

Newsletter 53 December 2005

MAJORS MOUNTAIN - A WALK TO PARADISE FOR A NATIVE ORCHID GROWER

by Mark Nowochatko

In Mid August 2005 the Atherton Tablelands Branch of SGAP conducted a field day at Major's Mountain, just east of Ravenshoe on the Evelyn Tableland in North Queensland. A group of 20 plus diehard SGAP enthusiasts met at the trailhead and undertook the walk of approximately 3 km one way. With the first 2.1 km easy going, the balance is a strenuous climb to an elevation of around 1,100 metres.

Moving from the main track to the Major's Mountain goat trail, the orchids started with a *Plectorrhiza tridentata* and several *Bulbophyllums*. Shortly after the steep climbing starts the orchid zone is reached. The pace slowed considerably as everyone explored this wonderful orchid habitat, and the difficulty of the walk faded away.

Dendrobium adae in bloom greeted the walkers; some flowers with a significant amount of red on the back of the tepals caught the interest of several people. Amongst the orchids in bloom visible at eye level was *Sarcochilus falcatus*. The plants are small with flowers nearly as large as the plants. A stunning *Sarcochilus borealis (olivaceous)* on a tree trunk barely 100 mm off the ground tested the determination of several photographers. (Mind you the ground was sloping up at over 50°.*) Several plants of *Taeniophyllum* were found carrying seed pods, but without the flowers positive identification of the species was not possible. Observant walkers would also have spotted some nice *Plectorrhiza tridentata* in bloom. Quite a few orchid species not in bloom were also observed. (See accompanying list)



Sarcochilus olivaceous



Dendrobium carri

Photos: Mark Nowochatko

Everyone eventually made their way to the top where we stopped for lunch accompanied by *Dendrobium speciosum*, in bloom, *Thelymitra pauciflora* in bud, seeding *Dendrobium agrostophyllum*, *D jonesii*, *D carrii*, and numerous *Bulbophyllums*. Off to the north-east the wind turbines of Windy Hill could be seen.

This was a poor year for *D speciosum* blooms though enough were present for everyone to appreciate the beauty of this orchid. Some late *D carrii* blooms were there for those who spotted this rare orchid. Up to six *Bulbophyllum* species were recognised though a *Bulbophyllum* specialist is really needed to conclusively identify all the various *Bulbophyllums* occurring here.

After lunch most walkers explored the summit and continued the last 100 or so meters to the end of the trail before heading back down to the car park. It proved a perfect day weather wise and highly rewarding in the number of orchid species observed, the final tally being 30, a very good effort for five to six hours walking.

Majors Mountain Orchid Species

<i>Acianthus borealis</i>	<i>Dendrobium adae</i>	<i>Octarrhena pusilla</i>
<i>Bulbophyllum johnsonii</i>	<i>Dendrobium agrostophyllum</i>	<i>Phreatia crassiuscula</i>
<i>Bulbophyllum schillerianum</i>	<i>Dendrobium carrii</i>	<i>Plectorrhiza tridentata</i>
<i>Bulbophyllum evasum</i>	<i>Dendrobium jonesii</i>	<i>Pterostylis</i> ?
<i>Bulbophyllum lilianae</i>	<i>Dendrobium racemosum</i>	<i>Sarcochilus borealis</i>
<i>Bulbophyllum macphersonii</i>	<i>Dendrobium speciosum</i> var.	(olivaceous)
<i>Bulbophyllum newportii</i>	<i>curvicaule</i>	<i>Sarcochilus falcatus</i>
<i>Bulbophyllum wadsworthii</i>	<i>Dendrobium tetragonum</i>	<i>Sarcochilus serralutus</i>
<i>Cadetia taylori</i>	<i>Liparis bracteata</i>	<i>Taeniophyllum</i> ?
<i>Cymbidium madidum</i>	<i>Malaxis latifolia</i>	<i>Thelymitra pauciflora</i>
<i>Cymbidium suave</i>	<i>Mobilabium hamatum</i>	

* I must emphasise that this orchid was growing epiphytically; it's not a lithophyte or terrestrial. P.

