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Next Meeting : * * * **No January meeting this year** (We are still effectively locked out but things are looking more hopeful for the future. Roll on vaccination preparation and a normal world once more. Our committee will advise you immediately as soon as there is any change to our meetings situation.)

The December Virtual Bench

Did you like the look of that new Stanhopea hybrid in the December benching? The purple splotching looks to be very reminiscent of the species *nigrovioletacea*, so I would guess it played a part in the breeding, but I have no idea where the red and white hat features came from, or the green 'face'. The grower who sent it in did so under a pseudonym too, so we can't ask. It just goes to show you can always be surprised by a new orchid. I smile when people talk to me as though orchid growing is boring.

Apart from the Stanhopea, there was another lovely mix of wonderful orchids last month. It is great to see so many members contributing. And don't be shy about giving us all a few of your growing tips when you send your pictures in. I for one have greatly enjoyed the tips and info provided, and the insights into how you each do it. Show us parts of your growing areas too. We all get ideas from seeing how others grow.

Dendrobium lindleyi 'benched' by Trevor & Pauline Onslow

Trevor and Pauline's magnificent *lindleyi* gets my vote this month. I have a piece of this plant that Trevor sold some time back. I can't make mine look like this, but there are reasons I will explain shortly.

I have known this species most of my life as *Den. aggregatum*. I am not sure exactly when the change occurred but as I understand it, it was just a technicality to realign old taxonomy and previously registered names. Sooo, I now agree that this is correctly *Den. lindleyi*.

Den. lindleyi is a miniature *Dendrobium* compared to most *Den's*. Its pseudobulbs are given as 5 to 10 cm tall but it may vary upward just a little in some cultivars. In nature it is found in a wide sweep from northern India through Asia across Thailand, Vietnam and

eastern China. Its habitats range in elevation from about 400 metres to 1300 metres and I had always found this one tricky to grow. It seemed to grow ok for me during the warmer months but I really struggled in the winter. Trevor and Pauline only live a couple of kilometers from my place but they live along the higher ridge of Galston road and I live a bit lower where the road begins to wind down into Galston Gorge. The day lengths are also different because the morning sun has to rise over the ridge to my east, and sets earlier behind the other valley to my west. These differences are sufficient to delay flowering times of the same orchids a few weeks at my place compared to the Onslow's and give me winter temperatures in my shadehouse a few degrees lower. Also, the Onslow's growing area is attached to the rear of their home and is a little more protected than my freestanding, more open shade house.

Den lindleyi is a warmish grower that appreciates better conditions than I offer. When visiting northern Qld a few years back I was staggered at how prolific *lindleyi* was in orchid nurseries there, due to it thriving in the warm, moist atmosphere. A truly lovely orchid. If you acquire one, treat it 'warmish', give it light, and a BIG REST in winter to get it to flower like Trevor and Pauline's.

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

President Denny's Desk – I hope all our members were able to have some form of safe and happy Christmas with their families and/or friends. I also hope that all our members have been able to start the New Year safely. After an expression of muted optimism in our last bulletin I am back hoping that Australians are able to manage the latest pandemic outbreaks effectively. We continue to have a rough trot around our beautiful planet and hopefully human ingenuity will completely overcome the virus with the vaccines which are moving out of trials now. A difficult benefit that has arisen from the pandemic is a greater knowledge of virus “life” cycles and the effect they have on humans leading to much improved methods of vaccine development. That said, our council has reestablished the tighter restrictions on our meeting hall at West Lindfield so we are back to monitoring the situation closely.

Virtual Benching – I have to say that I found *VB Issue 9* absolutely wonderful. Dare I say, the best yet. A fantastic effort by all the members that submitted photos and beautifully composed by Jenny. I cannot really pick a favourite since every page has a contender. Janine and I have about 300 orchids in our collection and we find it hard to have an orchid in full flower during December. Although our *Miltoniopsis* did not respond well this season, our uncared for *Stanhopea* did, see below. Given the orchids in the December *VB* issue it will be easier to find some.

Member's welfare – please remember, if you need to speak to someone immediately then you are most welcome to contact me at any time, 24/7 on 043 88 77 689.

Hanging around – In our front yard we have a North Coast Red Cedar, I guess in about 100 years it will be the biggest tree in Hornsby Heights. In 2014 I bought a freshly prepared *Stanhopea nigroviolacea* off Bob Ellis. Bob is a basket master and grows *Stanhopea*'s really well. I had it in the shade house for a few years with no flowers but then it flowered in 2018 so I moved it to hang under the cedar tree and ignored it completely. This year it flowered with 6 flowers and its vanilla scent could be sensed up and down the street. It is so amazing to me I just had to share it.



