



BULLETIN
of the
**Western Australian Native Orchid
Study and Conservation Group (Inc)**

April 1986

**MEET THIRD WEDNESDAY (EXCEPT JAN AND FEB)
9N KINGS PARK BOARD ADMINISTRATION CENTRE
FRASER AVE KINGS PARK**

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POSTAL ADDRESS OF WANOSCG:

P O Box 323, Victoria Park WA 6100

THE WEST AUSTRALIAN NATIVE ORCHID STUDY & CONSERVATION GROUPOBJECTS OF THE GROUP:

- a. To promote interest in and preserve Western Australian indigenous orchids.
- b. To learn the best means of cultivation and do all things possible for the conservation of native orchids in their natural environment.
- c. To learn their habitats and keep records.
- d. To have field days and learn to recognise the different genera and species.
- e. To hold meetings for the exchanging of knowledge and furthering of interest in Western Australian orchids.
- f. To affiliate with kindred organizations.
- g. To make rules for the governing of the Group's domestic affairs.
- h. To do all such other lawful things as are incidental to or conducive to the attainment of the above objects or any of them.

NEXT COMMITTEE MEETING

7.00pm Wednesday, 16 April 1986

NEXT GENERAL MEETING

8.00pm Wednesday, 16 April 1986

Speaker: Kingsley Dixon will speak on the orchids of the Kimberley region.

1986 FEES

These fees are now due.

THE ORCHID FLORA OF THE DRYANDRA STATE FOREST.

Orchid hunting in Dryandra can often be a tiresome business, populations of individuals are often small and limited. Many a day can be passed trudging through muddy tracks and often in vain. But then again there is the pleasant spring day when one stumbles across a population of albino spider orchids. This variation of the species Caladenia patersonii var. longicauda is interesting in having no colour at all, the calli being pure white in some cases.

My favouritism must however go towards the Bearded Orchid, Calochilus robertsonii. This species seems to be very attuned to weather patterns, with some years the plant being almost absent and in others as prevalent as the cowslips. Calochilus appears to favour the natural wandoo (Eucalyptus wandoo) bushlands where it grows with great vigour producing up to five flowers per plant. Whereas in the Brown Mallet (Eucalyptus astringens) areas it is quite stunted, rarely producing more than two small flowers per plant.

Those orchids mentioned above are but two of the many species to be found in the area. Many hours can be spent walking the area in search of the small herbaceous plants that we have such an affinity for.

Orchid species recorded in the forest to March 1986, are;

Caladenia deformis
C. dilatata var. falcata
C. discoidea
C. flava
C. filamentosa var. denticulata
C. gemmata forma gemmata
C. hirta
C. macrostylis
C. menziesii
C. multiclavia
C. longiclavata var. longiclavata
C. patersonii var. longicauda
C. reptans
C. saccharata
C. cericea
Pterostylis barbata
P. nana
P. recurva
P. aff. rufa
P. sargentii
P. vittata
Diuris laxiflora
D. longifolia
D. setacea

Eriochilus dilatatus
Prasophyllum cyphochilum
P. macrostachyum
P. sargentii
Calochilus robertsonii
Elythanthera brunonis
E. emarginata
Thelymitra antennifera
T. crinita
T. fuscolutea
T. nuda
T. villosa
Paracaleana nigrita

Supplied by Mr David Rose

Brief Observations on the Pollination of *Eriochilus scaber* Lindley.

