



THE MONTHLY BULLETIN OF THE KU-RING-GAI ORCHID SOCIETY INC.

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Next Meeting : Mon 16th March 2026

Venue : *The West Lindfield Community Hall, corner of Bradfield Rd and Moore Avenue, West Lindfield.*

Infectious diseases like COVID and influenza cause a problem. **If you are feeling unwell – please do not attend.**

The hall is open from 6.30pm to set up the hall - please help. Benching can begin from 7 pm but no benching until all the class dividers and descriptors are in place. Give the set up team time to get things organized.

Our insurance requires that you **SIGN the ATTENDANCE SHEETS at the front door on arrival. Please do it.**

The society sales table will also be open as usual with pots, sticks and fertiliser etc. and hopefully also spare divisions of members plants. Please respect the **“Sales Table Open / Sales Table Closed” signs** and give our sales table managers time to set up and get themselves ready before you start grabbing stock and offering money.

There will also be the usual generous monthly raffle – drawn after the guest speaker.

The Culture Class for February – will be run by yet another ex Preso – **Dennys**, who will speak on **“Success with a Maxillaria: pot and mix.”** Class begins at **7.30 pm.** **Dennys** is an excellent grower and great observer of cause and effect so this should be a wonderfully informative session. Make sure you get there in time for a seat up front.

The Main meeting commences 8pm – with the formalities of the general meeting, presentation of reports and news, and while judging of the benched orchids takes place (*all over in about 30 mins – leading to the ‘supper break’*).

The Supper Break generally starts around 8.45, after the judging. This part of the meeting is not only the chance to have a refreshing ‘cuppa’ and a bite to eat, it is the free zone time for members to admire the orchids close up and to meet other members. We should all make the very most of it.

For the supper itself, the club supplies the tea/coffee/milk, sugar etc **but we ask members to bring their own cup or mug AND to bring in a contribution of edibles for the supper table. Just a small plate.** If you are a cook why not show off your skills, but shop bought stuff is also perfectly acceptable. **However, in all cases please avoid things containing nuts** due to potential allergies. **AND don't forget - bring your own mug or cup with you**

NOTE - Supper is not self-serve. Volunteers are assigned to serve the food for hygienic reasons.

Our March supper volunteers are – **Lynn Dabbs and Stephanie Bashford.** Thank you so much for helping.

Our Guest Speakers – Will be a plant description session from the benched plants. The ‘team’ will be Cary Polis, Jim Brydie, and Lina Huang. They will roam the benches choosing interesting orchids to talk about. These sessions are always popular and all sorts of insights into orchid culture seem to pop out. Questions are encouraged.

A few pictures from our January Meeting (all from Garrie and Lesley)



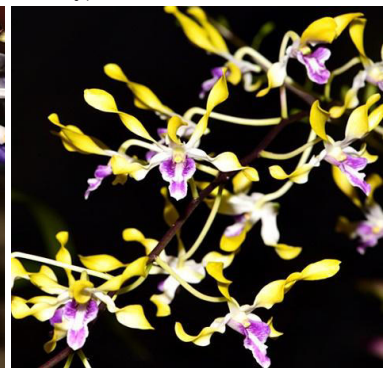
Vanda curvifolia



V. Ashley Lowe 'Tangerine'



Vanda tessellata (unusual form)



Den. Fraser's Sulphur Dragon

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Society News (if anyone has a news item, please phone Jim on 9476 3383, or email at jimbrydie@aussiebroadband.com.au)

President Pete – The February meeting was another very successful meeting, and it was great to see so many in attendance. We had over 40 members and visitors and it is good to see so many visitors who we hope enjoyed themselves and will join the Society.

The meeting started with another one of David Floyd's informative culture classes that everyone enjoyed and I found particularly informative. Thank you David.

As usual the benching was extremely good for this time of the year with a wide range of very excellent plants benched. The new benching classes seem to be working and we will be there to continue to help with these changes. The presentation after supper was also a huge success. Jim Brydie gave us another one of his great presentations, this time about Weird but Beautiful Orchids. Everyone enjoyed seeing and hearing about these oddities and wished they had some of them to enjoy in their own collections. The whole presentation was very informative and enjoyed by all. Thank you Jim.

I wish to thank those members who are making suggestions about culture classes and presentations, and we are endeavouring to respond to these requests. Please keep on making suggestions as your ideas are valued and we want to encourage participation in the society every month.

Again, our supper was good and please continue to bring along a plate to share as the supper break is a good time for members to socialise and enjoy each other's company.

