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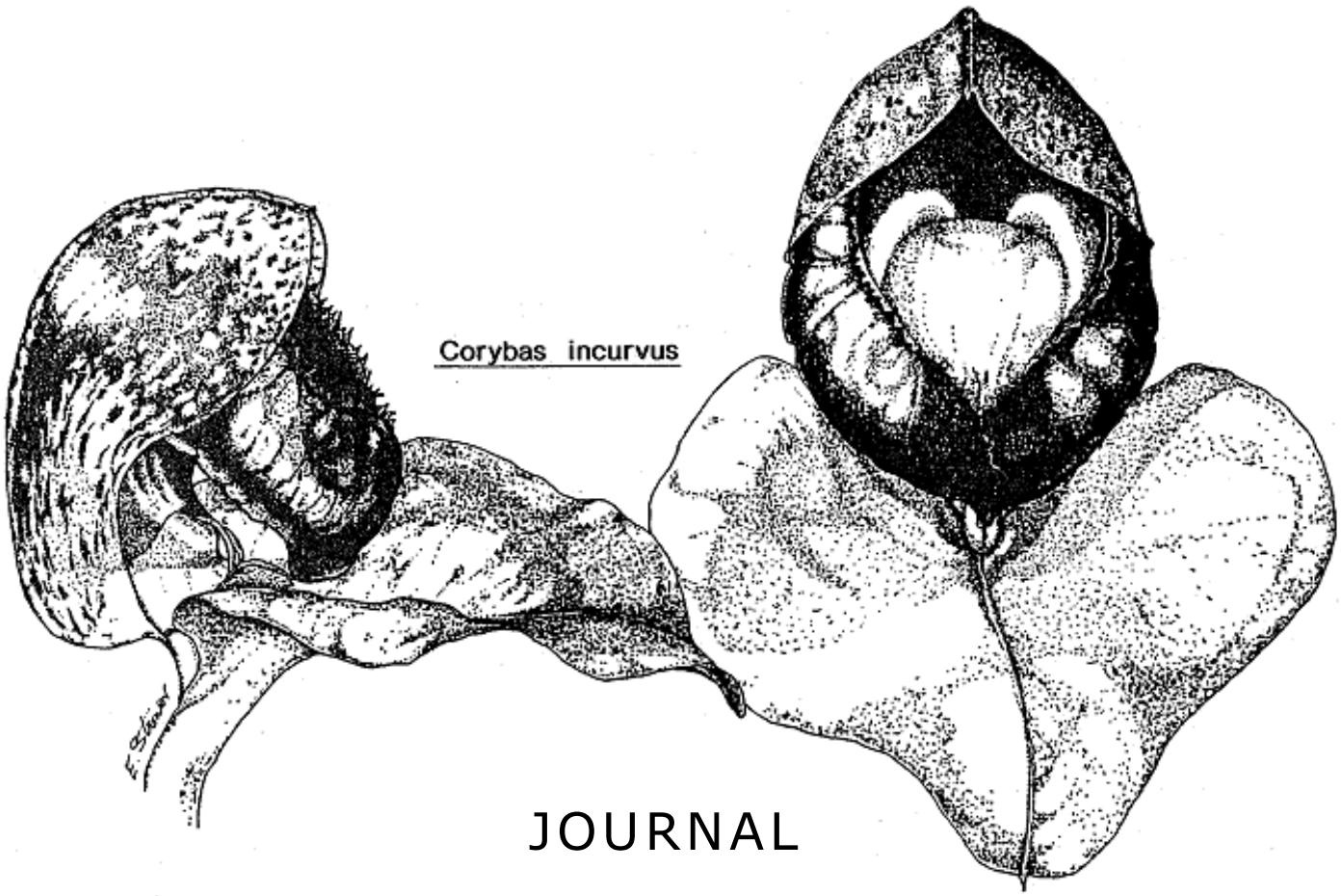

JOURNAL

NATIVE ORCHID SOCIETY

of

SOUTH AUSTRALIA INC.

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.

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NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC.