Vale Alice Hipkins – Our friends at Royale Orchids have advised that Alice, one of the original founders of Royale Orchids passed away on the 1st January. On behalf of our members I extend condolences to the Royale family.

Orchids I noticed in the Virtual Benching -- Jim Brydie

1. The *Miltoniopsis* - 6 of them, benched by Jessie, Lina, and Kevin –

Aren't these just the most delicious flowers? This one is Kevin's Woody Carlson 'Enduring Ardour' but the others were wonderful too.

Until 1976 these wonderful 'pansy' orchids were included in the genus *Miltonia* even though as far back as 1889 (when the name *Miltoniopsis* was proposed) taxonomists could see that these Colombian *Miltonias* were quite different to the Brazilian *Miltonias* upon which the name *Miltonia* was based. Still for various reasons the new name was resisted and not finally accepted until the late 1970's.



There are only 6 species in the genus *Miltoniopsis*, and they come from Costa Rica, Panama, Columbia, Ecuador and Peru. The hybrids produced from among these are truly unbelievable and have become hugely popular.

The following culture notes come from Allan Kerruish, a very experienced grower who used to give talks on these lovelies. "Their habitats range from hot humid lowlands to cool humid cloud forests but in all cases the operative word is humid. They are generally found growing in tree tops at 200 to 2000 metres."

"The key to successfully growing this genus is high humidity, especially those from the wet Andean cloud forests. They also prefer to stay a bit wetter than many other orchids. *Miltoniopsis*, have a habit of "accordioning" their slender leaves into crinkled waves when humidity is too low or there is insufficient water. Once accordioned the leaves will not flatten but new foliage will straighten once watering and humidity is corrected."

"Plants need good light levels to flower well. Not as high as for *Cattleya*'s, but around the same as for mottled leaved *Paphiopedilums*, (or African Violets). When the light level is correct the plants will have light green slightly greyish foliage, dark green foliage is an indication of insufficient light. A slightly pinkish tinge on the leaves also indicates correct light levels. The sepals and petals of some *Miltoniopsis* tend to recurve (curl) when light is too high."

"Like many other orchids, they resent being overpotted and seem to grow best when tightly packed in the pot. They have a fine & very extensive root system which will rapidly fill a pot under good conditions. Because of this they like a well drained growing medium. I use a mix of fine to medium grade bark with gravel and sel-grit. I make sure that the mixture is moist when I repot, then do not water the repotted plant till the next day so that any cuts or damaged areas have a chance to heal. Plastic pots are usually preferred as they retain more moisture, but because of the constant moisture the compost will often be spent after 12 months and will need to be replaced."

2. *Vascostylis Pine Rivers* – ‘benched’ by Trevor and Pauline Onslow.

What a delightful orchid. A good spike of smallish but reasonable size, perfectly purple/ blue flowers on a compact plant. Perfect for the modern day grower with limited growing space.

Vanda type orchid hybridisation has a long history. It started with a focus on the big Vandas (flowers about 7 to 12 cm diameter) and hybridization focused on improving size, colour, colour patterns, and shape. But these were big plants. Up to 50 cm wide and over a metre high. Fine for the big time growers or backyard growers in warm humid areas, but not so much for the average grower in more temperate areas like Sydney.

The next stage was the introduction of the miniature flowered Ascocentrum species like *curvifolium* and *ampullaceum* to the mix. Combined with Vandas, these produced ‘Ascocendas’, much smaller, more compact plants but still Vanda like, and with brightly coloured and variable medium size flowers, perhaps 3 to 5 cm diameter or thereabouts. Recently of course, virtually all Ascocentrum were all declared Vandas (one was made a *Holcoglossum*) so the genus Ascocenda no longer exists. This is unfortunate for growers because unless you happen to be very familiar with Vanda breeding lines, the name can’t tell you which of today’s Vandas used to be Ascocentrum – ie which is big and which is compact. Such a pity.

There have been many other branches in the exploration of intergeneric Vanda breeding. Some have produced some interesting results and are probably still being explored, but I don’t think any have approached the genres mentioned above. Except perhaps one that is still emerging and that is with the genus *Rhynchostylis*. There are only 4 species in this Vandaceous genus and unfortunately they are all warm growers that need a warm glasshouse in most, if not all, of Sydney. They are leathery leafed plants of moderate height and a tendency to grow into multiple growth clumps rather than grow a single tall stem like a Vanda. Three have pendent or arching to pendent inflorescences with large numbers of small flowers (2cm or so). The fourth species, the only one with an upright inflorescence, is *Rhynchostylis coelestis*, one of my favourite orchids. This is the one that is a direct parent of *Vascostylis Pine Rivers*.

