

THE W.A. NATIVE ORCHID STUDY & CONSERVATION GROUP



MEETINGS... 3rd WEDNESDAY each
month at..

KINGS PARK BOARD ADMINISTRATION CENTRE
Theatrette, KINGS PARK, WEST PERTH.

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THE WEST AUSTRALIAN NATIVE ORCHID STUDY AND CONSERVATION GROUP

OBJECTS 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 organisations.
- 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.

YOUR COMMITTEE - 1984

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PRESIDENT	Noel Clarke
VICE PRESIDENT	Andrew Brown
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TREASURER	Fay Gordon
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FIELD TRIP CO-ORDINATOR	Sid Gibbings
CULTURE/FIELD REGISTRAR	Steve Hopper
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BULLETIN	Fay Gordon Alison Harrington

POSTAL ADDRESS: P.O. BOX 323,
VICTORIA PARK W.A. 6100

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10. To receive and transmit all communications to and from the State Board of Agriculture.
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12. To receive and transmit all communications to and from the State Board of Labor.
13. To receive and transmit all communications to and from the State Board of Mines.
14. To receive and transmit all communications to and from the State Board of Commerce.
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22. To receive and transmit all communications to and from the State Board of Public Education.
23. To receive and transmit all communications to and from the State Board of Public Welfare.
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27. To receive and transmit all communications to and from the State Board of Public Benevolence.
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31. To receive and transmit all communications to and from the State Board of Public Mercy.
32. To receive and transmit all communications to and from the State Board of Public Pity.
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34. To receive and transmit all communications to and from the State Board of Public Fellowship.
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YOUR COMMITTEE
F. THOMAS
PRESIDENT
VICE PRESIDENT
SECRETARY
TREASURER
CLERK
-AND-
GOVERNOR
GOVERNOR
GOVERNOR
GOVERNOR

BULLETIN

It was reported that the Nedlands City Council is to begin a Mini-Botanical Garden in the Hollywood Reserve. Members of long-standing will remember that the Group have many orchid colonies in this area, mainly through the efforts of Mick Leece and Dave Emery and we all, I am sure, will wish the project great success.

It was also reported that Joe Betts is seeking articles suitable for publication in the Orchadian - any budding authors, please contact the Secretary for the address.

Steve Hopper reported that 630 sight record sheets have been prepared and the booklet should be available in mid-May. Keep those record sheets coming in.

The raffle kindly donated by Terry Wilson was won by Wayne Merritt (Isn't it amazing how often our new members scoop the prize?)

FIELD TRIPS

The trip to Babakin May 12 and 13 has only 5 takers at the moment. Members who have never seen *Rhizanthella gardneri* in situ are urged to make this trip - its an experience not to be forgotten. No bus will be available - and accommodation will need to be arranged at either the Ardath Hotel or at Corrigin. Contact Sid for meeting place and time.

10th ANNIVERSARY PARTY

A tentative date of 14th July has been set for this historic occasion to be held at Alison Harrington's home in Nedlands. Special invitations will be sent to foundation members but all other members and ex members are very welcome. B.Y.O. everything. More details next month - but mark it on your calendar - we'd like it to be a BIG NIGHT!

THAT BOOK

Guess What? Its NOT a figment of our imagination. It's Real!!! I've SEEN it! Hearty congratulations to Noel and Andy on a job extremely well done. It's been a long and difficult birth but both 'fathers' are fit and well and the book well worth waiting for. The linen cover edition is particularly well-bound and should stand up well to the rigours of field-trips. The soft cover version is fairly sturdy so which-ever one you've ordered, you should be very pleased with your purchase.

Advance copies arrived this week and on a quick glance through, I'd say we have an extremely beautiful, useful reference and members will be able to identify their finds with ease.

A very useful check-list and identification format at the beginning of the book should enable even the most amateur orchidologist to find 'his' orchid.

Members who have ordered books can expect their copy in the near future - they are on their way by sea and should arrive in the next 4 - 5 weeks. Please allow a couple of weeks after this for distribution. Payment for orders NOW please! Cheques to be made out to W.A.N.O.S.C.G. and sent to the treasurer.

NEW MEMBERS

Wayne Merritt, Ken Merritt and Lillian Nowell

BULLETIN ARTICLES H E L P!!! If you have any ideas, please write to me, Fay Gordon, and, even if you can't write it yourself, I'll find someone, somewhere to put pen to paper. Country members locations of orchid colonies and burnt areas would be appreciated. (Details elsewhere in Bulletin.)

NUYTSIA

The next edition of Nuytsia (the Agric. Depart and W.A. Herbarium booklet) will be published soon. Alex George has described seven new species of orchids - one pterostylis, one thelymitra and five caladenias. Andy Brown will discuss these new arrivals at the June meeting.

TUBERS

Noel Clarke has received a shipment of tubers - mainly pterostylis from N.S.W, Vic and S.A. These have been potted and are beginning to shoot. All pots will be included in a free raffle at the next meeting.