JOURNAL

July 1990 Vol. 14 No. 6

CONTENTS

NEXT MEETING

When: Tuesday, 24 July, 8.00 p.m.

Where: St Matthews Hall, Bridge Street, Kensington.

Why: Mr John Hunwick will speak on the National Parks of South Australia. In addition slides of "What Orchids Flower in the Adelaide Hills in August" will be shown.

Visitors welcome.

SHADEHOUSE/GLASSHOUSE VISIT

The 1990 Shadehouse/Glasshouse visit will be on Saturday, August 25, and will be hosted by:

Don and Bub Wells, Windsor Gardens,

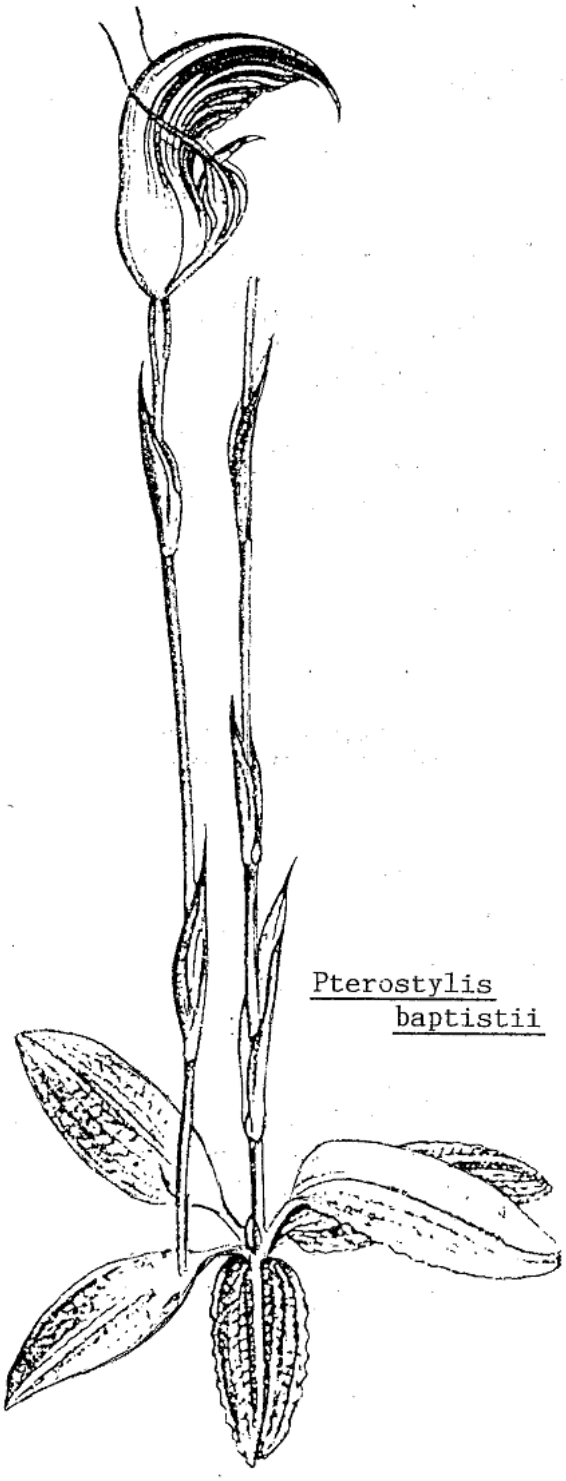
Les and Marie Burgess, Hillcrest,

and Manfred Jusaitus, Black Hill Flora Centre.

There will be three groups of ten - the first visit will be at 10.30 am, the second at 1.00 pm and the third at 3 pm. Vacancies still exist for these visits so members intending to attend, and who have not already done so, please advise Roy Hargreaves at the July Meeting.

WANTED

A Library Assistant is needed to help our Librarian, Wally Wallos-check, before each monthly meeting. The task is not an onerous one and would assist members with their library requisites. If you can help, even if irregularly, please contact Wally at the July Meeting.