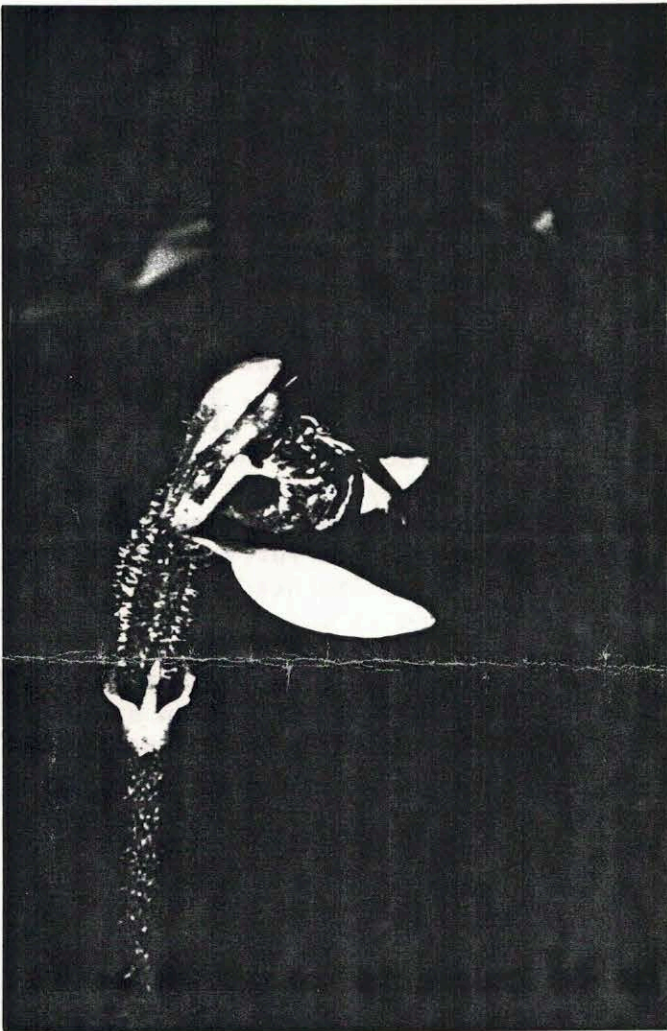
Rica Erickson (1965) beautifully described the method whereby a native bee *Hylaeus dorotheae* pollinated the autumn flowering 'bunny orchids' *Eriochilus dilatatus*. The spring flowered 'pink bunny' *E. scaber* is pollinated in much the same way.

Eriochilus scaber favours swampy places in the south-west and flowers in great numbers after bushfires. On a warm sunny day it is possible to smell the delightful honey-like fragrance of a big colony of *E. scaber* from some distance away. The pink flowers resemble the little pink bladderworts which occasionally bloom alongside them. Bees, attracted by the colour and perfume of the orchid land on the furry labellum. They seek for the food provided in the nectary or honey-pot at the base of the tube formed by labellum and column. A bee must push into this tube (the furry surface of the labellum gives it a good foothold). As it does so its head pulls down the elastic sides of the bag-like stigma drawing it open. If the bee carried pollinia from a previous visit to an *E. scaber* flower these will stick to the sticky stigma, then as the bee withdraws, the elastic sides of the stigma close up again mechanically removing the set of little yellow spheres of pollen completely intact. Yet as the bee withdraws further its head contacts the sticky viscid disk which adheres and pulls away the set of pollinia so that the process can be repeated.

The system is so successful that in a large colony almost every flower is pollinated. Near Denmark in September 1984 a dozen or so little brown native bees were observed working a colony of *E. scaber* at about 11am on a hot day. Not one of the bees carried any pollinia. The reason for this became obvious upon close examination of the flowers; all pollinia had been removed previously and most of the neatly closed stigmas bore either 4 or 8 balls of pollen, never more, as one full set of pollinia completely filled the stigmatic disk. All observation of actual bee visits were made on warm days before noon and most actual transference of pollinia was observed to occur during the first hour or so of bee activity each day.