Keep safe and I look forward to seeing you at our next meeting. (Cheers, Peter)

Other Society News

1. February meeting – Dave Floyd did an excellent job in the culture class and was also under pressure working hard to get off on the holiday of a lifetime hoping to see the Northern Lights. Let's all hope the 'lights' do a spectacular flare up when he gets there. And thanks so much Dave for providing us with regular culture spots.

The supper table was popular again and although well stocked to begin there was little left to take home at the end. Great work members, keep supporting this great chance to join and mix and try to make that special effort to say hello to members you don't often notice.

2. Welcome to New Members – Lots of new visitors last month and two signed up new members – welcome aboard to Jade & Renee Yuen. We hope you find new friends amongst the membership and enjoy the meetings while we introduce you to the our little specialty orchid arm of horticulture..

3. Membership fees – Final Announcement – The unpaid list is still coming down but this is your last month. Come on members where else can you get this value. Pay up or be dropped off. Insurance rules force our hand.

You can at the next meeting via Jessie, or more easily by bank transfer. That is:

Westpac Bank, BSB No 032 188, account name - Ku-ring-gai Orchid Society Inc. and account number 103568. If you use this method, **please** use **your full name as the payment description** or your **phone number** if your financial institution does not allow you to enter a name. If you wish, you can email to the address below : kuringgaiorchidsociety@gmail.com to confirm your payment.

Best of the evening Species: *Rhynchostylis coelestis* - grown by *Garrie and Lesley Bromley*



Well how about that. Last month I mentioned how *Rhynchostylis coelestis* is one of my favourite orchids and this month it gets a Best of the Evening. Don't I have good taste.

Coelestis has had a couple of past best of evenings but none for a while so it's worth providing the basic background information for the species once again.

From Orchidwiz, we find that *Rhynchostylis coelestis* comes from Thailand, Cambodia, Laos, and Vietnam. It is widely distributed as an epiphyte from the mountain areas up to 1200m elevation, down to much lower elevations to about 350m. They are usually found in deciduous forests where there is a relatively long dry season.

As it has written up previously, I have decided to focus this time on the culture side. So I ask myself, if we decided we would like to try and grow one of these lovely orchids, what questions should we ask?

Well for me, I know all Vandas are strictly epiphytes and like air around both plant and roots, but I want to know more about the habitat the species comes from. What do its natural climate parameters look like. Does it grow in shade or bright light, how cold does it get, what does the annual rainfall and humidity look like. And what

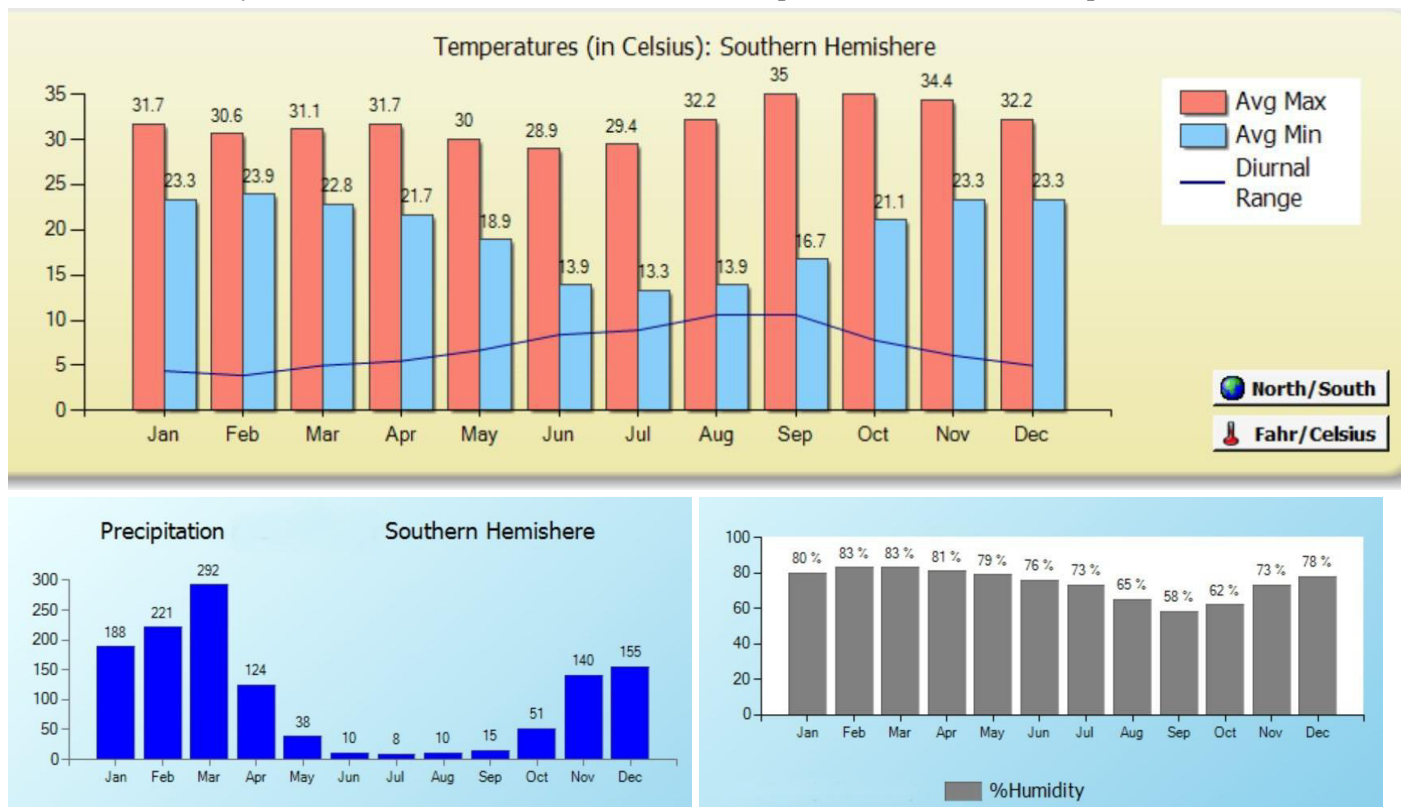
effect do seasonal changes play in its growth cycle?