PLANTS BENCHED JUNE '90 MEETING

Pterostylis alata (x 2), *P.* aff. *robusta*, *P. baptistii*, *P. baptistii* x *rogersii*, *P. erythroconcha*, *P. dolichochila*, *P. fischii*, *P. longipetala*, *P. nana* (x 2), *P. robusta* (x 2), *P. rogersii*; *P. rogoff*, *P. scabra*, *P. taurus*.

Acianthus fornicatus, *A. exsertus* (x 2).

Caladenia alba.

Eriochilus cucullatus (x 3).

Corybas fimbriatus, *C. pruinosus*, *C. hispidus*.

Dendrobium Hilda Poxon, *D.* Jo-Anne Sawyer x *D. canaliculatum*.

RESULTS OF POPULAR VOTE

Terrestrials:

Corybas fimbriatus, grown by Don Wells.

Epiphytes (a shared popular vote):

Dendrobium Hilda Poxon, grown by Les Burgess.
Dendrobium Jo-Anne Sawyer *x D. canaliculatum*, grown by Edda Viskic.

RESULTS OF JUDGING

Terrestrial Species:

Corybas fimbriatus, grown by Don Wells.

Terrestrial Hybrid:

Pterostylis baptistii x rogersii.

Epiphyte Hybrid:

Dendrobium Jo-Anne Sawyer x *D. canaliculatum*, grown by Edda Viskic.

NOSSA ANNUAL SPRING SHOW

The NOSSA Annual Spring Show will be held on Saturday 15 and Sunday 16 September, 1990, at the Mitcham Girls High School.

Details of show classes and exhibits will be published in the August Journal.

PLANT OF THE MONTH

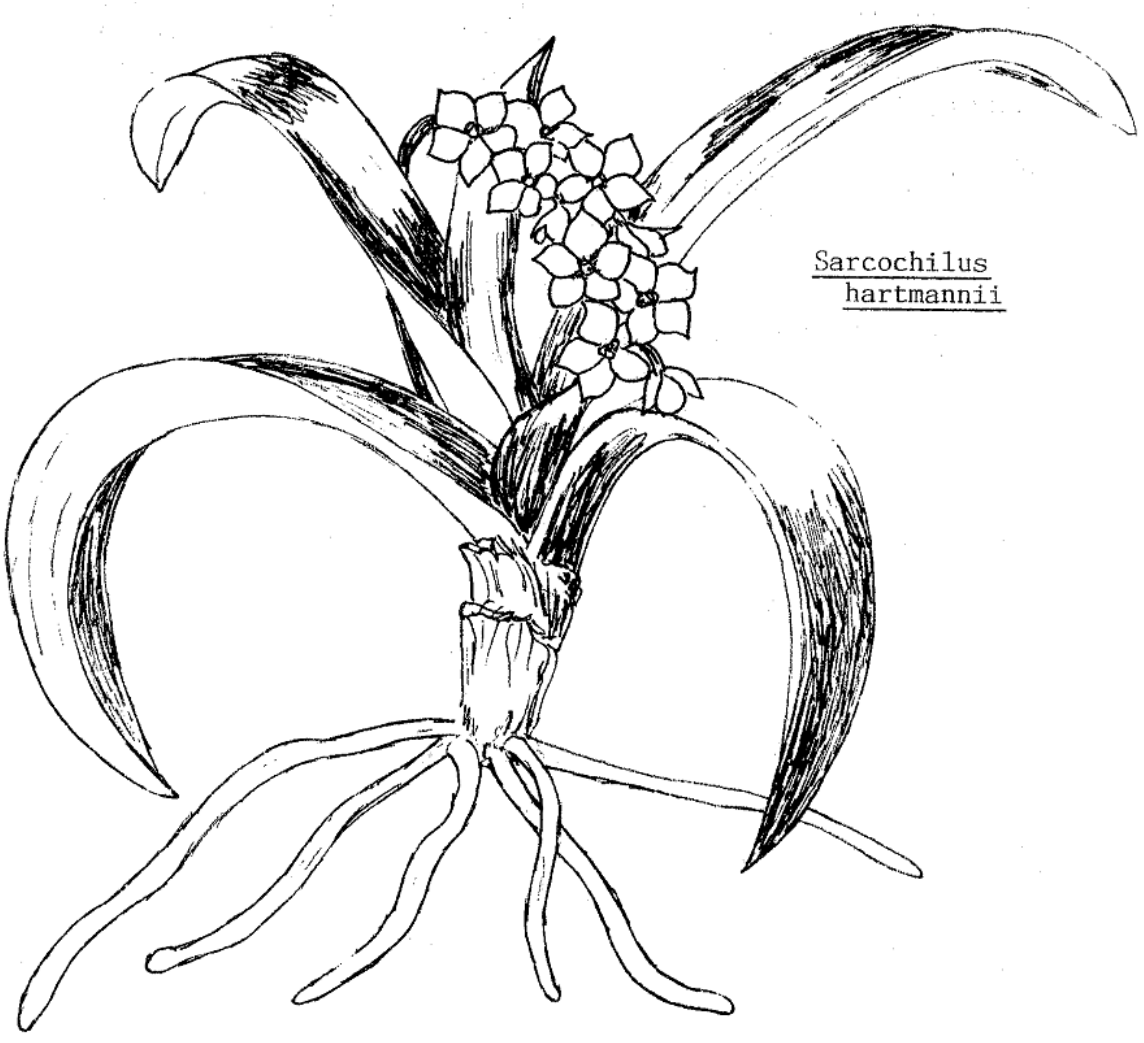
SARCOCHILUS HARTMANNII F.Muell R. T. Robjohns

