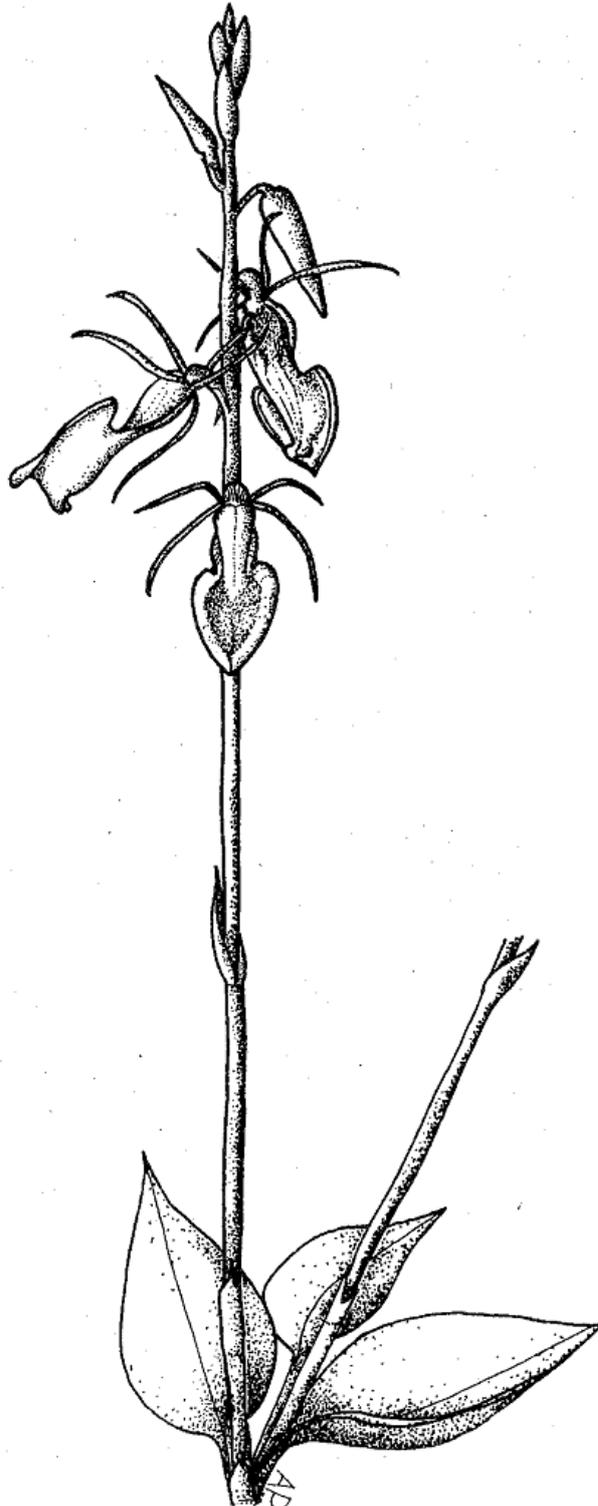


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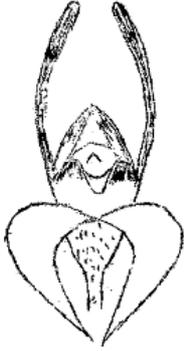
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**Incorporated
JOURNAL**



Cryptostylis ovata

**NATIVE ORCHID SOCIETY OF
SOUTH AUSTRALIA Inc.**



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NEXT MEETING

When: Tuesday 26 November 1985, 8.00 pm

Where: St. Matthews Hall, Bridge Street, Kensington

Subject: Don Wells will be speaking to us about 'Orchids In-Situ'.

NOSSA AWARD NO. 13 by L. Nesbitt, Registrar

CULTURAL CERTIFICATE

This certificate was awarded to a pot of *Caladenia dilatata*, grown by Mr Don Wells which was exhibited on the 24th September 1985.

This 300mm clay pot contained a staggering 52 plants and numerous seedlings. There were 46 flowering, 2 of which were 'double headers'. The tallest plant was 460mm high. Don's cultural methods for this magnificent pot were described in the October '85 edition of the NOSSA Journal on page 85.