ORCHID LOCATIONS

The Committee have asked me to ask all members to advise areas of summer burns and or orchid locations. These burnt areas are often a source of good orchid colonies and, if a record is kept of these and subsequent finding, it will be a great help in discovering just what effect summer burns have on the orchid populations. Just fill in the sheet and return it to the Secretary - we'll do the rest.

MEMBERS NAME _____

ADDRESS _____

LOCATION OF BURN _____

APPROX DATE OF BURN _____

PREVIOUS ORCHID COLONIES (if known) _____

TYPE OF VEGETATION (if known) _____

COUNTRY BRANCHES

It has been suggested that as many country people have an interest in and a good knowledge of orchids, it may be to their advantage to form a club in their area. Two areas where we already have good membership numbers are Albany and Kojonup-Kendenup-Tenterden. If anyone is interested in 'having a go' please contact the Secretary. The group can assist with

1. Access to group slides
2. Access to other ANOS clubs within Australia.
3. Library books
4. City members as guest speakers and/or advisers.

As W.A. is almost the only State without country groups and with such a wealth of orchids it does seem a pity not to decentralise so do give it some thought - and at least write to us and tell us what you think if the idea.

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Would all other Bulletin editors please note that any articles of interest to your club or group may be reprinted in your Bulletin free of copyright charges. This, of course, applies to original material only.

SPECIAL MEETING

The Committee met at Noel Clarke's on 13/4/84 to write to various members of Parliament requesting that funds be made available for research into the effects of fire on our native flora. No printed material is available on this subject and in the interests of conservation, the Committee considers this an urgent need. Will keep you informed of progress if any!

NEW DISCOVERY

Another new variety of *Drakea* has been discovered near Boyup Brook. Is there no end to what can be found in W.A. It seems not.

FOR SALE

Ferns. Baskets and pots from \$1 to \$20. Also African Violets in Wick pots from \$6. Wick pots \$4.50 each. Contact Fay Gordon.

FEES

Members are reminded that fees for 1984 are now OVERDUE. Please forward as soon as possible. \$10 p.a. Treasurer. F. Gordon.

NS.W.

Dear Secretary,

I am a native orchid enthusiast, and I hope that by writing this letter, I may be able to swap some terrestrial orchid tubers with someone of your group who shares the same interest with me.

I live to the South of Sydney (approx 30kms as the crow flies) and have been interested in native orchids generally for about 2½ years. However, after about 6 months of buying and being given epiphytic species, I realised that as I live in a temperate climatic region, temperate-growing species would be more suitable. i.e. terrestrial orchids. Since that time, although I do still grow epiphytes and the like, my main interest now is in terrestrial orchids. To me, these plants are fascinating in their floral

structure and diversity, and I now have quite a good collection of eastern-state species.

Most of my plants have been either bought from Nesibtt in S.A. or have been given to me by other growers.

Getting to the point of this letter, I would be very interested to learn of anyone in your Group who would be interested in swapping tubers with me. i.e. East-coast species from me and West-coast species from you. They are impossible to obtain in N.S.W. and I am very interested in extending my collection. My favourite genus is *Diurus*, but any species or genus is eagerly sought-after. The quantity of tubers to be swapped would only be small; say $\frac{1}{2}$ dozen or less. I myself collect only enough for one small pot of each from my subdivision field-trips. These tubers are for my own collection and not sold.

If anyone would be interested in this swapping arrangement could they please write to the address as shown above, enclosing a list of plants for swapping or maybe a list of plants desired,

Yours faithfully,
Stephen Deards.

24th February, 1984.

Circular letter to ANOS Groups and Affiliated
Native Orchid Societies. (as per 9/83 Orchadian).

National Botanic Gardens.
Australian Native Terrestrials.

The Seed Bank has to-day received a parcel of terrestrial tubers from the National Botanic Gardens. In an accompanying letter the Gardens advises that it has just completed the re-potting of the terrestrial orchid collection and the enclosed tubers are surplus to its requirements. It was suggested that they be distributed to interested groups in Australia for either cultivation or re-establishment in the wild.

Tubers received were as follows:-

Pterostylis obtusa	Endrick River Gorge	N.S.W.
"	"	Allum Mountain, Bulladelah, N.S.W.
"	ophioglossa ssp ophioglossa,	Toowoomba QLD
"	"	" , Carnarvon Range, Qld.
"	revoluta	Herveys Range, Molong Road, NSW
"	curta	Belair Recreation Reserve, S.A.
"	"	Toowoomba, Qld
"	nana	Wagin, W.A.
"	baptistii	Burrill Lake, N.S.W.
Corybas hispidus	Carabost State Forest,	N.S.W.

The tubers from each species were divided into samples of about 6/7 tubers. Some species yielded five samples whereas other yielded only two. Altogether thirty four samples were parcelled.

These samples are now divided between the fourteen Groups/Societies listed in the 9/83 Orchadian. All receive at least two samples with some lucky ones receiving an extra one - their name having been determined by ballot. A record has been kept of which Group received which species. As this dispersal is the first of an expected annual event, attempts will be made to ensure Groups receive different species at the next allocation.

