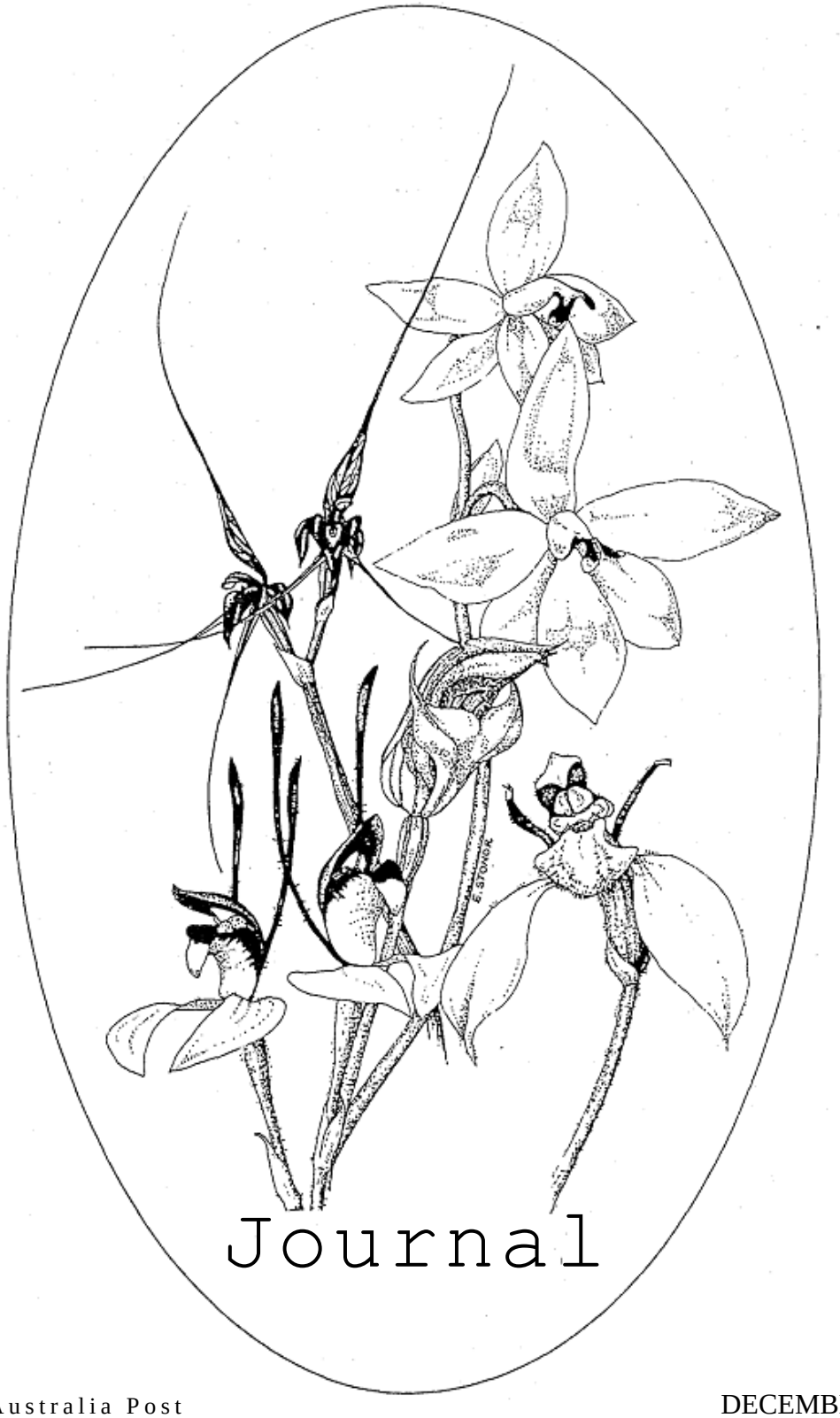
Native Orchid Society of South Australia Inc.



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N A T I V E O R C H I D S O C I E T Y
O F S O U T H A U S T R A L I A I N C .

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.