Luckily for us, the answers to most of those questions are available if you go looking hard enough.

In Orchidwiz they have available the excellent culture sheets created by Charles Baker, that I believe were published in his excellent series of books titled “Orchid Species Culture”. I think there were 3 volumes – one on Dendrobiums, one on the Oncidium Odontoglossum Alliance, and the 3rd on Pescatorea, Phaius, Phalaenopsis, Pholidota, Phragmipedium, Pescatorea-Pleione. There may have been others.

Anyway, in these culture sheets for each species, in addition to his expertise in suggesting in text how to grow the species, Charles created charts for habitat area rainfall, temperature, humidity, and rainfall for the natural habitat based on data from weather recording stations relevant to the natural habitat for that species.

Let’s look at his *charts for Rhynchostyis coelestis*. The charts allow the user to select the display in seasonal months for either northern or southern hemisphere to suit the grower’s own environment. This is obviously useful when you consider that winter solstice in the north hemisphere (the shortest day) would be late December, whereas it would be late June in Australia which would make a chart in calendar months meaningless. Orchids grow in accordance with seasons, not monthly dates. I have selected the charts below as expressed in Southern hemisphere seasons.

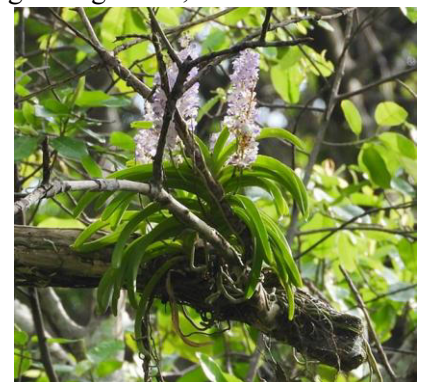


As you can see, where Rhy. coelestis grows, daytime temperature varies only from around 29-35°C throughout the year. Night-time temperatures vary a little more from around 13-24°C. One key fact I note from this is that the lowest temperature it would experience is likely around 10-12°C. It might tolerate a little less but this orchid is a warm grower. From my own experience in testing warm growers with cooler winter temperatures, I have found that many will tolerate down to 6 or 7°C overnight but any lower will create leaf cell collapse resulting in black blotches on the leaves. Some will mark up badly at even higher temperatures. In addition, I have observed that even when a warm grower ‘tolerates’ significantly lower temperatures without obvious damage, they clearly aren’t enjoying it and growth is far poorer than for the same plant grown in a warmer environment.

Next, the humidity chart shows that humidity where they grow stays above 75% nearly all year and never falls below 60%. That is much higher than our general humidity levels in Sydney. An enclosed growing house, even such as a shade house can lift humidity but our growing practices also need to take humidity into account and deliberately raise humidity.

