

Native Orchid Society  
of  
South Australia Inc.



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

P.O Box 565,  
UNLEY S.A 5061

*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 the 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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# NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC

**SEPTEMBER 1993    VOL. 17 NO. 8    JOURNAL**

## SEPTEMBER MEETING

Tuesday, 28th September 1993, 8.00 pm; at St Matthews Hall, Bridge Street, Kensington. Doors to the Hall will be open at 7.15 pm for those wishing to borrow from the Library or purchase from / sell through the Trading Table, to look at the plants being benched or perhaps to just socialise. Our guests for the evening will be Mr. and Mrs. Nick Marinos who will take us to the Australian Alps through the use of two coordinated slide projectors and synchronised audio. The Marinos' photography is superb and we can all look forward to a most enjoyable evening - at least those of us who are not afraid of heights!

## N.O.S.S.A. OPEN DAY

Meet at the entrance to National Park, Belair, on Sunday 3rd October at 2.00 pm sharp. All Members are very welcome to attend.

## CONSERVATION GROUP

Sunday, September 26 at 10.00 am. Weeding and orchid observation at Belair National Park. Meet at main entrance to the Park. All Members are welcome. (see page 77).

## COMMITTEE MEETING

To be held at the home of Karen and Hugh Possingham, 61 Salop, Beulah Park, at 7.30 pm on Friday, 1st October.

## DIARY DATES

October 9 and 10: Society for Growing Australian Plants Flower Show and Native Plant Sale at the Hamilton Hall, Wayville Showgrounds

October 17th: Echunga Social - Picnic and Field Excursion: (see page 78)

November 30: Annual Auction and Christmas Breakup Supper

?November 28: Christmas Barbecue

March 22 1994: Annual General Meeting - Committee Positions available.

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## NEW MEMBERS

The Native Orchid Society of South Australia take great pleasure in welcoming Mr. and Mrs. D James of Elizabeth Downs, Mr. and Mrs. R. Riederer of Aldgate, Mr. and Mrs D. Williams of Klemzig and Mr. and Mrs. D. Howland of Glengowrie, as new Members. Welcome to N.O.S.S.A.!

## AUGUST MEETING

### Plants Benched

Terrestrials; *Pterostylis alata*, *Pterostylis baptistii* (Janney), *Pterostylis baptistii* (procera), *Pterostylis barbata*, *Pterostylis curta*, *Pterostylis curta* x *Pterostylis pedunculata* (natural cross), *Pterostylis concinna*, *Pterostylis cynocephala*, *Pterostylis erythroconcha*, *Pterostylis x ingens*, *Pterostylis nutans*, *Pterostylis nutans* (white form), *Pterostylis pedunculata*, *Pterostylis scabra*, *Pterostylis taurus*, *Caladenia* Fairy Floss, *Corybas incurvus*, *Cyrtostylis reniformis*, *Diuris lanceolata*, *Diuris palustris*, *Diuris* Pioneer (Big Ears), *Diuris spectabilis*, *Glossodia major*, *Glossodia minor*, *Thelymitra chasmogama*.

Epiphytes: *Dendrobium aemulum*, *Dendrobium lichenastrum*, *Dendrobium speciosum* var. *speciosum*, *Dendrobium teretifolium* (2 forms), *Sarcophilus falcatus*, *Dendrobium* Allynstar x *Dendrobium falcatostrum*, *Dendrobium* Aussie Bonanza, *Dendrobium* Aussie Zest, *Dendrobium* Captain Banks, *Dendrobium* Catherine Banks, *Dendrobium* Colonial Bullion, *Dendrobium* x *delicatum*, *Dendrobium* Ellen, *Dendrobium* Falcon Star; *Dendrobium* Hilda Poxon, *Dendrobium* Hilda Poxon (Freckles), *Dendrobium* Kym, *Dendrobium* Martin Bill x *Dendrobium* Bardo Rose, *Dendrobium* Peach Star, *Dendrobium* Ronald Banks, *Dendrobium* Wonga, *Dendrobium* Warnambool, *Dendrobium* Zip.

George Nieuwenhoven provided the plant commentary on the terrestrials.

Peter Barnes provided the plant commentary on the epiphytes.

### Popular Vote

Terrestrial: *Pterostylis barbata* grown by Les Nesbitt and *Pterostylis curta* (in impressive naturally formed hollow log) grown by Don Wells.