Rhynchostylis coelestis

The most common colour for *Rhynchostylis coelestis* is white, tipped with blue parts but it comes in a wonderful array of all variants from near full blue to full white and the same in pink and white. You could make an orchid collection on just this single wonderful species.



Various colour forms of *Rhynchostylis coelestis*



But what about hybrids using *Rhynchostylis coelestis*? Well you can see from Trevor and Pauline’s Pine Rivers that it can impart a lovely upright spike of moderately size flowers but exactly how it behaves depends somewhat on the other parents. If you cross *Rhyn. Coelestis* with *Neofinetia* (now *Vanda*) *falcata* you get rather *Neofinetia* like flowers but a hybrid that is a little cooler growing (= *Vasco. Lou Sneery*). When you cross it with *Vanda Tubtim Velvet* (which used to be an *Ascocenda*) you get a delicious medium sized white flower with *coelestis*’s blue features (= *Viboon Velvet*). If you look at the more complex intergenerics, like *Vanda x Aerides x Rhynchostylis* you may get orchids like *Perreiraara Luke Thai* with its unusual mix of green and blue/violet.



Vasco. Lou Sneary



Vasco. Viboon Velvet Cobalt Treasure



Prra. Luke Thai

Now I don’t want you to get the idea that all *Lou Snearys* and *Luke Thais* etc look like the selected cultivars above, but considering that the very first F1 hybrid using *Rhynchostylis coelestis* was only made in 1961 and many new ones have been registered in just the last few years, you can see that excellent results have already been achieved. There are likely many more lovely orchids yet to come.

3. *Dendrobium moschatum* - Benched by Jenny, Lina, and Peter and Jane.

I was surprised to see three benchings of this old favourite this month. It is a lovely orchid with an amazingly different furry bowl of a lip but we hardly ever see it benched at real meetings because the damn thing is so big.

Jenny gave you all the technical write up on the species but just in case you missed it, this orchid is BIG. It can have canes over 2 metres tall, but it is more usually only about 1.2 to 1.5 m in Sydney backyards. Although it is purported to grow at only marginally cool elevations, it seems to tolerate Sydney's winters, perhaps because like our softcane Dendrobiums, it has evolved to a very low rainfall dry winter rest in its natural habitat. It tolerates the cold winter because it is 'asleep'.



Obviously, I have never seen it in its natural habitat but Charles and Margaret Bakers culture info in Orchidwiz gives us some interesting insights. They tell us that plants usually grow at the tops of tall deciduous trees with high light and brisk air movement. From autumn through winter and spring, conditions for the plant are very bright, but from spring through to autumn some shading is required. They say the light should be as high as can be tolerated short of burning the leaves.

The growing period lines up with a sharp jump in the rainfall in its habitat zones. The rain charts show a large jump in rainfall during December (120 mm), January (295 mm) and February (325 mm), and then still significant rain in March and April (~90 mm) but tapering down. There is very low rainfall in May (8 mm) through November. This is almost the same pattern that occurs for *Dendrobium nobile*, the core species of the softcane Dendrobium group. Rapid growth during the monsoon season, then mature and harden off, a rest period, flowering at the end of the rest, and then fast growth once more.

Due to its size, many of us grow it somewhere about the garden rather than the shadehouse, which gives us more practical management space. However, you need to make sure you don't just dump it against a tree and forget it. It still needs repotting. Like the softcanes, repotting is best done just after flowering and before the developing new growth gets properly off and running. They also need growing (fertilizer and water) when they are growing, contrasting with when they are resting (no fertilizer and almost no water)

I can show you just how important all this is. My *moschatum* has been in the same pot for twenty years and is sitting on the ground next to the water lily bowl so I should know. It looks awful.

4. *Dendrobium uniflorum* - 'benched' by Peter and Jane D'Olier.



Oh alright. I know. Another species. I just can't help it. I have always admired this one, not that you get to see it too often. The first one I saw was owned by Jeane Deane who had a very choice collection of unusual orchids before her health began to fail. I also saw it available a few times as mature plant imports from Bill Miles nursery but they were a bit expensive for me and I never managed to talk myself into one.