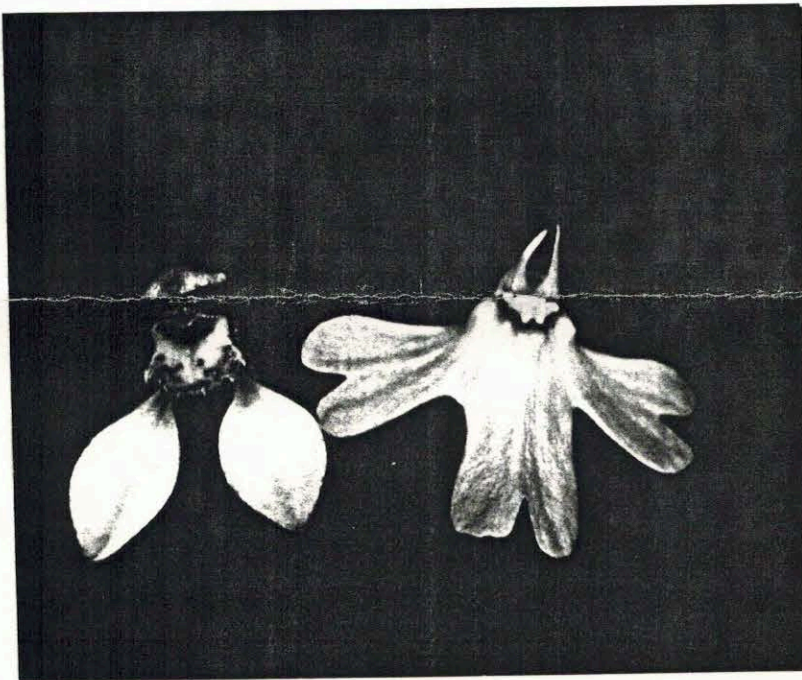
Compared to many Western Australian orchids the single pollination strategy of *Eriochilus* is remarkably straight forward, the attractants being: Perfume, the pink petals and similarity to other wildflowers; the effect being exaggerated by massing of flowers in colonies and an actual reward of nectar. Effective outcrossing is assured by the mechanics of pollen transfer and the number of flowers per plant (usually 1 or 2).

References: Erickson, R (1965) 'Orchids of the West'
R Bates (Jan 1986)



Eriochilus scaber being pollinated
by native bee.

Denbarker
Oct. '84



E. scaber with pink bladderwort
(exhibiting possible floral
mimicry).

Denbarker
Oct. '84

Microtis (the onion orchids) in Western Australia

All of the eight Australian Microtis occur in Western Australia. The most common of these is M. unifolia which is also abundant in the eastern states, and New Zealand & extends as far as Asia. M. unifolia has little preference for habitat being found on rock outcrops from the Murchison R. to Balladonia, from coastal sand-dunes to swamps and forest. It is one of the few orchids with a tolerance of sub-saline soils and this allows it to occur around salt lakes and on small offshore islands.

The onion orchid with the most unusual distribution in the west is M. parviflora which so far has only been found on rock outcrops far inland (see distribution map) in semi-arid country ie north of Mt Magnet, and north west of Kalgoorlie and Balladonia. It differs from M. unifolia in having a small triangular labellum. The two species grow together at places like Moirs Rock and Victoria Rocks.

The most popular western species is M. alba which does have some beautiful white flowered forms with a sweet fruity 'apricot' fragrance. The tall forest form is the most delightful of all. M. alba in some areas especially coastal ones has more greenish flowers. This form was long known as 'M. media', M. alba flowers more freely after bushfires.

Another species with white flowers is M. pulchella which flowers only after bushfires, in fact it is so fire dependent that it may not even produce leaves in the years between fires, existing as a 'saprophyte' almost entirely underground. M. pulchella is an uncommon species restricted to peat bogs of the far south-west. Often growing with it is M. globula a recently named onion orchid which must be considered rather rare. Like M. pulchella it seems to spend the years between fires in a purely underground state, as a tiny tuber which produces large, fleshy, 'rhizome like' roots. Its flowers are small & green and not easily noticed. It should be looked for in sandy places on the edge of peat bogs in December and January but only after bushfires. It is known so far only from a few swamps near Albany and Walpole.

Another species flowering best after fires is M. rara (M. brownii of Reichenbach). Unlike the previous species however M. rara produces long lax leaves every year. It has loosely spaced flowers on tall stems, the labellum being noticeably longer and narrower than in M. unifolia. It is quite widespread in damp sites of forest and heathland or in swamps from near Perth to well east of Esperance.

The remaining two named species are M. atrata and M. orbicularis which are often found together in the same swamps and waterholes. At Lake Muir they occur in vast numbers in the shallow water of the lake's outer margins.