NEW MEMBERS

We wish to welcome the following people to our society:

Mr & Mrs B.L. Franklin
Mrs J.E. McDougall
Mr A.C. Saunders
Mr J.B.M. Stradling
Miss J.D. White

POPULAR VOTE

Terrestrial: *Diuris punctata* by L. Nesbitt

Epiphytes: *Sarcochilus hartmanii* by N. Oliver

PLANT COMMENTARY FOR 22ND OCTOBER 1985 (written by K. Western)

Terrestrial Orchids Benched:

Caladenia barbarossae, *C. leptochila*, *C. menziesii*, *C. dilatata* x *C. patersonii* (man-made hybrid); *Diuris punctata*, *D. sulphurea*, *D. venosa*, (unnamed species), *D. pedunculata* x *D. brevifolia* (man-made hybrid); *Prasophyllum concinnum**, *P. macrostachyum* var. *ringens* (Western Australia); *Pterostylis baptistii*, *P. biseta*, *P. woolsie*#, *P. rufa*, *Pterostylis* - 5 unnamed taxa of the "rufa group", *P. baptistii* x *P. cucullata* (= *Pterostylis* "Cutie"), *P. x ingens* x *P. baptistii* (= *Pterostylis* "Hoodwink"), *Spiranthes sinensis*.

Epiphytic Orchids Benched

Cymbidium madidum var. *leroyi*; *Dendrobium atrovioleaceum*, *D. beckleri*, *D. kingianum*, *D. linguiforme* var. *nugentii*, *D. monophyllum*, *D. tetragonum*, *D. tetragonum* var. *giganteum*, *D. kingianum* x *D. ruppianum*, (= *D. "Ella Victoria Leaney"*), *D. "Kingrose"* (= *D. "Bardo Rose"* x *D. kingianum*), *D. rhodostictum* x *D. macrophyllum* (= *D. "Kipps special"*); *Sarcochilus falcatus*, *S. hartmanii*, *S. weinthalii* x *S. hartmanii* (= *S. "Weinhart"*), *S. hartmanii* x *S. falcatus* (= *S. "Melba"*).

(*indicates first time benched. # indicates plant bud only).

Commentary on the terrestrial orchids was given by Bob Bates. Singling out some of the plants benched, Bob commented that he expected *Diuris punctata* was common in the South East of this state prior to settlement and clearing, and suggested this normally non-vegetatively reproducing species could be increased in number by artificial removal of the new tuber at the appropriate time by the cultivator. Bob contrasted *D. punctata* with *D. sulphurea* saying how the latter readily reproduced vegetatively without any assistance from the cultivator. He went on further to state that since the *Diuris* tend to be easily hybridised and since *D. sulphurea* had many features which made it a good pod-parent, often producing fertile hybrids, that *D. sulphurea* will probably feature prominently in many future *Diuris* hybrids. A plant of the cross between *D. pedunculata* and *D. brevifolia*, (two South Australian species) was mentioned as a prime example of hybrid vigour in exhibiting a high degree of disease resistance. The hybrid was produced by Ray Nash. Next Bob commented on the *Pterostylis* species and hybrids benched, saying that October usually saw the first of the "rufa group" *Pterostylis* in flower. Included in the "rufa group" *Pterostylis* benched was *P. woolsii* a plant in bud only, but which Bob commented produced sepals long enough to reach the soil surface. It was further noted that hybrid *Pterostylis* often displayed extended flowering periods with *P. "Cutie"* having been benched each month for several months.

It was noted that the flowering specimen of *Spiranthes sinensis* was quite early. Its owner stated that the plant was an eastern states form and had been maintained in a heated glasshouse. Also benched, were 2 European terrestrial orchid species, namely *Orchis moris* and *Serapius cordigera*. Commentary on the epiphytes was provided by Les Nesbitt. Several plants of *Dendrobium beckleri* had been benched and Les noted that potted plants of *D. bechleri* often flowered far better than mounted plants in South Australia.

continued.

Plant commentary continued:

He suggested that mounted plants needed more shade and protection than potted specimens during our summer. Les commented on the long lasting flowers of *D. 'Kipps special'* thought to be a hybrid between *D. rhodostictum* - and *D. macrophyllum*. There were numerous clones of *D. kingianum* benched. Les informed members that careful line breeding of this species in Sydney has produced plants with enhanced colour and size.