While it may look a bit like miniature softcane, *Den. uniflorum* is a member of an odd group of Dendrobiums called Section Distichophyliae. I suspect that *uniflorum* is about the only one of the 34 species in this section that you will ever see. The similarity to softcanes is only superficial. There are more leaves than a softcane and set closer together, the flowers occur in only ones and twos and there are differences in the flower structure. *Uniflorum* is probably the most attractive and a well grown plant is very pretty as you can see from the picture at the left above (copyright Duy Nguyen).

Den. uniflorum is found from Malaysia to the Philippines. Elevations are given as 300 m to 1600 m but I suspect that it is more often found at the lower end of that range which would make it a warm grower. A few years back I purchased a seedling at one of our orchid fairs. It has been growing along nicely but no flowers yet. Congratulations on yours Peter and Jane, it is lovely. I hope I can get mine to catch up to yours soon.

5. *Barkeria lindleyana* - benched by Peter and Jane



Barkeria is an interesting relative of the Epidendrums. They have short cane like pseudobulbs, usually no longer than 15-30 cm and a sort of climbing habit that derives from each new growth coming from the first or second stem node of the previous cane. They generally have very thick roots and grow as dry epiphytes or lithophytes.

In their native Central American habitats they have a dry, bright winter rest and some species may even be deciduous. They generally come from only moderate elevations but can be grown cold in most of Sydney under cover, probably because of their being quite inactive in winter anyway. You just need to be sure to respect the need for a dry bright winter rest. *Barkeria* occur as both an epiphyte (on trees) or a lithophyte (on rocks) but I have found that all I have tried are quite incompatible with the

usual pots and potting mixes. These are real epiphytes that want to dry off fast after watering. They are best grown mounted or perhaps in one of those net pots with just a small handful of very coarse bark. I also grow mine hanging from wires up near the roof of my laserlite roofed shadehouse where they are bright and dry quickly.

They are a very attractive orchid in flower and look after themselves if you meet their few needs. A mature plant can be a bit untidy with big dangling clusters of fat roots and purplish tinted short stems but they flower beautifully.

It's not just the flowers – Jim Last month I wrote about the differences between various Callista group Dendrobiums and highlighted flower differences. For example, Den. *densiflorum* is all gold/orange, Den. *thrysiflorum* is white with a gold/orange lip. I focused on these popular species because they are so popular and EVERY orchid grower gets them mixed up when they first start growing them. However, although in that particular case, colour is the obvious and most simple way to tell which is which, **Flower Colour** is **not** a characteristic used in taxonomy to separate species. --- In fact, as explained in discussions about *Cattleya purpurata* further on, variable colour is even a notable feature of some orchids.

The point I wanted to make here is that to work out what any given unknown orchid in your collection might be, there are a whole range of factors you need to take into consideration, and the first is the 'whole of plant' assessment. Does it look like a Dendrobium? And if so is it a softcane or a hardcane? If it's not a Dendrobium, what else might it be? A Cattleya type? A Vanda? Or some kind of Oncidium or Oncidium relative? They all do have quite different looks you know. However, let's not get too deep all in one go. *D lindleyi* 15cm tall

Let's just say, for the sake of this discussion, that your unknown orchid is a Dendrobium and it has yellow flowers. Look at these three plants. Before you get into comparing the flowers, each has such a distinctive shape, size, and style that if yours looks like one of them, it can't possibly be either of the other two. That is the first step of identifying an orchid. Look at the whole thing. Take into account that it might be still a baby and could grow a little, and that some cultivars are just bigger or smaller than others of the same, but if it has flowered, the general form should already be established.

Your first question is "Does it look anything like what you are thinking it is?" If the answer is yes, but there are a couple of other possibles, then try to rule out possibles ONE AT A TIME. Look for a comparison factors that will clearly rule out one or another possibility without going any further. It's not all that hard and you learn more and more about your orchid as you go along. You will see things about it that you had never noticed before and the process itself is quite fascinating. Look at pseudobulbs, leaves, flower lip, or any other distinctive characteristic.

In these 3, apart from the general plant size differences, and the variances from one plant to another, look at the more close up detail of the actual pseudobulbs and leaves of each of the three species above. Despite size differences, they are quite different to one another.

(below 2 different *lindleyis*)



(right *fimbriatum*)

(below 2 different *chrystotoxums*)



***Cattleya purpurata* (until recently known as *Laelia*) – 'benched' this month by many.**

This magnificent orchid comes from a relatively narrow coastal strip in the southern states of Brazil (red on this map from the University of Connecticut). The inflorescence carries from 2 to 5 large flowers that can be up to 25 cm across but are generally a touch smaller.



One of the amazing features of this delightful orchid is the large range of colour forms in which it occurs in nature. In Brazil there are orchid clubs that specialize in growing this one species and its many varieties.