Microtis of the 'unifolia alliance' is M. unifolia, M. rara & M. alba are thought to hybridise and because of the self pollinated nature of these hybrids they can set up large populations (also by vegetative increase) to give the effect of being 'new species'. These populations are often termed 'micro-species'. The author came across several most unusual Microtis microspecies in Western Australia, nearly always restricted to a single population. One of these was an apomictic population of some 10,000 plants of M. rara in which anther and pollinia were totally lacking (Cape Le Grande National Park).

However both Ron Heberle and Andy Brown have located possible new species of Microtis in coastal swamps of the South-west. These will require further study to ascertain their status and this is a difficult task as in each case the populations flower only after fire and unless the same form can be located in several burnt areas in the same season any comparison would be difficult.

Acknowledgements: I am grateful to Andrew Brown and Ron Heberle for bringing to my attention the occurrence of possible un-named Microtis in the South-west.

R Bates

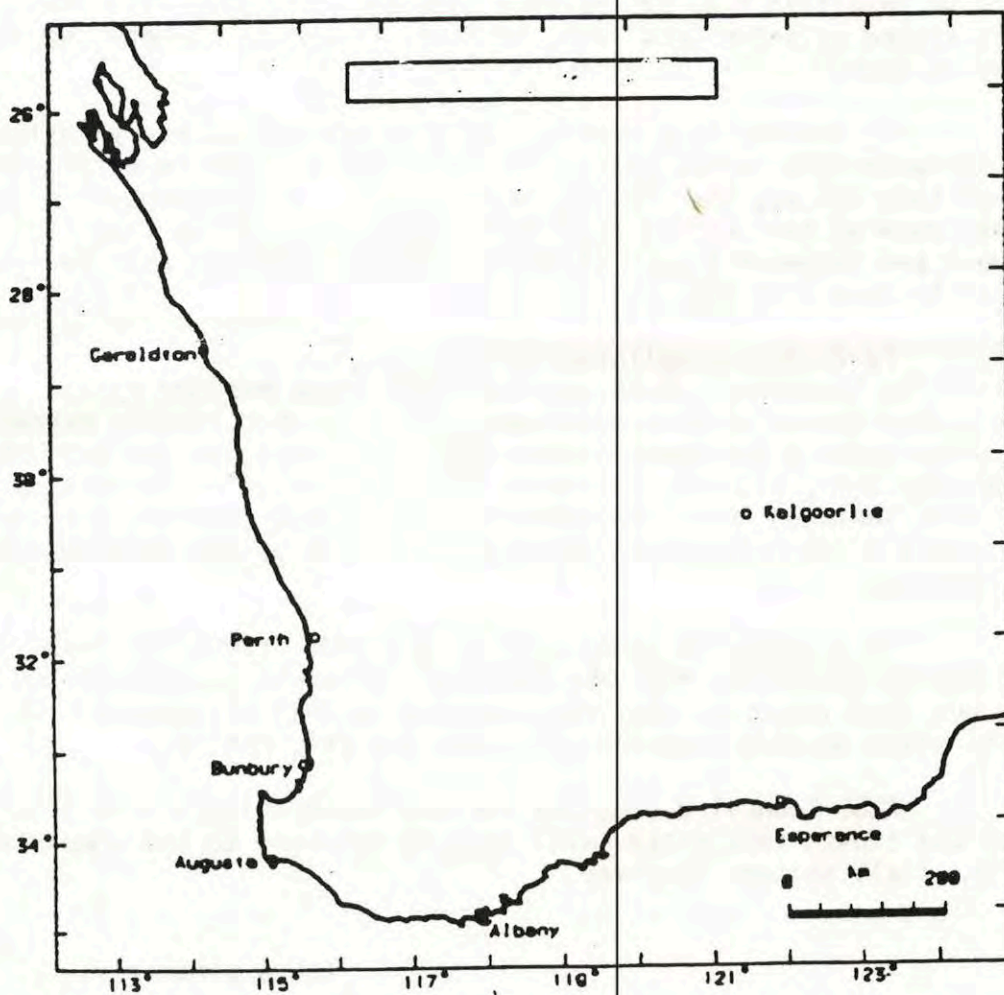
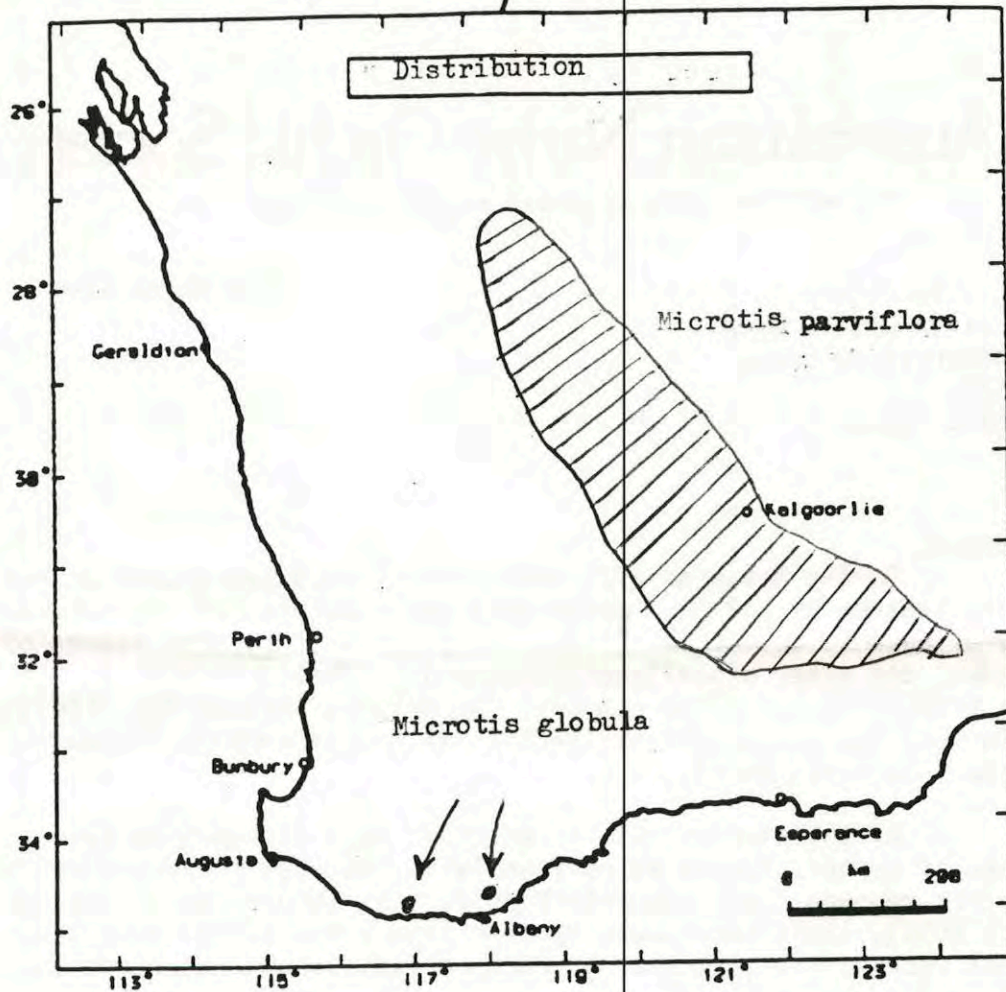
WELCOME NEW MEMBERS

