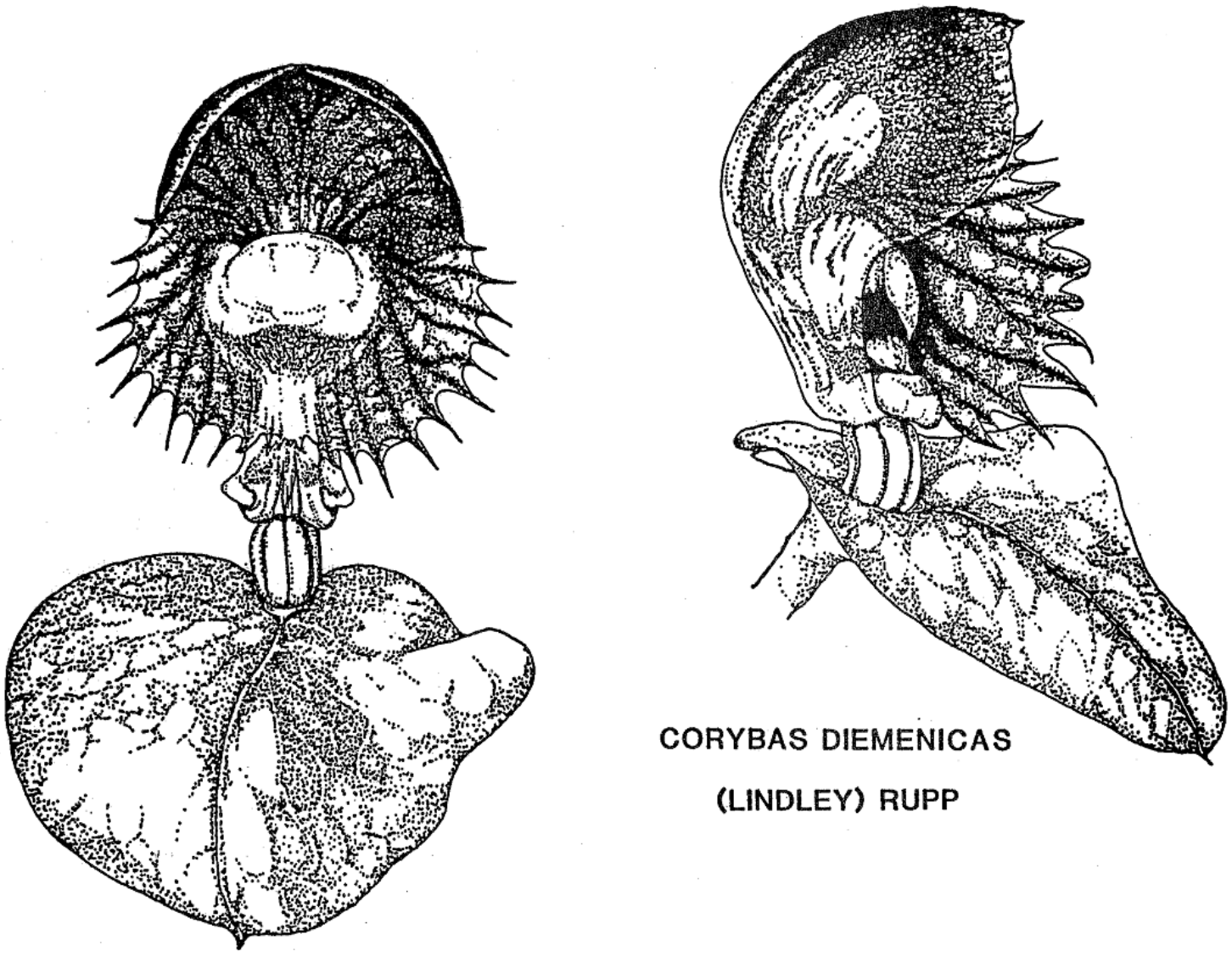
NATIVE ORCHID SOCIETY

of

SOUTH AUSTRALIA INC.

JOURNAL



CORYBAS DIEMENICAS

(LINDLEY) RUPP

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NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC.

THE NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA PROMOTES THE CONSERVATION OF NATIVE ORCHIDS THROUGH CULTIVATION OF NATIVE ORCHIDS, THROUGH PRESERVATION OF NATURALLY-OCCURRING ORCHID PLANTS AND NATURAL HABITAT.