In Australia, Royale Orchids in Sydney hold an annual *Cattleya purpurata* show, more or less mirroring Brazil's *Cattleya purpurata* shows, and in this month's North Shore Orchid Society newsletter, Lesley Bromley produced a wonderful photo report of the show place getters with an explanation of the various colour categories. She has given me permission to reproduce it for you here to give you an insight into the recognized forms.



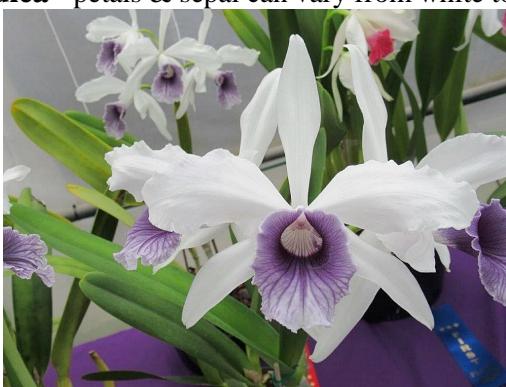
Laelia purpurata show at Royale Orchids 2020 - report by Lesley Bromley

This show at Royale Orchids follows in the tradition of the *Cattleya purpurata* shows in Brazil where these orchids grow naturally. I have named the various classes which had entries with a very brief description followed by the 1st & 2nd in those classes. This year due to Covid the show was smaller than normal and some classes only had 1 entry.

A. Típo - this is the most typical colour form found in nature.



B. Coerulea - petals & sepal can vary from white to light slate with the labellum deeper slate blue.



C. Carnea - (flesh coloured) petals & sepals generally white with labellum attractive shades of flesh pink.



E. Roxo-Violeta - petals & sepal generally white with the labellum coloured deep purple with hints of blue.



G. Semi Alba - petals & sepal white to milky cream with the labellum coloured purple.



I. Russelianana - petals & sepal generally white to pale pink with the labellum a pink lilac hue.



K. Alba - petals & sepal totally white, labellum also white but may have some yellow in the throat.



N. Sanguinea - petals & sepals are coloured deep red/purple with a velvety texture with the labellum more intense in colour.



L. Striata - petals have striations on the outer surface of them, the striations are generally parallel in the longitudinal direction of the petals.



M. Rubra - petals & sepal are coloured with deep matte pink/ purple, the sepals may be slightly lighter, the labellum is a dark red/purple with yellow in the throat.



O. Anellata - petals & sepals are white and the labellum has a well demarcated thin ring of colour which encircles the labellum at the entrance of the throat.



K. Flamea - has the colour of the petals that intensifies towards their tip; the petals may also have striations.



K. Flamea 2 nd

There are no shows in Australia that I know about, that are restricted to one species of orchid, but when you see a show like this you can appreciate the variety of colours that these orchids can come in.

Laelia purpurata

These are also a great orchid for members who do not have a hot-houses as they grow cold, and seem quite tolerant to all kinds of potting mix. They flower around Christmas quickly bulking up to a large pot of colour, I highly recommend them members to have one or two of these orchids in their collection.



“Orchid Ailments and Their Management” (winner of the 2017 AOF Essay Competition) - by Jan Robinson
The majority of the health problems we have are caused by one thing and one thing only --That Woman. "We" are a small collection of orchids doing our best to survive in a suburb of Sydney, but we are constantly under threat by the actions of That Woman. What have we done to deserve this? Some of us come from the tropical jungles of the Americas, or the cool rainforests of Asia, or, at the very least, the prime conditions of commercial orchid nurseries. To our horror, we have been plucked out of these wonderful environments and somehow ended up here with That Woman, fearing for our survival on a daily basis.

Here are some examples of the numerous maladies that we have had to endure due to the irrational, illogical, insensitive and uninformed actions of That Woman.

MALNUTRITION. Initially when That Woman first became interested in orchids, she had no clue about feeding us. Water and the odd bit of foliar feed once in a while was all we got. Please note that when there are hardly any new growths on your orchids, or the new growths are smaller than the old growths, then your orchids are starving and you need to do something about it!! Luckily That Woman attended a New Grower's class and learned about the benefits of fertilisers --- but then the pendulum swung to the other extreme!