Sarcochilus hartmannii has a range from the Hastings River in north-eastern New South Wales to the McPherson Ranges in southern Queensland. This is an area of high summer rainfall with considerable cloud cover and high humidity in late summer and autumn.

Normally, *S. hartmannii* is found growing on rocks, sometimes in large masses but more usually in small clumps. Occasionally it is found growing on the base of trees. Its habitat varies from bright sunny positions on cliff faces above 600 metres, to shady seepages.

The leaves (4 to 9 per stem from 10 to 20 cm long and 1 to 2 cm across) are thick, fleshy, deeply channelled and may be straight or curved. Racemes are 6 to 25 cm long with 5 to 25 flowers, usually sparse at first, then crowded toward the apex. The flowers are 2 to 3 cm in diameter and have petals and sepals of glistening pure white with deep maroon or crimson spots near the base, though sometimes all white. The flowering period is September to November.

Adapting well to cultivation, *Sarcochilus hartmannii* is not difficult to grow, doing well in Adelaide in shadehouse conditions with 60 to 70% shade and good air circulation. Terracotta



Plant of the Month (contd.)

saucers which have had several drainage holes drilled in them are the best, however, I have them growing well in both terra-cotta and plastic pots. Whatever container you use good drainage is essential. The plant has a thick coating of velamin on the roots and this appears to make it allergic to "wet feet".

Another method which has led to success for other growers (although I have not used it myself) is to make a cylinder from plastic gutter guard and sarlon, fill it with potting medium and tie the plants on to the side. When hung up the roots grow through the material which allows free drainage. They can be placed easily to get the best air movement. These plants need to be kept moist (not wet) and prefer a humid atmosphere with good air circulation.

The potting medium I use is a mix of bark, scoria, charcoal and polystyrene foam - the main essential is that it is open and free draining. If you are using a medium that is suitable for your area and watering habits - stay with it.

Lacking pseudobulbs, *Sarcochilus* have very little food reserves so I favour feeding them all year round. If they are happy in the right medium they will thrive. Any of the common liquid fertilisers are suitable. I normally add a little magnesium sulphate (Epsom Salts) but only at half the recommended rate.

Hybridising of the *Sarcochilus* family had been largely overlooked by hybridists until the late 1950's when Ira Butler pioneered that field. There are at present about 10 registered *Sarcochilus hartmannii* hybrids.

References: R. Bedford, A Guide to Australian Native Orchids.
D. Jones, Native Orchids of Australia.

LAST MONTH'S "PLANT OF THE MONTH "

Last month's "Plant of the Month", *Eriochilus cucullatus*, was represented by three pots.