Epiphyte: *Dendrobium* Falcon Star grown by Roger Herraman.

### Commentator's Choice

Terrestrial Species: *Pterostylis barbata* grown by Les Nesbitt.

Terrestrial Hybrid: *Caladenia* Fairy Floss grown by Jan Burford.

Epiphyte Species: *Dendrobium teretifolium* grown by Don Wells.

Epiphyte Hybrid: *Dendrobium* Falcon Star grown by Roger Herraman.

## GUEST SPEAKER

Mrs. Rosalie Moore provided a most excellent overview of the Genus *Sarcophilus*, describing and discussing all of the included species and giving considerable information on their natural growth conditions and how she translates this knowledge to their successful culture. A most informative and enjoyable talk from an expert on the Genera. The Committee is most embarrassed about our non-performing projector. We will look forward to seeing Rosalie's slides of *Sarcophilus* species, at the October or perhaps November Meeting.

July weather can be, unpredictable and the planned visit to Adelaide Orchids was justified as twenty two members and friends enjoyed a tour of the Nursery in relative undercover comfort.

We were welcomed by our hosts, Robyn and Stephen Monkhouse, in the reception area, and Robyn gave us a brief history of Adelaide Orchids from its inception as a backyard business at Camden Park, to a large sprawling business at O'Halloran Hill that was difficult to manage because of its size, to the present smaller more compact Nursery at Woodcroft.

Stephen led us on a most informative tour, was willing to answer all of our questions, and give us the cultural requirements of the orchids in each specific area. He included a wide range that will thrive in the same conditions as our Australian native Dendrobiums.

As a grower, who does not do particularly well growing the Genus *Sarcochilus* I was surprised to see this Genus thriving in a section of a large house that was of fibre glass sides and roof with plastic sheeting lining walls and ceilings. The aspect faced west, the conditions were warm and the light bright. Air movement was improved with fans. The growth of the plants was extremely vigorous, and the number of flower spikes outstanding. I say I was surprised because on previous shade house visits to various Members' collections, generally they grew their Sarcs in a cooler section of their shade house, often facing south. I look forward later to our monthly meeting - guest speaker Rosalie Moore, who will talk on her culture of the Genus *Sarcochilus*.

We returned to the reception area for afternoon tea and Rosalie Moore displayed some of her own Dendrobiums that were in flower. Stephen gave us the details of Adelaide Orchids' own Spring Orchid Gala in early September, and spoke of the "hands on" workshops that the Nursery run. Also in this reception area a circular display of Australian Native Seedlings had been arranged and were bought by some members.

I found the Nursery fertiliser program both simple and of interest and one that could be useful for member's own mixed collections. Regardless of the Genus, everything in the Nursery gets the same fertiliser and Stephen has found that Peter's Fertiliser produces good results for them.

Small plants and seedlings planted out are fed "Peter's Plant Starter" having an N.P.R. of 10 + 22.7 + 8.3, and have found the high phosphorus percentage promotes exceptional root growth. Application is 5 grams / 5 litres. Between the months of July and November "Peter's Hi Nitro" is applied with an N.P.K. of 30 + 4.4 + 8.3 again at 5 grams / 5 litres and the high nitrogen produces fast growth. Between December and June "Peter's Blossom Booster" is applied, N.P.K. 10 + 13.1 + 16.6 again at 5 grams / 5 litres, the high percentage of Potassium benefiting flowering.

We had the opportunity to browse at our leisure and enjoy a chat, Robyn and Stephen were indeed gracious hosts, and we thank them for a rewarding visit.

## PHOTOGRAPHIC COMPETITION

The following are the winners of N.O.S.S.A.'s 1993 Photographic Competition:

### ORCHID - IN SITU WHOLE PLANT OR MACRO:

#### PRINT

- 1st: *Thelymitra rubra* taken by Roger Biddell
- 2nd: *Thelymitra* Hybrid taken by Roger Biddell
- 3rd: *Diuris corymbosa* taken by Thelma O'Neill
- Merit: *Pterostylis plumosa* taken by Roger Biddell
- Merit: *Paracaleana minor* taken by Bob Edge
- Merit: *Pterostylis plumosa* taken by Bob Edge
- Merit: *Caladenia leptochila* taken by Bob Edge

