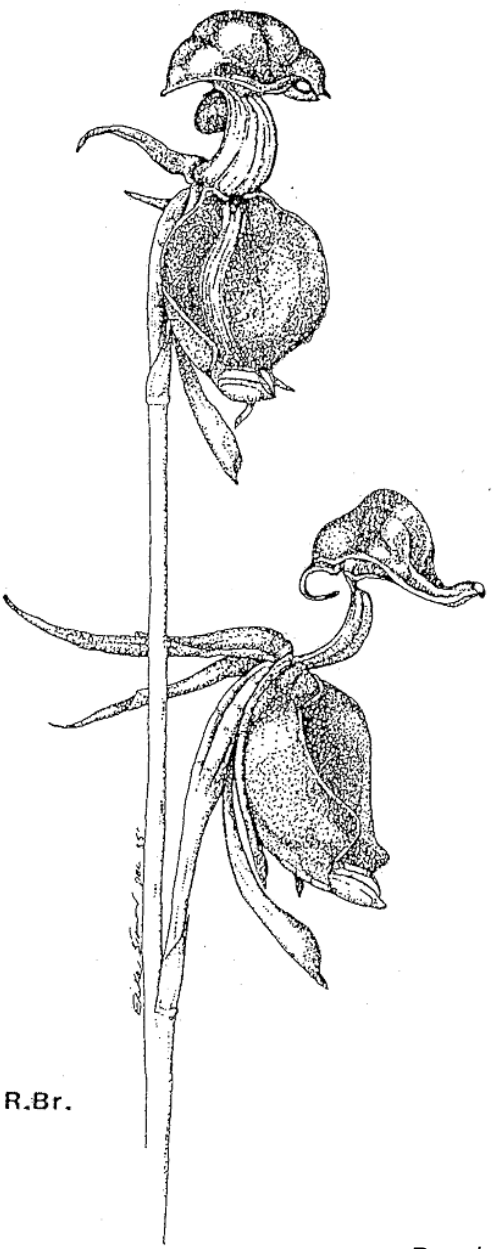
NATIVE ORCHID SOCIETY

of

SOUTH AUSTRALIA INC.

JOURNAL



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Registered by Australia Post
Publication No. SBH 1344

Volume 11, Number 9
October, 1987

NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC.

THE NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA PROMOTES THE CONSERVATION OF NATIVE ORCHIDS THROUGH CULTIVATION OF NATIVE ORCHIDS, THROUGH PRESERVATION OF NATURALLY-OCCURRING ORCHID PLANTS AND NATURAL HABITAT.

EXCEPT WITH DOCUMENTED OFFICIAL REPRESENTATION FROM THE MANAGEMENT COMMITTEE OF THE NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA, NO PERSON IS AUTHORISED TO REPRESENT THE SOCIETY ON ANY MATTER.

ALL NATIVE ORCHIDS ARE PROTECTED PLANTS IN THE WILD; THEIR COLLECTION WITHOUT WRITTEN GOVERNMENT PERMIT IS ILLEGAL.

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NOSSA JOURNAL Vol. 11, No. 9. October 1987

NEXT MEETING TUESDAY 27 October, 1987 at 8.00 p.m.
St Matthews Hall, Bridge Street Kensington.

EVENING TOPIC
George Nieuwenhoven will present a program on European terrestrial orchids. His presentation will be enhanced with a series of slides.

LAST MEETING
A number of our more successful growers participated in a range of cultural demonstrations including repotting and mounting of native orchids.

TUBER BANK 1987
Details of tubers held by the Tuber Bank and available to members will be published in the December Journal.
To enable this list to be complete and accurate, information regarding names and quantities of species and/or hybrid native terrestrial orchids which members are prepared to donate is requested.
Only information is required at present. Collections of promised donations will be arranged prior to the January long weekend. All species and hybrids are required.
No donation is too small, any quantity will be greatly appreciated.
The Tuber Bank helps the Society to raise funds as well as assisting members to expand their collection of terrestrial orchids.

Contact:- W Walloscheck R.M.B.
777 Blackwood. S.A.
f.w.d. 5157
Telephone: 3882397

:- or at monthly meetings.

THANK YOU
I wish to sincerely thank all members who provided plants for show, or helped to organise, setup and manage the many aspects of our Spring and S.G.A.P. shows.
K Western Hon. President.