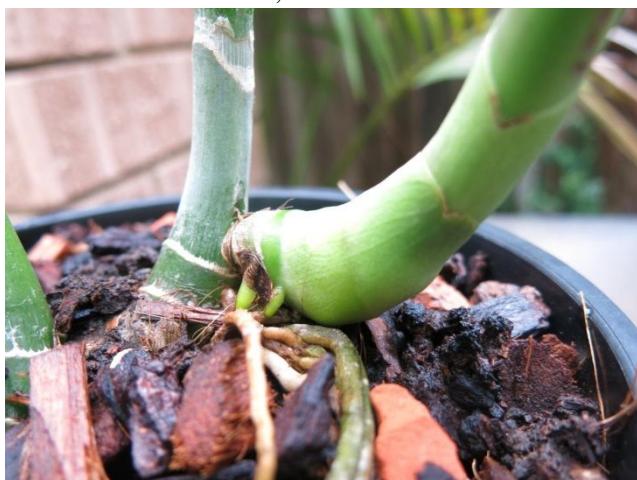
OBESITY. For a while, That Woman fed us with a hand sprayer, one of those pump up ones. She had heard the phrase "weekly weakly" in the New Grower's class and tried to follow that rule with her hand sprayer. We were much happier, much less hungry, and our growth habits were much improved. But then That Woman's hubby rigged up a bulk spraying system, one where she could mix up 100 litres of fertiliser at a time and totally saturate us, which she did with great enthusiasm and appalling regularity. No thought was given to the fact that we are a varied collection of orchids, ranging from large specimen-size plants to tiny seedlings just out of flask, or that we have different feeding requirements. Nor was there any consideration given to the impact of complete "saturation" of our potting media with fertilisers versus the previous light spraying technique.

It was only when symptoms of obesity such as horribly swollen pseudobulbs, new leaves not unfurling properly because they were too fat, and mutated labellums began to appear that That Woman realised we had a problem with excessive food intake. Please don't overfeed your orchids!! In the wild, we rely on slowly decaying organic matter for our nutrition -- don't try to supersize us with commercial products. Forget about trying to "hurry us along" to flowering size by feeding us too often. Think carefully about your fertilising regime and the possible consequences of what you are doing, particularly before making any major changes. Trust me, it takes a long time to recover from the effects of obesity.

DEHYDRATION. Lack of water at our location is caused by one thing -- That Woman being too lazy or "busy" to turn the watering system on frequently enough when it hasn't rained for a while. If your orchids have a good root system and the "drought" doesn't last too long, they will usually spring back to life after a few good drinks. However, if your orchids are totally dehydrated because they have no roots and cannot absorb any water or nutrition, then you have a real problem. Shrivelled pseudobulbs can be a symptom of root ailments.

There is only one way to tell for sure -- take your orchid out of the pot and have a look at its root system. If there are only old dried up roots and no new healthy ones, then some first aid is required! That Woman is having some success with sphagnum moss as a remedy for this, especially for genera such as Oncidioms, Coelogynes, Lycastes and Anguloas. Cut off all the old dead roots and firmly pack the shrivelled pseudobulb and any live roots with sphagnum moss in a pot barely big enough to hold the bulb. Be patient, it takes time to recuperate from severe dehydration, sometimes years! When you see the pseudobulbs start to fatten up and a new growth develops, you have succeeded in treating your plant for dehydration.

ROOT ROT. The other extreme from being dehydrated is getting so much water that the potting mix stays too wet and the roots of your orchids rot. Root rot is bad news and the mortality rate is very high for plants that succumb to this ailment. That Woman is an expert at causing root rot, especially in her glass house. When her columnar



oscillating fan stopped working, she foolishly replaced it with just a small fan that only blew air in one direction. Without considering the effect that this change of air flow might have on us.

That Woman also decided not to repot any of her Paphs that live in the glass house that same spring and left us all in a mix of over 50% cocochip. How stupid was that?!! If the amount of your air flow changes for any reason, think about the impact on your orchids and make adjustments accordingly. Don't wait until your plants start to die to make a change.

Treatment for root rot includes repotting your plant in fresh mix after cutting off all the rotted roots, giving it a good dose of Seasol or Auxinone, reducing watering for several weeks, and crossing your fingers that your plant pulls through this crisis. Repot your orchids on a regular basis, don't wait until your potting mix has broken down to a gluggy mess and rotted all the roots of your plants to take some action. Yes, it is a big job to repot your entire collection every few years. Yes, it may cost you a few dollars to buy new potting mix. Yes, it is a pain to wash and sterilise your old pots before reusing them by soaking them in bleach. But we're worth all the work and expense and we will reward you with fantastic flowers if you treat us right.