## SLIDE

1st: *Pterostylis longifolia* taken by Arthur Winkler

2nd: *Diuris corymbosa* taken by Bill Dear

3rd: *Thelymitra nuda* taken by Arthur Winkler

Merit: *Calochilus robertsonii* taken by Arthur Winkler

Merit: *Thelymitra nuda* taken by Bill Dear

## ORCHID WITH POLLINATOR

1st: *Cryptostylis subulata* taken by Bob Bates

2nd: *Caladenia* aff. *magnifica* taken by Bob Bates

3rd: *Caladenia* aff. *dilatata* taken by Bob Bates

Merit: *Prasophyllum triangulare* taken by Bob Bates

Merit: *Prasophyllum* sp. taken by Bob Bates

Merit: *Caleana major* taken by Bob Bates

Congratulations to the winners of this year's competition and many thanks to all of those who participated. A special thankyou to Bob Edge who organised this year's event and to Mr. Ken Herring who judged the entries. Mr. Herring has been taking photographs since 1926 and has received many honours for his photography. He is an Associate of the Australian Photographic Society and a highly qualified and much sought after judge.

## ORCHID SPECIES SEED AND PROTOCORM BANK - NEW SPECIES INITIATIVE FOR PRACTICAL CONSERVATION AUSTRALIAN ORCHID FOUNDATION

The AOF for some years, has been supplying dry orchid species seed to enthusiastic growers who have access to seed raising facilities, in an effort to disperse the species widely in a positive conservation and practical effort. The AOF has now successfully launched a new initiative, the distribution of germinated seed as PROTOCORMS to the orchid growing community.

The AOF will supply a sterile tube containing up to 20 protocorms (depending on availability) for the low cost of \$2.50 plus postage. A current list of species available can be obtained by sending a S.A.E. (business size) to:

AOF Orchid Species Seed and Protocorm Bank 6 Carlyle Court Toowoomba, Queensland 4350

All proceeds from Protocorm and Seed sales go to the AOF to further their specialised Orchid Research

The AOF are also continually looking for donations of excess Protocorms and seed of species orchids. Erhard Husted has recently decided to retire as Curator of the AOF Orchid species Seed Bank. Wayne Harris, has accepted an invitation to combine the duties and activities of the Seed Bank, with those of the AOF Orchid Species Protocorm Bank. Wayne was a very active, tireless, and prominent Member of N.O.S.S.A. before he moved from South Australia to Queensland.

As the AOF emphasises - "ENCOURAGE THE GROWTH OF ORCHID SPECIES"

## WORK THIS ONE OUT:

Three orchid enthusiasts checked into a motel for a night. The cost of the room was \$30.00. Each of the three gave the Manager of the Hotel \$10.00 and went to the room. The Manager realised he had made an error and that the room was only \$25.00 per night. Being honest he called his assistant and asked him to return \$5.00 to the three guests who had just checked in. The assistant wasn't as honest as the Manager and decided to keep \$2.00 for himself. The assistant gave \$1.00 to each of the three guests. Each of the three orchid enthusiasts, therefore, had paid \$9.00 towards the room. 3 (guests) x \$9.00 (each) = \$27.00, plus the \$2.00 that the assistant kept = \$29.00. Where did the other dollar go?!!

# CONSERVATION STATUS OF THE KNOWN *CALADENIA* SPECIES IN SOUTH AUSTRALIA

By Bob Bates

In the May issue of the N.O.S.S.A. Journal a list appeared of threatened orchids in conservation parks in South Australia. This list was of course not a complete picture: I intend in future journals to cover all South Australian species, named and unnamed, giving their conservation status. In this journal I will cover the genus *Caladenia*.