Price: ONE DOLLAR

NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC

DECEMBER 1992 VOL. 16 NO. 11 JOURNAL

WISHING ALL MEMBERS A VERY MERRY CHRISTMAS AND A HAPPY AND CHALLENGING 1993

The President and Management Committee of NOSSA extend to all Members and their families Christmas Greetings and best wishes for the New Year.

NEXT MEETING
Tuesday February 23 1993 8.00 pm; at St Matthews Hall, Bridge Street, Kensington. There will be no meetings in December and January.

DIARY DATES
23 March 1993: Annual General Meeting. If you would like to be a part of the 1993/1994 N.O.S.S.A. Committee or know of a member who would, please advise a standing Committee Member. All Positions become vacant in March.

NEW MEMBERS
The Committee and Members of the Native Orchid Society of South Australia take great pleasure in welcoming Mr. and Mrs. G. Clark of New Gisborne Victoria and Mr. Brendan Killen of Belair S.A. as new Members.

NOVEMBER MEETING

Give me two dollars- I've got two dollars, who'll make it three - four - five - have I got six - seven over there - eight dollars nine - nowhere nine dollars - eight going once - going twice - sold for eight dollars! ! Not bad for a large, well established and very well grown pot of *Dendrobium speciosum* which will produce several flower spikes next spring - a bargain at twice the price and so the evening went on. Beautiful pots of *Cymbidium madidum* were sold for not much more than the price of the pot in which they are growing (If you were one of the successful bidders for these plants, I am certain that you have a big smile on your face as you read this review). But that's what the auction is all about - a lot of fun, a lot of bargains, and some additional monies raised for N.0.S.S.A. activities.

Items auctioned were varied and included many native epiphyte species, terrestrial orchid tubers, ferns, native non orchid plants, terracotta pots beautifully and patiently enamelled with *Pterostylis nutans* and *Sarcochilus* sp (these were one of the true bargains of the evening), one of Don Well's world famous and much sought after wood slat pots, a bag of coarse river sand, some exotic orchid species, a book, a bottle of port and a home made Christmas pudding (another bargain).

In all some 65 lots were auctioned, raising $325.00 for N.O.S.S.A.

Many thanks to Reg Shooter, our Auctioneer for the evening, who managed to empty almost every ones pockets while at the same time putting a lot of fun and good humour into the event (how many knew Reg was a fern expert?) A special thanks also to the many members who generously donated items and to those who purchased the same, and to Geoff Edwards who acted as 'runner' for the evening (twenty five minutes to drive to Coromandel Valley and return to the hall Kevin!).

The evening concluded with a calorie filled but irresistible supper during which Members had a chance to gorge themselves with good food and good friends. Many thanks to the organizers of the Supper. Your editor was busy editoring (or rather de-editoring) and I'm ashamed to admit didn't notice who all were involved but I did notice that Jill Shooter and Ron Robjohns seemed to be the main organisers.

PLANTS BENCHED

Some top orchid species were brought in by Members (quite brave they were given that plants on the next table over were to be auctioned). We didn't have our normal plant commentaries or popular vote because of time constraints with the auction and supper. Your editor was remiss (again) in not recording the names of those plants benched. There were, however, a

couple of standouts. Rosalie Moore's basket of magnificent *Sarcochilus* species and hybrids which were benched at the October meeting made a return appearance and two Australian *Cymbidium maddidum* crosses which were as appealing as any of the exotic Cymbidiums were brought in. Roy Hargreaves brought in a *Spiranthes sinensis* which he grew at Black Hill Flora Research centre. *Spiranthes* in their natural swampland environment do not flower until late January in South Australia.

SPRING SHOW AWARDS

Roy Hargreaves presented the Roy Hargreaves Prize for the Champion Terrestrial Orchid Species exhibited at N.O.S.S.A.' s Spring Show to this year's recipient Heinrick Beryle.

As Les Nesbitt was unable to attend the meeting, the Kay Nesbitt Trophy for the Champion Terrestrial Orchid Hybrid exhibited at the Spring Show was not presented to recipient Don Wells. Although Don has the trophy in his possession, it will be officially and formally presented to him at the February general meeting.