And finally, the monthly rainfall chart shows massive seasonal variations in rainfall throughout the year. Expressed on a seasonal basis, rainfall drops quickly in late Autumn and then stays low until rain restarts in Spring. This is the same kind of pattern we see for many orchids from the Asian monsoon belt. They get 6 months of higher rainfall where they grow rapidly, and also usually flower, and the other 6 months where rain is much lower or non-existent, where they go through a slow growth or resting period.

The picture at the right (owned by Ayuwat Jearwattanakanok) shows a coelestis growing in its natural environment in (I think) Thailand. The habitat descriptions



say it grows in deciduous forests so I assume it would be subjected to brighter light during the period that many trees are deciduous, but more shade when growing vigorously.

Culture Sum up for *Rhynchostylis coelestis* – I believe this species needs a heated glasshouse for our cold winters. They don't need to be subjected to a dry winter rest like some others because their native humidity is always high and I would expect that in nature, overnight drops in temperature might result in mists and dew that likely sustain the plant to the extent it needs.

In our culture of orchids, in for example Sydney, in winter watering orchids dry much more slowly than in summer so growers automatically reduce watering rates substantially just by nature of the task. In essence, watering should always be more a case of water when the plant needs it, rather than a calendar based schedule. Water, then wait until the media begins to dry and water again just before the media dries right out. Of course it is never as simple as that because we have so many different kinds of orchids and different size pots, all crammed together in fairly close conditions. It is all a matter of balance and judgement but winter watering is generally about ¼ the watering frequency in summer. Although, in a heated glasshouse it would probably be a little more often.

In the case of *Rhy. coelestis*, the orchid will be looking to start a new rapid growing cycle from around October (our time). New roots, new leaves and, after getting going for a bit, new flower spikes set to flower around February. As soon as you see the start up signs make sure it is getting the water and fertiliser it needs to do its thing.

At the last meeting, Garrie told us that this particular plant came from Alice's Orchids in Qld and that it had just been judged for an award in Sydney and given a First Class Certificate. He gave it the cultivar name 'Alice' in reference to Alice's Orchids.

Congratulations yet again Garrie and Lesley. Another lovely orchid, beautifully grown. It is a pleasure to see them.

Best of the Evening Novice – *Brassia verrucosa* variety *gigantea* (?) grown by **Lynn Dabbs**



The naming of this one is something of a conundrum to me and I am not sure that even the taxonomists have looked at the overall range of variation within *Brassia verrucosa*.

Brassia verrucosa is certainly a valid species, and its flowers, like just about all *Brassia* flowers have the narrow segments and that distinctly spidery appearance. The question is just whether the quite different looking 'verrucosa' we have come to know locally as var. *gigantea*, is really a form of *verrucosa* within the range of variation found in the species, or whether it is something else.

Lynn's *verrucosa gigantea* has larger, heavier, stiffer flowers and fewer of them per raceme than does the 'other' *verrucosa* that I would say we see more often.

Compare Lynn's orchid at the left to this other more common *verrucosa* at the right.

The published habitat ranges for *verrucosa* involves some curious disparities.

In **Orchidwiz**, the description (from **Charles Baker**) says: "Found in lower- to mid-elevations of humid forests, with findings reported from as high as 1600 m. While not abundant, it is found in scattered locations on both sides of the dividing mountain range from southern Mexico through Guatemala, Honduras, El Salvador, and Nicaragua, with reports of occurrence also in Venezuela. In Guatemala, it is found in the rocky hills near and above Santa Rosa and on the south facing slopes of the Volcano Atitlan."

Baker describes the inflorescence as up to 75cm long, carrying generally 5-8 flowers but up to 15 flowers on a really well grown plant. They suggest a flower size as about 20 cm.



In **Jay Pfahl's Internet Orchid Species Photo Encyclopedia (IOSPE)**, it offers a habitat range as: "Found in Mexico, Guatemala, Belize, El Salvador, Honduras, Nicaragua and Venezuela as a large sized, warm to cold growing epiphyte of open humid, evergreen to semi-deciduous cloud forests on tree trunks and larger branches at elevations of 900 to 2400 meters with ovoid-conic, furrowed, slightly laterally compressed pseudobulbs subtended by 1 to 2 foliaceous bracts and has 2, coriaceous, elliptic-lanceolate leaves that are conduplicate at the base. They flower in the late spring through the early autumn on a basal, to more than 2' [60 cm] long, erect to arching inflorescence arising on a mature pseudobulb which are strongly 2 ranked and carry many [10 to 20] flowers that are slightly scented of black pepper and need regular waterings and fertilizer year round.