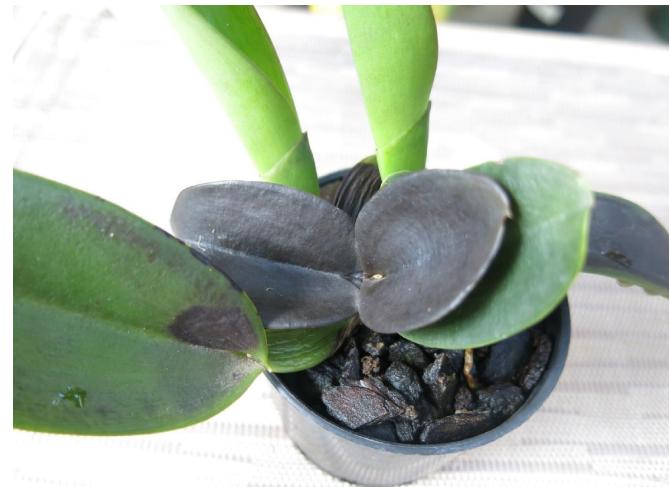
CROWN ROT. Not only has That Woman been known to rot our feet, she has also rotted some of our heads! Crown rot happens when water stands too long in the top of your orchid before evaporating or being absorbed. If this happens during the summer, the water may heat up and literally cook the top of your plant. If it happens during the winter, your plants won't be happy, either. At least this orchid ailment is a bit easier to spot than root rot, as you don't have to take the plant out of its pot to see what the problem is. Brown soggy leaves around the top of your plant are symptomatic of crown rot. If you're lucky, your plant will recover and put out a new growth. More than likely though, your plant is a dead duck. Crown rot, or "damping off," is also deadly for developing buds. If water stands in the sheaf of your paphs where the buds are forming, they will go black and not mature--and you will have to wait another whole year for the chance of getting a flower.

Some growers apparently use hydrogen peroxide to treat crown rot. Please don't tell That Woman, we don't want to have all our heads drenched in that mixture!! Check your orchids a few hours after watering them. If water is standing in the top of a plant, drain it by tilting the plant on its side until the water runs off. Or soak up the water by dabbing it with a piece of paper towel.

Sometimes That Woman puts a few stones between a pot and the tray it is standing in so that the pot sits at an angle and water can drain naturally out of the top of the plant. Sometimes you have to think outside the square to solve an orchid problem.

SUN BURN. Now this is a good one! What person in their right mind decides to move several trays of *Cattleya* seedlings from their usual spot of nicely filtered light into an area of much brighter sunlight --- the day before temperatures are tipped to reach the high 40's? THAT WOMAN, of course! For once, the weather forecast was right and for the three days the temperatures hovered around 47.5 degrees, That Woman sat in front of a fan inside the house drinking cold drinks without even a thought about her poor *Cattleya* seedlings. Didn't she get a severe shock when she saw those seedlings, hardly recognizable and covered in third degree burns! Their lovely fat green leaves had turned pitch black. Several days later, the black leaves fell off the plants, revealing burned black pseudobulbs as well. What is the treatment for sun burn? Move your plant into a shadier spot, give it a big drink, and hope for the best. But beware, leaves with sunburn spots can become susceptible to fungal infections and other nasty ailments. So if the leaves of your burned plant don't actually fall off, try cutting off the damaged bit (with sterilised secateurs of course). And next time, pay attention to the weather forecast and move your plants **out** of the sun on hot days, not **into** the sun! Wet the floor under your benches and move plants that normally hang up high in your bush house to down lower. Even orchids that are used to growing in the direct sun (*Dendrobium fimbriatum* and some cymbidiums here at our place) can get sunburned in days of extreme heat. It only takes a few minutes to move your plants into a temporary shadier spot---it may take years for them to recover if you don't, if they recover at all.

HYPOTHERMIA. This is another orchid ailment that is directly attributable to That Woman. We get hypothermia when we are simultaneously too cold and too wet. This is easily preventable by (1) providing us with cover (maybe even a bit of heat) during the winter, and (2) being careful how you water us during cold periods. Only water on a sunny day; water before midday so our leaves have time to dry off before the sun goes down; and don't water us too frequently. Make sure there is good air circulation around us to dry off our foliage after watering. Remember, many of us require dry winters to initiate flower spikes in the spring. Most of us orchids have a much better chance of surviving in winter if we are cold and dry rather than cold and wet. Symptoms of mild hypothermia include leaf



spotting and plant rot. Mild hypothermia may cause your orchids to be susceptible to fungal attacks. Severe hypothermia causes death. Spray with a fungicide if you must, but it's much better to just keep us dry during cold periods.