TOPIC FOR THE EVENING (written by K. Western)

The topic for the evening took the form of a cultural segment. Les Nesbitt described with the aid of an 'Overhead Projector', the practical steps and aspects of pollinating orchids. He drew diagrammatic representations of the reproductive components of *Pterostylis*, *Diuris*, *Thelymitra* and *Caladenia*. He described how to detect and remove pollen from flowers of the above genera and to place them on the stigmatic surface of the same or another flower, and described the sequence from collapse of the flower after pollination to maturation, collection and storage of seed, emphasising the need for very close surveillance of reaping seed-pods during warm weather. Les suggested that collected seed be stored in a paper envelope to dry it out and then be stored in an airtight container over Silica-gel in a refrigerator until sown about April of the following year. Les stressed the necessity to identify all crosses and to keep accurate records of all crossings.

Bob Bates described and demonstrated "Artificial vegetative reproduction of orchids by tuber removal". This is a technique Bob uses to increase his best clones. Steps involved were:

- (1) Select a plant nearing the end of its flowering time, but which still has active leaves.
- (2) Remove flower(s) and use or store pollen if desired.
- (3) Remove orchid/soil mass from the pot in an intact a fashion as possible and holding the plant/soil mass inverted, work down slowly and carefully until the tubers are adequately exposed.
- (4) Remove the new tuber carefully trying to leave the old tuber still attached to the underground stem of the plant.
- (5) Replace soil in the pot and the removed tuber and replace the intact plant/soil mass back into the pot also.
- (6) Keep the plant moist, but not wet and return the plant to its usual position where it should now generate a further new tuber.

Kevin Western described a multi-layered technique used to re-pot terrestrial orchids which tend to be prone to rot. The basis of the technique was that he believed the tubers of these orchids generally tended to be in a lower nutrient strata of the soil profile which was frequently found to be less wet than the more active humus containing surface layers.

His technique employed, in successive layers from the bottom of the pot upwards:

1. ½" Dolomite gravel to a depth of ¾ to 1".
2. Coarse well washed sand to a depth of about ¼" above the gravel.
- 3 ½" of readily draining bush subsoil.
4. 1" of coarse well washed sand (e.g. concreting sand) in which the orchid tubers are set.
5. About 1-2" of readily draining bush top soil.

6. About 1-1½" of readily draining bush topsoil to which had been added about 10-20% finely chipped bracken fern fronds and leaves plus a dash of 'Blood & Bone'.
7. A thin, about 1/8" of neat finely chipped bracken fern as a surface layer.

He also suggested potting to the rim of the pot to avoid water collection for growers in Hills or high rainfall locations.

HOW & WHY I AM STILL LEARNING TO GROW AUSTRALIAN TERRESTRIAL ORCHIDS
by Wally Walloscheck

I joined the Society in February 1981, because I was fascinated by our Australian terrestrial orchids, but I found out in the following year that I knew nothing about growing them.

The first year, I purchased some terrestrials from the Trading Table and also at the end of the year from the Tuber Bank. These were duly planted into 6 pots in early summer. The potting mix was hills topsoil, *Cymbidium* mix and sand from a water wash from my hills block. The bottoms of the pots were lightly crocked. Summer storage area was on a make-shift bench under a large wattle tree. When the late autumn rains came, I transferred the pots to my shadehouse in with the ferns and *Cymbidiums*.

All pots had a reasonable strike rate, and early growth was pleasing. The only fertilizer they received was an overspray of Aquasol, which I used on the rest of the shadehouse. Then, the heavy winter rains started and so did my problems. The rot really set in and only 7 out of 22 varieties survived that year.

So out of that misfortune, I set about thinking what could have gone wrong. Obviously there was too much rain in our area for pot culture with that mixture. Firstly, I went into the scrub where orchids grew and took a bucketful of soil, not only the top soil, but a section of soil, the full depth of the bucket. The bucketful of soil was then sifted and was observed to be made up of three parts. One part was rocks and gravel which was about a quarter of the capacity.

The largest portion of the soil was made up of sand which had coarse and fine grains. The remaining portion was topsoil which was made up of humus and black stained sand.

