, Bulmer & I.Shafer** was described by Lawrence Magrath, Glenn Bulmer and Ingrid Shafer as *Ddc. javierense* in *Lindleyana* in 1989. The authors named it in honour of Elias Javier, a Filipino orchid nurseryman who first collected the type plant in 1983 and provided the location and habitat information for this species. Jim Cootes corrected the typographical error to *Ddc. javieri*, in *The Orchids of the Philippines* in 2001. The Latin suffix *–ense* (origin) alludes to a locality or place of origin.

Dendrochilum javieri Magrath, Bulmer & I.Shafer

Ddc. javieri is a tufted plant with clustered, tapered terete to spindle-shaped pseudobulbs that are 20-43 mm long and 3-6 mm diameter. The pseudobulbs are longitudinally ridged when dry and are initially covered with about 4 tubular sheaths that soon dry and disintegrate into persistent fibres. At the apex of each pseudobulb is a linear acute leaf that is 20-23 cm long and 7-9 mm broad. The dark green flat leaves are rigid with 5 distinct longitudinal veins.

The inflorescence of *Ddc. javieri* is produced with the newly developing growth. It is enclosed by the subtending leaf for about a quarter of its length at the time of flowering. The suberect peduncle is 17.5-21.5 cm long with a nodding rachis carrying 15 to many flowers. Alternating in two ranks, the densely arranged flowers open widely and are 10-12 mm across. Each flower is subtended by a broadly ovate acute bract. The flowers are greenish yellow to bright sulphur-yellow and begin to open from the base of the rachis. Lasting for about 3 weeks the flowers open quickly in succession so that all the flowers are open at one time.

Endemic to the Philippines, *Ddc. javieri* is restricted to the mountains of Nueva Ecija and Nueva Vizcaya provinces of central Luzon. It grows in cloud forests on moss-covered tree branches in bright light between 1,200-2,400 m altitude. In this environment the new leaves often develop a bronze or reddish colour, before maturing to dark green.

Ddc. javieri appears to be easy to grow and flower in the southeast Queensland region. It will quickly develop into a specimen plant if conditions are to its liking. Grow it under 70% shade using any well-drained medium and keep it evenly moist. Take care not to overpot this species, using a pot that is just big enough to contain the root system. During the warmer months high humidity, plenty of water and good air circulation are important. *Dchlm. javieri* should never be allowed to dry out otherwise the leaf tips die back and become black. Magrath et al. (1989) indicate that temperatures in the habitat where this species grows range between 12-35 ^{o}C.

Cirrhopetalum brevibrachiatum Schltr.

[1] ***Cirrhopetalum brevibrachiatum*** **Schltr.** was described by Rudolf Schlechter in *Feddes, Repertorium Specierum Novarum, Beihefte* in 1911. The specific epithet was derived from the Lati *brevis* (short) and *brachiatus* (provided with arms) for the stelidia at the column apex.

Cirr. brevibrachiatum is an epiphytic plant that has pseudobulbs borne along a creeping rhizome up to 3 cm apart. The rounded pseudobulbs are about 1 cm in diameter with a single apical leaf. The oblong-ovate, dark green leathery leaf is up to 12 cm long and 2 cm broad. Basal inflorescences that are up to 15 cm long are produced from the recently matured pseudobulbs. Borne in an umbel, the raceme carries 9-12 radiating flowers at the apex. The long flowers are about 6 mm broad and 4 cm long. Their pale yellow to cream yellow lateral sepals are liberally speckled with pale red, more prominently in the basal half. The yellow dorsal sepal and petals are margined with red hairs. Variable in colour, the hinged lip is yellow and may be marked with red, mostly in the apical half.

Cirrhopetalum skeatianum (Ridl.) Rolfe

Distributed in the Celebes and Luzon, the Philippines, *Cirr. brevibrachiatum* is found between 500-1,400 m altitude. A warm- to intermediate-growing species, *Cirr. brevibrachiatum* seems to grow well with a winter minimum of 12 ^{o}C. Shallow saucers, trays or baskets with a well-drained medium seem to be suitable containers to accommodate the creeping growth habit. Alternatively plants can be mounted on tree fern, cork bark or hardwood but may need daily watering or misting during the warmer months. Maintain high humidity and water it regularly as it shouldn't be allowed to remain dry for long periods.

[2] ***Cirrhopetalum skeatianum*** **(Ridl.) Garay, Hamer & Siegerist** was first described by Henry Ridley as ***Bulbophyllum skeatianum*** **Ridl.** in the *Journal of the Federated Malay States Museums* in 1915. The specific epithet honours Skeat. Leslie Garay, Fritz Hamer and Emly Siegerist transferred this species to

Cirrhopetalum in the *Nordic Journal of Botany* in 1994.

I had incorrectly identified this taxon as ***Bulb. retusiusculum* Rchb.f.** and discussed this species under that name in the August 1999 issue of this *Bulletin*. Jaap Vermeulen (pers. email) is treating ***Cirr. tigridum* (Hance) Rolfe** within the *Cirr. skeatianum* complex, pending further studies. Gunnar Seidenfaden (1973) distinguished *Cirr. tigridum* by the smaller plant with smaller flowers, together with other features.

Cirr. skeatianum has elongate-ovoid to pear-shaped pseudobulbs that are borne along a creeping rhizome at 1-2 cm intervals. The pseudobulbs are 1-3 cm high and about 1 cm in diameter with a single apical leaf. The single lanceolate leaf is narrowed at the base and 6.5-11 cm long and 1-2 cm broad. Sometimes the leaves may be purplish on the underside. Slender purplish inflorescences that are 6-10 cm long are produced from the base of the recently matured pseudobulbs. The apex of the raceme bears 10-13 (-19) showy flowers in a fan at about the height of the leaves.