Species	Conservation Status in SA	Australia Wide	Locations or Notes
<i>C. arenaria</i>	3RC	Not Known	Alligator Gorge
<i>C. argocalla</i>	3ECi	SA Endemic	Needs a Recovery Plan
<i>C. audasii</i>	2X	3EC	To be Reintroduced
<i>C. behrii</i>	2ECi	Endemic	Adelaide Hills Recovery in Progress
<i>C. bicalliata</i>	3UC	Uncommon	Widespread
<i>C. brumalis</i>	Probably 3E	Endemic	Needs a Recovery Plan
<i>C. calcicola</i>	Probably 2X	3EC	Needs to be searched for
<i>C. cardiochila</i>	Common	Common	Dryland Species
<i>C. carnea</i>	Common	Common	Several Forms
<i>C. clavigera</i>	2ECi	Common	South East
<i>C. clavula</i>	3UC		Endemic to Eyre Peninsula
<i>C. cleistantha</i>	Unknown	Common	Kangaroo Island
<i>C. concolor</i>	3X	3EC	Original Distribution in SA Not Known
<i>C. conferta</i>	3ECi	? Endemic	Southern Form of <i>C. toxochila</i>
<i>C. coactilis</i>	2UC		Endemic to Flinders Ranges
<i>C. colorata</i>	?3ECi	Endemic	Needs a Recovery Plan
<i>C. congesta</i>	2VC	Common	South East
<i>C. cucullata</i>	2VC	Common	South East Border
<i>C. dilatata</i>	Probably Not In South Australia		
<i>C. "filamentosa"</i>	Common	Common	Yet to be Renamed
<i>C. flaccida</i>	3RC	Uncommon	Almost Extinct Near Adelaide
<i>C. fragrantissima</i>	3RC	Uncommon	Coastal Species
<i>C. formosa</i>	3E	Endangered	Little Known
<i>C. gladiolata</i>	3ECi	SA Endemic	Recovery Plan In Action
<i>C. gracilis</i>	2X	Common	South East
<i>C. latifolia</i>	Common	Common	Several Forms
<i>C. leptochila</i>	Common	Extinct in Victoria	
<i>C. macroclavia</i>	3E	SA	Endemic Needs a Recovery Plan
<i>C. minor</i>	3UC	Common	Also in New Zealand
<i>C. necrophylla</i>	3UC	Unknown	South East
<i>C. ovata</i>	2EC	SA Endemic	Needs a Recovery Plan
<i>C. parva</i>	2E	Unknown	South East
<i>C. patersonii</i>	? Not in South Australia		
<i>C. prolata</i>	Common	Common	Rare in Victoria.
<i>C. reticulata</i>	3UC	Uncommon	Mostly Adelaide Hills
<i>C. richardsiorum</i>	2ECi	SA Endemic	Needs a Recovery Plan
<i>C. rigida</i>	2ECi	SA Endemic	Recovery Plan In Action
<i>C. septuosa</i>	Common	SA Endemic	Eyre Peninsula
<i>C. stellata</i>	3UC	Uncommon	Rare Near Adelaide
<i>C. stricta</i>	3UC	Rare Outside SA	Mallee Species
<i>C. tensa</i>	Common	Common	Dryland Species
<i>C. tentaculata</i>	Common	Common	Mostly in Adelaide Hills

<i>C. toxochila</i>	Common	Rare Outside SA	Dry Northern Species
<i>C. valida</i>	3VC	Uncommon	Mostly on Kangaroo Island
<i>C. verrucosa</i>	3UC	Uncommon	Mallee Species
<i>C. versicolor</i>	2E	3EC	Needs a Recovery Plan
<i>C. woolcockiorum</i>	2EC	SA Endemic	Only in Mt Remarkable Area
<i>C. xanthochila</i>	2X	3E	Needs Re - introduction
<i>C. xantholeuca</i>	2ECi	SA Endemic	Flinders Ranges

#### Unnamed Species

<i>C. "sanguinea"</i>	Common	SA Endemic	Rare Outside Kangaroo Island
(The wine red <i>Caladenia filamentosa</i> from Kangaroo Island)			
<i>C. "blood red"</i>	2X	Unknown	Bordertown
<i>C. aff. clavigera</i>	1X	SA Endemic	Finniss
<i>C. "x insuloris"</i>	2E	SA Endemic	Kangaroo Island
<i>C. "glabrifolia"</i>	3UC	SA Endemic	North Flinders

#### Legend:

Numbers: 1 - known from a single site  
 2 - distribution less than 100 km  
 3 - distribution over 100 km

Letters: X - Probably extinct  
 E - endangered (likely to die out in a few years)  
 V - Vulnerable; could become endangered at any time  
 R - Rare; of limited occurrence or rarely seen  
 U - Uncommon

Followed by the letter C meaning: Conserved  
 or Ci: Inadequately Conserved

It can be seen that of 55 *Caladenia* recognised in South Australia in 1993 only 10 or 11 are thought to be common, while over 20 are threatened and at least 7 are already extinct. This does not include an estimated 10 species which may have become extinct without ever being collected.

The author has written recovery plans for 3 endangered species ie. *Caladenia behrii*, *C. gladiolata* and *C. rigida* and action will be taken as from September 1993 to improve the chances of long term survival of these fascinating species. This includes rabbit proof fencing, hand pollination, and flasking. Recovery plans will be written for several other species once they are better known.

