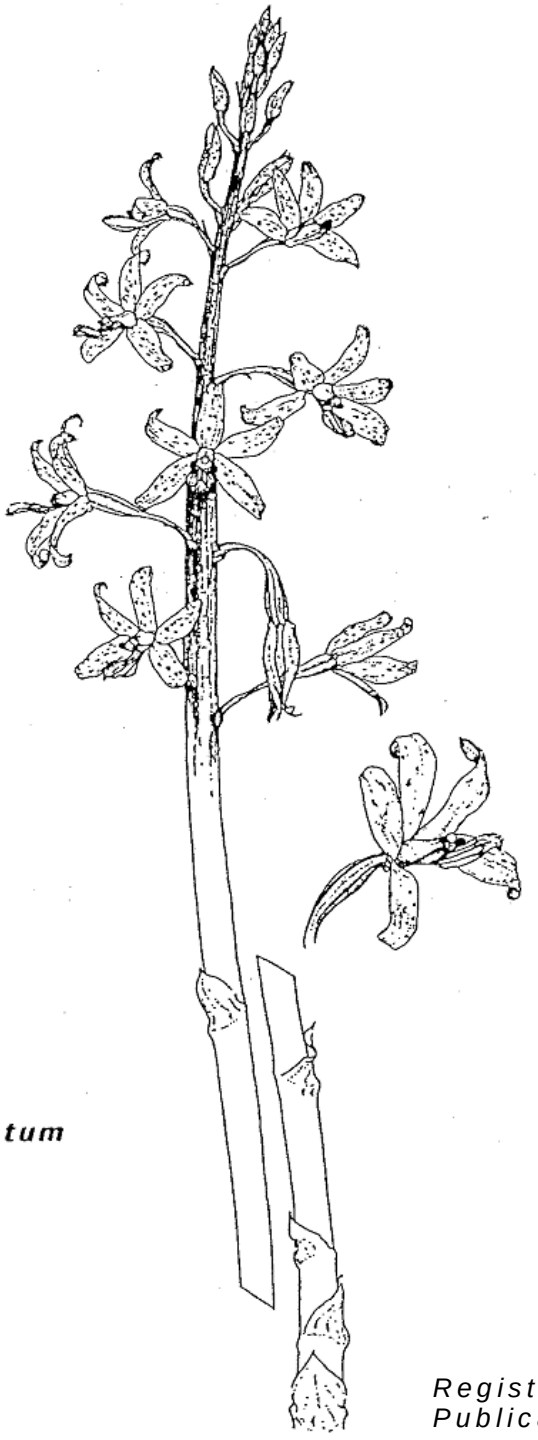
NATIVE ORCHID SOCIETY

of

SOUTH AUSTRALIA INC.

JOURNAL



Dipodium punctatum

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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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NEXT MEETING

TUESDAY 23 rd February, 1987 at 8.00 p.m.
St Matthews Hall, Bridge Street, Kensington

SPEAKER
Paul Reece will present "Spring Orchids of Western Australia". His topic is sure to be well supported with some excellent slides.

NOTICE OF ANNUAL GENERAL MEETING

The Annual General Meeting of The Society will be held in St Matthews Hall, Bridge Street Kensington at 8.00 p.m. on Tuesday 22nd March 1988. At this meeting, all offices of the Management Committee (except two committee persons) will become vacant.

Nomination forms to fill these vacancies will be available from the Secretary or at the February General Meeting. Completed forms must be in the hands of the Secretary 21 (twenty one) days before the election.

K. Western, Hon President

FRONT COVER

The subject of our front cover for 1988 has been drawn by Erica Stonor. It is a very true representation of *Dipodium punctatum*. We are indebted to Erica for her work and to Dr Webber of the South Australian Herbarium for permission to reproduce the drawing on our front cover this year.

As a token of the Society's appreciation, Erica has been made an Honorary Member for 1988.

NEW MEMBERS

Mr I O'Daniel
Mr M Pickett

POSITIONS VACANT

Several vital positions within the Society are about to become vacant and must be filled.

1. EDITOR George Nieuwenhoven who has been our editor has personal commitments which will prohibit his ability to continue to act as editor for the society. Previous experience is not essential, however some adeptness in the English language is necessary. The task is not an arduous one and can be most satisfying. Please approach the President or Secretary if you are willing to become involved. Our thanks to George for his work for the Society.

2. SECRETARY Jim Jacobs who has previously been active as a committee-person, Show Marshall and, more recently, as Secretary has personal commitments this year which will prevent him from continuing as Secretary. Again this role is not an arduous one but is one which we must fill. Anyone who is willing to fill this role is urged to nominate for the position. Our thanks to Jim for his work for the Society.