PHOTOGRAPHIC COMPETITION

CONDITIONS OF ENTRY:-

1. Transparencies must be in standard 2" x 2" mounts.

2. Colour prints may be of any size.

3. Transparencies must be marked with the exhibitor's name and address and must be spotted in the lower left hand corner as viewed so that the spot is in the upper right hand corner when projected.

4. Prints to have exhibitor's name and address on back of print.

5. Entries to be numbered corresponding to entry form. (Entry forms available at October General meeting or will be posted on request to K. Western P.O. Box 276 Blackwood 5051 South Aust)

6. Entries would be appreciated in the hands of the organiser, Mr L. Moore by or at the October General meeting, or may be posted to Mr L. Moore 12 Kenna Court, REYNELLA 5161 South Aust. to arrive PRIOR to 30th October 1987.

7. All care will be taken of exhibits, but no responsibility for loss or damage will be accepted by the Society.

SECTIONS * 1. Orchid or orchids in close-up.
* 2. Orchids in growing situation. (Full plant)
Same sections to apply for Prints and Transparencies.

Acceptances, Merits and Honours will be awarded at discretion of Judge.

* The term "orchid" refers to Australian native orchids and/or their hybrids.

PLANTS ON DISPLAY - September Meeting

EPIPHYTES
Dendrobium falcorustrum, *D. gracilicaule*, *D. speciosum*, *D.* Aussie Bonanza x *D.* Kingrose, *D.* Bardo Rose (from deep pink to white), *D.* X *delicatum* (10th Anniversary plants), *D.* Golden Fleck, *D.* X *gracillimum*, *D.* Profusion, *D.* Wonga, *Bulbophyllum radicans*, *Parasarcochilus weinthallii*, *Phaius tancarvilliae*, *Plectorrhiza tridenta*, *Parachilus* Riverdene.

Plant Commentary on the epiphytes was given by Peter Barnes who noted that the 10th anniversary *Dendrobium* X *delicatum* plants seen in flower to date were showing considerable promise with much variation in the colour of the flowers.

TERRESTRIALS
Caladenia cairnsiana, *C. carnea*, *C. flava*, *C. gladiolata*, *C. menziesii*, *C. patersonii* (several pots), *C. patersonii* (Victorian form), *C. rigida*, *C.* (*latifolia x patersonii*), *Diuris crysantha* (South East Queensland), *D. longifolia*, *D. maculata*, *D.* (*aurea x longifolia*), *D.* Pioneer, *Pterostylis baptistii*, *P. bicolour*, *P.* Cutie, *P.* (Cutie x *furcata*), *P.* Hoodwink. *Thelymitra epipactoides.*

NEW *Pterostylis* HYBRIDS By Les Nesbitt.

In the 1987 season we have seen several new *Pterostylis* hybrids flower for the first time.

1. *Pterostylis furcata* x *P. baptistii*
   This hybrid produced a large, pale, green and white flower with narrow galea and long ventral sepals extending well above and to the sides of the flower.

2. *Pterostylis furcata* x *P.* x *ingens*
   Obtained from the NOSSA Tuber Bank (ex George Nieuwenhoven), the flowers appear to be rather similar to the above on first impression. But when both flowers were examined side by side, major differences were apparent. For a hybrid which has 75% *furcata* in its parentage, there is not the similarity expected either in flower or plant. The influence of *P.nutans*, the other parent of *P.* x *ingens*, is apparent. The flower of the x *ingens* cross leans slightly forward and is "squatter", but the major point of difference is in the bulbous swelling at the bottom of the flower which is pronounced in the *furcata* x x *ingens* cross but very slim in the *furcata* x *baptistii* which is a characteristic of the species *baptistii*.

3. *Pterostylis baptistii* 'Janney' x *P. pedunculata*
   A larger flower than the' now familiar *curta* x *pedunculata* but only half the size of *baptistii* 'Janney'. A plump flower held upright on a slim, straight stem 150 mm tall. Shape and colour generally follows although the *baptistii* influence can be seen at the front of the flower where the lateral sepals separate and diverge. The dark brown colour is not as intense as *pedunculata.* I am hopeful that by combining this line of breeding with the *P. cucullata* strains, we can produce large, rich brown coloured Spring-flowering hybrids.