Variable in colour, the flowers of *Cirr. skeatianum* have bright yellow, orange-yellow to orange-red lateral sepals that are (11-) 18-20 mm long. Its yellow dorsal sepal and petals are suffused and striped with 3 red-purple veins and also edged with the same colour. The hinged tongue-shaped, channelled yellow lip may be tipped with crimson.

Endemic in Malaya, *Cirr. skeatianum* is common on the ridge of Gunung Tahan and has been found in the Cameron Highlands, Lubok Tamang, Pahand and Gunung Padang and Terengganu. Further studies may extend the range of the distribution. *Cirr. skeatianum* is an intermediate-growing species that requires a shallow tray, saucer or basket with a well-drained medium. Alternatively, plants can be mounted on tree fern, cork bark or hardwood. Water it regularly and maintain high humidity during the warmer months and while it is growing. Mounted plants may need daily watering or misting during the summer. Give it a slightly drier rest in winter, but do not allow it to remain dry for long periods.

[3] ***Dendrobium fytchianum* Bateman** was discovered by Rev. Charles Parish in Moulmein, then Burma in 1863. James Bateman described this species in the *Gardeners' Chronicle* in 1864. The specific epithet honours Colonel Fytch, who accompanied Parish at the time of the discovery.

Dendrobium fytchianum Bateman

Den. fytchianum is an epiphytic plant that has slender cylindrical, upright to spreading stems that are 30-55 cm long. The stems may rarely branch and bear many leaves along the length. Lance-shaped, the deciduous leaves are 8-10 cm long and are shed at the end of the growing season. Upright to arching inflorescences that are up to 20 cm long are produced from the apex of the recently matured stem. The raceme bears 5-15 showy flowers towards the apex. Lasting several weeks, the unscented flowers are 3-5 cm across. The flowers are white with a tuft of pale yellowish hairs at the base of the lip. In addition, the inner surface of the base of the throat and side-lobes of the lip are tinted rose to crimson or rosy purple. *Den. fytchianum* fma. *roseum* has rose-coloured flowers.

Distributed in Myanmar, *Den. fytchianum* grows in exposed habitats at low altitude on trees often overhanging rivers. In its natural habitat, this species experiences plenty of rain and dew during the growing season. Bill Lavarack et al. (2000) say that this species requires warm conditions with a slightly drier resting period in winter, although it shouldn't be kept dry for long periods. They recommend misting between watering to keep humidity levels high. Plants grow well in a small pot with a well-drained medium or on a slab in bright filtered light.

[4] ***Monanthos malbrownii* (Dockr.) Rauschert** was first described by Alick Dockrill as ***Dendrobium malbrownii* Dockr.** in *Australian Plants* in 1967. Dockrill named this species after Malcolm Brown, the discoverer and collector of the type material. Stephan Rauschert transferred it to *Monanthos* in Feddes, *Repertorium Specierum Novarum, Beihefte* in 1983.

Monanthos malbrownii (Dockr.)

Mth. malbrownii forms grass-like clumps and has clusters of thin leafy, semi-erect or arching wiry stems that are 12-35 cm long. There are 10-30 thin, linear dark green leaves that are 3-6 cm long and 2-3 mm broad, which are borne in two ranks along the greater part of the slender stems. One or a few very short inflorescences from the upper nodes of the leafy stem bear individual flowers. The non-resupinate flowers are about 8 mm across and are held close to the stem. The sepals and petals are cream, greenish cream to cream-yellow with the lip and column a contrasting deep purple to almost dark brown. The mid-lobe of the lip is yellow. Although the flowers last about two or three days, flowering occurs sporadically throughout the year with summer to autumn being the main flowering period.

Mth. malbrownii is an Australian native orchid that is found on the McIlwraith Range in Cape York Peninsula where it is common. It grows on trees in rainforest at low or moderate altitudes from 400 m elevation and above. Usually it is found on the upper branches of trees where it receives fairly intense light conditions. *Mth. malbrownii* can also be

found on lower branches that overhang creeks or towards the forest edge. Alick Dockrill, Andreé Millar (1978) and Howard Wood (2006) report that *Mth. malbrownii* is also found in western coastal Papua New Guinea.

Coming as it does from relatively low altitude, *Mth. malbrownii* requires warm humid conditions. A winter minimum of 10-12 ^{o}C is recommended, otherwise leaf drop may occur. Shading of 50-70% and a well drained, yet moisture retentive medium suits it well. Plants need to be kept evenly moist at all times of the year. Wal Upton says that slab culture suits it best and that plenty of water is required throughout the year, particularly if grown on slabs.

[5] ***Oxysepala schilleriana* (Rchb.f.) D.L.Jones & M.A.Clem.** was first described by Heinrich Gustav Reichenbach as ***Bulbophyllum schillerianum* Rchb.f.** in *Hamburgher Garten Blumenzeitung* in 1860. The specific epithet honours the orchid collector Consul Schiller. This species has been well known under Ferdinand von Mueller's later name of ***Bulb. aurantiacum* F.Muell.**, which was published 2 years later in *Fragmenta Phytographiae Australiae*.

Oxysepala schilleriana (Rchb.f.) D.L.Jones & M.A.Clem.