One pot of the Adelaide Hills form with its bristly, ribbed, "purple below" leaves (including seedlings);one pot of a smooth, hairless, pale green below eastern-states form and a third pot containing three plants - one of each of the above forms plus a form with large "purple above" shiny leaf.

If they are, in fact, three species, identifiable only by their leaves, how do we get on at flowering time when the leaves are not present?

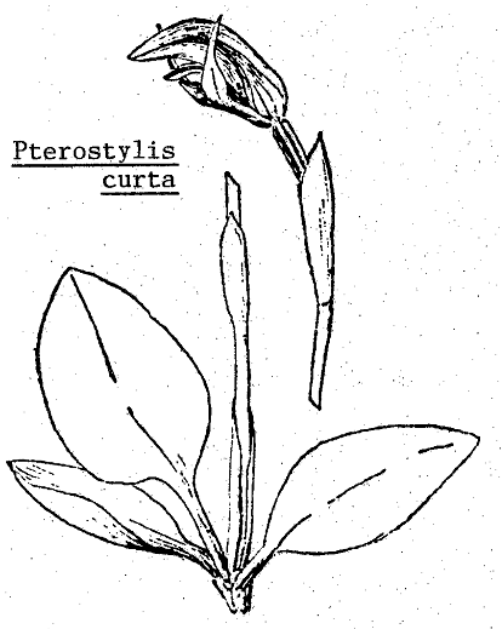
BELATED ACKNOWLEDGEMENT

Belated acknowledgement is given to Wally Walloscheck for his article on Parsons Bands in the June Journal. His name was omitted from the article at the time of publication.

OUR LAST MEETING

The speaker, Mr Malcolm Woolven of the Youth Hostels Association and an intrepid traveller in Australia and overseas, took us north to the Himalayas through a series of superb slides ranging from mountains over 20,000 feet and the world's largest gorge to close-ups of some intriguing local inhabitants. Nepal really caters for the tourists quite well with plenty of cheap, safe accommodation, guided tours and well marked trails. Unfortunately, even the steepest hills have had their forest stripped and are totally under cultivation, with huge landslips the inevitable result. Needless to say one would need to get into pretty wild country before finding many orchids!

Malcolm's talk was followed by slides showing orchids likely to be in flower in the Adelaide Hills in July, including *Corybas diemenicus, C. incurvus* in both the usual and albino variants. One slide showed both *Pterostylis vittata* (a green Western Australian species), and *P. sanguinea* (the blood-red Adelaide Hills species): they are clearly different! We were also showed slides of two very different *P. longifolia* from South Australia and we were not surprised that neither is likely to be the real *P. longifolia* (more name changes!). We also saw two of the many unnamed orchids now recognised as occurring in this state.



Pterostylis curta and the rats: Roy Hargreaves displayed a number of *P. curta* tubers which had sprouted only to have their leaves chewed off by rats. The leafless plants were still producing new tubers - no doubt through their mycorrhizal association with soil fungi.

BOTANISTS OF THE ORCHIDS No. 9

BARON KARL VON HUEGEL (1795 - 1870)

Huegel (alternatively Hügel) was born in Germany and attended the University of Heidelberg as a law student. In 1826 his fiancée jilted him to marry a Prince Metternich and to help recover from a broken heart the young Karl commenced a series of world travels which saw him at the young Swan River Colony (Western Australia) in 1833 and the following year in eastern Australia. He made about 1500 collections of Australian plants including the Types of *Caladenia nana* and, according to Clements (1990), *Caladenia fuscata*. He later received the medal of the Royal Geographic Society of London (1849).

An orchid named after him is *Caladenia huegelii* (illustrated on page 112 of Hoffman and Brown's "Orchids of South-west Australia' as *Caladenia* sp., a species for some years referred to as "*Caladenia grandis*").