It is likely that other species are yet to be discovered or sorted out. The author and David Jones already have some new species in manuscript.

#### BOTANISTS OF ORCHIDS NO. 20 D. F. SCHLECHTENDAL (1794 - 1866)

Schlechtendal was a German botanist who for 30 years was Professor of Botany at Halle University. He travelled in the America's on collecting trips and wrote a Flora of Germany. During his life, he named nearly one thousand new species, including many Australian ones. Plants collected by Hans Herman Behr near Adelaide in the 1840's were sent to Schlechtendal. He named 3 South Australian orchids including one of our best known species *Caladenia tentaculata*, the King Spider, as well as *Diuris behrii* and *Caladenia behrii*. He founded one of the most famous botanical Journals Linnaea, in 1827. Plants named after him include *Correa schlechtendalii* and *Dendrobium schlechtendalii*.



## BOTANISTS OF ORCHIDS NO. 21 F.F. (RUDOLF) SCHLECHTER (1872 - 1925)

Another famous German Botanist, Schlechter was born in Berlin. As a young man he made many collecting trips in places as far apart as South Africa and New Guinea and New Caledonia. He had a great capacity for work, a wonderful memory, ambition and confidence and at one stage set himself the target of describing at least one new species of plant every day. He was very keen on orchids and wrote the monumental *Die Orchidaceae von Deutsch New Guinea* in which he described over 1000 orchid species. He was curator of the Berlin Museum for many years and spent time at Kew and at the British Museum. He spoke six languages and published in three. He corresponded with Dr. R. S. Rogers for many years.

By R. Bates

## ORCHIDS AND WEEDS AT BELAIR NATIONAL PARK

BY HUGH AND KAREN POSSINGHAM

The Conservation Group has been active this year making monthly visits to our long-term orchid monitoring sites at Belair National Park. The group meets at 10.00 am at the main entrance to the Park on the third Sunday of every month (although the next visit is Sunday 26th September). The remainder of visits this year are on October 24th, November 21st and December 19th, all Sundays at 10.00 am. Everyone is welcome; September and October will be particularly exciting. Aside from counting orchids, we remove boneseed and *Pittosporum* and Ray Nash invariably shows us some of the local orchid highlights. Below is a brief summary of what we have achieved and seen this year.

The Group carries out detailed counts of orchids over 20 square metres on three sites, one cleared of boneseed several years ago, the second cleared last year by us and the third yet to be cleared. The objective is to follow the changes in orchid numbers and diversity following weeding. Early in the year *Genoplesium rufum* was in flower, although our skills identifying leaves were taxed to the full. The biggest problem is trying to tell *Burchardia umbellata* (a lily) from young *Thelymitra* leaves. By June we had some *Pterostylis longifolia* and *Acianthus exsertus* in flower while our most recent visit has unveiled a large colony of flowering *Corybas diemenicus* and scattered flowers of *Pterostylis nana*.

Off the Survey sites, Ray has shown us flowering specimens of *Pterostylis sanguinea*, *Pterostylis pedunculata*, *Pterostylis curta*, *Pterostylis robusta*, *Cyrtostylis reniformis* and *Caladenia deformis* (all on the August visit). We eagerly await the display of *Diuris*, *Caladenia* and *Thelymitra* to unveil itself. As our knowledge and methods improve, we hope to set up further sites in other places and participate in other conservation activities including pollinating uncommon and declining species, monitoring threatened populations, and critical weed removal tasks.

## N.O.S.S.A. NEWS ITEMS

## TUBER BANK

Now is the time to start thinking about what tubers you might be able to offer the Tuber Bank this year. Even small numbers of tubers will be appreciated. There will be more about this in the November Journal.

## NAME TAGS

Orders will be taken at the September Meeting for plastic name tags. The cost will be \$5.00.

## YOUR JOURNAL

I will be unable to continue as Editor of your Journal as of the 1994 AGM. Rather than making the task of preparing a monthly Journal a one person commitment, I think it would serve all well in the future, to set up a Journal Team with an Editor, assistant Editors and more than one typist / word processor. I tried to set up such an arrangement for 1993, but through no one's fault other than my own, failed to bring it all to fruition. I must admit, I have rather enjoyed my Journal responsibilities this year. Anyone who might be interested in assisting with the Journal next year (or sooner), please see me at the end of the September meeting or contact me at home - evenings 332 7730.