Amongst the top third of the soil was a network of roots, some were as thick as your thumb and others were fine and wiry. Together, they were all one could hold in two cupped hands, plus 2 tubers which turned out to be *Pterostylis nana*. A few elongated lily tubers were also present. From this experiment, I guessed that the aggregate and roots which made up a third of the total mass were drainage factors, plus the roots would also draw a considerable amount of moisture to their host plant. This proved to me that even in the wild, orchids were very well drained, so this condition had to be copied in pot culture.

When next I potted up, I still used hills topsoil and *Cymbidium* mix, but changed wash sand for 3mm gravel; 6" pots were changed to 8", for I thought that the extra capacity might keep the tubers cooler in summer by retaining a little more moisture than the smaller ones. The bottom of the pot was heavily crocked to one third of the height of the pot.

The following growing season, compared to the previous one, was 100% better, with the exception of the autumn flowering species of *Pterostylis* which flourished without flowering. I later learned that they had to be kept cool in summer to flower.

Next summer I left those still in the pots and only potted up new purchases using the same method. Fertilizing was changed to dusting the top of the pot with blood and bone during the summer dormancy. Summer storage was also changed in an attempt to keep the pots cooler. I covered the *Cymbidium* bench in the shadehouse with black plastic sheet, which formed a dark tunnel facing north and south. All pots were placed in this tunnel until they shot, and then they were lifted out into the shadehouse proper. That growing season was the best my orchids have been so far, but it is a lot of work to pot and store in this manner.

Later on, I also found that when I re-potted crowded pots, it was a very trying task to separate tubers from the large amount of gravel crocking without damaging them. So in an attempt to make potting time a bit easier, I changed to a four part mix using no crocking, the mix being:

First part	3mm gravel
Second part	<i>Cymbidium</i> mix
Third part	red gum sawdust
(made up of)	fine pine bark 5mm sieved
	hills humus 5mm sieved
Fourth part	potting mix from the previous year.

The third part of the mix which contains the red gum sawdust, was allowed to stand in the open air throughout winter and spring before it was used. During this time it was turned over and mixed up three times in an attempt to keep the breakdown of the material uniform.

Tubers were planted 1" deep with a liberal topping of old pine needles. Fertilizer was incorporated into the mix using an organic base fertilizer of low nitrogen content. This is the first growing season I have used this method of potting. The pots were summered in a new 50% shadehouse with extra shadecloth in midsummer.

So far, early cauline varieties of *Pterostylis* have been good. *Pterostylis obtusa* was disappointing; maybe they did not like pine needle topping. All *Diuris* are looking good as they did last year, *Caladenia* are not so good, with some losses. I am presuming that they were too wet in the pot as early rains were very heavy. Next year I am going to try a more open mix for *Caladenia* with a more open topping than pine needles.

Finally, to summarise, I wish to emphasise that while I am still learning to grow Australian terrestrials, I have discovered two important points. Firstly, one must study the environment where plants are to be grown, and this does differ from site to site, and secondly, develop a suitable mix which will suit both plant and environment equally.

I hope this article will be beneficial to any person who has just started growing and maybe solve a Problem or two for those who grow in wet areas as I do.

CULTURAL NOTES

Mr Noel Oliver has kindly submitted this article after having won the popular vote for his *Dendrobium linguiforme* at the October meeting.

I purchased my plant 3 years ago on its original host (*Melaleuca*) and it has flowered every year, this year being the best.

The plant is hanging above the cymbidiums on the western side of the orchid house under 75% shade cloth. Rain, hail, or sunshine the whole plant is dipped in a bucket of water once a week thoroughly drenching it. Fertilizing the same as the cymbidiums no special treatment. This plant is one of several plants of *D. linguiforme* I have in my collection, and is the only one on its original host and seems to be growing and flowering more profusely than those on other backing such as cork or pine off cuts etc. In my opinion, *Dendrobium linguiforme* is a very rewarding plant and is a must in any collection.

Noel Oliver

CORRESPONDENCE

Dear Editor,

This is not just an answer to your request for lists of orchids in cultivation, but rather to put on record the results I have had from the handful (9 I think) of *Pterostylis curta* that were given to us by Roy Hargreaves at the first meeting.