Recent morphological and molecular studies show that the generic limits of *Bulbophyllum* need to be reviewed. Based upon these studies, David Jones and Mark Clements transferred *Bulb. schilleriana* to the resurrected genus *Oxysepala* Wight in the *Orchadian* in April 2002. The generic name was derived from the Greek *oxys* (sharp) and *sepala* (sepals).

Oys. schilleriana is generally seen as a plant with the base of the rhizome creeping along branches with the remainder pendulous and covered in dried greyish bracts. Usually the plant consists of a small bunch of sparsely branched pendulous rhizomes that are 10-30 cm long, with the pseudobulbs not very close together. Shaped somewhat like a turnip, the small inconspicuous, yellow green to dark green pseudobulbs are 3-9 mm long and 3-4 mm in diameter. Extremely variable, the single succulent pale green to dark green leaves are 1.5-2.5 (-10) cm long and 1.5-2.5 cm across. The leaves may be broad and flat, narrow and flat or short, very thick and channelled on top and almost indistinguishable from those of *Oys. shepherdii*.

Occasionally, inflorescences may be solitary though they are usually produced in bunches of up to 10 and are 3-4 mm long. The flowers of *Oys. schilleriana* do not open widely and are 2-3 mm across and 3-7 mm long. Narrow and thick, the blunt waxy sepals are generally cream to white or pale green in the basal half with the remainder pale or dark orange to reddish, though sometimes without the orange colour. The tiny petals are colourless and the labellum is deep orange. David Jones (1998) says that this species is easy and rewarding to grow and that the flower colour is highly variable.

Oys. schilleriana is one of our Australian native orchids that occurs from the Fitzroy River to the Endeavour river in north Queensland to as far south as the Hunter River in central New South Wales. It is found on trees or occasionally on rocks, from mangroves to the cloud forests between 100-1,250 m altitude. Generally *Oys. schilleriana* grows in shaded areas but can be found in a wide variety of light situations. Flowering occurs during any month of the year with the main period being from April till July.

A warm- to intermediate-growing species, *Oys. schilleriana* is best mounted on hardwood or a slab of cork bark or tree fern. Grow it in bright light such as around 70% shade and maintain high humidity with good air circulation. Water it regularly year round, as it shouldn't be allowed to remain dry for long periods.

[6] ***Barkeria whartoniana* (C.Schweinf.) Soto Arenas** was first described by Charles Schweinfurth as *Epidendrum whartonianum* the *American Orchid Society Bulletin* in 1948. Miguel Soto Arenas transferred this species to *Barkeria* in in *Orquidea* (Méx.) in 1993. *Bark. whartoniana* has been incorrectly labelled in cultivation as ***Bark. melanocaulon* A.Rich. & Galeotti**. Many seedlings of *Bark. melanocaulon* available from Australian sources have been sold under the latter name. *Bark. melanocaulon* is a different species, which has the lip pressed up against the underside of the column. *Bark. whartoniana* is characterised by the column, which is set at an angle away from the lip.

Barkeria whartoniana (C.Schweinf.) Soto Arenos

Bark. whartoniana is an epiphytic or rock growing plant that has thickened slightly compressed cylindrical stems that are 7-24 cm long and 4.5-10 mm in diameter. Cane-like, the stems consist of 3-5 internodes and produce thick fleshy, long terete roots near the base, which often seem to remain aerial. The stems bear 4-7 sword-shaped to narrowly ovate or lanceolate leaves in two ranks. Deciduous after the first season, the leaves are 4.5-12.5 cm long and 18-28 mm broad. A simple inflorescence or panicle with up to 5 branches is produced from the apex of the recently matured stem. Each branch bears 2-15 long-lived showy flowers that are 19-36 mm in diameter, which are not scented. The buds open gradually in succession, so that several blooms are open on each branch at one time. Thus, the flowering season may last up to 6 months.

The reflexed sepals and petals of *Bark. whartoniana* are similar and are pale to dark mauve to pink-lilac. Its lip sits beneath the cream-yellow to greenish-cream column, which is also flushed mauve and heavily marked, blotched and spotted red to purple. The lip is similarly coloured like the sepals and petals and is usually pale pink with a darker apex and has three bright yellow keels along the centre. In addition, the lip has broken lines of red to purple towards the apex.

Bark. whartoniana is rare in the wild and is endemic to the Pacific slope of Tehuantepec Isthmus, Mexico. It is found in tropical deciduous forest that is hot, dry and windy during spring between 150-200 m elevation. Plants grow upon rocks and are rarely epiphytic.

In keeping with its natural habitat, *Bark. whartoniana* is best grown on a cork slab or hardwood mount. Alternatively it can be grown in an open weave basket or pot using a coarse, open medium. Its roots must never be kept soggy or wet, as it prefers a wet-dry cycle. Shading of 50-70% and good air circulation is required at all times. During the growing period plants can be frequently watered after the roots dry. Plants can also be fertilised regularly with a liquid fertiliser when in growth. Watering needs to be reduced once the leaves have been shed. A winter minimum of 10 ^{o}C is recommended with overhead protection to keep plants dry.

[7] ***Cattleya walkeriana* Gardner** is a showy and popular species in cultivation, with numerous line-bred plants that have been raised from seed. George Gardner discovered this species around 1839 or 1840 in Bahia State, Brazil and described it in the *London Journal of Botany* in 1843. He named it after his friend Edward Walker, who collected the type and accompanied him on his two year travel in Brazil.