4. *Pterostylis* Cutie x *P. furcata*
   Shorter than the previous hybrid and narrower in the galea. On these small first-flowering seedlings the flowers are medium sized, just a little larger than the previous hybrid. The plants resemble *furcata* with long wavy-edged green leaves. Some brown colouration remains from the 25% *cucullata* parentage but the velvety texture on the front of the lateral sepals has virtually disappeared. Cutie is *baptistii* x *cucullata*. Both plants and flowers are likely to become larger in future seasons.

We are indebted to Dr Warcup for raising these seedlings to the stage where they could be planted out last Summer. It would seem from this report that *furcata* seedlings reach flowering size quickly. We have several cauline hybrids but it will be at least 1988 before these flower.

PRIZE WINNERS - 1987 NOSSA SPRING SHOW

CLASS	ORCHID	GROWER
1	*Caladenia* or *Glossodia* species	
	1st *C. patersonii*	R Bates
	2nd *C. patersonii*	G Nieuwenhoven
2	*Diuris* species	
	1st *D. laxiflora*	B Mules
	2nd *D. maculata*	W Harris

CLASS	ORCHID	GROWER
3	*Pterostylis* species	
	1st *P. pedunculata*	O & M Fuller
	2nd E. *baptistii*	R Bates
4	*Acianthus* or *Chiloglottis* species	
	1st *Chiloglottis trapeziformis*	W Walloscheck
	2nd *Acianthus reniformis*	G Nieuwenhoven
5	Terrestrial species excluding 1-4	
	1st *Thelymitra epipactoides*	Botanic Gdns
	2nd *Thelymitra nuda*	H Goldsack
6	*Pterostylis* hybrid	
	1st *P. curta* x *P. pedunculata*	R Bates
	2nd *P.* Joseph Arthur	W Walloscheck
7	Terrestrial hybrid excluding class 6	
	1st *Thelymitra* x *chasmogama*	G Nieuwenhoven
	2nd *Diuris* Pioneer	M Fuller
8	Specimen terrestrial species/hybrid	
	1st *Diuris* Pioneer	R Bates
	2nd *Thelymitra* x *chasmogama*	G Nieuwenhoven
9	*Dendrobium kingianum*	
	1st Gloucester form x self	P Barnes
	2nd 'Winston Hills' x 'Inferno'	B Mules
10	*Dendrobium speciosum*	
	1st 'Mal Venn'	P Barnes
	2nd var. *speciosum*	P Barnes
11	*Dendrobium* species excluding 9 & 10	
	1st *Dendrobium canaliculatum*	G Nieuwenhoven
	2nd *Dendrobium aemulum*	H Goldsack
12	Epiphytic species excluding *Dendrobium*	
	1st *Plectorrhiza tridentata*	E Viskic
	2nd *Sarcochilus falcata*	D Murley
13	Epiphytic hybrid - cream or yellow	
	1st *Den.* x *atroviolacium*	G Nieuwenhoven
	2nd *Den.* (*fleckeri* x Ella Victoria Leaney)x *Den. speciosum*	P Barnes
14	Epiphytic hybrid - pink or red	
	1st *Den.* Bardo Rose 'Pink Delight'	O & M Fuller
	2nd *Den.* Telecon	B Mules
15	Epiphyte hybrid - any other colour including white	
	1st *Den.* Aussie Bonanza x *Den.* Peter	B Murley
	2nd *Den.* Rosemary Jupp 'Enfield'	B Bailey
16	Specimen epiphyte - species / hybrid	
	1st *Den. speciosum* var. *grandiflorum* 'Sunbeam'	B Mules
	2nd *Den. falcorostrum*	P Barnes

NOSSA 1987 SPRING SHOW - LIST OF AWARDS

AWARD	GROWER
Champion Native Orchid of the Show *Dendrobium speciosum*	P Barnes
Roy Hargreaves Trophy (Best terrestrial species or hybrid) *Thelymitra* x *chasmogamma*	G Nieuwenhoven
Ira Butler Award (best hybrid) *Dendrobium* Bardo Rose 'Pink Delight'	O & M Fuller
Champion Terrestrial Species (from classes 1-5,8) *Caladenia patersonii*	R Bates
Champion Terrestrial Hybrid (from classes 6-8) *Thelymitra* x *chasmogama*	G Nieuwenhoven
Champion Epiphytic Species (from classes 9-12,16) *Dendrobium speciosum*	P Barnes
Champion Epiphytic Hybrid (from classes 13-16) *Dendrobium* Bardo Rose 'Pink Delight'	O & M Fuller

Pterostylis nutans By John C Marsh

Common name: NODDING GREENHOOD

The species *Pterostylis nutans* is very widespread in its habitat. It occurs throughout the temperate regions of Australia appearing in most of the Southern states.