The committee would like to welcome the following new members and wish them a happy and rewarding involvement with the group. The new members are;

Rosemary Thorn
David Rose
Niel Padbury

ENVELOPES FOR SALE

At our next meeting envelopes with a picture of the underground orchid Rhizanthella gardneri on their cover will be on sale at a cost of 50¢ each. Please bring your pennies along if you are interested in purchasing one of these envelopes.



The Australasian Native Orchid Society

P.O. BOX C106, CLARENCE STREET, SYDNEY, N.S.W. 2000

The Honorary Secretary,
West Australian Native Orchid
Study & Conservation Group,
P.O. Box 323,
Victoria Park 6100.

5th March 1986.

Dear Secretary,

During November 1985 ANOS Council once again took direct control over the maintenance of all ANOS membership and subscription records, storage and supply of back issues of The Orchadian, postage of current issues of The Orchadian, and other miscellaneous matters. These duties had been in the hands of a professional mailing company, B&C Mailing Service Pty. Ltd., since 1976. However, increasing dissatisfaction with this company forced ANOS Council to terminate this arrangement.

At the time of this takeover we were dismayed to find a relatively large number of members listed as unfinancial. Because these members had apparently not renewed their subscriptions for the 1985-86 year (1st July 1985 - June 30th 1986), their names were removed from the mailing lists and, consequently, they did not receive the September or December issues of The Orchadian.

Following complaints from many members who insist they are up to date with their subscriptions, but whose names appear as unfinancial members in the records we inherited from B&C Mailing Service, we now believe that some of the members listed as unfinancial are, in fact, financial members and should have been listed as such.

To resolve this problem, we have written to every unfinancial member whose membership lapsed after June 1985, asking them to notify ANOS Council if they know they did pay the 1985-86 subscription. These members have been advised that once we have established their membership status they will be sent the September and December issues of The Orchadian, and will also be listed as financial up to June 30th 1986.

To further complicate this matter, it appears that the September 1985 issue of The Orchadian, which was the final issue handled by B&C Mailing Service, was distributed to financial members in a rather erratic manner. We have been advised by quite a few members that they never received the September issue, even though they were, and are, listed as being financial. To contact these members we have included in the December issue of The Orchadian, a letter asking any member who did not receive the September issue to notify ANOS Council and a copy will be sent.

This letter is being sent to all ANOS Groups and Associated and Affiliated Bodies to explain what has happened. It would be appreciated if you could read out this letter at your next meeting so that all members are made aware of the steps we have undertaken to sort out this matter.

ANOS Council apologises for any inconvenience this problem may have caused and trusts this matter will soon be resolved to the complete satisfaction of all persons involved.

Yours sincerely,

The Australasian Native Orchid Society

P.O. BOX C106, CLARENCE STREET, SYDNEY, N.S.W. 2000

24th March 1986.

The Honorary Secretary,
West Australian Native Orchid
Study & Conservation Group,
P.O. Box 323,
Victoria Park 6100,
Western Australia.

Dear Secretary,

The 3rd Annual Meeting of the ANOS Advisory Committee was conducted on the afternoon of Saturday, 17th August 1985 in the Royal Botanic Gardens, Sydney. Enclosed, you will find the minutes of this meeting, as well as the minutes of the 1985 ANOS Annual General Meeting which was held on the morning of 17th August.

The current ANOS Council is made up of 12 members, representing 5 ANOS Groups. Since the Annual Meeting in August, Mr. Murray Corrigan, the current ANOS Registrar of Judges, has accepted the position of Vice-President of the Society. Likewise, Mr. John Kavulak and Mr. Anton VanBysterveld have filled the two vacant Councillor positions. The position of Treasurer, unfilled at the Annual Meeting, remains vacant, although the previous Treasurer, Mr. Erhard Husted has continued to act in this capacity.

Contained within the minutes of the 1985 ANOS Advisory Committee Meeting are several items of particular note, in that for these matters to be properly resolved, the co-operation and opinions of each of the ANOS Groups are required. To this end, I urge you to raise these matters for general discussion during the course of your next few meetings. These items are outlined as follows:

1. ANOS Conservation Policy - a draft conservation statement was presented for consideration at the 1985 ANOS Advisory Committee Meeting. It was resolved to submit a copy of this draft to each ANOS Group for discussion and comment, and to invite the Groups to submit any proposed amendments or additions they may consider necessary. Once submissions have been received and any changes made, then this document will be formally adopted as the ANOS Conservation Policy, and printed in The Orchadian. A copy of this draft is enclosed and your reply should reach ANOS Council by June.
2. ANOS Council is anxious to compile a complete profile on the occurrence and distribution of rare and endangered Australian Native Orchids. Following the 1984 Advisory Committee Meeting, the ANOS Groups were asked to prepare lists of orchid species native to their respective regions and to indicate on a scale of 1 - 5 the rarity and/or vulnerability to exploitation or habitat disturbance of such species. Response to this request was poor. Consequently, at the 1985 Advisory Committee Meeting it was resolved to again ask the ANOS Groups for their comments, but this time to request specific responses to the Australian National Parks and Wildlife Service's "Rare or Threatened Australian Plants". Enclosed are photocopies of the relevant pages of this publication, and it would be appreciated if you could raise this topic for discussion at a general meeting. Perhaps it would be best to give this task to just one or two members with a good knowledge of local conditions, and then they can canvass other members for opinions, before preparing the submission for ANOS Council. We do not want specific locations of orchid species, we just want the

general impressions of local enthusiasts to the orchids of their respective regions. To assist in this project, we have prepared a questionnaire sheet, copies of which are included. The completed survey should be returned to ANOS Council by the end of June.