Sandy Phillips

THE VALUE OF LEAF LITTER IN THE CULTIVATION OF TERRESTRIAL ORCHIDS

(reprinted from NOSSA Journal, July, 1984)

Under natural bush conditions it is easily observed that many terrestrials grow best where fallen leaves are constantly accu - mulating. If we, as growers, are hoping to duplicate these natural conditions we should be adding leaf litter throughout growing season.

The merits of various toppings have been discussed previously. It seems that there is little difference between chopped leaves, such as pine needles, gum leaves or she-oak needles, and actual dried leaf litter collected from the bush. One disadvantage of using leaf litter from the bush is that it tends to contain seeds or tuberoids of wild orchids which are then introduced to your pot instead of having one species of *Pterostylis* in a pot, you may end up with several.

Advantages of topping pots with leaf litter:

1. It prevents loss of soil and seed or seedlings due to splashing by rain.

2. Leaf litter acts as "insulation". The variation of temper- atures in a small plastic pot may be much greater than that experienced by orchids in the bush and may retard growth of cultivated plants. Leaf litter prevents excessively hot or cold conditions.

3. It helps keep a constant moisture level on the surface of the pot, drying out very slowly yet never becoming soggy,

4. Leaf litter acts as a "safe" slow-release fertiliser, espe- cially if continually added so that the lower layers are de- composing.

5. A thick layer of leaf litter gives support to flower spikes and prevents plants blowing over during those windy Septem- ber days.

6. Leaf litter from the bush ensures introduction of native soil fungi which can form a defensive layer against patho- gens (although one danger with leaf litter kept watered during hot weather is that rapid growth of bacteria and fungi may actually increase disease).

Why not experiment for yourself? Place two similar pots of the same species together: leave one with a bare surface; to the other add leaf litter and note the difference in growth. For some species it can be remarkable - even in a month.

Bob Bates

If you try this in season 1990 I would be interested in hearing of your results. Ed.

TERRESTRIAL ORCHID CULTURE: JULY - AUGUST

By now you will be able to tell what plants will flower this Spring. Flowering plants will have fat little buds in the leaf axils. Watch these buds carefully - little green grubs hide under or in them. Cobwebs in the leaf axils are the only visible sign during the day but at night out comes the grub and hops from bud to bud until none are left.

With all this damp weather bacterial or fungal rot may have shown up on some leaves. Diluted household bleach (Sodium hypochlorite) will help control the spread of these patches but brush it on above and below the leaves - do not tip it on as it may enter the soil and harm beneficial soil fungi. In bad cases quarantine is essential remove the pot to a dry sunny spot.

When stems begin to elongate: if you have been using any fertiliser you must stop as fertiliser now will make the stems succulent and weak and easily blown over. Do not turn or shift pots now as this causes kinky stems as plants adjust to changes in direction of light source. If plant stems are leaning toward the light, leave them - at least this will ensure all flowers face in the same direction, a useful attribute at shows!

Light: If you can increase the amount of light - now is the time to do so: prune back shrubs and trees adjacent the orchid house, spotlight at night (from the north side only), remove debris from the orchid house roof (i.e. old leaves).

Keep on adding leaf litter to the tops of pots this will help to keep stems upright - but don't make it too thick on pots with seed sown. If you live on the plains where it is warmer you may soon see the first seedling leaves but in the hills (and foothills) you should not expect too much until early September.

Now is the time to ask your friends for ferns to get ready as foliage plants at your NOSSA Spring Show.

At this time there is much promising but be prepared for disappointments later as storms may flatten tall stems, insects spoil a perfect potful of orchids or tuber or root rot cause plants to collapse. I hope this doesn't happen to you!

Sandy Phillips

CONSERVATION NEWS

Some good news to hand regarding the Onkaparinga River Recreation Park which NOSSA is surveying this year: a large block of native vegetation adjacent the park and extending to Blewitt Springs (a well known orchid locality) has been acquired by National Parks and Wildlife Service. This area, known as Hardy's Scrub (after the original owners) is likely to be an annex to the Onkaparinga Recreation Park and will be given Conservation Park status. It will be included in our 1990 survey.

NEXT FIELD TRIP

Sunday, July 22

Onkaparinga Gorge Recreation Park

NOSSA Survey - Winter visit. Meet at Piggott Range Road turnoff from Adelaide-Clarendon Road at 10.00 a.m.