EXCEPT WITH DOCUMENTED OFFICIAL REPRESENTATION FROM THE MANAGEMENT COMMITTEE OF THE NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA, NO PERSON IS AUTHORISED TO REPRESENT THE SOCIETY ON ANY MATTER.

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N.O.S.S.A. JOURNAL Vol. 13 No. 1 January 1989

NEXT MEETING

Tuesday, 28 February 1989 at 8.00pm, St. Matthews Hall, Bridge Street, Kensington.

Dr. Brian Morley, Director of the Adelaide Botanical Gardens, will speak on Tropical Glasshouses. The almost completed tropical glasshouse at the Adelaide Botanic Gardens is one of the most exciting in the world and when it is completed will be something we should all be proud of. This will be a good chance to find out first hand what the new glasshouse will offer.

FRONT COVER: *CORYBAS DIEMENICUS* (LINDLEY) RUPP

The subject on our front cover for 1989 has once again been drawn by Erica Stoner. It is a beautiful rendition of *Corybas diemenicus*. We are very fortunate to have been allowed once again to reproduce it on our front cover. Thank you Erica for the considerable pleasure you give to us each year in your drawings.

POSITIONS VACANT - EDITOR, TYPIST, LIBRARIAN.

Due to professional commitments your Librarian, Editor, Typist, can no longer continue with these responsibilities. Really, three positions are involved and therefore perhaps three volunteers should be found. All three positions are both important and enjoyable and a good way to support your Society. Perhaps an editorial group can be formed if an individual cannot be found willing to undertake the position himself/herself. Please advise a Committee Member if you might be interested in any one of the three positions or at least sharing some of your time to these responsibilities.

LIBRARY

Please bring all on-loan N.O.S.S.A. Library books to the February meeting in order that the Librarian may make an inventory. We now have a copy of David Jones new book "Native Orchids of Australia" for Member borrowing.

1988 QUESTIONNAIRE

In 1988, members were asked to complete a questionnaire regarding the Society and what members would like to see from it. In all there were 38 responses, the results of which are indicated below:

Question	Yes	No	*NR
1. Are you able to attend meetings regularly?	26	11	1
2. Is the meeting venue adequate?	32	1	5
3. Do the meetings come up to your expectations?	30	1	7
4. Do the speakers cover topics of interest to you?	28	1	9
5. Do you display plants regularly?	10	22	6
6. Are benching facilities suitable?	21	2	15
7. Do you show plants at our annual show?	16	17	5
8. Are you satisfied with our show arrangements?	18	3	17
9. Do you read the Journal regularly?	36	0	2
10. Does the Journal provide you with the information that is beneficial to your interest in orchids?	33	0	5
11. Can you provide an article for the Journal?	11	20	7
12.			
13. Do you use the Society library?	20	15	3
14. Can you find the books that you are interested in?	19	1	18
15.			
16. Has membership in the Society improved your knowledge of orchid culture?	33	0	5
17. Does the Society adequately cater for new members?	25	2	11
18. Do you make use of the Society's trading table?	23	11	4
19. Is the trading table a feature of the Society that you find a benefit to you as a member?	17	10	11
20.			

*NR - No Response.

General Responses From Members

Q3. "More slide presentations of natives."

Q3. "Any complaints or suggestions from members should be brought forward at the meetings under any new business."

Q4. "Future Meeting Topic - What can be done to increase the range of native orchids in a shadehouse or cold glass house situation."

Q5. "A more conspicuous venue and better advertising required for N.O.S.S.A. Annual Show."

Q12. "Journal should have one article each month on basic information."

Q17. "Perhaps a segment each meeting for questions from new growers."

Q20. "Could the trading table provide accessories, fertilizer etc as well as plants."

Q20. "Monthly meetings could be made more sociable with a cup of tea or coffee at the end of the meeting."

Q20. "It is very annoying at meetings to be seated near members who talk loudly amongst themselves during both the business and feature part of the meeting."

Q20. "Try to be more innovative at monthly meetings."

The President and Committee wish to thank all members for their contributions and suggestions provided in the questionnaires. All such comments will be given due consideration.

A number of members have indicated via the questionnaire that the 1988 Annual N.O.S.S.A. Show venue was unsatisfactory for various reasons. The Management Committee invites those members to provide details of a suitable AVAILABLE venue for 1989 together with all costing details that apply. Responses MUST be forwarded to the Committee before 31 MARCH 1989.