Pterostylis nutans is a terrestrial orchid in the true sense. The plant grows from an underground tuber which remains dormant during the Summer months. The plant commences growth in Autumn with a rosette of basal leaves which have wavy edges and which hug the ground surface. The flower stem of *P. nutans* rises from the centre of the leaf rosette to a height of 5 to 50 cm to present the flower. The flower of *P. nutans* is usually solitary and quite large with the typical two tone light and dark green colouring of the *Pterostylis* species with the addition of a brown/red colouring of the tips of the dorsal and lateral sepals. A variety from New South Wales has small flowers which are covered with stiff hairs. This form is known as *Pterostylis nutans* var. *hispidula*.

The common name 'Nodding Greenhood' comes from the flowering habit of the plant. When the plant is in full flower the opening at the front of the flower is in such a position that it is pointing towards the ground and the plant looks as if its head is lowered in a nodding pose. This particular feature is one of the identification characteristics of *P. nutans*.

The cultural requirements for the successful propagation of *P. nutans* can be obtained from a study of its habitats in nature. It is found in a range of environments from areas where there is a lightly shaded undergrowth to areas of open sandy woodland. Because this species comes from the temperate areas of Australia we also know its watering preferences (Cool to cold, wet Winters and generally dry Summers). In our collections it will be necessary to

provide light shading. The area where I grow my *Pterostylis* receives sun during the morning only and indirect light during the rest of the day. The compost should be of a sandy to light (not heavy) well-drained loam. In nature *Pterostylis nutans* is generally found in large communities so it is possibly advisable to sow pots with several tubers and allow the growth to become an impressive display.

Slugs and snails particularly are pests which may cause trouble in the growing of these attractive orchids. Use of appropriate slug and snail bait is highly recommended.

In the area of hybridising we find that an increasing number of *Pterostylis* species are being used and *P. nutans* is no exception with one of the most notable being *P.* Nodding Grace which is a cross of *P. nutans* with *P. curta*. It may also be noted that nature has also taken a hand in hybridising with the plant *P.* x *ingens* which has been recognised as a natural hybrid, being a crossing of *P.* x *ingens* and *P. nutans* and *P.furcata.*

With this note I wish you the best in growing this species and point out that that it is widely considered to be the easiest to grow of the genus.

ON THE CULTURE OF *Dendrobium* Peter by P.T.Barnes

My small plant of *D.* Peter was purchased from a Sydney grower (Mr Chris Arnold of Dee Why) several years ago. *D.* Peter is a primary hybrid of *D. fleckeri* and *D. falcorustrum,* two of our lovelier Dendrocoryne species. *D. fleckeri* comes from the Atherton Tableland region while *D. falcorustrum* usually grows on the impressive Antarctic Beech trees in northern N.S.W. (the best forms are said to grow in the Dorrigo region). Both dendrobiums come from a moderate altitude and are used to a reasonable amount of humidity and dampness - which may make them difficult to grow in the Adelaide region. It is possible though to grow both species here under shadehouse conditions.

I received *D.* Peter with mild trepidation and placed it in my 'seedling' shade-house. The shade-house is an old Young's shade-house kit which is now covered in 50% knitted shade-cloth over which is a permanent second layer of 50% shade-cloth. The plant came in a terracotta pot in a mixture of bark and washed river pebbles and had never been repotted (but this is imminent when I get the time). I mist the plants in my 'seedling' house every night in the hot weather and water about once a week. To increase the humidity in Summer I keep the floor of old pine bark damp and am trying to get a few ferns established in pots around the floor.

The practice of fertilising my plants is probably rather erratic but I attempt to about once a month using Johnston's mixture and occasionally Nitrosol.

Aphids tend to be a nuisance on new growths and flower buds so insecticides are sprayed when warranted. Scale, caterpillars and red spider are seen occasionally, as are fungal diseases, but so far *D.* Peter has been trouble-free (but I'll keep my fingers crossed).