3. TYPIST The process whereby this Journal is generated was originally achieved using a typewriter and 'Roneo' duplicator. More recently the journal has been produced by means of a computer and 'Word Processor' program with duplication and compiling achieved by photocopying. My wife and I have shared the task of sub-editing and typing articles and data into the computer, proofing the out-put and printing the 'originals' for subsequent photocopying. Current personal commitments are making this role increasingly more difficult for us to fulfil. It is vital that we find someone to take on this role. If you can help, please contact the Secretary or President.

FIELD TRIPS

During this year our Field Trip Co-ordinator, Bob Bates will have more time to devote to organised NOSSA Field Trips. A list of proposed dates and locations will be presented in the next Journal. A keynote of some of this years excursions will be member participation in some proposed surveys.

TUBERBANK REPORT

This year the demand for the more unusual and uncommon tubers exceeded the numbers of tubers available. As a consequence, quantities per 'lot' were lower than is desirable. The "growing-on" program was less successful than was expected where, except for *Pterostylis curta* and Nodding Grace, a smaller quantity of smaller tubers were produced in master-pots during the past growing season. This is an increasing problem since lack of donations requires that 'master-pots' be heavily relied upon each year whereby larger tubers are distributed through the Tuber Bank leaving the poorer tubers to grow on for next year. Tubers often need 2 years to increase to an ideal size and to maintain numbers. This exemplifies the need for donations from the general members to run a successful Tuber Bank. This year there were only five donors; one from Victoria and four from Adelaide. To these donors please accept my heartfelt thanks for without your donations this years Tuber Bank would have failed. I sincerely urge more members to consider donating tubers for the Tuber Bank in future. If it is too inconvenient to deliver or provide tubers at the time they are required each year (December to January long-weekend) perhaps the donation of any spare pots of tubers could be considered at the November General Meeting. The Tuber Bank performs a vital service both as a means of providing orchids to hobbyists and in conservation by removing the need to collect tubers from the wild. Please consider what YOU can do to help provide tubers.

W Walloscheck Tuber Bank Convenor

Caladenia menziesii:- ARTIFICIAL INDUCTION OF FLOWERING by Roy Hargreaves

Caladenia menziesii is an orchid species which requires a bushfire to cause it to flower freely in the wild. Attempts by members to initiate flowering by burning leaves of eucalypt species on the pots have produced little success in the past.

Research botanist, Dr Kingsley Dixon of Kings Park, Perth, Western Australia found that tubers of *C. menziesii* sealed in a plastic bag with a ripening banana for 1-2 weeks before sowing, resulted in profuse flowering of the resulting plants. In this way , some of the ethylene gas used by the banana-wholesalers to ripen the bananas upon their arrival, escapes from the bananas into the sealed plastic bag and penetrates the orchid tubers.

At the Black Hill Native Flora Centre, *C. menziesii* was grown in a compost comprised mainly of grey hills sand with a little hills soil added. They had been grown in large styrene foam boxes and had grown and multiplied without flowering for 4 years. They were grown under 50% shade-cloth and were protected from the hot summer sun.

I had tried placing two bananas on top of the compost and sealing over until the bananas had ripened. The result was two flowering plants, from directly under where a banana had been placed.

In January 1987 tubers were treated as suggested by Dr Dixon until the banana was well and truly ripe (just over 2 weeks). The tubers were then sown in the usual manner at a depth of about 3 cm down from the surface of the compost which was occasionally damped down until the arrival of the rainy season. Unfortunately no record was kept of the actual number of tubers planted but there were 70 flowering plants, several of these having pairs of flowers. Some of the leaves were 9 cm long x 3.5 cm wide and some flowers were 25 cm in height. In December 1987, 230 tubers were obtained from the box. Non-treated tubers which had been planted in 6 x 7 inch black squat plastic pots at the same time as the above-mentioned tubers did not flower but it was noted that the tubers from these pots were larger than those produced from the flowering plants.

The foam box with its flowering plants was displayed at our Spring Show and September General Meeting

We are grateful to Dr Dixon for the information passed on to us regarding the use of artificially ripened bananas as a source of the ethylene gas which triggers the tubers to produce flowering plants in this species of orchid.

Despite similar attempts to induce *Lyperanthus nigricans*, (another fire-induced flowering orchid) to flower I have had no success yet: have you?