In the letter the Gardens states " another reasons for writing is to request your assistance in the preparation of an experiment on the germination of Pterostylis species which we hope to carry out later in the year. The experiment will involve a detailed study of the relationship between Pterostylis species and the germination specificity of their associated fungal isolates. The species to be investigated are as follows:- P. baptistii, P. coccinea, P. curta, P. cynocephala, P. nana, P. nutans, P. obtusa, P. pedoglossa, P. pedunculata, P. scabra var robusta, P. vittata, P. biseta var despectans, P. boormanii, P. daintreana, P. fischii, P. hamata, P. mitchelli, P. revoluta, P. rufa, P. barbata, P. plumosa, and P. recurva.

Unfortunately we do not have sufficient supplies of fresh seed available of these species for the requirements of the experiment. Any assistance you or your members could give us in obtaining supplies of seed will be greatly appreciated."

It will be to the benefit of Australian terrestrial orchids as a whole for work to be undertaken by the Gardens in the area outlined so assistance from your Group/Society in arranging for supplies of seed later in the year will be welcomed. Seed could be sent to this address for on forwarding to the Gardens. Samples should record the species, its collection point and date of collection.

With kind regards,

Yours sincerely,

Mr. Graeme Banks

22nd February, 1964

Dear Sir, I am writing to you regarding the material you have sent me.

Material sent to me on 12th February.

The first part of the material is a list of names of people who have been in contact with the group in Australia. It was suggested that they be distributed to the group in Australia for their collection or research.

The second part of the material is a list of names of people who have been in contact with the group in Australia.

Persons who have been in contact with the group in Australia are listed below:
 1. Mr. J. H. Smith, 123 Main Street, Sydney, N.S.W.
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Mark Clements triumphs at Kew

Mr Mark Clements of the Canberra Botanic Gardens is working at Kew on a grant from the Sainsbury Trust.

Much of his work has been devoted to the symbiotic raising of rare European terrestrial orchids. This follows his success with similar work on Australian terrestrials.

The English journal *New Scientist* thinks so highly of the results achieved by Mr Clements at Kew that they devoted nearly a page to reporting them in the issue of May 26, 1983.

The *New Scientist* points out: "In the wild, the tiny seeds of terrestrial orchids refuse to sprout until they are invaded by the right fungus; they extract essential nutrients from the fungus, apparently by digesting the filamentous hyphae of the fungus. Thereafter the young orchid and fungus live in a mutually-beneficial association (symbiosis). Clements has found just the right way of introducing the seed to the appropriate fungus.

"In general only one species of fungus will suit a particular species of orchid, so Clements begins by extracting the fungus from the roots of an established orchid and isolating a pure culture of this fungus in a petri dish. Then using a low-nutrient medium — a mixture of oats and water, rather like a thin porridge — set in agar (a gelatine-like substance extracted from seaweed), he sows the orchid seed and infects it with its fungus. The seed sits on top of the agar, in easy reach of the growing fungus. Conditions have to be just right for the orchid but not too good for the fungus, otherwise the fungus will grow so fast that it swamps the orchids. Clements has found that the weak porridge coupled with a coolish temperature, 20°C in the daytime and 15°C at night, is ideal for the growth of the orchid even though the fungus grows best at 23°C. Many orchids take a year or two to germinate in the test tube in the absence of the orchids, but in Clements' laboratory they may sprout in a mere twenty days. In nine months they are ready to plant out in soil . . .

"So far Clements has isolated many different species of fungi, mostly basidiomycetes from terrestrial orchids. He suspects that there may be as many as 100 different species of fungus, and many strains of each, associated with orchids all told . . . Clements has found that related species tend to share the same fungus . . .

"Clearly this technique is a great boon to the conservation of wild terrestrial orchids. Each orchid flower produces thousands of tiny seeds which could now be germinated in the laboratory.

Britain's population of monkey orchids, *Orchis simia*, down to a few specimens, could thus be rejuvenated . . .

"Clements' technique may also take some of the pressure off wild orchids, which are sometimes illegally dug up and sold . . . When this technique is adopted by commercial growers a whole range of wild orchids will become available to the public . . .

" . . . we at least have the technology to coax the endangered orchid out of its seed."

AOR acknowledges *New Scientist* for the above extracts from its article. Acknowledgment and thanks also to Mark Clements for his fine work at Kew on the symbiotic culture of European terrestrials. This work was initiated at the Canberra Botanic Gardens and due credit must be given to the directors for backing it. Our Australian Orchid Foundation has also contributed to the work at Canberra.

Mr Mark Clements has been making good use of his time in Europe. In the Spring of '83 he visited orchid areas in Crete and northern Italy. In July he visited south-western France.

In addition to his work on the micropropagation of endangered European species he has undertaken an examination and description of the Australian orchids in John Lindley's herbarium collection at Kew. Also the describing of fourteen new taxa in the genus *Pterostylis*. A second edition of *Checklist of Australian Orchidaceae* is also in progress.

With D.L. Jones and P.S. Lavarack he is collaborating on work for the orchid volume of *Flora of Australia*. They will cover the genera *Pterostylis*, *Calochilus* and *Dipodium*.