Our Registrar of Judges, Les Nesbitt, earlier presented the award for the best Epiphytic Orchid exhibited at the Spring Show to Bruce Mules. The presentation of the medallion was made in Port Pirie at a meeting of the Port Pirie Orchid Club of which Bruce is also a Member.

ORCHIDS OF SOUTH - WEST AUSTRALIA PAST TO PRESENT

by Andrew Brown

This article has been taken from ANOS Victorian Group Bulletin October 1992.

Distribution and Biology of Western Australian Orchids

Western Australian orchids occur in two disjunct regions with twelve or so species found in the tropical north, particularly in the area on and around the Mitchell Plateau. However, a much larger group is found in the lower south-west and I will be concentrating on them. In this area orchids are found from Shark Bay, south-east to Balladonia, and east in a narrow coastal strip to Eyre on the Great Australian Bight. Over this enormous area habitats range from high rainfall Jarrah, Marri and Karri forests, winter wet swamps and coastal heath, to much lower rainfall inland Mallee woodlands, scrublands, salt lake margins and granite outcrops.

In Western Australia's Mediterranean climate of cool, wet winters and hot, dry summers orchids largely flower during the autumn, winter and spring months. A few continue into summer but, with the exception of the Slipper Orchid *Cryptostylis ovata*, all die back to dormant tubers, which resprout following autumn rains. No epiphytic species are found in the south-west, all being terrestrial (geophytic) in habit. One of the first to appear in March is *Praecoxanthus aphylla*, previously known as *Caladenia aphylla*, while the last is the Common Mignonette Orchid, *Microtis media*. It continues flowering well into February.

Orchids found in Western Australia range in size from the tiny Dwarf Spider Orchid, *Caladenia bryceana* which has a single flower 2 cm across and grows to a mere 6 cm in height, to the tallest of all Western Australian orchids, the King Leek Orchid, *Prasophyllum regium*. This species grows to well over 2m in height and has up to 100 or more flowers.

Like other Australian orchids, those found in Western Australia rely heavily on soil fungi for their survival. The vast majority are pollinated by insects such as flies, bees, beetles and wasps, and all produce thousands of tiny seeds which are wind dispersed.

This high degree of specialisation, added to their rather particular climatic, geographic and habitat requirements, has resulted in a great deal of speciation, particularly in *Caladenia, Pterostylis, Diuris, Thelymitra* and *Prasophyllum*.

As a result of this continuing evolution many species have common ancestors and, in the past, have been grouped together. However, we now know them to be distinct entities and therefore have named them as such.

History of Nomenclature

The first collections of Western Australian orchids were made just over two hundred years ago during the months of September and October, 1791, when Archibald Menzies, Surgeon and Naturalist aboard the H.M.S. Discovery, found three species growing in the King George Sound (Albany) area. These were subsequently named *Leptoceras menziesii* after himself, *Caladenia flava* and *Diuris longifolia.*

Since then 27 genera and over 330 taxa (species, subspecies and varieties) have been recognized as distinct in the south-west of Western Australia. This has tended to happen sporadically at times when keen orchidologists were active. However, at no time has a greater surge of interest been shown than during the past six years.

To give you some idea of the great strides that have occurred in orchid systematics during this time lets look at some of the publications that have come out over the past 60 or so years.

The first comprehensive publication West Australian Orchids was written by Emily Pelloe in 1930. In it she lists 139 taxa for the State and, looking at the larger groups, lists 46 *Caladenia*, 8 *Diuris*, 4 *Drakea*, 4 *Eriochilus*, 12 *Pterostylis* and 1 *Paracaleana*. This number did not dramatically increase between then and 1984 when Orchids of South - West Australia was first published. At that time, some 141 taxa were recognised. However, compare those figures with the number of species and subspecies recognised in the 1992 Second Edition. *Caladenia* has risen from 46 to 126 despite a number having been removed and placed in the new genera *Cyanicula, Leptoceras, Drakonorchis* and *Praecoxanthus*. *Diuris* has risen from 8 to 29, *Drakea* and *Eriochilus* from 4 to 10, *Paracaleana* from 1 to 6 and *Pterostylis* from 12 to over 45. The total number of known taxa has risen from 141 to well over 330!!!