'Peter' has flowered every year, usually in Winter when there aren't that many flowers about. It has a reasonable number of flowers per spike, quite shapely, buff in colour and with the 'fleckeri' lip dominant. There are other primary hybrids using *D. fleckeri* which flower in Winter one is with *D. kingianum* (*D.* Hastings) and the other is with *D. gracilicaule* (*D.* Golden Fleck). All have been used in further hybridizing and are recommended.

A NEW PUTATIVE HYBRID FROM THE MONARTO CONSERVATION PARK by R Bates

Caladenia deformis x *Caladenia filamentosa* var. *tentaculata*

This unlikely sounding hybrid was found as a single plant growing in an area of disturbed bushland with both parents; the short blue flowered *C. deformis* (blue fairies) and the wispy spider orchid *C. filamentosa* var. *tentaculata*. It was collected in early September by Jan Woodman the well known painter of wildflowers (Posters of Adelaide Hills and Flinders Ranges Wildflowers by Jan are very popular and picture several orchids. They are available from the Conservation Centre, the Botanic Gardens and elsewhere). Jan was collecting specimens for a painting of Mallee orchids when she came across the small mauve flowered plant. It caused quite a stir when taken to the State Herbarium. There was little doubt of its parentage as it had the labellum calli of *C. deformis* and the segments with slender glandular hairy tips as in *C. filamentosa*. Both parent species are typically bee pollinated.

AUSTRALIAN ORCHID TUBERS AS FOOD by R. Bates

An article by Tim Low in the latest issue of Australian Natural History (Winter 1987) titled "Ground Orchids - Salute to Saloop", contained some interesting details on the tastes and textures of orchid tubers.

Part of this article reads " ---- I was tramping through the hills behind Adelaide I spotted a ---- egg-shaped capsule on a dried stalk ---- I clawed into the dirt ---- unearthed a shiny white tuber shaped like a grape. Its crisp white starch tasted sublime ---- There were dozens of these dried pods, all signalling tiny stores of food hidden in the hot earth." Lets hope the article does not start a new tourist craze!

The article refers to comment made by the botanist J.H. Maiden in 1898 who wrote "There is hardly a country boy who has not eaten ---- tubers of numerous kinds of terrestrial orchids."

Finally to explain the title of Tim Low's article he refers to a 19th Century book which explains how Salep or orchid starch was sold at Saloop-houses as something of an all purpose food! His article was prompted by his long term interest in Aboriginal foods. Orchid tubers are indeed often listed as an important part of the diet of aboriginal people in some areas.

I have tried many orchid tubers myself and find that some are sweet, others bitter and some quite repulsive. However the best orchid food I have tasted was the fleshy stems of fire stimulated leek-orchids (*Prasophyllum*). These had a taste and texture similar to sugar cane!

REPORT ON THE FIFTH ANNUAL NOSSA SPRING SHOW DAY EXCURSION TO BELAIR RECREATION PARK By Bob Bates

One of the advantages of making annual visits to the same locations over a period of time is that one is able to note changes in the orchid flora that occur either naturally or un-naturally.

Our first stop was made at a point due West of 'The Pines' oval. As usual we noted large numbers of *Diuris longifolia* and *D. lanceolata* and their natural hybrid which seemed to have become more numerous and there were some absolutely glorious examples with deep orange and buttercup yellow flowers, some 4 cms across. In contrast it was noted that *Diuris maculata* was no longer

evident and that for the first time its natural hybrid with *D. lanceolata* (*D.* X *palachila*) was not found either.

During our 2 hour sojourn in the park the weather changed from warm and humid to cold and wet. It was fascinating to notice that the sun orchids , *Thelymitra antennifera* and *T. luteocilium* did not close quickly in the cold and damp as might have been expected but remained bravely open.

At our second stop (Long Gully) two obvious changes were noticed. The first was a patch of greenhood hybrids *Pterostylis curta* x *P. pedunculata* once only a metre across was now some four metres across, but rather more sparse. The second change was observed further along the gully; where the main concentration of *Pterostylis cucullata* which was growing out in the open five years ago had disappeared, had now increased near the shelter afforded by blackberry bushes. This was thought to be due to human intervention as a well worn path led straight to what had been the centre of the *P. cucullata* patch.

At the third stop (Melville Gully) the changes were less natural. Trees had been felled and branches now covered the bare ground which previously supported a clump of pretty blue *Caladenia deformis*. In contrast the donkey orchids *Diuris maculata* had significantly increased in one of their favoured habitats - the bare clay of the roadside verge.