HELMET ORCHIDS – CORYBAS

By Don Lawie

The word "Corybas" is redolent of the skullduggery and double dealing that was indulged in by 19th century orchidologists. According to David Jones in *Native Orchids of Australia*, the type plant was named "Corysanthes" (meaning helmet flower, in Greek) by its discoverer, the distinguished English botanist, Robert Brown. Brown joined a four year expedition to Australia in 1801 and collected 4,000 new plants. Not surprisingly, he was a bit slow to publish his names, and did not describe *Corysanthes* until 1810. In the meantime, the great Ferdinand Bauer, of New Guinea orchid fame, had prepared a colour plate of the type species. This plate was viewed by one Richard Salisbury - whose name I cannot even find in any of my references - who then proceeded to put his own name of *Corybas* on the plant and then, inaccurately, describe it. Thus when Brown's paper was published his name was not acceptable under the principle of prior publication.

The name *Corybas*, by the way, refers to the "dancing priest of the Goddess Cybele". Cybele was the goddess of nature and mother of all living things in the pantheon of the Phrygians, an ancient people of what is now western Turkey. Brown's name *Corysanthes* almost survives in the South American species *Coryanthes*, with the inelegant common name of "Bucket Orchids".

Helmet Orchid, the common name for *Corybas*, is very apt since the flower somewhat resembles a helmet sitting on a leaf. The flower can be flat on the leaf, or raised slightly on a short stem. The helmet is formed by the enlarged labellum and dorsal sepal, both of which are curved and meet at the edges to enclose the column. The other sepals and petals are present but small and insignificant.

Corybas orchids are widely distributed, from India across SE Asia to New Guinea, Polynesia and Australia. The genus includes about 100 species, with 15 in Australia. The climatic range is impressive, from the jungles of Indonesia to the semi-tundra of Macquarie Island. Corybas is a tiny terrestrial, usually growing in a damp area of moss or leaf litter. Some Corybas are said to be easy to grow, in a mix of sandy loam and leaf mould. It is of interest that Eucalyptus leaf mould is recommended for Australian Corybas, since it is generally accepted that Eucalyptus leaves have properties that are inimical to plant growth other than their parent tree.

In Australia most Corybas species are found in the temperate areas of Tasmania, Victoria, South and Western Australia and New South Wales, and also in New Zealand. Some Corybas species grow in Queensland, in higher altitude, cool areas. My first and only viewing of these elusive little orchids was in an area of creekside debris on the Atherton Tablelands and at first I thought that Len Lawler was pulling my leg when he said that that delightful little plant was an orchid!

As is the way with many Australian terrestrials, Corybas are deciduous, spending the heat of summer underground in the form of a spherical tuberoid. The post-summer rains stimulate growth and the plant emerges as a single flat leaf, often already with a flower bud attached. If conditions remain suitable the flower opens, is pollinated by a type of gnat and then one of Nature's stupendous tricks occurs: the



Photo: Kate Vlcek

flower which grew no higher than 30 mm now becomes a fruit, the peduncle elongates to the lofty height of 30 centimetres, the fruit dehisces, the seed disperses and the plant, having performed its miracle of continuation of the species, concentrates its energy into a series of tuberoids, subsides and disappears. If humanity behaved in the same way, would we have any members of SGAP??

Kate's Corybas photo was taken in the Grampian Mountains National Park of Victoria, on September 12 last year. At the time Kate did not know the species – I'll guarantee she does now. I suggest it is *Corybas incurvus*. It shows the typical appearance of a Corybas with prominent flattened leaf and closely attached helmeted flower. This is a reminder of the hidden jewels that are awaiting discovery, sometimes in the most unlikely places.

Our thanks, once again, to Kate for providing us with her beautiful illustrations and an insight into orchids of the southern part of our continent.

We've just received the latest issue of *Growing Australia*, the newsletter of APS Victoria, which features Kate's illustration of *Chiloglottis valida*. Kate used a plant she had grown herself for this illustration. She has provided the cover pictures for all four Victorian newsletters this year. Congratulations Kate.