IOSPE also suggests: Plants found in Costa Rica, Panama and Peru and Brazil with this name are either B brachiata [Central America] or B bidens [Peru and Brazil]. (JB - I have not examined this latter prospect.)

There is a wide variation between the above two distinguished descriptions. Even if the difference has nothing at all to do with verrucosa vs var gigantea, it just illustrates that plant descriptions and habitat range depend substantially upon which source you consult.

To illustrate further, I offer a little story. Many years ago I fell in love with Restrepia species and for quite some time I collected plants which by their labels represented at least 40 different Restrepia species and in some cases I had specimens of some species in 4 or 5 colour combinations. Around that time the established expert in Restrepia species was Carl Luer, who in 1996 and in collaboration with Rodrigo Escobar Restrepo, published a volume of Icones Pleurothallidarum (vol X111) on the genus Restrepia. This wonderful 150 page paperback became my Restrepia bible for distinguishing one species from another. Mr Luer even provided an identification key to help and so I set about closely examining my 60 or more specimens as they flowered to validate and correct label names.

Unfortunately, I very quickly found that in many cases I had flowers that sat exactly between the ranges of the distinguishing features that supposedly separated one species from another. But how could this be? Could many of my Restrepia "species" really be hybrids? Well that could always be possible but according to the RHS at Kew there were only two registered Restrepia hybrids prior to 2004. It just wasn't a field of interest at the time.

There may have been natural hybrids and there may have been man-made hybrids that were never registered but I find it hard to accept that these were a factor in so many of my small collection falling between the cracks. It has always been my firm suspicion that how you divide one species from another depends on how many samples you examined and what range of variance you discovered in doing so.

In short, I believe Carl Luer's species definitions worked perfectly for the range of samples available to him but if he had seen more and more samples he may have been forced to accept that some of those defined species were just variants of other, wider defined species. A simplistic view I know but at the very least his distinguishers don't work.

So now, moving back to Brassia verrucosa, I can only guess, but I am swinging more and more to the opinion that verrucosa 'Gigantea' or however you want to write it, could be some derivative of the hybrid Brassia Rex which is the cross between two species - verrucosa and gireoudiana. Flowers of Rex can vary substantially in colour but generally they are large like gigantea. Some are very verrucosa like in colour, others have more brown/black markings. I haven't found back crosses that look like gigantea but that doesn't mean much, I can't prove a thing and I have no evidence.

The past 10 years has seen a rapid jump forward in DNA testing of orchid species and family groups and we already have results rearranging several orchid family trees, so perhaps in the not too distant future the taxonomists and scientists will be able to give us a full science based rearrangement of families and species. It will create some uncomfortable changes for orchid growers but we must see that is now necessary and the only way forward.

But until someone shows how all the DNA relationships work and what var gigantea is, I have decided I will keep calling the big flowered version "verrucosa var. gigantea" (with reservations).

And finally, regardless of all that technical argee-bargee, all Brassia verrucosas are lovely, elegant orchids and seem particularly suited to backyard orchid growers here in Sydney and probably many other places as well.

I have seen verrucosas covered in flowers, with floppy dark green leaves that the grower grew hanging low under a backyard tree in relatively heavy shade. I have seen paler green leaved plants growing in a 50% shadecloth shade-house flowering just as well. These are tough, adaptable orchids. And who can't love those big artistic spidery flowers. Verrucosas and all the Brassias have even been used effectively in creating wonderful hybrids with other Oncidiinae genera. Look at Golden Gamon as an example in the benching pictures on the next page.

Congratulations on your best of evening Lynn. Well done, and we look forward to seeing more from you soon.

The squirrel in the refrigerator

A man comes home after a hard day's work and opens the refrigerator to get a soda. Inside, he is surprised to see a squirrel taking a nap.

"What are you doing in my fridge?" the man asks.

The squirrel opens one sleepy eye and says, "Isn't this a Westinghouse?"

"Um, yes. It is," the man replies.

Well then," the squirrel says, shutting his eyes again, "Please shut the door, I am trying to west."

The Honest Boss - My boss was really honest with me today.

He pulled up to work with his brand sweet new car this morning and I complimented him on it.

He replied, "Well, if you work hard, set goals, stay determined and put in long hours, I can get an even better one next year."

Best of The Evening Hybrid: Clowesetum Jumbo Apollo - grown by Garrie & Lesley Bromley



This one also received Best of the Evening in February last year.

Being a lover of species orchids, I sometimes wonder whether we should describe man-made orchid hybrids as 'beautiful', but this one surely warrants it.