Mine were planted in a plastic pot with a handful of gum leaves in the bottom and soil from beneath an *Acacia iteaphylla*.

Numerous *Ac. iteaphylla* came up, (I left a few) and all the *P. curta*, but only two flowered. By the third year the 6" pot was tightly crowded so using the same mixture and a pinch of Blood & Bone I put 20 into each of three 12" black plastic pots. The excess were planted in my backyard scrub, 13 in each spot. Those around *Eucalyptus citriodora* and *Eucalyptus nerifolia* and in an open bit of ground have formed a thick mat and are spreading uphill not down - I wonder why? Those under *E. flocktonia* and *tetraptera* degenerated and none have come up this year.

Those in pots crowded to choking point in 3 years. Since then hundreds have been given away many locally and as widely as Whyalla, Pt. Lincoln and Curramulka. The recipient at Curramulka, was much more impressed with the *Acacia iteaphylla* and insisted on planting them in a bit of roadside she is trying to re-vegetate, so I wonder how *P. curta* is faring in that dry country? Lastly, a large bag full was returned to Don Wells for the tuber bank.

So herewith, a special thank you to Roy for that initial gift that I have been able to share with so many friends.

Jean Gardner
Eden Hills

(Perhaps there is something in the name and place!!)

FROM THE EDITOR

I recently received 3 delightful letters from 5 grade students who attend the Upper Sturt Primary School. They have contributed a poem each about one of our terrestrial orchids, with an accompanying drawing. The letters and poems are as follows

(1) Dear Ms Gentile 22 October 1985

Our school is a member of NOSSA, our school is doing a J.150 project on orchids in our scrub. I have written a poem about a *Diuris maculata* and if you like you can put it in your magazine.

Yours faithfully,
Melinda Holtz

Diuris Maculata by M. Holtz Grade 5

A donkey?
No!
A cow's head?
No!
I have it!!
A Leopard?
No!
It's a *Diuris maculata*!
It's pretty, with its colours
of yellow and brown,
And purple too.

(2) Dear Ms Gentile, 22 October 1985

Our school is a member of NOSSA and our school is doing a J.150 project. We have written some poems about orchids. Can you please publish them in your magazine?

Yours sincerely,
Luke Hofmann

Diuris Longifolia by L. Hofmann Grade 5

The thin, beautiful body,
With ears that aren't spotty,
A lightly coloured face
That makes it a bright place.
It has a lovely shape.
To make it a bright place.
Growing very fast,
But, they do not last.
Also, people them do pick,
Doesn't that make you sick?

* * *

(3) Dear Ms Gentile, 22 October 1985

Our school is a member of NOSSA. Our school is doing a J.150 project on orchids. I wrote about *Diuris maculata*. If you like, put it in your magazine.

Yours faithfully,
Sharon Waters

Diuris Maculata

by S. Waters

Grade 5

It looks like a donkey,
A cow's head, a leopard,
with its short, fat ears,
Beautiful colours of yellow and brown,
They are very delicate,
so please look out,
When you are out.

HISTORY OF ORCHIDS IN AUSTRALIA

The Australian Orchid Foundation has undertaken to record and document the "History of Orchids in Australia" to the present period with the view of publication in due course, and invites our Members to contribute wherever it may be possible.

It is intended to cover scientists, botanists, or workers in the field who have contributed some material towards the orchid family in Australia. It is also intended to cover publications and authors who have been involved in Australian literature.

These present enquiries are intended to cover living orchid collections, past and present, both commercial and amateur, hybridizers, Societies and other organisations, the development of the cut orchid flower export trade, and possibly personalities who have contributed significantly in the development of this fascinating member of the flowering kingdom, which is a common interest today for so many Australians.

The information that we have today is so fragmented, the knowledge of happenings, even 60 years ago is very vague, but given time and cooperation, the A.O.F. object will be to have as much information incorporated into one volume.

To begin this mammoth project, we are attaching a questionnaire to 165 Orchid Societies in Australia, seeking basic details of their Society, and trusting that further information will be offered to assist our Project.

We have evidence of a considerable orchid collection at 'Rippon Lea' near Melbourne, in 1883 when it was stated that 'this collection contains a larger number of exotic species than there are in the three neighboring colonies put together'. We have evidence that there were 10 glasshouses 60 feet long in 1920, 4 or 5 were devoted to orchids.