ORCHIDS IN THE VIEWFINDER by Paul Reece

A photograph is an excellent means of recording the sighting of an orchid, in flower, in the bush. Most of us nowadays neither have the talent nor the patience to draw what we see, as did W.H. Nicholls. The advantage with a drawing is that all the botanical details can be included, often in one view only. With photography a good flower specimen must first be chosen as a photograph is only as good as the specimen; and if we only have one flower to choose from our task is made that much easier! An eye-lens is useful to examine the plant before setting up for a photograph. I enjoy looking at the flower structure in detail using sunlight and a 5x jeweller's eye-lens which simply fits into the eye socket and doesn't have to be hand held. I bought mine for a few dollars from the Marion branch of Laubman and Pank. Defects which normally would go unnoticed such as the bites taken out by a hungry grasshopper or sand splashed up by past heavy rain can be easily

seen; I can then either choose a new flower or brush away the sand with a blade of grass or a little brush. A spider or two will add ornament to your photograph. The background is as important as the subject itself. Without clear definition the full detail of the subject would be lost. For example a dark section of a flower will disappear into a dark background. If possible a natural or 'in situ' background is desirable to show the type of terrain the orchid lives in. Sunlight as a light source enables us to make background selection easier. We may not notice every imperfection in our photograph as we look through the viewfinder but the photograph is an exact copy of everything it sees, so we must be as discerning as possible as we frame our picture. A piece of light coloured grass set diagonally across the background would spoil our picture so this can be removed along with any other items that would clash with and take our attention away from our subject. We call this cleaning up process "gardening", yet it still allows us to retain the natural character of the area we are photographing and does not detract.

Electronic flash users have a few problems, however, as what they see they do not necessarily get. Like all alternatives there are advantages and disadvantages and some awareness of the limitations is necessary to maximise success. Flash is fast to use and gives much more depth of focus. Had I the patience I would like to mount the camera on a tripod and use sunlight as the light source BUT the shutter speed would be down to about one eighth of a second where absolutely no movement of the flower could be tolerated and would require that the flower be oriented perfectly to be correctly light by the sun.

During the 10 minutes or so required to 'get a good shot' quite a few decisions must be made regarding the best angle to view the flower; which magnification seems most satisfactory and is the background acceptable? I have found that experience in these aspects of photography can be enhanced by looking at published photographs and asking the question "Why does this shot have so much effect?" The NOSSA Library has several books which employ botanical drawings for description of their subject. I have found the general format of those drawings to provide the ideal format to base a photograph on.

The majority of my photographs are taken in the bush. I have found it prudent to write brief notes on the plants found, the date, rough location, prevailing weather conditions and whether the species seen were in flower or bud etc.. Those notes subsequently enable more accurate prediction of when and where a particular species or hybrid may later be found and photographed (despite the notes, seasons can vary enough to be a problem at times). I always prefer to see the orchids in their natural surroundings.

One of the real attractions in photographing orchids in the field is the ever-present potential to discover the unexpected species or hybrid thus adding to the photographic and experiential opportunities. To find an orchid that is new to you is quite an experience and the feeling of satisfaction only increases as more new ones are found and more photographic challenges arise.

A natural consequence of all this photographic endeavour is the need to accommodate slides of 'new' orchids in an appropriate fashion and so my next article will discuss "Storage of Slides".

REFERENCES

Curtis (1979) Part 4A (ORCHIDACEAE) THE STUDENT'S FLORA OF TASMANIA (for botanical drawings)

NATIONAL GEOGRAPHIC MAGAZINE (April 1971) Vol 139 No. 4 p. 485

STORAGE OF ORCHID SLIDES by Paul Reece.

Photography is becoming an expensive hobby and effective storage methods are needed to make a slide collection more useful. I believe there are a number of solutions to some common problems.

After being projected the slides tend to be put away in some dark cupboard, specific slides being difficult to relocate in a short time. Also the slides are small (usually 24 x 36 mm) and are difficult to appreciate as they are. However, to overcome this problem there is a range of clear plastic sheets available comprising pockets to hold 20 to 24 slides per sheet. By simply holding such sheets up to the light, the desired slide(s) can be readily and conveniently obtained at a glance. Such slide storage sheets are readily obtainable from photographic stores and some larger Supermarkets along with ring-binders for bulk storage and protection.