Jumbo Apollo is a 'primary' hybrid being a cross between two naturally occurring species, the parents being *Catasetum fimbriatum*, and *clowesia russelliana*. The hybrid seems to have nicely blended many of the best features from each.

The two genera here are both in the same group - i.e. the subtribe Catasetinae, within the Cymbidieae tribe.

All the approximately 400 Catasetinae family species are from South America and Central America. There are 8 genera in the subtribe including the most popular - *Catasetum*, *Clowesia*, *Cycnoches*, and *Mormodes*. Two of those are also the biggest genera in *Catasetum* (200 species) and *Mormodes* (75 species).

But the wider Cymbidieae tribe to which Catasetinae belongs, is considerably bigger and includes other subtribes covering many commonly grown orchids including *Cymbidium*, *Oncidium*, *Maxillaria*, *Stanhopea*, and *Zygopetalum*.

All the Catasetinae are quite readily growable **once you understand their underlying requirements**. *Nearly all come from highly seasonal habitats* and many

are deciduous as a result. These plants require a rest period where they receive no water or fertilizer for several months after losing their beautiful foliage.

On the excellent website of the St Augustine Orchid society in the USA, they offer these growing guidelines

"Catasetinae as a group are quite easy to grow well. Just remember these seven tips:

1. Wait to irrigate until new roots are 3-5" long.
2. Use well-drained potting media.
3. When in active growth, water and fertilize frequently.
4. Scout for insects and treat accordingly. The most common pests for Catasetinae are spider mites. Look for stippling and bronzing on leaves caused by feeding stings. If you see webbing, it's too late. Use a miticide to treat all leaf surfaces. It is theorized that Catasetinae and other plants from those regions lose their leaves to rid themselves of spider mites.
5. Reduce irrigation when leaves begin to yellow. Water only once a week or every ten days and stop fertilizing."
6. Stop watering completely when leaves drop.
7. Repot when new growth starts (i.e. at the beginning of the next season).

Back to JB: From a personal point of view I have grown a few of these moderately well following the above sorts of guidelines but as I haven't worked hard enough to effectively separate them from other orchids in my collection I have found it difficult to do well with them. And when I see wonderful specimens like Garrie and Lesley's Jumbo Apollo, my failures stare me in the face. These aren't overly hard to grow but you must be prepared to grow within their pattern. If you want to try, perhaps start with a straight *Catasetum* species or hybrid (there are many) and make sure you can treat it differently when it goes to sleep. Be observant and watch the changes shown you by the plant. Grow it the way it asks you to grow.

And one last idiosyncrasy that I have mentioned before but you really need to know about. *Catasetum* flowers are only either male or female and the same plant can carry flowers of one sex or another in different seasons, often depending on culture conditions such as light.

Male and female flowers look completely different to one another and side by side it is hard to believe they are from the same species. Very occasionally a plant may have both kinds of flowers on the same inflorescence, but mostly, they are one or the other. The pictures above here are the male (right) and female (left) of *Catasetum fimbriatum*, one of the parents of Garrie and Lesley's Jumbo Apollo. Now isn't that just weird? So don't be too shocked if your *Catasetum* produces a very different looking flower and you are tempted to think the label was wrong.

Congratulations messrs Bromley. Magnificently grown as usual.



More Pictures from our Delicious January Benching

For a little variation this month I have grouped last meetings pictures in their family groups, starting with 'Cattleyas', then a few Dendrobiums, and finally some colourful Oncidiinae hybrids



Catt Topaz Pennymezzy
Lina Huang



RLY (Catt) Hawaiian Queen
Garrie and Lesley



Catt Jeanne Woolf
Garrie and Lesley



RLC Rungnapha Fancy
Helen Wong



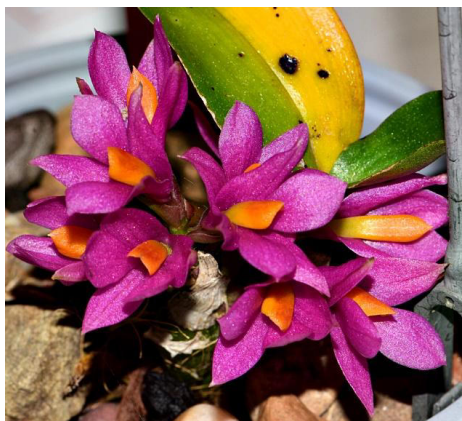
Catt. Lulu's Song
G. McNeil



Cattleyanthe Bactia 'Grapewax'
Dave Floyd



Cattleyanthe Fitz Eugene Dixon
G&A Cushway



Den bracteosum
Lina Huang



Den pseudolamellatum
Lina Huang



Den Pink Glow
Jean Fulcher



Brassia Rex
Dora Law



Brassidium Golden Gamine
Brenda Walker



Odontocidium Sunny Daze
Lina Huang



Oncostele Wildcat
Lina Huang

Q? - How do you make holy water? - Ans - You take some regular water & boil the hell out of it.