RECENT NAME CHANGES AND ADDITIONS TO THE SOUTH AUSTRALIAN ORCHID FLORA

by Bob Bates

Over fifty new Australian orchid species have been named since mid 1988 and several of these occur in South Australia. These are summarised in the book "Australian Native Orchids " by David Jones. I list with notes the South Australian Taxa.

Caladenia fragrantissima Jones & Carr: previously known as *C. patersonii* var. *suaveolens* but now revised to specific rank under the new name. (this use of a new name is required because the name *Caladenia suaveolens* has previously been used for the plant now known as *Lyperanthus suaveolens*). *C. fragrantissima* is an endangered species in South Australia. It is found in coastal sandhills in wetter districts. Plants appear each year at our N.O.S.S.A. Show, the large yellow-green, lemon scented flowers drawing much attention and admiration.

Caladenia fuscata (H.G. Reichb) Clements & Jones is a new name for the inland form of *C. carnea* which always has single pink/red flowers and very high side lobes to the labellum. It occurs from near Monarto, north to the Flinders Ranges and Eyre Peninsula. For the present however the name *C. carnea* will probably be used to cover all South Australian material pending a revision of the complex.

Caladenia tentaculata H.G. Reichb - for years botanists have wondered as to the true identity of this species. David Jones tells us that it is the correct name for the large Comb Spider or King Spider of the Adelaide Hills. A plant we have always known as *C. dilatata* but which is certainly not. Mark Clements has apparently found the Type of *C. tentaculata* and cleared up the mystery. Whether or not true *C. dilatata* grows in South Australia is still a mystery to me.

Caladenia concolor Fitzg - never officially listed for South Australia, it appears in David Jones book listed for the 'extreme South-east'. There must still be some doubt here as although similar blood-red spider orchids do occur in the South-east, the only collection at Adelaide with a labellum fringe long enough to match the original *C. concolor*, is one made many years ago near Callington.

Caladenia valida is a species listed in David Jones book, for Kangaroo Island. It is based on *C. reticulata* var. *valida* Nicholls, a plant illustrated in Nicholls "Orchids of Australia" . Having seen *C. valida* last year at Anglesea in Victoria, I am not convinced that the Kangaroo Island plants are the same.

Caladenia stricta is the new name for *C. dilatata* var. *stricta.*

Pterostylis arenicola Clements & Stewart is a South Australian endemic 'rufa group' greenhood now known only from colonies in the Grange Golf Course in Adelaide and near Tailem Bend. It is similar to *P. boormanii* but less hairy and with longer sepals. It grows under native pines in the vicinity of red sand drifts. With this habitat so restricted near Adelaide and prized for farming, it is little wonder *P. arenicola* is endangered! (a *P. arenicola* special field trip is planned for later in the year).

Pterostylis maxima Jones & Clements is a blood red rufa group greenhood known from only a single location in South Australia (near Bordertown where the population may already be extinct due to grazing). It still occurs in Victoria and New South Wales.

Pterostylis clavigera Fitzg It is almost certain that this species which has previously been confused with *P. nana* is widespread in South Australia. In fact the common '*P. nana*' of the Adelaide Hills is closer to *P. clavigera* than it is to true *P. nana*. David Jones lists it for southern inland New South Wales but I have seen plants identical to these on rock outcrops near Peekinga.

(Other new Pterostylis species which may occur in South Australia include *P. aciculiformis* and *P. despectans*).

Thelymitra azurea R. Rogers - most South Australian plants referred to previously as *T. canaliculata* have been returned to *T. azurea* following the reinstatement of that name!

Thelymitra benthamiana H.G. Richb - this old name replaces *T. fuscolutea* in South Australia. True *T. fuscolutea* is endemic to Western Australia.

David Jones also uses the name *Thelymitra cyanea* to replace *T. venosa* in South Australia, true *T. venosa* being a large insect pollinated species from the Blue Mountains, but the two are very similar and the name *T. venosa* may be retained in South Australia pending a revision of the genus.

Thelymitra juncifolia Lindley is the name given to the common self pollinated, small flowered form of *T. ixioides*. True *T. ixioides* is a large, freely expanding, insect pollinated species which does not extend further north than Millicent in our South-east. The name *T. ixioides* is also likely to be retained for all South Australian material pending a revision of the genus.