BIRDS AND ORCHIDS

by Pauline Lawrie

It is not unusual to read about birds in this newsletter. The comments are mostly complimentary. On this occasion they are not. The bird in question is a Spangled Drongo, *Dicrurus hottentottus*, and for its behaviour I think it deserves to be called a drongo in the full Australian sense of the word. However, our Reader's Digest *Complete Book of Australian Birds* informs us: " 'Drongo' is simply the indigenous

common name for the member of the Dicruridae family that lives in northern Madagascar.

This particular bird came to our notice when she and her mate had a battle royal with a pair of helmeted friars, *Philemon buceroides*, in a *Veitchia* palm in the back yard. There are two of these palms, grown from seed collected from the same tree, and planted at the same time. For some inexplicable reason one tree is a couple of metres taller than the other. Like all the palms in this area this year, both of these trees produced several inflorescences at the same time.

I thought the friars were determined to feed on the newly opening flowers on one inflorescence and the drongos were equally determined that they should be nowhere in the vicinity because Mrs Drongo had built a nest in an inflorescence in the taller palm. This fact gave rise to the thought that the drongos would be proven to be so if the inflorescence fell before the chicks left the nest – or, did they know it would last the distance?

My anthropomorphic streak saw the friars win the stand-off then, once they had established dominance, they decided the Grevilleas were much more to their taste. However, while I was writing this I went to look at these palms again, and I discovered that the friars have a nest in an inflorescence on the shorter plant. They were just protecting their territory.

A couple of days later I saw a drongo perched on a *Dendrobium teretifolium* which, as you would know, does not offer much of a foot hold. She was pecking furiously at the base of the plant. I immediately thought she must be after some insects and was happy for her to continue. Don observed the same behaviour a day or so later. On about the fifth day we watched her pecking at the trunk of the tree, mainly where the moss had grown around the base of the plant, but as we watched she worked her way up and down and around the trunk, following the tracery of the roots. She appeared to be eating something and dropping bits as well. When she moved off we went to inspect.

We found the orchid, a plant 80 centimetres in length, on the ground. It had literally been pecked off the tree and most of the roots had been torn off too with little left to show where they had been for the last few years. I have read that the drongo lines its nest with moss; we will be able to inspect it when the inflorescence with the nest finally falls. When the buds on a nearby inflorescence started to open a heap of bees came after the pollen. The drongo took full advantage and picked off the bees to her heart's content. This *D teretifolium* will survive, but we now believe that this could have been the fate of several *D nindii* seedlings which disappeared from this tree.

Alexandra palms, *Archontophoenix alexandrae*, are a much better host for *D nindii* seedlings, but we will keep a sharp eye on them too, as we observed a flock of Sulphur Crested Cookatoos over several days systematically destroy an Alex. A group of birds would fly onto the same leaf and bounce up and down on it, which looked like a pretty good game at first. One by one the leaves were broken off so that now the dead stem only remains. This tree stands a few metres from an identical one; why was it chosen?

One final bird observation – a few years back we found a Black Butcherbird's nest in the top a tree fern, *Cyathea cooperi*. When first observed we were sure there were two chicks, but a couple of days later thought there were three. Closer inspection revealed that the third chick was actually an unfurling crozier and we were concerned that the chicks learn to fly before the crozier tipped them out of their nest. After seeing how these Butcherbirds prey on other little birds, we would not be too concerned about their chicks these days. The drongos and friars are now co-operating against butcherbirds and kookburras.

SPATHOGLOTTIS PLICATA – another sad story!

After seeing Nada's beautifully flowering specimens, I was determined that mine would look as good, and assiduously watered and fertilised my three metre bed of deep purple *S plicata*. They were

looking magnificent, flowering profusely and had almost lost the tatty leaves which we still have not decided are due to inconsistent watering, a virus or a fungus.

Pride goeth before a fall. An early morning inspection revealed all flower heads gone apart from a few buds. Subsequently I cut off over 40 flower stems. This was just the first of several raids. I blame pademelons as the flowers disappear at night. Whatever it is, it is just as fond of day lily flower heads, not just one flower at a time but the whole head. I had one plant which was about to reveal its colour for the first time. I'm still wondering; and the garden looks dreadful with a hotchpotch of protecting devices.

Nothing has taken these flowers before and I hope that when our weather returns to normal that will be the case again.