The Victorian Orchid Club held its first meeting in May 1923, OS of NSW in 1933, and the Queensland Orchid Society in Jan. 1934.

Hodgins Orchids began in 1920, and is possibly the oldest orchid establishment operating. Prank Walker & Sons Launceston advertised Cymbidiums for sale in Nov. 1934. Jack Bisset in April 1935, advertised 12 different varieties of orchids for £2-0-0.

Reginald Leaney was possibly the first to publish regular cultivation articles in the 'Garden Lover' in April 1934.

Einar Petersen possibly raised the first *Paphiopedilum* (*Cypripedium*) hybrid seedling, Oakwood Gaint x Leander, the pollen from Rippon Lea in 1935, flowered in 1943.

The Australian Orchid view was first published in Jan. 1936 at 6/- (60¢) post free.

The Foundation will be most grateful if your members can add items of interest that may have happened in your Region, and material that should be recorded.

We are most sincere and look forward to your interesting co-operation.

Gerald McCraith

GROWING ORCHIDS ON MOUNTS

by Gordon Brooks

I have found that some species of orchid grow much better on mounts than they would in pots, also there are others which have a growth habit which is difficult to cope with in a pot so I have experimented with various techniques to gain a measure of success.

My orchid collection is housed in a shadehouse roofed with 50% shadecloth, a second layer of 50% being added during the summer months. The plants receive natural rain all year, plus whatever artificial watering is needed.

Summer is the crisis period as the humidity is generally at a low level, consequently the mounts can dry out excessively unless precautions are taken.

Tree fern slabs are a traditional mount however, I find that the roots do not seem to like it as much as they do other media often being retarded upon contact with the surface.

Cork slabs both compressed and natural bark does seem to promote excellent root growth with very little sign of incompatibility. Lately I have developed a feeling that after a season or two, my plants appear to languish as the new growths are not as vigorous as I expect. This may be a result of the very fast drying of the cork after each watering.

I have had the best results using sections from *Alloiasuarina* spp. and *Melaleuca* spp. the plants appearing to thrive until the mount succumbs to wood rotting fungi. Two that I use most frequently are *Melaleuca nesophila* and *M. armillaris*, these are generally readily available as prunings from garden trees as both are commonly cultivated.

Melaleuca nesophila limbs of about 100mm or greater diameter are better because the bark is softer and thicker than that on *M. armillaris*.

When mounting an orchid choose a generous sized mount as the roots of many species grow at least 500mm from the base of the plant in the natural environment. For an average sized specimen of *Dendrobium teretifolium* I would choose a limb of about 100mm diameter and preferably 750mm length as the root system is quite extensive.

The plant must be securely tied to the mount as any movement is detrimental to the new root tips. Sphagnum moss may be used to maintain moisture at the roots during the warmer months, but it is best removed during the winter as it retains far too much water and can rot the roots.

I hang the majority of my plants so the root mass is facing to the south, the plant generally still has enough sunlight on its leaves while the roots remain moist for a longer period during the summer months.

My plants of *Dendrobium tetragonum*, *Sarcochilus* spp. and *Bulbophyllum* spp. are hung on the south side of a galvanised iron wall which allows only indirect light on the plants and also protects them from the drying northerly winds.

Dendrobium tetragonum appears to prefer to be planted on the underside of a horizontal limb section as it remains moist longer. I base this observation on the comparison of the length of roots produced on both vertical and horizontal mounts.

The major disadvantage of mounted plants is the greater frequency of watering required during the warmer months. During the summer months my plants have survived, some even thriving, on a misting in the morning before I leave for work and a thorough watering in the evening when the temperature has started to fall. Misting during the day would be a benefit, however, I have not yet automated the watering system. During winter, I mist the plants early in the morning if I think they are too dry. When the roots show signs of active growth during late winter to early spring it is best to mist the plants every morning unless it has been raining.

Plants grown on mounts can thrive for 10 years or more without being remounted if the mount is of sufficient size. Tiny mounts lead to slower growth and frequent remounting with the resulting root damage. Mounted plants are easy to grow and difficult to overwater so why not enhance the appearance of your collection and give them a try.