Thelymitra megcalyptra Fitzg. is reinstated by Jones. It is the large flowered, large column form of *T. nuda*, a name for the present being retained for all South Australian plants.

Diuris corymbosa Lindley replaces *D. longifolia* in the narrow sense being a Western Australian endemic.

David Jones also notes that the name *Diuris behri* may at least partly replace plants previously referred to *D. pedunculata* (which does not occur in South Australia) and *D. lanceolata* (which probably does) but much more study is required here!

David also reinstates *Diuris brevissima* Fitzg ex Nicholls but this group is in need of detailed study and for the time being *Diuris maculata* is retained for a series of races of which *D. pardini* Lindley is also a member, but be prepared for a possible change!

Corybas incurvus Jones and Clemments is given 'officially' as the name for the species previously misidentified as *C. diemenicus* throughout southern Australia.

Beware, this is just a sign of many new or resurrected names which will appear in the next decade.

FIRST AUSTRALIAN ORCHID FIELD CONFERENCE

Sponsored by the Australian Orchid Foundation as a satellite Meeting of the 13th World Orchid Conference in Auckland - 29th August to 5th September, 1990.

The location will be ... "SOMEWHERE NORTH OF CAIRNS" ... in north Queensland.

The Theme ... Dissemination of knowledge of Australian orchids ... biology, conservation, culture, distribution, origins and relationships, propagation and taxonomy.

Programme ... Day 1, transport from Cairns; evening briefing
Days 2 to 4, daily field trips.
Days 5 to 6, lectures, posters, etc.
Day 7, field trips, discussion, dinner.
Day 8, transport back to Cairns direct flight to Auckland available.

Accommodation ... This has been secured for all participants in the same location. There is a limit of 150 persons, with a limit of 100 for field trips.

Costs ...	Bush accommodation including all meals	under $800.00
	Transport for field trips	approximately $200.00
	Registration Fee, to include proceedings	$ 50.00

It will not be possible to give firm costs until early 1990.
Transport between Cairns and 'the location' will be provided.

Further information .. for news releases; please write to:
Mr. Len Lawler, Hon. Sec. AOF Research Committee
PO Box 58, Atherton, Queensland, 4883, Australia.

PROPOSED ORCHID BADGE CLUB.

At the recent Australian Orchid Conference, held in Sydney, the formation of an Orchid Badge Club was proposed. As the objects and principals were unable to be finalised, a special Committee was formed to look into this aspect.

The principal Office Bearers being:-

PRESIDENT. Mr. Jimmy Dench (New Zealand)
SECRETARY GENERAL. Mr. Barry Collins (New South Wales)

Further details can be obtained by forwarding a stamped, self addressed envelope to:-

ORCHID BADGE CLUB
Mr. Barry Collins,
Secretary General,
245 Avoca Street,
RANDWICK. N.S.W. 2031
AUSTRALIA.

N.O.S.S.A. JOURNAL VOLUME 1, NUMBER 1 APRIL 1977.
The following excerpts have been taken from the first N.O.S.S.A. Journal. I think they are particularly interesting and say a lot. The Society is what you the members make it. Everyone should try to actively participate in some manner, no matter how insignificant it may seem at the time.

INAUGURAL MEETING:
The Society was formed on 22.3.77 when 48 interested people attended the inaugural meeting at the Goodwood Boys High School. The meeting was chaired by Mr. Colin Jennings, President of the Orchid Club of South Australia.

It was decided to hold regular meetings at Goodwood on the 4th Tuesday of the month. A committee was elected to hold office until the Annual General Meeting in February 1978.

PRESIDENT'S:
This is our first newsletter and it clearly shows the tremendous enthusiasm within the Society. People are bursting with ideas and willing to help bring them to fruition. I hope this spirit can be maintained. Things which I imagined would take months to organise are underway overnight. March 22nd 1977 was a historic occasion for South Australian native orchid lovers and this initial issue records the foundation of the Society on that date. Future issues will bring you articles on the natural history and cultivation of our orchids as well as recording the activities of the Society. Please use the newsletter for communicating items of interest to native orchid lovers because that is what it is for. I regard the newsletter as the second most important activity of the Society after the monthly meetings. For country members the newsletter is the Society. Please do your utmost to make it worthwhile.