One may justifiably ask "If these taxa are so distinct, why have they not been named before?"

Well, there are several answers to this question. Many species were thought to be variable in their morphology simply because they were so poorly known and collected. Little was known about their distribution, flowering times, habitat requirements and pollination. In the case of the Spider Orchids almost everything that was red and had clubs was thought to be *Caladenia huegelii* while, if it was white with filamentous petals and sepals, it was called *Caladenia filamentosa*. This was a most unsatisfactory arrangement and resulted in a great deal of confusion amongst amateurs and professionals alike, particularly when they found plants which obviously did not match published descriptions of known species.

When Dr. Hopper and I first began working together we decided that *Caladenia* was the genus most in need of revision. We set about this by first familiarising ourselves with the known species. We achieved this by conducting numerous field trips throughout the lower south-west of the State and in the process made many collections. It soon became apparent that many of

the so called variable species consisted of quite distinct taxa with their own unique pollinators, habitat requirements, distribution and flowering periods.

Using a method devised by David Jones of the National Botanic Gardens, we carded eight to ten specimens collected at random from each population. We were then able to compare different populations of the same taxon and, at the same time, we were able to compare what we believed to be different taxa in order to note their differences. Literature searches had to be conducted and specimens obtained from other herbaria to check that these taxa had not already been named. We discovered that several species did not fit at all neatly into *Caladenia* and so set about placing them in new genera.

The first, *Caladenia menziesii*, had already been named *Leptoceras menziesii* by John Lindley in 1840 and, as it contains a number of distinct differences from *Caladenia*, we have reinstated it into *Leptoceras*. Next comes the new monotypic genus *Praecoxanthus* to house *Caladenia aphylla*. Like *Leptoceras* it is glabrous rather than hairy and in fact appears to be more closely related to the South American genus *Codonorchis* than *Caladenia*. All the blue - flowered species are now placed in *Cyanicula* and several new species have been named. Lastly, *Caladenia barbarossa* is now placed in *Drakonorchis* and, like *Cyanicula*, several new species are included.

Our studies show that three species: *Caladenia filamentosa* (32), *C. huegelii* (20) and *C. longicauda* (25) consist of no less than 77 taxa, all with their own ranges of distribution, flowering periods, pollinators and habitat preference. *Caladenia falcata* and *C. doutchiae* are now split into three, *C. integra* and *C. Cairnsiana* into two, *C. longiclavata* into five, *C. nana* into two subspecies; likewise *C. reptans* and *C. flava* into three subspecies. This has increased the number of known *Caladenia* from 55 in 1989 to 126 in 1992 despite nine having been removed.

We then extended our research into related genera and found that like *Caladenia* many were undescribed. *Eriochilus*, for instance, contains seven new taxa and we reinstated the previously submerged *E. tenuis*. *Drakea* and *Paracaleana* contain five new species, and we removed both *L. nigricans* and *L. forrestii* from *Lyperanthus* and placed them in the eastern Australia genus *Burnettia*.

In addition to the work that Steve Hopper and I are doing, several other notable researchers are working on Western Australian genera. David Jones and Mark Clements are revising *Diuris* and *Pterostylis* while Bob Bates from South Australia is looking at *Microtis* and *Prasophyllum*.

I think once you have read the systematic paper which we hope to publish in Orchid Research Volume 3 and have browsed through Orchids of South-West Australia you will agree that Western Australia does indeed contain a number of new and distinct orchid taxa.

BOOK REVIEW ORCHIDS OF SOUTH-WEST AUSTRALIA
SECOND EDITION by NOEL HOFFMAN & ANDREW BROWN
Published Oct 1992 by University of Western Australia Press by R. Bates

This book deals with nearly 400 orchids, almost twice as many as the first edition! Most of the taxa are illustrated with colour photographs and those photographs are superb - not full page like the first edition, but nevertheless large enough to please! About 100 of the taxa have

never been illustrated in colour before and it was exciting to see such beautiful species as *Thelymitra dedmonae* and *Caladenia speciosa* for the first time.

The text is simple, but in conjunction with the photographs there should be no trouble identifying any of the species treated and this book is essentially a field guide. Of course the book hints that there are many species to be discovered and named yet!