Echunga 1993

This may be the last time we will be able to enjoy this well attended yearly event as there are some rumours about that part of Echunga may be sold. This is one of the most popular N.O.S.S.A. events. There is a large area of original and undisturbed scrub on the reserve hosting a large number of native orchids and other plants. In addition to orchids, Echunga provides a fun social outing. We look forward to seeing a large number of Members on the day. All are welcome , but please be on time.

Some of the orchids seen on previous trips to Echunga include the following: *Acianthus caudatus*, *Caladenia carnea*, *Caladenia dilatata*, *Caladenia reticulata*, *Calochilus robertsonii*, *Cryptostylis reniformis*, *Diuris corymbosa*, *Glossodia major*, *Leptoceras menziesii*, *Lyperanthus nigricans*, *Microtis unifolia*, *Prasophyllum fuscum*, *Pterostylis foliata*, *Pterostylis pedunculata*, *Pterostylis plumosa*, *Thelymitra antennifera*, *Thelymitra aristata*, *Thelymitra ixioides*, *Thelymitra rubra*, *Thelymitra pauciflora*.

## FIELD TRIP

SUNDAY, 17TH OCTOBER

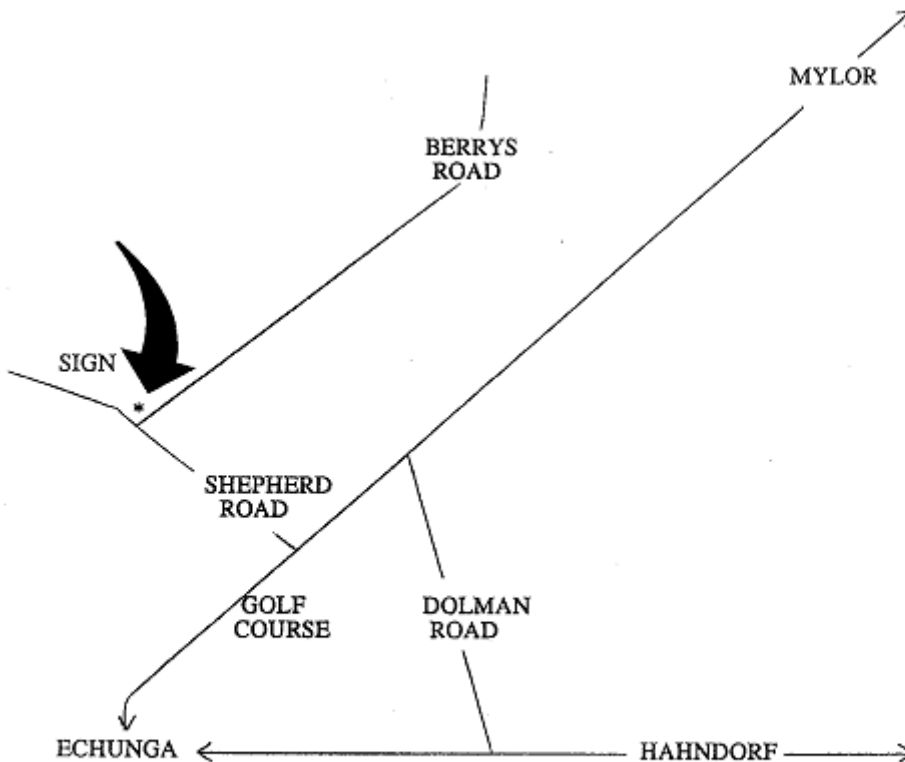
### ECHUNGA POLICE TRAINING RESERVE

MEET AT 10.00 A.M., AT JUPITER CREEK GOLD DIGGINGS SIGN, CORNER SHEPHERD ROAD AND BERRYS ROAD, ECHUNGA. SHEPHERD ROAD IS ON THE MYLOR SIDE OF THE ECHUNGA TOWNSHIP, OFF THE STRATHALBYN ROAD.

BRING AND SHARE A B.Y.O. PICNIC LUNCH ON THESE 'HARD TO GET ON TO' GROUNDS.

SEARCH FOR ORCHIDS OR JUST ENJOY THE ENVIRONMENT.

NOTE: THAT ACCESS IS CONTROLLED AND SPECIAL PERMISSION HAS BEEN OBTAINED TO HAVE THIS TRIP.