Australia's wettest town has been unbelievably dry this year. By close to the end of the year we have had less than six months rain. We were putting contingency plans into effect in the possibility of the creek drying up when we were given a Christmas present of seven inches in 12 hours.

DENDROBIUM NINDII

This programme has received quite a set back. Most plants placed on palms other than Alexandras have disappeared – sheared off by a leaf or flower sheath falling? roots eaten by birds? or just died? Those tiny plants still surviving have all been removed and tied onto an Alexandra.

To expand the distribution, I tried to pollinate a flower on our main plant when, after three attempts foiled by insects, it flowered in September, to no avail.

This is the information we have distributed with the *D nindii* seedlings.

Orchid Growing In The Tropics

Watering Treat orchids pretty much as you would ferns. In cultivation they grow best if they are not too wet and not allowed to dry right out during the growing season. As with other plants, it is better not to water too late in the day, particularly in cold weather.

Fertilising The same applies to orchids as to other plants – never fertilise a dry plant.

The easiest, and therefore most likely to be successful, fertilisation programme is to spray all plants with half strength Thrive every couple of weeks or so. Any complete fertiliser is suitable for orchids but it must be used at half strength.

If success encourages a programme more tailored to orchids, try -

January - February - March: Alternate High Nitrogen, Organic and Low Nitrogen

April - May: Alternate Low Nitrogen and Organic

June - July - August: Use Low Nitrogen only, once a month

September - October - November – December: Alternate High Nitrogen, Organic and Low Nitrogen

Organic Fertilisers recommended – Nitrosol, Fish Emulsion, Maxicrop
 Inorganic – High Nitrogen - Campbells B
 Low Nitrogen - Campbells A

Other brands recommended are Flowfeed (possibly high nitrogen – I've never tried it) and Phostrogen, low nitrogen. Campbells seems to be available in lots of places and is made specifically for orchids, but unless one has a large orchid collection, specialist fertilisers are not economic. All other fertilisers not specially for orchids should be used at half strength.

Terrestrial orchids can be given slow release or pelleted fertilisers, but it is advisable not to use them on epiphytic orchids grown in pots as they can clog the mix and prevent thorough drainage.

The outer layer of epiphytic orchid roots is composed of a particular tissue named 'velamen' (from the Latin word meaning 'covering'). These spongy cells absorb moisture from the air, so air around the roots is vital. In very dry conditions these roots would take full advantage of the briefest passing shower, overnight dew, or even a morning mist to keep them going until more favourable conditions return.

ORCHID/FERN SYMBIOTIC PROPAGATION

by Don

It is not unusual to see a *Cymbidium madidum* orchid and a *Platycerium hillii* fern growing in a single mass in nature. Both these plants have similar requirements for germination and growth - in general, a warm, damp, shady place elevated above ground, usually on a rainforest tree or palm.

Cymbidium madidum, the rainforest Cymbidium, produces copious quantities of fruits in the second half of the year which ripen and dehisce at about the time of the next flowering, in the cooler months of July onwards. I tried spreading *C madidum* seeds over the leaf bases of a few *Platycerium hillii* a few years ago and was rewarded by the appearance some time later of a number of Cymbidium orchid seedlings. These then grew as normal in association with the Elkhorn fern.

The "proper" way to grow orchid from seed is long and difficult; this system, using one species only of orchid and fern, was painless and successful (mind you I don't know how many million seeds were not successful!).

This year we had the usual excess of *C madidum* seed, so I decided to try something a bit different. I gathered the "peat" from inside the nest leaves of four ferns, put them into individual open pots, then sprinkled *C madidum* seed on them and put them on a shelf in my shadehouse.

The ferns were: *Platycerium hillii* (Northern Elkhorn)
Asplenium nidus (Bird's nest fern)
Vittaria elongata (Ribbon fern)
Drynaria rigidula (Basket fern).

That was on 8 November '05. Today is 26 December '05, and very little is happening; I have some nice *Commelina cyanea* sprouting from the *Drynaria*, a couple of Bluetop weeds (*Ageratum sp*) in the *Asplenium*, and nothing else.

I don't really expect any orchids to be recognisable as such for several months, but will monitor the pots and make a further report in our next newsletter, due out in March '06.