For every species there is a distribution map, but I could not help but notice that these do not always match up with what the text says, and I have seen many of the species myself outside the range shown on the distribution maps.

About 100 of the taxa have only just been named, the book doesn't actually say where, so there is not a lot of explanation for the many new names and combinations, many of which will affect us here in South Australia. For example all of the blue *Caladenia* now belong to the new genus *Cyanicula*, which means that our South Australian *Caladenia deformis* is now *Cyanicula deformis* and what was *Lyperanthus nigricans* is now *Burnettia nigricans* and as expected NOSSA's emblem *Caladenia menziesii* is now *Leptocerus menziesii*. Personally I am in support of these changes which I think give a more accurate picture of the relationships between the species. I also like the subspecies concept adopted by Hopper and Brown. It certainly makes more sense to have seven subspecies under the name *Caladenia longicauda* than to divide it up into seven imperceptibly different species!

There are the usual printing errors and slip ups, for example, of *Caladenia sigmoidea* we are told that sigmoid means "x" shaped when it of course means "s" shaped.

Of the identifications - I wonder if the plant illustrated as *Caladenia flaccida* is really that species! It certainly looks more like our South Australian *Caladenia filomentosa* var *tentaculata*! The illustration of *Caladenia longicauda* ssp *redacta* certainly seems to have a lot of *Caladenia harringtonae* in its parentage! The illustrations of *Eriochilus tenuis* and *Eriochilus scaber* also pose a problem. *Eriochilus tenuis* is said to be a pale flowered species in contrast to the pink *Eriochilus scaber* yet in the photos it is the other way around! The species labelled as *Pterostylis* aff *despectens* would better have been labelled *Pterostylis* aff *spathulata*. There is also possibly an error with the photos of *Pterostylis leptochila* and *Pterostylis roensis*. Certainly the photo labelled *Pterostylis roensis* has the narrower labellum of the two and the nodding flowers also are features of *Pterostylis leptochila*.

When one looks at *Diuris corymbosa* the photo looks nothing like *Diuris corymbosa* of South Australia; in fact the following photo labelled *Diuris* aff *corymbosa* is much closer to what we have been calling *Diuris corymbosa*.

It was fascinating to see a few pictures of the supposed 30 species occurring in Western Australia to which the name *Pterostylis nana* is given, likewise the variety in *Pterostylis vittata*.

I expect that in another 10 years time we will see a third edition of Orchids of South-west Australia and I predict an additional 100 species will be included. My own work on Western Australian *Microtis* shows that several taxa are yet to be named in that genus alone.

It is perhaps a little disappointing not to see any of the numerous hybrids, especially now that Hopper and Brown have given these names, but I guess that cost of publications meant that the authors had to compromise here as the book is already expensive at $60.00.

Orchids of South-West Australia is case bound and there is no cheap paperback option available. Certainly it is a quality publication and a must for any native orchid enthusiast!

THE KAY NESBITT TROPHY

by Les Nesbitt

Margaret Fuller first suggested such a trophy at a monthly meeting last winter. The meeting and the Committee supported the proposal and it came into being. This perpetual trophy will be awarded to the grower of the Champion Native Terrestrial Hybrid Orchid at the N.O.S.S.A. Spring Show each year. The first recipient is Don Wells who displayed a well grown and flowered pot of *Diuris* Pioneer 'Big Ears'. *Diuris* Pioneer, registered in 1981 by Les and Kay Nesbitt, was the first Australian deciduous terrestrial hybrid to be given RHS registration. Both parents are South Australian, namely *Diuris corymbosa* (syn *D. longifolia*) and *Diuris pardina* (syn *D. maculata*). The best known clone of this cross is 'Big Ears' which multiplies faster than other clones and is widely grown today.

The trophy consists of a white china painted oval tile set in a lacquered jarrah surround which is designed to either hang on a wall or stand on a mantelpiece. The names of the winners are engraved on small shields set around the periphery.

The painting, by artist K. Carter of Grange, was commissioned through the Gilberton Gallery of Walkerville. It depicts *Thelymitra* Kay Nesbitt, the beautiful pink sun orchid hybrid named after the late Kay Nesbitt.