Cattleya walkeriana Gardner

C. walkeriana is an epiphytic or lithophytic plant with bulbous or short spindle-shaped pseudobulbs that are borne along a creeping rhizome. The pseudobulbs are variable in length and are 3-9 (-15) cm long and 12-20 mm broad with a single leaf at the apex, rarely two. Leathery and elliptic, the leaves are 4.5-10 cm long and 2.8-4 (-5) cm broad with rounded apices. Short inflorescences, which are specialised growths are produced from the base of the recently formed pseudobulbs. The flower stems are 2.5-7 cm long and carry 1-2 (rarely 3-5) showy flowers that are very sweetly scented. Long-lived, the flowers last for up to 6 weeks.

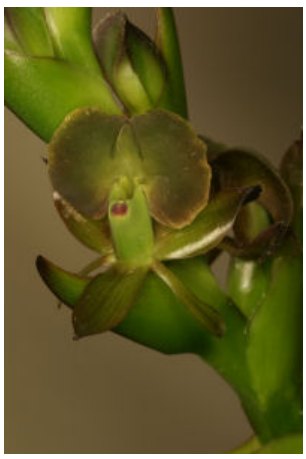
Jack Fowlie reduced *C. bulbosa* Lindl. to a variety of *C. walkeriana* in his *Brazilian Bifoliate Cattleyas and Their Color Varieties* in 1977. ***C. walkeriana* var. *bulbosa* (Lindl.) Fowlie** is a short-pseudobulbous race with squat ellipsoid pseudobulbs that are 3-4.5 cm long. The flowers are deeper coloured than var. *walkeriana*, and have a deep crimson-lavender mid-lobe. When grown under bright light the pseudobulbs and leaves are usually flushed with red-purple.

The flowers of *C. walkeriana* are 8-10 (-12) cm across and are variable in colour. Flowering occurs in autumn and sometimes again in spring. Mostly the sepals and petals are bright rose-purple to pale lilac-pink. Its lip is of the same colour with a white to pale yellow disc veined longitudinally with purple and a broad amethyst-purple mid-lobe. Other colour forms include fma. *alba* Hort., which has white flowers with a yellowish disc; fma. *coerulea* Hort. with violet-blue flowers that have a yellowish disc and a darker violet-blue mid-lobe; and fma. *semi-alba* Hort., which has white flowers with a yellowish disc and a pink-veined to amethyst-red mid-lobe.

Endemic to Brazil, *C. walkeriana* is distributed in the states of Goiás, Distrito Federal, Minas Gerais and Matto Grosso and is found in three different habitats between 900-1,900 m. In the Cerrado habitat plants grow epiphytically on trees near streams and on the limestone outcrop Pedreira habitat they are found growing on large mature trees. At the high elevation Chapada habitat, *C. walkeriana* grows on granite in full sun. Plants are exposed to bright light, including full sunlight for short periods. Cloud mist and light rain ensures that the plants are watered at frequent intervals.

Easy to grow and flower in the southeast Queensland region, *C. walkeriana* requires a well-drained medium, bright light and good air circulation. Plants can be grown in pots, trays or baskets and also mounted on cork bark or hardwood. Mist or water frequently during the warmer months and give it a drier winter rest. I would recommend a winter minimum of 10 ^{o}C, but this species does not seem to mind lower temperatures for short periods provided that the leaves are dry at night.

[8] ***Epidendrum coriifolium* Lindl.** was described by John Lindley in the *Journal of the Horticultural Society, London* in 1851. The specific epithet comes from the Latin *corium* (skin, rind, covering) and *folium* (leaf) for the thick leathery leaves.



Epidendrum coriifolium Lindl.

An epiphytic or lithophytic plant, *Epi. coriifolium* has clustered strongly compressed cane-like stems that are 12-25 cm long and 4-8 mm in diameter. The upright stems bear 4-9 alternating two-ranked leaves along the upper three-quarters. The narrowly

sword-shaped to semiterete, grooved rigid leathery leaves are 7-19 cm long and 5-13 (-15) mm broad. An inflorescence that 11-19 cm long is produced from the apex of the recently matured stem, which carries 4-10 flowers. Opening gradually in succession from the base of the rachis, the raceme usually has 3-6 (-8) flowers open at one time.

Fragrant at night, the flowers of *Epi. coriifolium* are non-resupinate so that the lip always faces the rachis. Each flower is 2.5-3 cm across and is subtended by a prominent keeled green bract that is much longer than the ovary. Variable in colour, the greenish to yellow-green flowers are usually tinged purple to brown.

Epi. coriifolium is distributed in Costa Rica and western Panama. It grows on trees in seasonally wet forests and in partial shade on rocks in grasslands between 900-1,800 m altitude. Reports of this species from other areas refer to closely related taxa that have previously been treated within a broadly defined species complex. Other related taxa can be distinguished by their growth habit and floral characteristics.

An intermediate-growing species, *Epi. coriifolium* can be grown under about 70% shade, with a recommended summer maximum of 30 ^{o}C. Grow it in a small pot or basket with a well-drained medium. Maintain high humidity and water it regularly during the warmer months. Watering frequency should be reduced during the cooler months, while it is not actively growing. Plants will still need occasional misting or watering on sunny mornings during winter to prevent the leaves from shrivelling.

9 ***Pleurothallis stricta* Luer** was described by Carlyle Luer in *Selbyana* in 1979. The specific epithet is derived from the Latin *strictus* (straight) for the upright inflorescences.

Pleurothallis stricta

Pths. stricta is a medium-sized plant that has slender erect ramicauls (pleurothallid stems) that are 3-12 cm long. The ramicauls are enclosed by closely fitting tubular sheaths and have a single leaf at the apex. The leathery elliptic-ovate leaf is 5-9.5 cm long and 1.8-2.7 cm broad. Its erect few- to several-flowered inflorescence is 5-16 cm long and emerges from a sheath at the ramicaul apex. The flowers are loosely spaced in two ranks along the rachis and open simultaneously.