3. The question of the incorporation of ANOS under the recently enacted Associations Incorporation Act of NSW was discussed at some length during the course of the 1985 ANOS Advisory Committee Meeting. At present, there seems to be a considerable movement towards the incorporation of orchid societies in general. At least one ANOS Group, ANOS Victorian Group, has already incorporated, and some other Groups are apparently considering this move. By incorporating, ANOS Council had hoped to provide the benefits of incorporation to all ANOS Groups. However, it now appears that due to the manner in which the ANOS organisation is constitutionally structured, this is not possible. ANOS Council is continuing to investigate this matter and will keep each Group informed.

In closing, I extend to your Group the best wishes of ANOS Council. The participation of the regional bodies in the decision-making processes of ANOS is vital and, again, I stress the importance of involvement via the ANOS Advisory Committee. If a delegate cannot be made available to represent the interests of your Group at the 1986 Advisory Committee Meeting, then please discuss any matters of concern or interest and submit these for inclusion on the agenda. As recommended by the 1985 Advisory Committee Meeting (Item 11 of Formal Recommendations) I will be contacting by telephone the President or Secretary of each Group prior to the 1986 Meeting in order to encourage more complete representation of the ANOS Groups. It would, perhaps, be timely to call for volunteers and appoint a delegate(s) to that meeting now.

Yours sincerely,



Michael Harrison,
Honorary Secretary.

POSSIBLE ANOS CONSERVATION POLICY STATEMENT

Presented for consideration at the 1985 ANOS Advisory Committee Meeting

1. Consideration should be given to the formulation and adoption of a nationally recognised, comprehensive, Australian Native Orchid Convention, under which all Australian Native Orchids would be fully protected.
2. The identification and documentation of native orchid populations, particularly endangered species and critical habitats and sites, and the implementation of appropriate conservation and management measures for these should be undertaken as a matter of urgency.
3. The current trade in wild-collected Australian Native Orchids, particularly in the eastern states, has reached alarming proportions, and in some areas native orchid populations have been devastated. The relevant state authorities responsible for controlling this trade should strengthen and adequately police the provisions concerning the collection and sale of orchids.
4. The current system of Pickers Licences is seriously inadequate. Licences should be issued only after the nominated property has been inspected to ensure that those species listed do indeed occur on the property, and that they occur in sufficient numbers to support the application. Where Pickers Licences are to be issued for Forestry land, the area to be worked should be assessed and an estimate made of the type and number of orchids to be recovered. Where forestry operations do involve reasonable orchid populations, then local nurserymen dealing in native plants should be notified and encouraged to make application to recover such orchids from fallen timber.
5. The integrity of national parks and wildlife preserves must be maintained to ensure secure habitats for native orchids. No mineral or forestry exploitation should be allowed under any circumstances. The establishment and maintenance of adequate buffer zones, especially for sensitive forest types, should be undertaken as a matter of course.
6. The rate of destruction of pristine habitats for terrestrial orchids in pastoral and semi-urban areas is of great concern. Regional authorities throughout Australia should be made aware of the existence of any important scientific sites under their jurisdiction, and should be encouraged, through liaison with the relevant National Parks and Wildlife Services and local native orchid societies, to declare certain specified tracts of land as "not to be further developed".
7. The role of breeding programmes in the continuation and preservation of certain orchid species which are now endangered or rare in the wild should be of the highest priority. No legislative impediments should be placed upon the free production, from seed, and distribution of such orchid species.

Supper Roster: April Fay Gorden.
May J. Paish.

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Mr A Brown

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GPO 6000

Raffle Roster: April Andrew Brown.
May W. Merritt.