Ideally all slides should contain the following data-

a. The date on which the photograph was taken.
b. The approximate location of the subject.,
c. The name of the orchid (when identification is possible)

Most Stationers can supply permanent ink pens capable of writing on plastic slide mounts. Being somewhat frugal, I prefer to store a large proportion of my slide collection in the boxes provided by the processors. A clearly labelled lid instantly determines whether the box contains slides of Caladenias or Drakeas. The boxes can be placed on suitable trays, one layer to a tray, located alphabetically and the trays in turn can be stacked according to space available. In this way quick and convenient ease of access is assured.

Any storage system can be greatly improved by editing out unwanted or mediocre slides. This may seem somewhat ruthless but serves to promote more care with the shutter button next time. I keep some of my failures particularly to remind me of the need for care.

Last but far from least - the slides must be kept clean. "Don't get them dirty!" Hands should always be washed and thoroughly dried before handling slides and then strictly only by the edges. Once the processed film is contaminated with oils, salts and natural acids which tend to etch into it, the mark will stay. Dust can be a problem as plastic mounts and sleeves tend to become electrostatically charged during dry weather by rubbing or brushing them. A camel hair brush and 'puffer' can fairly readily remove this type of contamination.

Perhaps you might care to look into that dark cupboard and make its contents more available?

IN SEARCH OF PEARLS by L. NESBITT

Just when it seems the cold dreary days of Winter will never pass, suddenly the rain stops and the sun comes out to dry out the land and warm the heart. The urge to search for pearls becomes a passion, blotting out all other thoughts. Last year's gear is dragged out and hastily cleaned up in anticipation. The search area is examined closely, seeking receptacles which are nearing ripeness. How eagerly each is grasped in both hands and the contents disgorged into full view. Grubby fingers sift through the mess, it is disappointing and soon dismissed as of little consequence. Who wants to dwell on failures. The eyes and mind quickly switch to the next container, maybe our luck will change. This time we find a group of pearls but they are small and misshapen. The next attempt produces a pearl of good size but it is badly marked with black spots and streaks. There has been no

increase. Disappointing. But how the heart lifts when the next attempt uncovers several perfect pearls, firm, round, lustrous and without any blemish. You carefully wipe off the dirt, squeeze them gently to feel the firmness, roll them between the fingers to confirm that there are no blemishes, and marvel at their size and lustre. Such a find makes it all worthwhile, this endless search. Before they deteriorate in the open air or can be damaged, you hastily place them in a new container to grow on for another season, hopefully to get bigger and better.

Then the hunger strikes again to continue the search to find more pearls, and more and more. For experienced searchers with a large collection this quest goes on day and night, week after week until every receptacle is examined. Then you are left with an empty feeling that the search is over. All that can be done is to wait for another winter to come and go, and to renew your social life until the time is right for the search to begin again. In the meantime it takes a very strong will to resist the temptation to add to your collection of receptacles. I gave up all resistance long ago.

EPIPHYTES - AS THEY LIKE IT by K. Western (continued from Dec 87)

As we continued our travels southward and somewhat inland there were occasional patches of rainforest amongst what was essentially eucalypt forests. One species which was extremely common throughout was *Cymbidium suave*: it was literally everywhere - high in the eucalypts growing in patches of decaying timber, on the ground still growing in the original host left fallen years ago during some logging event, and old and newly germinated seedlings seen growing from the stumps and remains of rotting fallen giants - sheltered where they fell and of no use to loggers. If left alone and inaccessible to wallabies these plants produce flowers and seed pods extremely well. Hundreds of *C. suave* obviously perish when the unwanted timber is bulldozed into rows and burned. We also saw the occasional poor specimen of *C. madidum* in these regions. The interesting feature seen with *C. suave* was that it usually grew in quite sunny locations and fared well in 50% to full sun. The rotting timber in which they grew was always moist but NEVER SOGGY and was often well aerated by virtue of cracks in the timber or because they grew just underneath the bark.

Still further south, in an area where we had seen numerous *C. suave*, we came to a sign which said "Tourist Lookout" 3 km, which tempted us to have a look at the scenery. Luck was with us, we had hoped to find a cliff or rock face which may have carried some orchids, and it so happened that the lookout was part of a segment of land jutting out like a fist from the surrounding land mass and had fairly sheer rock walls. The aspect was roughly west and very windy and dry. No epiphytes were apparent on this aspect but on moving around to the southerly face the scene slowly changed. Firstly there was *Dendrobium gracilicaule*, then some *D. speciosum* var. *grandiflorum* and finally numerous large healthy *Sarcochilus ceciliae* growing high on the cliff face - almost at the top in some completely dry moss situated in a large crack in the rocks. On close examination an extremely dry, loosely packed moss structure was revealed with the roots of *S. ceciliae* extending as far as we could see into the rocky pockets. More *Dendrobium speciosum* var. *grandiflorum* were seen further down the rock face - there were absolutely brilliant yellow forms, white forms and pale yellow forms growing side by side. This location was very dry at the time of our visit. During a rainy period the plants would be wetted with copious amounts of run-off from the gently sloping plateau above, with some residual moisture expected to percolate from the sandstone-like rocks for some time after the rains. The dendrobiums