Les Burgess, one of Kay's friends, supplied the jarrah which was salvaged from the floor boards of an old railway carriage. Another friend, and the first recipient of the trophy, Don Wells, lovingly hand crafted the surround to hold the tile securely yet allow for movement of the timber with changes in weather conditions. It is a unique and attractive trophy.

Ten smaller trophies have also been produced. They consist of a smaller tile, with a single hand painted flower, mounted on a block of jarrah. Each winner will receive one of these to keep. The main trophy must be handed back before the Spring Show each year.

A RESCUE DIG

by Roy Hargreaves

Reminiscing - Whilst I was visiting the home of the late Herb Foote, then President of the Western Australia Native Orchid Society and Conservation Group (Inc) in 1976, Herb received a phone call and was told that an area where native orchids were growing was to become a housing project and that the orchids should be rescued. This phone call led to the formation of the Native Orchid Society of South Australia (Inc) as I realised that South Australia too should have a group dedicated to rescuing threatened orchid populations. Our Society has organised several important and significant rescues over the past 16 years.

On the morning of October 27th (of this year) Basil Shields (a well known Member of our Society) rang me saying that a block of land at Crafers was to be cleared to make way for a residence and could I help in rescuing a large number of orchids which were about to be destroyed by construction. When did the orchids have to be rescued? Tomorrow!! Of course I'll help.

As has been the custom of N.O.S.S.A. since our first rescue mission, permission had to be given by the land owner and by a Government Senior Scientific Officer.

Plants collected were *Thelymitra nuda, Thelymitra rubra, Thelymitra* spp, *Caladenia tentaculata, Caladenia leptochila, Calochilus robertsonii* and *Glossodia major*. Seeds from these plants will undoubtedly lead to renewal of plants taken from the block. Tubers collected

will be grown on and at the appropriate time, replanted. *Pterostylis, Caladenia* and *Glossodia* not in danger of being cleared were not disturbed..

The adjoining vacant block has the aforementioned orchids growing on it plus *Thelymitra antennifera*.

N.O.S.S.A. OPEN DAY VISIT TO WALLY AND SHIRLEY WALLOSCHECK'S HOME by Graham Burford

Wally' s property at Ironbank is unspoiled natural bushland, in contrast to the bordering properties, one being grazed by stock and the other a dense pine forest. The grass has been slashed to give the orchids every chance of establishing themselves, and where orchids have been observed, the areas have been bordered by pieces of fallen branches to identify the areas for future observation.

Quite close to the house and just off the entrance drive we found *Calochilus robertsonii, Diuris corymbosa, Caladenia tentaculata* and several Thelymitras but being an overcast day, the latter were not open and there was considerable discussion trying to identify them. It was unfortunate that Wally and Shirley could not be with us on the day but they were away on forced annual leave - something that had come up since our visit was arranged. Wally had however taken Kevin Western around the property so Kevin was familiar with the location of orchids to be found.

We looked in Wally's glasshouse. actually it is made of fibreglass, but the temperature inside was surprisingly warm, and humidity was quite high. This was aided by a pond located in the centre of the house, and the damp sawdust on the floor area. Maiden hair ferns and "baby tears" added to the environment. The shape of the house is similar to a "Ritelight" glasshouse with sides that are not perpendicular to each other but slope upwards from the base to the top. In summer this means that the sun actually falls on less glass area on the sides of the house (which keeps the temperature down), yet reflected light through the sides is not affected. The roof is gable construction with open sections at the ends of the gable to let the heat out, and this provides a rising air movement. Extra shading is provided in summer by sliding across flat wooden palings at the wall height. We noted that Wally is a *Dendrobium kingianum* lover, that he does not crowd his plants in the pots and that he prefers clay pots to plastic. Wally is an innovative grower who tries different ideas if he does not have success with particular orchids. A *Dendrobium tetragonum* was noticed growing downwards from a large hole cut in the side of a clay pot and the plant was suspended just above the pond. Generally, plants were growing exceptionally well and would benefit from being under fibreglass in winter because the area is colder and gets much more rain than we Plains growers experience.