Morning --- Gorge area
Afternoon - Manning and Hardy's Scrub

NOTES ON *DENDROBIUM DISCOLOR*

(from ANOS - Central Coast Group, March, 1990.)

Dendrobium-discolor is a species from Section *Spathulata*, which grows naturally along the North Queensland coast from about the Tropic of Capricorn north through Cape York and the Straits Islands into New Guinea. It is common throughout its range, usually not far above sea level, but sometimes quite high (up to 500 metres) in the hills if conditions are suitable. It is by far the tallest of all Australian orchids, with very stout pseudobulbs which may reach almost 6 metres long. There is an east facing beach on Gloucester Island in North Queensland where time and weather have eroded the hillside and left a low cliff about 7-8 metres high, and here *D. discolor* has fallen down over the years, taken root in the coral and rock rubble and grown through the underbrush to almost reach the cliff top. I saw it bloom there over several years in the 50's and the entire cliff face was a mass of bloom each year. The plants were supported to a degree by the cliff face, but the canes were of prodigious length.

Fortunately, in hot house cultivation the species does not reach these lengths, though it still becomes a problem with pseudobulbs reaching 3 metres if grown well.

Given heat in winter (minimum 12-13 degrees C) *D. discolor* is very easy to grow and flower, needing only a well drained mix and lots of food when growing. Racemes are produced from leaf axils, usually on the last 15-20 cm of the growths but quite often from lower down if the plants are happy. The inflorescence is up to 50 cm long, with at least two thirds being rachis, and maybe 50-60 blooms, some 7 cm across in good clones. Segments are narrow and distorted, the dorsal sepal usually projecting forward over the column for about half its length, and then twisting up and away to one side, the ventrals spreading outward before also twisting away, usually to the rear, but sometimes up, sometimes down. The long petals stand straight up, at about an angle of 60 degrees from each other, and are typical of *Spathulata* blooms, except they do not spirally twist much, but tend to be more wildly undulate along the margins, as are the sepals.

Colour of the flowers is extremely variable, ranging from clear canary yellow with white keels on the labellum (forma *broomfieldii*) to a deep muddy brown (var. *fuscum*) in Queensland plants. In var. *fuscum* blooms are usually smaller than the type, and the segments are relatively flat, not undulating much at all. On Magnetic Island in the 30's and 40's there were quite a few plants of var. *fuscum* to be found, and hopefully there are still some there.

Andree Millar once gave me plants of *D. discolor* from New Guinea in three floral and growth types, from three different areas. Plants from around Port Moresby, called "Moresby Gold" were virtually the same as Queensland plants in growth and blooms, plants from the Rigo District, called "Rigo Twist", were very robust plants with extremely ugly misshapen blooms, the labellum almost non-existent, the petals twisted at the bast, so the righty hand petals was to the left of the labellum, and vice versa, while the dorsal sepal fell forward over the column. Horrible looking thing, of value only as a curiosity.

The third form Andree sent made up for it though - from the Bensback River, called "Western District form", plants with me never grew taller than 90 cm

Notes on *Dendrobium discolor* (contd.)

- a decided advantage - while the very well shaped flowers were a clear pink. I've never seen this colour in any other blooms of *D. discolor*, but Andree assured me it was common along the Bensback River, as was also, the dwarf plants.

In cultivation, as well as heat in winter, well-drained rich compost, and regular feeding, *D. discolor* loves the light and should be grown in the brightest part of the hot-house, short of being burnt. In Queensland it thrives in full sun, but full sun is not to be thought of in a glasshouse, so give some shade - but not too much.

While most plants of *D. discolor* will bloom off pseudobulbs 30-40 cm long, happy plants will not stay this size very long, so be prepared for a large and lusty baby in a few years if growing this beautiful species.

Roy Gifford

RAIN - A HUNDRED TIMES BETTER THAN

ADELAIDE WATER.