were all growing on the rocks with large areas of roots trapping much detritus and rotting vegetable matter. The lighting was basically indirect and there was a reasonable degree of protection from the strong drying winds - there was still plenty of air movement however. Amazingly I can now see why *Sarcochilus ceciliae* grown in coarse 'blue metal' (dolomite) does so well - as it closely mimics the type of dampness cycle experienced in nature - it rapidly dries out after any dampness and allows good aeration to the roots.

A little further south again we saw what appeared to be an excellent site for *D. speciosum* and *D. kingianum* and eventually we found roads to get us there. We arrived with great expectations; from what we had seen so far there should be hundreds of Dendrobiums - but no - the area had been burnt out during "controlled burns" and had become so hot that the rock (of volcanic origin) had shattered and flaked off. Burnt remains suggested that there had been numerous large plants of *D. speciosum* - now only one small piece is struggling to recommence the growing cycle. A few *D. kingianum* survived at the edge of the cliff and numerous *D. linguiforme* and *D. monophyllum* were rapidly recovering after the fire (they had not received the intensity of heat experienced by the *D. speciosum.* Amazingly these plants were growing in full sun on a windy north-easterly facing cliff. On a brighter side, the fires had promoted the growth of terrestrial orchids. *Pterostylis nutans* and *curta* were common as were numerous species of *Acianthus*, *Corybas, Caladenia* and *Diuris* - but at what price? As we continued southwards almost to the NSW/Victorian border, examining numerous occurrences of Dendrobiums particularly *D. speciosum* - we became aware of where orchids would be found growing. Sometimes we could smell *D. speciosum* from quite a distance away, downwind, and predict which rock face they would be found on. At other times after a short debate we walked straight to them and then found that there were no others apart from the ones in the small area we decided to examine (sounds like ORCHID SENSE).

It seems that there is an equation involving factors such as:-

rainfall -	amount and frequency
aspect -	North, East, South or West
wind -	presence or absence of prevailing wind
rock type -	porous or relatively non porous
shelter -	from trees or valley situation
situation -	high or low on a rock face
ground water -	the presence or absence of creeks an waterfalls either permanent or temporary
genus -	and or variety of species involved

After a few lucky finds a picture gradually builds up and it becomes easier to find orchids - wherever they may be. A classical lucky break occurred when we were looking for *D. speciosum* in a known general area of occurrence; a fire had been through the area 3 or 4 years earlier and we found none of this species but growing on a large 3 to 4 metre spherical boulder, amongst a thin cover of lichens and mosses, was a very tall vigorous and robust *Sarcochilus falcatus* with numerous seedlings. The area was fairly well sheltered by eucalypts and some casuarinas and was quite dry. The plant was growing about half way down the South side of the boulder. Despite seeing many *S. falcatus* in the Dorrigo region, in nurseries and in private culture, this had to be the tallest and most vigorous specimen I had ever seen.

In conclusion, having seen numerous species in their various wild habitats, I believe that in cultivation we are tending to keep the roots of our plants too wet for too long by using composts which are too fine and which remain too wet and are insufficiently aerated. Further proof was found when we saw *D. gracilicaule* growing

in a rock in an absolutely dry, parched area. The plant looked great and was even carrying numerous flowers and on quizzing the locals we were informed that 'there hadn't been a decent rain here for over 3 years' - perhaps they have dewey nights because the plants and their root systems looked perfectly healthy. I am personally converting my potting medium to much larger pieces of bark or rock which has been well graded to remove all the smaller pieces - I will simply put up with the nuisance of having to water more frequently, because of drying out, in the belief that this will most closely mimic the situations to which the roots of our colder growing epiphytes have adapted.

Already I have been encouraged by the fact that tiny seedlings of *Sarcochilus fitzgeraldii*, purchased from a well known Sydney native orchid nursery, and struggling in their fine potting mix, have responded most favourably to being potted in a quite coarse bark. The new stout roots and firm fleshier leaves bear testimony to more satisfactory culture.

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With a little luck and some spare time, the Journals of previous years will be indexed in the same way and will be printed in a subsequent copy (or copies) of this Journal.