We roamed the property under Kevin's guidance, and some newer members learned how to pollinate orchids. Actually Wally should see quite an increase in *Caladenia tentaculata* next year from the seed that should set. We also helped the property by weeding out the Bone-Seed that we came across. Other orchids seen were *Pterostylis pedunculata, Caladenia leptochila, Caladenia carnea, Glossodia major, Prasophyllum* sp (not in flower), and *Microtis* sp.

Many thanks to Wally and Shirley and to Kevin for standing in on the day.

"My orchid problems start with reconciling my gross desires with my net income" From Orchid Wise by Roger Rankin.

ANOS CONSERVATION POLICY

After the recent meeting of ANOS Conservation Group representatives, a draft of a new Conservation policy was drawn up for further discussion:

1: To protect in - situ remaining Australasian native orchids and orchid habitats.

2: To educate Members and encourage ethical standards in the collection, cultivation and distribution of native orchid stocks.

3: To liase with conservation and development consent authorities and make appropriate submissions when orchid populations are affected.

4: To encourage research into propagation and cultivation of native orchids.

5: To encourage and foster the establishment of tuber (tuberoid) and seedling banks for distribution from existing cultivated stock.

6: To encourage line breeding of Australian native orchid species.

Your editor sees a few important omissions. Perhaps one of the most important relates to Item 2. Should it not be worded " To educate Members and the General Public .... "? Any other suggestions?

APOSTASIA -almost an orchid by P. Lavarack

From The Native Orchid Bulletin, The Native Orchid Society of Queensland Inc November 1992

At a recent meeting I was asked by a member of our Society whether or not *Apostasia* is an orchid. It seemed a pretty simple question to him and he was most surprised when I, as a Botanist, replied that I did not know. In fact, the question of just where to classify *Apostasia* is one which has worried many botanists for many years. A quick survey of those who have designed classifications for the orchids since about 1810 shows that about six list *Apostasia* as an Orchid while about five either omit it or list it under a separate family. Recent writers are also equally divided. Most of those who do include *Apostasia* in the orchids place it in a separate subfamily, although some see a relationship with *Paphiopedilum*.

Apostasia wallachii grows in north Queensland on the floor of lowland rainforests and is a small shrub about one foot high, with a group of rather inconspicuous yellow flowers. Like other Apostasias it has six petals all similar in shape and colour and there are two anthers, which are only slightly fused to the style, which has three stigmatic areas. The pollen grains are loose and not in pollinia. In all these characteristics it is different to most orchids although *Paphiopedilum* also has two anthers and no pollinia. It is similar to the orchids in that its seeds are minute, lacking stored food and there is a very short column.

Apostasia is almost an orchid - its position is probably a "missing link" between the true orchids and the lilies. Whether we call it an orchid or not really depends on whose opinion one seeks - it is perhaps like that tantalising colour that one person says is blue and another says is green.

(Refer to David Jones Native Orchids of Australia page 353 -Ed.)

1993 Journal

Bev Hawkins and Thelma O'Neil will be working together in 1993 as co-Editors of the NOSSA Journal. We can look forward to a new look and much improved Journal. I know Bev has already been busy soliciting articles (twisting arms?) from some of our more successful growers. Scientific articles and items of general interest to the orchid community are also sought. We do need typists, preferably word processers. Currently, your Editor does all of the typing himself (one finger at a time). What would be ideal would be to have a typing pool in which no one typist would have to be involved in more than say two Journals per year (unless there is someone out there who would like to take on an entire years worth!) Artists are also sought. If anyone is interested in assisting in the production of the Journal be it as a writer, illustrator or typist, please see or contact either Bev or Thelma (or Gerry Carne).