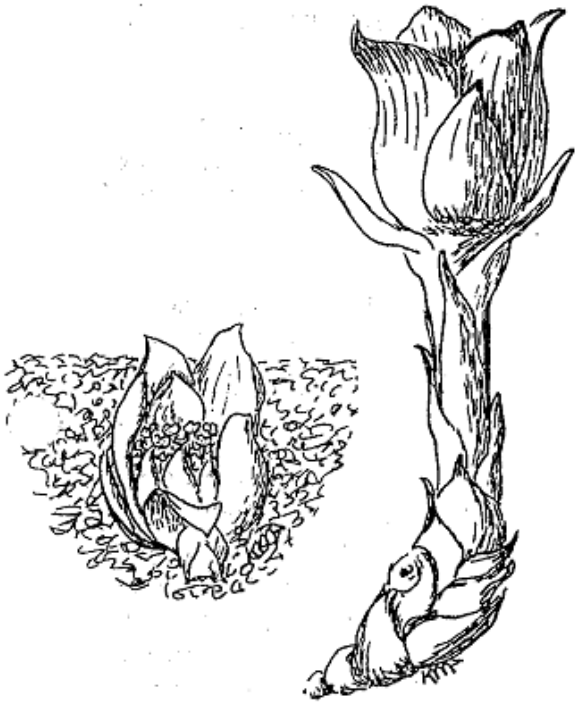


GEOFF EDWARDS

*RHIZANTHELLA SLATERI* - SOME FINDINGS BY  
MARK CLEMENTS AND JENNY GROVES

Gerry Carne

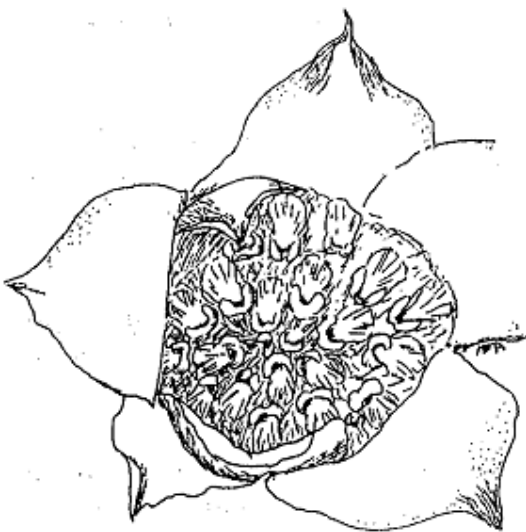
Considerable discussion has been made in recent issues of our Journal on *Rhizanthella gardneri*, the Underground Orchid of Western Australia. Very little has been stated about *Rhizanthella slateri*, the Underground Orchid found in New South Wales and Queensland. The following is based on an article written by Mark Clements and Jenny Groves and published in "Australian Natural History", a publication of The Australian Museum Trust in Sydney, in April 1987.



The Western Australian Underground Orchid was first described in 1928, after its discovery by a farmer who noticed it among the roots of *Melaleuca uncinata*, that had been turned over during ploughing. Less than four years later, a second species of Underground Orchid was unearthed, this time on the opposite side of Australia, near Buladelah in New South Wales. The eastern States' Underground Orchid was discovered by an amateur naturalist while "digging up" a *Dipodium punctatum*, a saprophytic orchid commonly known as the Hyacinth Orchid. The new found orchid was initially described as a new genus, but subsequent research showed it to be morphologically similar to *Rhizanthella* and both the eastern and western Underground Orchids are now placed in the one genus - *Rhizanthella*.

One of the keys to locating *Rhizanthella gardneri* appears to be its association with *Melaleuca uncinata*. In contrast, *Rhizanthella slateri* does not appear to be associated with any particular host species, nor does there appear to be an apparent habitat preference for the species.

Little is really known about the biology of *Rhizanthella slateri*. The species has been found on only a very few occasions - a year after its original discovery and on the same site, in 1957 near Dave's Creek in Lamington Plateau National Park in south eastern Queensland, in 1974 during the excavation of a home garage at Wentworth Falls in the Blue Mountains, New South Wales, and in 1985, again at the site of the original discovery. The initial four discoveries were all accidental sightings; the latter discovery was the result of a careful search for the species. It was known from earlier sightings that *Rhizanthella slateri* flowered during November and December, unlike *Rhizanthella gardneri* which flowers during May and June.