Did you notice the unusual but lovely Dendrobiums on the previous page?

The first I want to mention is the cutie in the middle benched by Lina. Now *Dendrobium pseudolamellatum* is certainly something you don't see every day. In genus *Dendrobium* it is a member of section *Platycaulon* - Derived from *platy* meaning broad. *Platycaulon* means broad-stemmed.

The American Orchid Society offers the following:

Species in the Section **Platycaulon** are closely related to Sections *Pedilonum* and *Calcarifera*, but are distinguished by broad, very flat stems. **Platycaulon** is distinguished by plants with stems that are fleshy for the whole length. Plants are generally found in lowlands, but may occur up to 1800 meters in Papua New Guinea. Plants are also generally found in areas with year-round rainfall, many in rubber and coconut plantations. The flattened pseudobulbs are erect, becoming pendulous, with leaves in two ranks along most of the stem. Older stems often lose their leaves. Flowers occur from inflorescences on upper leaf axils and are fairly short lived. Flowers are generally cream to white with a three lobed lip and prominent mentum.

The IOSPE description for *pseudolamellatum* tells us that it is found in Sabah Borneo in lowland and hill forests at elevations around 700 meters. It is a mini sized, hot to warm grower, with simple stems, erect becoming pendent, clavate, terete basally, becoming laterally compressed above.

The stems are dull yellow to purple-brown to olive-brown, carrying 2 deciduous leaves [often appearing to be one leafed as the 1st leaf drops early]. It blooms in the winter through summer on a 3 to 5 flowered inflorescence with triangular, purple/white, acute floral bracts.

The wonderful Ron Parsons picture at the right shows what a real cutie it is, and just look at the clear stem shape change at the base from a narrow circular shape to wide flattened shape.

You must have had to search to find this one Lina. It's beautiful and I look forward to seeing it even bigger and better in the future.



The next I wanted to discuss was **Den Hibiki (and its relatives)**



Hibiki is a primary hybrid between *Den bracteosum* and *Den laevifolium*, and both of those are species from *Dendrobium* Section *Calyptrochilus*.

The picture here is a Hibiki I featured in an article back in 2018, called Pink Elephants. Hibiki orchids tend to be rather short growing although the one here was given as an overall 59.5 cm tall and 65 cm wide and growing in a 6 inch wooden slat basket. Each flower was 25 mm x 27 mm. It must have been an impressive sight. The Hibiki and few *bracteosum* I have grown were much shorter.

The derivation of the section name *Calyptrochilus* comes from the meaning "veiled lip"; in other words, in these species the lip plate covers the column and pollinium. However, the taxonomists are still sorting out

the differences between several closely related sections such as this and *Pedilonum*, *Calcarifera* and *Oxyglossum*.

The American Orchid Society gives the outline below for the section.

"The species in this section are mostly from New Guinea and occur from low to high altitudes in areas of high year-round rainfall, such as along swampy rivers or cloud forests. The section is closely related to **Pedilonum**, **Calcarifera** and **Oxyglossum**. Species may be separated from these other sections by the apex of the lip which is incurved, making it look boat-shaped, and is fimbriate. Leaves are generally deciduous after one or two years. Species in this section produce clusters of brightly colored flowers from nodes along the mostly pendulous, leafless canes.

Species in this Section include: *Den. lawesii*, *Den. mohlianum*, *Den. subclausum*, *Den. glomeratum*, *Den. codonosepalum*, *Den. erosum*, *Den. vannouhuysii*, *Den. cochleatum*, *Den. conicum*, *Den. convexipes*, *Den. trichostomum*, *Den. uliginosum*, *Den. wentianum*.