At our fourth stop which was a roadside cutting on the southern boundary of the park, the orchids have been continuously monitored for some 60 years. My grandfather had built his house (which still stands to this day) in natural bush opposite the park in about 1920. My mother told me that the large white spider orchid *Caladenia patersonii* was abundant here in the 1930's, but in those days the government encouraged landholders to clear the bush ('improving the land' it was called). I recall that there were still one or two left in the 1950's but there are none left today and I have not seen *C. patersonii* in the Belair National Park since.

In the 1950's *Diuris lanceolata*, *D. maculata* and *D. longifolia* were abundant. Today we found no *D. lanceolata* but we did find its hybrid progeny (*D.* X *palachila*) as well as the natural hybrid *D. maculata* x *D. longifolia*.

Our final stop was a ridge top on the north boundary road of the park at a location none of us had visited before. *Caladenia patersonii* had been reported there some fifty years before but what we found was not *C. patersonii* but the very large pink and white *C.* aff. *patersonii.* By now the rain was so heavy that we were forced to abandon the search for *C. patersonii* and *Glossodia* X *tutelata* and seek warmth and shelter instead!

Orchids Seen

P (Pines oval), L (Long Gully), S (South side of park), N (North side of the park), M (Melville Gully)

In flower

Caladenia dilatata (P,S,N), *C.* aff. *patersonii* (N), *Cyrtostylis caudatus* (M), *C. caudatus* var. *pallidus* (M), *C. reniformis* (P, M), *Diuris lanceolata* (P, N), *D. longifolia* (P,S,M) , *D. longifolia* x *D. lanceolata* (P), *D. maculata* (M,S), *D.* X *palachila* (S), *D.* X *palachila* x *D. maculata* (backcross) (S), *D. longifolia* x *D. maculata* (S) , *Pterostylis cucullata* (L), *P. curta* (L), *P. nana* (P,L,S,N,M), *P. nutans* (L), *P. pedunculata* (P,L,S,N,M), *P. curta* x *P. pedunculata* (L), *P. plumosa*, *Thelymitra antennifera* (P,N), *T. luteocilium* (P).

Past flowering

Cyrtostylis exsertus, *Corybas* spp., *Eriochilus*, *Prasophyllum rufum*, *Pterostylis longifolia, P. vittata.*

In bud

Caladenia leptochila, C. menziesii, C. carnea, Caladenia spp., *Calochilus* sp., *Microtis* spp., *Glossodia major, Prasophyllum* spp. *Thelymitra aristata, T. nuda, T. rubra, T. pauciflora.*

ORCHIDS OF CLOUD FOREST AND TABLELANDS by Edda Viskic

The high altitude epiphytic orchids of the Greater Daintree River National Park are especially interesting in their cold tolerance and low light requirements, so when the opportunity to visit the area arose in early July it was eagerly taken. Three mountain areas were explored and compared for orchid and companion plant communities.

The first area we visited was Mt. Windsor. (which is 1359 metres high), situated West of the Daintree River and one of its sources. The tableland is bounded by the town of Mt. Carbine 40 km to the South West, the town of Mossman 20 km to the East, and the McLeod River forming the Southern edge. With an annual rainfall of 2400 millimetres, a great profusion of rainforest plants thrive on the cold 'foggy nights and bright sunny days. On the approaches to the 1000 metre rainforest level was the open eucalypt forest of the Rose gum (*Eucalyptus grandis*), the Northern Banksia (*Banksia compar*) and the Northern Black Cypress Pine (*Callitris macleanyana*). The cooler altitude plants like the tree ferns *Cyathea australis* and *Cy. rebeccae* grow as an understorey to the rainforest giants which include the buttress rooted Strangler Fig and the trunk flowering Bumpy Satin Ash. Epiphytic ferns twist their way around branches and twigs, while mosses, lichens, lianas and orchids climb up trunks and down into tree forks.