The Society got off to a tremendous start when 44 people paid their subscriptions after the meeting and became the Foundation Members of N.O.S.S.A.

FOUNDATION MEMBERS:
Mr & Mrs N. Auliciems, MAGILL.
Mrs Betty Barclay, DOVER GARDENS.
Mrs Barbara Bennett, GLENELG NORTH.
Mr & Mrs G.P. Burniston, WESTBOURNE PARK.
Mr & Mrs R. Chisholm, GLENELG NTH.
Mrs M.L. Earle, BRAHMA LODGE,
Miss M. Furness, COROMANDEL VALLEY.
Mr & Mrs K. Furness, EDEN HILLS,
Miss C. Furze, BRIGHTON.
Mrs Jean Gardner, EDEN HILLS.
Mrs F.S. (Bubs) Gready; EDWARDSTOWN.
Mr E. Roy Hargreaves; EVERARD PARK.
Mr & Mrs C.R. Hacking, ENFIELD.
Mr & Mrs P.E. Hornsby, LOWER MITCHAM,
Mrs A.M. Howe, FINDON. GARDENS.
Mr Kevin W. Western, BLACKWOOD.
Mr & Mrs A.J. Jansen, COROMANDEL VALLEY.
Mr Brian Lehmann, CLARENCE GARDENS.
Mrs C.C. Lindsay, CLAPHAM.
Mrs Shirley Little, ALLENBY GDNS.
Mrs A.M. Marks, WARRADALE.
Mr & Mrs L.T. Nesbitt, VALE PARK.
Mr G.J. Nieuwenhoven, HOPE VALLEY.
Mr & Mrs R.G. Nunn, SEAVIEW DOWNS.
Mr Brian Osborne, VALE PARK.
Mr Ron T. Robjohns, UNLEY.
Mr & Mrs R. Shooter, GRANGE
Mr J.T. Simmons, STONYFELL,
Miss Helen Walker, CUMBERLAND PARK.
Mr & Mrs D.H. Wells, WINDSOR
Mr & Mrs R. Hutchinson, HIGHBURY.

PLANTS AT INAUGURAL MEETING:
Flowering: *Dendrobium bigibbum var compactum*
Non-Flowering: *Pterostylis baptistii* (2), *Pt. nutans, Pt. ophioglossa, Pt. revoluta, Eriochilus cucullatus, Thelymitra aristata, Phaius tancarvilliae*
Dendrobium speciosum, D. kingianum (2), *D. falcorostrum D. gracilicaule* (2), *D. mortii, D becklerii, D. pugioniforme D. canaliculatum, D. linguiforme, D. speciosum x tetragonum*

LIBRARY:
Three books have been donated to the Society. Others are welcome. Our tiny library consists of:
Australian Orchids by Rosa Fiveash.
Australian Native Orchids in colour by Leo Cady and E.R. Rotherham.
Orchids of Western Australia by Alex George and Herb Foote.

PHOTOGRAPHING NATIVE ORCHIDS: GETTING CLOSER TO THE SUBJECT by R.J. Markwick

The following was originally published as part of a series of articles in the N.O.S.S.A. Journal during 1980 and 1981. It is hoped that the balance of the series will also be republished in future volumes, Some of our newer Society members have shown considerable interest in having Bob's articles made available again.

Supplementary close-up lenses.

Supplementary close-up lenses or meniscus lenses, sometimes called "portrait attachments" - are lenses which screw into the front of the camera lens jus t like filters. They come in different magnifications, and are generally avail able in +1, +2 and +3 dioptre strengths. These supplementary lenses shorten the effective focal length of the camera lens to give a larger image, and may be likened to a low-powered magnifying glass, the higher the dioptre number the stronger the lens and the closer the working distance. They may be used in combination to give a higher power, eg. a +3 and a +2 may be used together to give a +5. Two, or even more may be used, but for the best results the stronger lens should be closest to the camera lens, and no more than two should be used at once. If a filter is to be used, it should be screwed on last.

To give a greater magnification, these lenses can be used with lenses of longer focal length than the standard 50 - 55 mm lenses, up to 200 mm. This also provides an added bonus by increasing the working distance from the subject, an advantage if flash lighting is to be used.