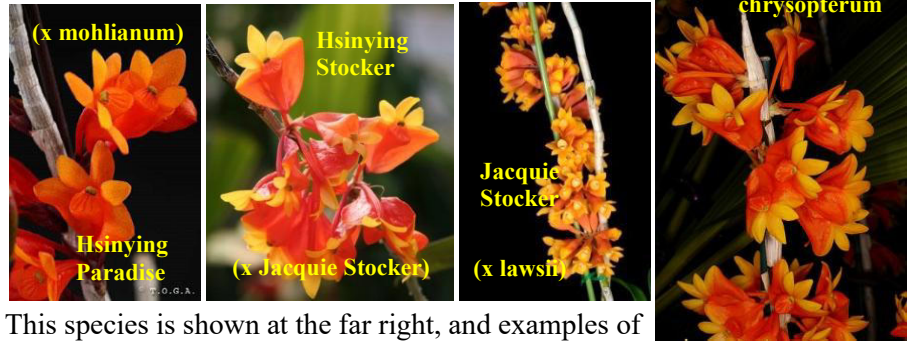
Distribution of the group is mostly New Guinea but species are also found in Solomon Islands, and one species, *Den. erosum*, is distributed from Vanuatu to Thailand.

In respect to culture, as the species range across a wide range of elevations and habitats, the AOS provides a table offering average for the more common species but I haven't reproduced that here. You will need to do your research.

To tempt you to go looking, I am repeating an abbreviated part of what I wrote in the bulletin in July 2019

For less experienced readers, if you want a little more info, there is also an introductory article on *Calyptrochilus* in our Oct 2010 bulletin, showing some species we often see in collections.

One of the first hybrids which became very popular was Den Gowan's Tangelo. But of course things have now come a long way and there are many more new hybrids that we can look at to see the extent of variety that is becoming available. Let's begin with some other hybrids - first with the lovely yellow & orange flowered species, *chrysopterum* (previously known as *D. obtusisepalum*). This species is shown at the far right, and examples of 3 of its delightful hybrids are shown beside it.



The other popular parent of many hybrids has been *Den. glomeratum*. It has to have about the most showy flowers in the whole section. Brilliant, glowing, sort of light purple flowers with a contrasting orange lip. Again it has dense clusters of flowers in groups all along the cane but it also has the downside of generally long (2 metres) stems, and they are usually pendent. Shorter and more upright *glomeratum* clones do exist and I would presume that these would be sought out by any hybridist. Because *glomeratum* featured previously I won't include a picture of the species here but below I have shown you two very nice examples of other *glomeratum* hybrids.



Hybridisation within section *Calyptrochilus*, and even with its relatives, is a new field but many exciting hybrids have already been made, especially with some of the species that are smaller in stature and could produce genuine miniatures with reasonable size colourful flowers.

How about the few below as primary hybrid appetisers.



When I started to write this article it was my intention to avoid mentioning *Den. cuthbertsonii*, and its fellow high altitude, moss forest, PNG cousins, like *Den. vexillarius*, *pentapterum*, and the like. Although these are nearly all amazingly beautiful and desirable orchids, nearly all of them have evolved to such a unique environmental habitat that they are very difficult to grow. At least they are in Sydney anyway. They are very unforgiving when we get those really hot dry spells which are more or less common in Sydney's summer.

However, I found that I couldn't ignore the fact that hybridists are focussing on some of these species, and in particular, the beautiful *cuthbertsonii*, and after talking to a few experienced growers I found that many are having some good success growing these hybrids. It reminded me of one of the hoped for principles of all hybridists. That is, that a hybrid between two species will very often be much easier to grow than either of the parent species. Some of the very narrow environmental adaptations that created each species are weakened, or softened by combining the genes of different species. This process is known as Hybrid Vigour but I imagine that some case also show 'disvigour'.

I decided that I must include these gems, but with a caution to those who will take them on. Hybrid vigour doesn't mean that you can suddenly grow all of PNG high meadow hybrids hanging from a backyard fence. Hybrid vigour may at least make culture realistically possible but be prepared to provide cool moist growing conditions and do some research on how you will go about it. Ask others for advice.

Still, when you look at such gems as *Den. Mountain Magic*, *Den. Illusion*, and *Den. Nagomi* pictured above, how could you resist at least trying? On the other hand, if you wanted to try something slightly easier, I think that *D. bracteosum* and its hybrids have a lot going for them.

A few years ago I bought a *Den. Hibiki* (the picture at the top of the page is not my plant) and it grew and flowered wonderfully for a long time. I grew it in my covered shadehouse right through one season, including winter, and it didn't seem to mind the cold, but what I think what it lacked in the shadehouse, was humidity. One parent *laevifolium* is from higher elevations and may be the one imparting winter cool tolerance, but both it and *bracteosum* require constant moisture and no drying out. *Hibiki* did better in the glasshouse but has since, eventually, gone to god.