Research carried out on the mycorrhizal fungus (root fungus) associated from *Rhizanthella gardneri* showed that it formed an ectomycorrhizal association (on the surface of the root) with *Eucalyptus* species as well as *Melaleuca uncinata*. On the basis of its known discoveries, *Rhizanthella slateri* had no apparent association with a particular tree species. The possibility was raised that *R. slateri* may be associated with any one of a number of myrtaceous species. The original site was revisited with the idea that *R. slateri* might be found in association with genera such as *Callistemon*, *Leptospermum*, *Eucalyptus*, *Angophora* and *Melaleuca*.

On the 9 of November, 1985, Mark Clements and Jenny Groves began searching around the roots of a large *Eucalyptus* tree in an area believed to be the original site of the discovery. Not finding immediate success, the search soon concentrated on an area around a two metre tall *Melaleuca*. Ectomycorrhizal roots were soon found among the *Melaleuca*'s roots and

Clements and Groves began to carefully examine an area of about one metre radius of the shrub.

A plant of *Rhizanthella slateri*, in a state of early flower development, was found very near to two non flowering plants of *Dipodium punctatum*. In all, Clements and Groves found three plants of the 'Underground Orchid'.

Clements and Groves comment, "*Rhizanthella slateri* grew in a small gully in which the soil was a grey clay covered in a three to five centimetre thick layer of leaf litter. The vegetation was *Eucalyptus* forest with an open understorey consisting predominantly of numerous small shrubs and herbs. Much of the surrounding area had been disturbed at some time in the past as the site was littered with mine tailings."

In their article, Clements and Groves comment that the three plants of *Rhizanthella slateri* were not found during a subsequent visit to the site.

It is important to our search for *Rhizanthella* sp. in South Australia, that the time period between its first discovery near Buladelah in 1932 and its subsequent re-discovery by Clements and Groves in 1985, was some 53 years. It has been some 50 years since the plant found on the Fleurieu Peninsula and believed to be the Underground Orchid, was found and described (N.O.S.S.A. Journal July 1993).

Certain questions come to mind. Should it actually be present in South Australia, would *Rhizanthella* sp. flower in May to June as it does in Western Australia or would it flower in November to December as it does in New South Wales? Should we be looking for *Rhizanthella* sp. near plants of *Dipodium*? Is it any "big deal" if we do find the plant in South Australia?

Our search does continue. We are doing considerable to bring the Underground Orchid to the attention of the general public. We currently have a small display of the orchid on display at the extremely popular and therefore well attended OCSA display at the Royal Show and the same display will be prominent at our Spring Show. In addition, soil samples collected by Les McHugh at the Bordertown sites and by Roy Hargreaves at the Fleurieu Peninsula site have been submitted to Dr. Heinrich Beyrle and to Dr. Jack Warcup to determine if the appropriate mycorrhizal fungus is present. Another visit will be made, at least to the Fleurieu Peninsula site, in late November, to see if we might be luckier in finding the species at that time of the year than we were in July / August.

#### THE R. D. FITZGERALD TROPHY - AUSTRALIAN ORCHID FOUNDATION

The R. D. FitzGerald Trophy is a trophy presented for work of major significance to the development, advancement or propagation of Australian Native Orchid Species. Nominations for this trophy must be directed by an Orchid Society affiliated to a State Society, through that Society to the Orchid Society of New South Wales for the consideration by the Ira Butler Trophy Committee. Nominations from an A.N.O.S. Group must be directed to A.N.O.S. Council for consideration by the I.B.T.C. Nomination can only proceed with the endorsement of each of the successive Societies.

The nomination must provide the Committee a written submission with full details and relevant documentation to enable the Committee to reach a decision. All documentation, including photographic evidence, will become the property of the I.B.T.C. The Trophy will not be given on a regular basis, but as a nomination is accepted by the I.B.T.C., and as a matter of principle it will be given to a nominee only once.,

There are many people around Australia involved with Line Breeding species, preserving species in the wild or propagating rare and endangered species. It is to give recognition of this work that the R. D. FitzGerald Trophy was instituted.

(I can think of several appropriate candidates from the Native Orchid Society of South Australia, for the award and I will be contacting them individually to commence necessary application procedures. Should any of our Members consider themselves to be a worthy candidate, or know of someone who is, please advise me as soon as possible) - Gerry Carne

Drawings of *Rhizanthella gardneri* are by Kath Alcock and were based on photographs taken by Andrew Brown.