Like most growers I began watering my terrestrials at the end of March. A good steady soaking on a cool day followed by lesser waterings once a week to coincide with the passing of cold fronts. The orchids came up - slowly and erratically - quite often one side of a pot had healthy growth, the other side nothing. Several greenhood species produced flowering spikes which stayed at the same level of bud development for 2-3 weeks. I had never seen such a poor lot of Autumn growth. One thing was obviously missing: RAIN - real natural precipitation.

After the driest five months on record for most of the Adelaide area, rain fell on May 16 and 17 - real, cold, steady rain.

Three hours after it began I checked the orchid pots - leaves were now rigid instead of limp: greenhoods holding themselves as buds for a week had burst open - it was amazing. Twenty-four hours later the pots no longer looked so uneven - plants which weren't above ground yesterday had rosettes 2 cm wide and growing so fast you could almost see the movement. A pot of *Corybas fimbriatus* which was just soil yesterday, now had 10 leaves with flower buds already showing.

This was a miracle: the miracle of rain!

There is no doubt that orchids can tell the difference between real rain and irrigation.

I sowed seed and added leaf litter to all pots in a lull between showers, the leaf litter completely covered smaller plants but within two days the leaves had climbed above the leaf litter. Pots I was going to throw out as failures were smothered with healthy growth. The disappointment of the long dry was over and replaced with healthy optimism for a satisfactory - if not great - flowering season.

ORCHIDS IN FLOWER IN THE ADELAIDE HILLS IN AUGUST

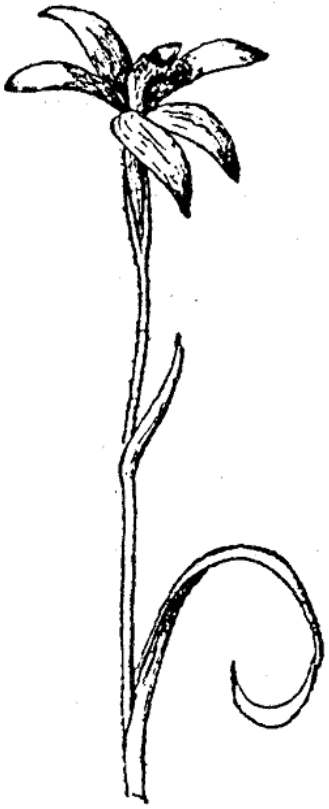
Spring is on the way with more sunny days next month but some heavy frosts are likely. Many cold lovers are still about but toward the end of the month some of the more colourful bee-pollinated species will open their flowers.

Helmet Orchids: *Corybas incurvus* (our Journal cover species) come into its best, replacing the more colourful *C. diemenicus.*

Mosquito Orchids: The little *Cyrtostylis reniformis* is beginning to replace the earlier *C. robusta*. It can be recognised by its blue-green leaves and smaller, narrower flowers with blunt labellum. It can be found almost anywhere in the Hills. *Acianthus exsertus* are now all in seed but *Acianthus caudatus* is beginning to bloom. It can be seen at its best at Jupiter Creek. It may be interesting to see the effect on of last summer's bushfires on colonies there!

Acianthus exsertus

Greenhoods: Nodding Greenhoods (*Pterost lis nutans*) can be seen in huge numbers in places such as the Almandra Mine at Scott Creek. Various little greenhoods of the *Pterostylis nana* complex are at their best. There may be as many as four species involved in the Hills between Williamstown and Deep Creek. How many can you find? Certainly the larger species with its white hairs on the scape, which is so abundant in the Hills, is not really *P. nana* but is probably un-named. You will notice that *P. sanguinea* and *P. robusta* seen in full flower in June are still blooming well: Yes - these flowers last all Winter!



Out in the Mallee many Spider Orchids are in full flower but in the Hills you will find only *Caladenia deformis* (there are thousands at Sandy Creek in mid-August) and toward the end of the month *Caladenia rigida* and *C. behrii* up in the Mt. Gawler area.

Of the Donkey Orchids only *Diuris pardina* is in full bloom in August.

Look for these near the south-east gate of Belair Recreation Park.

S. Phillips

Caladenia deformis