ALCOHOLISM AND BUG INFESTATIONS. That Woman hates insects. One of her favourite evening activities is to creep around the bush houses with a torch, hoping to find some unsuspecting grasshopper or slug to squish with great gusto. She does not like to spray with insecticides as a preventative method, she waits until she sees actual damage before taking any action. Somewhere That Woman read that methylated spirits is a good remedy for all types of scale on orchids, especially since its use is non carcinogenic to the grower, and it supposedly kills scale on contact. In typical unthinking style, That Woman got an old toothbrush, dipped it in some straight metho, and launched into a vigorous scale eradication program. The mature cattleyas didn't mind too much, as removal of all the old bracts around the pseudobulbs with the toothbrush revealed quite a few hidden nasties that were sucking the life out of the plants. When no more scale was visible, That Woman then gave the cattleyas a thorough rinse with clean water. After waiting all of 24 hours and seeing no ill effects on these few trial plants, That Woman then proceeded to give the metho treatment to any and all of the rest of us that had even one spot of scale. In her tooth brushing enthusiasm, That Woman slackened off with the rinsing procedure after applying the straight metho -- and guess what happened? Yes, she burned the soft leaves of young cymbidiums, oncidiums and lycastes. They literally turned brown in a few hours after receiving the metho treatment. The treatment was worse than the original ailment!! Please think about the possible impact of any new procedures/chemicals/insecticides before adopting them for your entire collection, and wait at least several weeks if not several months to see what the effect has been before deciding to apply it to all your orchids.

INFECTIONS. That Woman is a master at encouraging infections, especially fungal ones. The worst example of fungal contamination happened last summer when That Woman overwatered all her *Sarcochilus* collection during a bout of hot, humid days. She did not realise she had a problem until leaves started falling off her Sarcs by the handfuls. That Woman found out later she had caused a catastrophic case of the dreaded fusarium fungus! This horrible malady invades our roots first, causing severe rot before destroying stems, leaves, and everything else in its path. CPR is immediately required if your plants become infected with the fusarium fungus: Carefully take the plant out of its potting medium ("carefully" because you don't want to damage what few roots there may be left); Prune the rotted roots, leaving only the healthy ones; and Rinse all the old potting mix off your plant. (** see JB Note below)

Then soak it in a bit of anti-fungal solution such as Mancozeb before repotting in fresh mix. Give your plant a drink of Seasol or Auxinone to stimulate new root growth, and once again hope for the best. There are many other varieties of fungal infections besides fusarium that are detrimental to your orchid collection. Glomerella is a common one that creates horrible brown and black lesions on orchid leaves. Botrytis is another one, it attacks the actual flowers of your plants. Once again, this is a case of an ounce of prevention is worth a pound of cure. Don't overwater your orchids, especially when the natural humidity is already high. Proper air movement is critical to keeping fungal infections at bay. If something is preventing good ventilation, like the neighbour's new garage blocking off one side of your bush house, invest in a cheap fan or two. Never be tempted to buy plants that do not look healthy, no matter how cheap their price may be! Bringing new fungal-infected orchids into your collection is a recipe for disaster. Keep dead leaves and pseudobulbs trimmed off your orchids, they are great places for fungal diseases to incubate.

THE 'V' WORD. The 'V' word throws That Woman into an absolute panic attack. She has no quarantine area and believes in immediate euthanasia of any orchid that shows even the slightest sign of unusual ring spotting on the leaves. Goodness knows how many perfectly good orchids That Woman has sealed in a plastic bag and dumped unceremoniously into the rubbish bin, fearing they were infected with a virus. (She would never put a 'sus' plant into the green waste bin, in case the bin contents get mulched and distributed and thereby transmitting the virus to other plants and gardens.)

She has never sent a leaf to a lab for a proper scientific diagnosis. "If in doubt, throw it out" is her motto. That Woman is a stickler for soaking her secateurs in bleach after every use, and she never ever reuses any potting mix. One reason she hates insects in her collection so much is because they have been known to transmit viruses. Over-the-top behaviour? Perhaps. But at least we haven't been wiped out by any virus like so many other orchid collections have over the years.

That Woman, what a menace. Luckily she is going on holidays soon so we can have some well-deserved respite. We hope you never make any of these same mistakes with your own orchids. If you do, at least don't publicly admit it. To do so can be very embarrassing.

JB Note: Rhizomes infected with Fusarium mostly have a distinct diagnostic feature of a purple ring around the outer flesh of the rhizome. When cleaning up an infected orchid you must cut away and discard all parts showing this purple infected signature, and all roots and pseudobulbs arising from the infected parts. Keep only clean stems, roots, and rhizomes.