Massive granite boulders support rich communities of mosses and orchids including *Dendrobium ruppianum* and *D. gracilicaule.* Rocks are often crowned with the Basket Fern (*Drynaria*). *Cymbidium maddidum* grows to massive clumps in between the rocks and tree trunks and also in the high forks of trees sometimes surrounding the entire trunk. Small fleshy *Oberonia* grows on a rough barked trunk in fairly low light conditions inside the rainforest where *Dendrobium gracillicaule* is also locally abundant, growing on every tree from eye-level up. The discovery of several different genera cohabitating outcrops of mossy rocks in the rainforest was exciting. The orchid *Cadetia taylori*, its small white flowers daintily perched above the masses of spreading leaves and roots, was dominant on one side of the rock, and matting its way across the rock was the Kangaroo Fern, while the orchid *Eria queenslandica* crowded its fleshy pseudobulbs topped with leaves over the other side of the same rock. The *Eria* had small green seedpods developing on old flower spikes and were often found on tree trunks at higher locations.

The tiny orchids of *Bulbophyllum bracteosum* and *B. liane* spread like tiny buttons on rocks, up trunks and over branches, growing in the shady light of the cloud-forest trees while *B. radicans* carpeted rocks and trunks with bunches of strands of pendulous leaves. *Dendrobium gracilicaule*, *D. agrostophyllum, D. adae* and *D. fleckeri* all seemed to have clumps of elongated stems when growing on trees and shortened stems when growing on rocks. They

all have yellowish flowers except for creamy *D. adae* which grew at a lower altitude than *D. fleckeri* (which has a musky fragrance and orange fur on the labellum). *D. ruppianum* also had distinctly well formed flower spikes that would soon be open. *D. carrii* resembled a Bulbophyllum in growth habit, growing in strands along the small branches of cloud forest trees. It had produced racemes with soft clusters of 10 flowers that don't open widely and have orange dots on the creamy lip midlobe. *D. tetrogonum* were found on the same understorey tree as *D. gracilicaule.* A *Sarcochilus*-like orchid was found on a lichen encrusted branchlet and had several small cream flowers which were about to open. This small plant had an extensive root system which crawled around the trunk towards the stag and elkhorn ferns that smothered the higher canopy of the tree. Fallen orchids are dessert for potoroos, pademelons and scrub-fowl.

Mt. Spurgeon which was 1322 metres high and situated on the Mt. Carbine Tableland was the second location visited and had different contrasting vegetation. The Casuarina forest below 1000 metres was host to many *D. ruppianum* and *D. speciosum* in flower spike. The large oval leathery leaves atop thick pseudobulbs formed massive clumps. The Lemon Scented gums which grew in the grassy areas dominated the lower reaches came to a distinct abrupt end when they abutted the more shrubby stands of the giant Blue gum open forest at the next highest level. Wild pigs had been digging for roots under the *Eucalyptus grandis* and had exposed tubers of terrestrial orchids which included both Greenhoods (*Pterostylis* sp.) and Sun orchids (*Thelymitra* sp.), their green emergent leaves surrounding the flower spikes. *Cymbidium suave*, with its long strappy leaves was evident high in the forks of the rough-barked trees in the open forest and many had masses of seedpods. The stag and elkhorn ferns were dominant among the tops of the rainforest trees at the 1200 metre level where clouds linger longer. There were fewer palms here than at Mt. Windsor. Within the rainforest canopy grew *Dendrobium ruppianum, D. speciosum, D. gracilicaule* and *D. tetrogonum* with its flowers ready to open. *D. teretifolium* hung from the undersides of many mossy limbs.

The clouds on Mt. Lewis which was 1277 metres high lifted lazily in the morning creeping from saddle to saddle, peak to peak. Mt. Lewis is situated on the Mt. Carbine Tableland also and links the Mt. Carbine township(20 km to the North West) and the town of Mossman (20 km to the North East). The highlands are the home of the tree kangaroo, cuscus and cassowary, and provide survival habitats for rare and endangered species of flora and fauna, some of which are still being discovered. New palms and ferns are also recent additions to the list of flora. *D. stuartii* and *D. wilkianum* were rarely found but *D. gracilicaule* and *D. teretifolium* were as common as the slender tree ferns which grew in protected sites near creeks. *D. ruppianum* were found in spike lacing around the forks of trees with the birds-nest ferns and gracing all levels of the rainforest. *Bulbophyllum baileyi* was commonly found in great twines around tree trunks. As Mt. Lewis is part of a State Forest, a PERMIT needs to be acquired to travel the logging road. This can be obtained at Atherton from the Forestry Commission and it is helpful in order to avoid heavy logging days when gargantuan trucks roar down the steep mountainside loaded with timber. On logging holidays it is a bird-watcher's paradise as the trickling waters tell many mossy stories.