The yellowish sepals are heavily overlaid with purple especially along the veins and the purple petals have a yellow margin. Its thick lip is dull tan suffused with purple and the stout column is purple. The dorsal sepal of *Pths. stricta* is acuminate, the synsepal (joined lateral sepals) are narrowly triangular and the elliptic petals have a serrate margin.

Distributed occasionally in the Andes of Colombia and Ecuador, *Pths. stricta* is found between 1,800-2,500 m altitude. Grow this species under 80% shade in a small pot using a well-drained medium. Ensure that the pot is not too large and is just big enough to contain the fine roots. Keep the potting medium evenly moist at all times, since *Pths. stricta* should never be allowed to dry out. Plants will also grow well mounted on tree fern if high humidity can be maintained and regular watering can be given during the warmer months. During summer ensure that there is also good air circulation around the plant at all times. This is particularly important during our very hot months otherwise the leaves will develop black spots from heat stress. Plants grow best with a summer maximum of 28 ^{o}C.

10 ***Prosthechea glumacea* (Lindl.) W.E.Higgins** was discovered in 1837 by George Gardner in the Brazilian state of Pernambuco on Pedro-Bonito Mountain. Messrs. Rollissons and also Messrs. Loddiges of Hackney soon introduced it to cultivation in England. John Lindley first described it as *Epidendrum glumaceum* in the *Botanical Register* in 1840. Lindley gave it the specific epithet from the Latin *glumaceus* (glumaceous, like the glumes of grasses) for the long brownish, sharp pointed sheath that resemble the glumes of grasses, from which the inflorescence emerges.

Prosthechea glumacea (Lindl.) W.E.H

Guido Pabst transferred this species to *Encyclia* Hook. as ***Encyclia glumacea* (Lindl.) Pabst** in *Orquidea* in 1967. More recently, Wesley Higgins transferred this species to *Prosthechea* Knowles & Westcott in *Phytologia* in 1997.

Prosthechea is distinguished from *Encyclia* and *Dinema* by both plant and flower characteristics. *Prosthechea* has spindle-shaped pseudobulbs that are often flattened, with 1-5 thin leaves at the apex. Racemose inflorescences emerge from a prominent spathe and the flowers are usually non-resupinate. The lip is joined from the base to about half way on the underside of the column. Unlike *Encyclia*, which has a callus of two fleshy ridges the callus of *Prosthechea* consists of a thick pad. Its wingless column is usually enlarged on one side and is deltoid, subquadrate or somewhat fan-shaped and sometimes fimbriate. Glycoside crystals are found throughout the plant and flower. These crystals precipitate out as a milky cloud when the flower is preserved in ethanol.

Psh. glumacea has compressed pear-shaped pseudobulbs that are clustered together and borne along a short, stout ascending rhizome. The pseudobulbs are 6-8 cm long and 1-2 cm broad and bear two (sometimes three) apical leaves. Oblong-lanceolate, the thinly leathery leaves are 10-20 cm long and 2-3 cm wide. Erect racemes that are up to 15 cm

long are produced from a dried brown sheath at the apex of the recently matured pseudobulb. The raceme bears 6-15 non-resupinate flowers that are 3.5-5 cm across, which are scented of roses. Being non-resupinate the white, convex, acuminate lip is above the column and is streaked or veined with rose to red towards the base. The acute, linear-lanceolate sepals and petals are glistening white to cream and the petals may be sparsely flecked with pale rose on the inner surface at the base. Its column is white and may be spotted or striped with crimson and has a yellow anther cap.

Psh. glumacea is distributed in Pernambuco, Espirito Santo, São Paulo, Paraná, Santa Catharina and Rio Grande do Sul states of Brazil and Ecuador. It usually grows at low altitudes at around 50 m elevation as an epiphyte on the branches of *Vellozia candida.*

Cultivation of *Psh. glumacea* seems to be easy in the southeast Queensland area. Plants can be grown under 50-70% shade and given plenty of water during the warmer months. Regular applications of fertiliser can be given while the plant is actively growing with none during the rest period. A drier winter rest should also be provided with less water. Any well-drained potting medium can be used and *Psh. glumacea* can soon form specimen plants if conditions are ideal. Pot, saucer and basket culture will suit it well. It can also be grown mounted if good humidity with regular water and misting can be provided during the summer months.

[11] ***Zootrophion atropurpureum* (Lindl.) Luer** was first described by John Lindley as *Specklinia atropurpurea* in the *Botanical Register* in 1836. Lindley's description was based upon a plant introduced from Jamaica to the Liverpool Botanic Garden where it first flowered in cultivation. The specific epithet was derived from the Latin *atro* (dark) and *purpureus* (purple) for the colour of the flowers. Carlyle Luer transferred this species to *Zootrophion* in *Selbyana* in 1982.

Zootrophion atropurpureum (Lindl.) Luer

The genus *Zootrophion* consists of some 18 species found throughout tropical Central and South America and Jamaica at relatively low altitudes, usually below 1,500 m elevation. Luer derived the generic name from the Greek *zootrophion* (menagerie) in reference to the appearance of the flowers which look somewhat like animal heads.