1992/1993 TUBER BANK LISTING

1. Acianthus pusilus
2. Caladenia latifolia
3. Corybas incurvus var palidus (Mintaro)
4. Cyrtostylis reniformis (Longwood)
5. Cyrtostylis robusta (Lucindale)
6. Cyrtostylis robusta
7. Diuris aff corymbosa
8. Diuris corymbosa
9. Diuris longifolia
10. Diuris magnifica
11. Diuris spectabilis (Esperance)
12. Diuris sulphurea
13. Glossodia major
14. Glossodia major (Lucindale)
15. Leporella fimbriata (Lucindale)
16. Leptoceras menziesii (Ravensthorpe)
17. Lyperanthus nigricans (Lucindale)
18. Lyperanthus arenaria (Port Lincoln)
19. Microtis unifolia
20. Pterostylis aff nana (brevisepala) WA
21. Pterostylis aff ophioglossa (green)
22. Pterostylis baptistii
23. Pterostylis collina
24. Pterostylis concinna
25. Pterostylis curta (Claire)
26. Pterostylis curta (large leaf)
27. Pterostylis curta x pedunculata
28. Pterostylis dolichochila
29. Pterostylis excelsa (Windinna)
30. Pterostylis falcata x P. nutans
31. Pterostylis x ingens
32. Pterostylis nana (Lucindale bush form)
33. Pterostylis longicurva
34. Pterostylis longipetala
35. Pterostylis Nodding Grace
36. Pterostylis nutans
37. Pterostylis ophioglossa
38. Pterostylis pedunculata
39. Pterostylis procera
40. Pterostylis revoluta
41. Pterostylis robusta
42. Pterostylis sanguinea
43. Pterostylis sanguinea (Lucindale)
44. Pterostylis truncata
45. Thelymitra antennifera
46. Thelymitra ixioides
47. Thelymitra nuda
48. Thelymitra Mucida x T. rubra (Kuipto)

ART CONTRIBUTIONS The drawing of *Sarcochilus hartmannii* is provided by Chris Butler.

1992/1993 TUBER BANK ORDER FORM

1. Acianthus pusilus
2. Caladenia latifolia
3. Corybas incurvus var palidus (Mintaro)
4. Cyrtostylis reniformis (Longwood)
5. Cyrtostylis robusta (Lucindale)
6. Cyrtostylis robusta
7. Diuris aff corymbosa
8. Diuris corymbosa
9. Diuris longifolia
10. Diuris magnifica
11. Diuris spectabilis (Esperance)
12. Diuris sulphurea
13. Glossodia major
14. Glossodia major (Lucindale)
15. Leporella fimbriata (Lucindale)
16. Leptoceras menziesii (Ravensthorpe)
17. Lyperanthus nigricans (Lucindale)
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20. Pterostylis aff nana (brevisepala) WA
21. Pterostylis aff ophioglossa (green)
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23. Pterostylis collina
24. Pterostylis concinna
25. Pterostylis curta (Claire)
26. Pterostylis curta (large leaf)
27. Pterostylis curta x pedunculata
28. Pterostylis dolichochila
29. Pterostylis excelsa (Windinna)
30. Pterostylis falcata x P. nutans
31. Pterostylis x ingens
32. Pterostylis nana (Lucindale bush form)
33. Pterostylis longicurva
34. Pterostylis longipetala
35. Pterostylis Nodding Grace
36. Pterostylis nutans
37. Pterostylis ophioglossa
38. Pterostylis pedunculata
39. Pterostylis procera
40. Pterostylis revoluta
41. Pterostylis robusta
42. Pterostylis sanguinea
43. Pterostylis sanguinea (Lucindale)
44. Pterostylis truncata
45. Thelymitra antennifera
46. Thelymitra ixioides
47. Thelymitra nuda
48. Thelymitra Mucida x T. rubra (Kuipto)

Circle those lot numbers that you wish to order. Mark [subst.] against those lots you would like if your first choice is not available. Lots will have from 1 to 10 tubers, depending on supply and demand. Tubers that are in short supply will be issued on a first-come, first-served basis.

Closing date for orders is the last mail 15th of January . Tubers will he posted 18 January 1993.

Post to : Mr. Philip Matthews, 9 Southern Terrace Holden Hill SA 5088

Price: $1.00 per lot. Cheque / Money Order (made. payable to N.O.S.S.A.) is enclosed :

$ ..... for ..... lots

[ ] I will be on holidays and wish posting to be delayed. Please post after :

.....(date)

NAME .....

ADDRESS .....

.....P/Code .....