Zootrophion species are often seen labelled as species of the genus *Cryptophoranthus* Barb.Rodr. Carlyle Luer considers that the type species of the latter genus (*Cryp. fenestratus* Barb.Rodr.) is a species of *Pleurothallis* section *Acianthera*. Luer established *Zootrophion* to include those species that are not related to *Cryp. fenestratus* and yet were previously referred to *Cryptophoranthus*.

Zo. atropurpureum is a medium-sized to large plant that consists of clusters of short erect ramicauls (pleurothallid stems) that are 4-7 cm long. Covered with 4-6 loose thin dry, inflated sheaths, the ramicaul bears a single apical leaf. The leathery erect elliptic to obovate-elliptic leaf is more or less suffused with purple on the underside and is 6-10 cm long and 2-3.5 cm wide. One to three successive or simultaneous, short single-flowered inflorescences are produced from the apex of the ramicaul.

The deep red-purple to deep purple-brown flower of *Zo. atropurpureum* does not open widely and is about 1.5 cm long and has an abrupt knee-like bend at the apex of the ovary. The oblong-ovate sepals are joined except for two elliptic openings between the dorsal and lateral sepals on each side, forming an eye-like opening to the animal head-like bloom. Hidden within the sepals are the tiny translucent petals that have a purple mid-vein and the dark red-purple lip.

Zo. atropurpureum is an epiphyte or rarely terrestrial plant that grows on trees, logs and banks in montane forest between 450-1,300 m altitude. This species has a disjunct distribution and is found in Jamaica, Cuba, Haiti, Dominican Republic, Hispaniola and also in southern Brazil.

Zo. atropurpureum is an intermediate-growing species that seems to be somewhat warmth tolerant and survives southeast Queensland summers. Plants require about 70-80% shade with high humidity and good air circulation. Grow it in a small container with a well-drained medium and water it regularly. Plants should never be allowed to remain dry for long periods as the ramicauls have no storage reserves.

[12] ***Aspasia psittacina* (Rchb.f.) Rchb.f.** was first described by Heinrich Gustav Reichenbach as *Odontoglossum psittacinum* in *Linnaea* in 1877. The specific epithet comes from the Latin *psittacinus* (parrot-like), probably for the green or contrasting colour of the flower. Reichenbach subsequently transferred this species to *Aspasia* in the *Gardeners' Chronicle* in 1878.

Aspasia psittacina (Rchb.f.) Rchb.f.

Asp. psittacina is an epiphytic plant that has strongly compressed, stalked oblong-ellipsoid pseudobulbs that are borne along a short rhizome. The pseudobulb is up to 12 cm long and 4 cm broad and is subtended at the base by 3-5 leafy bracts that are smaller than the leaves. At the apex of the pseudobulb are two linear-lanceolate, thin

green leaves that are up to 30 cm long and 4 cm across. Variable in length, axillary racemes are produced from the recently matured pseudobulbs. The raceme bears 3-8 congested flowers at the apex that are 3.5-4 cm across.

Distinguished by the strongly deflexed lateral sepals and 4-lobed lip, *Asp. psittacina* has clear green to pale yellow sepals and petals that are transversely banded with pale brown to red-brown. Its white lip has small pale lavender blotches in the concave depression at the apex of the callus. The column is pale green in the basal half and becomes pale brownish-rose with an off-white anther that has the frontal edge tinted purplish. David Bennett and Eric Christenson (1998) report that Ecuadorian plants of *Asp. psittacina* bear flowers that are strongly fragrant of cloves, whereas Peruvian plants instead produce a sweet musky fragrance.

Distributed in western Ecuador and Peru, *Asp. pstittacina* grows in seasonally dry tropical and moist forest with frequent nocturnal fog. Plants are often found on shade trees between 70-500 m elevation. A warm-growing species, *Asp. psittacina* requires a small container with a well-drained medium. Grow it under about 70% shade with high humidity and good air circulation. Water it regularly during the warmer months and give it a slightly drier rest during the winter. Watering or misting in the morning of sunny days during the cooler months will help prevent the pseudobulbs from shrivelling excessively. I recommend a winter minimum of 15-18 ^{o}C, however plants will tolerate lower temperatures for short periods if it not wet at night, with overhead protection.

[13] ***Aërangis citrata*** **(Thouars) Schltr.** was discovered by Aubert du Petit-Thouars in Madagascar. Thouars first described this species as *Angraecum citratum* in *Histoire Particuliere des Plantes Orchidées* in 1822. The specific epithet is from the Latin *citratus* (citron-yellow) for the colour of the flowers, however they are usually creamy-white. Rudolf Schlechter transferred this species to *Aërangis* in *Die Orchideen* in 1914.

Aërangis citrata (Thouars) Schltr.

Aërgs. citrata has a short woody stem that is up to 6 cm long and in older plants may be branched to form small clumps. Each stem bears (2-) 6-8 (-10) dark green alternating two-ranked elliptic, oblong, lanceolate or oblanceolate leaves. The thinly textured leaves are (4-) 9-12 (-16) cm long and (1-) 2.5-3.5 (-4) cm broad and are acute and unequally bilobed at the apex. Several racemes are usually produced from the axils of the leaves and are up to 30 cm long, sometimes longer. The racemes carry 12-18 (-60) flowers in two ranks at 6-10 mm intervals. All the flowers face upwards in the same plane. The fragrant flowers are variable in size and are 15-18 mm across. The blooms are uniformly pale yellow to creamy-white or white and have a crystalline surface texture. At the base of the lip, each flower has a 2.5-3 cm curved spur that is enlarged and rounded at the tip.

Aërgs. citrata is widespread from south-east through central and north-western Madagascar. Plants are found growing in humid evergreen forest from the coast at sea level to the plateau at 1,500 m altitude. It is always found growing in deep shade, close to water.

Fred Hillerman and Arthur Holst (1986) recommend potting *Aërgs. citrata*, since it is more difficult to grow on slabs than other species in the genus. Keep it moist and provide it with high humidity for most of the year. A well-drained, moisture-retentive medium will keep it happy. Shading of 80-90% and constant air movement can often produce a showy display. The plant is small but the racemes are comparatively large. Watering frequency can be reduced during the cooler months but plants should not be allowed to remain dry for long periods. I suggest a winter minimum of 12^{o}C.

[14] ***Trichoglottis geminata*** **(Teijsm. & Binn.) J.J.Sm.** was first described by Johannes Teijsmann and Simon Binnendijk as *Sarcanthus geminatus* in *Tijdschrift voor Nederlandsch-Indië* in 1867. The specific epithet is from the Latin *geminata* (doubled, paired) for the striped flowers that are usually borne in pairs. Johannes Smith transferred this species to *Trichoglottis* in *Die Orchideen von Ambon* in 1905. ***Trgl. wenzelii*** **Ames** is a later synonym for this species.

Trichoglottis geminata (Teijsm. & Binn.) J.J.Sm.

Trgl. geminata is a medium-sized plant with upright to semi-pendulous monopodial stems that are 40-100 cm, or more long. The stems bear many alternating leaves in two ranks and thick white roots at various intervals along their length. From 4-12 cm long and 17-27 mm broad, the leathery lanceolate green leaves of *Trgl. geminata* may be finely spotted or flushed with red-purple, particularly along the portion that sheaths the stem. Several short inflorescences are produced from nodes opposite the base of the leaves. The racemes bear 1-3 strongly fragrant flowers close to the stem.

Not opening widely, the flowers of *Trgl. geminata* is 1.5-2 cm across. The flowers have olive green to greenish yellow sepals and petals that are marked transversely with red-purple to maroon stripes or bars. Its white lip has a small sac or pouch at the base with a rhomboid mid-lobe. The lip is also downy on the disc with some red-purple markings on the base of the mid-lobe and the small side-lobes. The short column is winged with white-haired, yellow auricles.

Besides the Philippines, *Trgl. geminata* is also distributed in northern Borneo and Sulawesi. There is also of a report that this species may occur in Sumatra, however Jim Comber (2001) does not included it in his *Orchids of Sumatra*. In Borneo and the Philippines, *Trgl. geminata* grows in scrub as an epiphytic climber or as a lithophytic scrambler on volcanic rocks near the sea from sea level to around 200 m altitude. Plants have been recorded up to at least 1,100 m elevation.

A warm- to intermediate-growing species, *Trgl. geminata* is best grown on a long hardwood or cork bark mount. The roots that are produced from various intervals along the stem will prefer to be aerial. As the roots elongate, they can be gradually trained to attach to the mount by tying them towards the bark or hardwood as they lengthen. Grow it in bright light, such as about 70% shade with high humidity and good air circulation. Water it often during the warmer months and especially while the root tips are active and green. Give it a slightly drier winter rest and a minimum of 12 ^{o}C. Plants will still need occasional misting on sunny days during the cooler months to prevent the leaves from shrivelling.

[15] *Vanda lamellata* Lindl. var. *remediosae* Ames & Quisumb. was described by Oakes Ames and Eduardo Quisumbing in the *Philippine Journal of Science* in 1933. This variety was discovered around 1932 in Jolo, Sulu in the southern Philippines and named in honour of Mrs. Remedios C. Gonzales, orchid fancier and grower.

Vanda lamellata Lindl. var. *remediosae* Ames & Quisumb.

John Lindley first described *V. lamellata* in the *Botanical Register* in 1838 based upon a plant flowered by Messrs Loddiges from the Philippines. He gave it the specific epithet from the Latin *lamellatus* (lamellate, layers or thin plates) for the two ridges on the labellum of the flower. His description of the type had "yellow flowers stained with red."

V. lamellata has stems that are 6-30 cm long bearing linear leaves in two ranks, which are 9-33 cm long and about 1 cm wide. Erect to arching inflorescences that are 20-35 cm long carry 8-23 sweet yet faintly scented flowers, which are about 3 cm across. The flowers are quite variable in colour, with several forms or varieties that have been described. The sepals and petals often reflex and can be green, white, and cream to yellow often with brown to red-brown markings such as spots, lines, blotches and patches. The lip is white to yellow with 6 red-purple veins towards the base. Usually the mid-lobe is flushed with pink or red-purple.

Var. *remediosae* has erect stems that may be up to 75 cm long in old plants. The stems bear two-ranked short, channelled slightly curved leaves that are 13-16 cm long and 2.5-3.2 cm broad. The erect racemes are longer than the leaves, being 33-37 cm long bearing 19-23 flowers. Its flowers last for about one month and are fragrant.

The dorsal sepal and petals of *V. lamellata* var. *remediosae* are cream-white sometimes with buff-brown stripes in the basal half. The lateral sepals are cream-white to yellow with the inner half yellow-green. In addition, the lateral sepals have buff-brown stripes that coalesce on the inner half. Its cream white lip has 6 red-purple longitudinal veins on the basal half and the mid-lobe is pale pink.

V. lamellata is distributed from the Philippines to northern Borneo. It is often found on branches and trunks of trees in coastal beach forests or near waterways, often in strong light, at elevations from sea level to 100 m. In the southeast Queensland area, plants grow well under 50-70% shade with plenty of humidity and air movement at all times. Being a lowland species a winter minimum of 12 ^{o}C is recommended to keep it growing well. Some plants will even flower several times a year if conditions are to its liking.

Regular applications of fertiliser and water can be given while plants are actively growing and showing green root tips. Plants can be planted in pots or baskets in a coarse medium or even grown on slabs provided daily watering and high humidity can be maintained particularly during the warmer months. Frequency of water can be reduced during the cooler months when plants are not so active, so that a wet-dry cycle can be observed. I believe that *V. lamellata* will survive better if it can be provided with cover during winter in the Brisbane area.

[16] *Acianthus fornicatus* R.Br. was described by Robert Brown in his *Prodromus Florae Novae Hollandiae et Insulare van Diemen* in 1810. The specific epithet comes from the Latin *fornicatus* (arched) probably for the broad dorsal sepal that forms a peak over the column.

Acianthus fornicatus R.Br.

Aci. fornicatus is a deciduous terrestrial plant that forms dense vegetative colonies. Plants produce a single basal leaf that is held 1-4 cm above the ground on a fleshy stalk, from an underground tuber. The dark green heart-shaped leaf is 1-4 cm long and 1-2 cm broad and is pale reddish purple on the underside. An upright raceme is produced from the base of the leaf that is 10-30 cm tall. The raceme bears 1-10 well-spaced small flowers that are 10-14 mm long. Translucent pinkish red, the flowers usually have a green or occasionally dark purple to blackish labellum. The broad dorsal sepal hoods the column.

A widespread and common species, *Aci. fornicatus* is distributed from Gympie, southeast Queensland to near Eden, southeastern New South Wales. Plants grow near the coast in wetter eucalypt and heathy forest, rainforests and coastal scrub in well-drained sandy loam between sea level and 450 m elevation.

David Jones (2006) says that *Aci. fornicatus* is easy to grow and flower in a pot and has similar cultural requirements to *Pterostylis*. He recommends a potting mix based upon sandy loam mixed with about one third leaf mould or eucalypt shavings. The Australasian Native Orchid Society, Victorian Group's (1988) basic mix consists of 2 parts coarse sand, 1 part rich loam, 1 part buzzer chips (wood chips/shavings), 1 part leaf mould. To each 9 litre bucket of the basic mix is added 1 dessertspoonful of blood and bone and 1 dessertspoonful of garden lime or dolomite. During active growth from autumn to spring, *Aci. fornicatus* can be watered regularly to keep the mix evenly moist. An occasional, but not frequent application of dilute fertiliser solution can be given. Alternatively a small amount of organic fertiliser such as blood and bone can be added to the potting medium. After the plants die down and become dormant for the summer period the potting mix should be allowed to dry so that the tubers do not rot. At this stage I usually shift my pots away from the sprinkling area for the summer.

Annual repotting is recommended in late summer (December & January) to ensure that the plants do not become too crowded and to also renew the potting medium. Many growers like to combine some of the old media with new mix. If you are re-using some of the old media ensure that the same tubers are replanted into the same mix, in order to prevent spread of virus. The repotting stage is also a good time to sort the tubers into various sizes and separate out the larger, flowering size plants from the smaller tubers that most likely will not flower.

The photographs are by Gary Yong Gee to illustrate the Plant Commentary.

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Orchids In the News

Botanists discover rare orchid threatened by black market

KIEN GIANG — A rare species of slipper orchid, Paphiopedilum callosum, has been found in the Phu Quoc National Park in Kien Giang Province.

The discovery was made during a trek taken by Wildlife at Risk (WAR) consultants as part of an ongoing collaborative research programme between WAR and the national park that began this year.

The authors of Slipper Orchids of Viet Nam, Paphiopedilum callosum (known as Lan Van Hai in Vietnamese) said the orchid had previously been found in the central provinces of Quang Tri, Quang Nam, Thua Thien-Hue and Gia Lai-Kon Tum, usually at an altitude between 800 and 1,100m. The Phu Quoc specimen was found growing among leaf mould on a wet rocky slope just 310m above sea level.

The team came across the orchid in May during the flowering season. Illegal trade poses a continuing threat to Viet Nam's increasingly rare slipper orchids, which are highly prized by collectors. Wild populations have seriously declined in number as a result of overexploitation.

Paphiopedilum callosum is one of several endangered slipper orchids listed in a Government decision that explicitly forbids trade in the species.

This species is classified as endangered in the IUCN Red List and listed in the Appendix I of CITES (The Convention on the International Trade in Endangered Species).

This latest discovery is a further illustration of Phu Quoc National Park's ecological value and underlines the importance of protecting the island's flora and fauna from uncontrolled or poorly managed development, authorities said.

"It is hoped that the presence of this and other animal and plant rarities will generate additional support for the park authorities in the management and protection of the forest and the valuable natural resources that it harbours," WAR said in a press release. — VNS vietnamnews.vnagency.com.vn

Orchids In the News

Wind farm relocates to save rare orchid

Posted Tue Jul 3, 2007 12:37pm AEST

A wind farm proposed for a property near Kalbarri, in Western Australia's mid west, will moved to a new site to protect a rare species of orchid.

Verve Energy says it has moved the location of two wind turbines 150 metres away on to cleared land where the orchid does not grow.

It is building a road to access the site and will then work on the foundations for the turbines which will be installed in September.

The wind farm was due to be operating by the middle of this year.

It is being built as a back-up for the town's irregular electricity supply from the south-west grid. http://abc.net.au/news/stories/2007/07/03/1968526.htm