The Hoya Zoom Close-up Lens is another very useful supplementary lens available in most popular filter sizes. This is a light weight lens, providing infinitely variable strengths through a range from approximately +2 dioptres to +10 dioptres. Matched with a 50 mm lens, it can give an image on film approximately 1/2 the size of an original covering an area of approximately 78mm x 50 mm, adequate for providing reasonable photographic reproductions of many of our South Australian orchids. The front ring of this lens is engraved with a scale from .49 m (2.04 dioptres) to 0.1 m (10 dioptres). The degree of magnification is selected by rotating this ring, just like focusing a normal camera lens.

Supplementary lenses have a lot going for them but they also have some disadvantages. They are relatively cheap, light-weight, capable of giving reproduction ratios up to approximately 1:2, and need no alteration to the basic exposure since there is virtually no light loss associated with their use. However, the image is really only satisfactory in the centre, so the smallest possible aperture should be used to improve sharpness and increase the very shallow depth-of-field. (Apertures of the order f8 – f11 or smaller will give acceptable results). Also, for some of our smaller native orchids, the magnification provided is not great enough,.

Extension Rings.

Last month we talked about the cheapest and in many respects the most easily handled equipment we could use for close-ups. This month we will discuss extension rings and some of the problems associated with their use.

A set of extension rings (sometimes called extension tubes) comprises three small tubes without any optics. Their sole purpose is to move the camera's lens further away from the focal plane in order to cause an increase in the size of the image projected onto the film. The three rings vary in size, and one or more of them may be used together. The greatest advantage of rings lies in the fact that the cameras lens in not degraded by the use of cheaper supplementary lenses, and they can be used with lenses of any focal length, even with bellows.

A disadvantage with some rings is the loss of the automatic diaphragm facility of the lens. Extension rings affect the exposure, and if through-the-lens light metering is not used exposure corrections will need to be made.

For example, I know of a photographer operating a camera with a clip-on light meter and a 55m standard lens, who uses 7mm, 14nm, and 28mm rings and adds 1/2, 1, and 1 1/2 stops respectively to the basic exposure. For the basic exposure he takes a reading from a Grey Neutral Test Card. Some extension rings have exposure factors engraved on them. Some rings have automatic diaphragm facility and are ideal for modern cameras with through-the-lens metering.

Accurate focusing with extension rings requires that the camera be moved backwards and forwards until the image is in sharp focus and, since they reduce the amount of light to the viewfinder, extra care must be taken when light conditions are poor. This is best done using a tripod and you will find that a set of focusing rails are an invaluable aid. Extension rings can be used to yield reproduction ratios up to 10xi but for larger magnifications it is preferable to use bellows.

Since they are relatively cheap and produce good results, extension rings are popular with many native orchid photographers.

Bellows.

Last month we discovered how the magnifying power of a lens could be increased by inserting devices of fixed length between the lens and the camera body, i.e. extension rings. We now turn our attention to a device which provides for adjustable lengths, i.e. bellows.

Bellows can be used with most lenses to give a wide range of magnifications, far greater than close-up lenses or extension rings. However, lenses used for general photography yield images which are sharper in the centre than at the edges, and the best results come from using macro-lenses specially designed to focus up close. Further, ordinary camera lenses are designed on the principle that the lens to subject distances will always be far greater than the lens to film distance. In macro work where magnification exceeds 1:1 this principle breaks down because of the lens extension, but the problem can be solved by reversing the lens. Adapters are available for this purpose.

Some bellows have the degree of magnification (for a specific lens) marked on the rails. Others are marked with a set of figures which must be referenced against a table carrying details for all of the lenses likely to be used. These markings are an aid to exposure calculation, for unfortunately, when bellows are used, exposure calculations cannot be directly related to the f number engraved on the lens. Much has been written elsewhere concerning this problem, and I will not be discussing it, I merely wish to inform the uninitiated that the problem exists.

Most bellows do not have provision for automatic diaphragm (aperture) control. The ones that do are usually operated by a double cable release designed so that one cable closes the diaphragm just before the other operates the shutter release.

Some are equipped with a double track rail, which allows the entire camera/ bellows/lens assembly to be shifted along the lower track for fine focusing, without needing to change the magnification setting on the upper track. A very desirable feature.

Serious close-up photographers consider bellows to be a vital piece of equipment providing the ultimate in quality and versatility. They are capable of producing photographs suited to the study of very small morphological detail, helpful if one has an interest in taxonomy or simply appreciates the form and beauty of the smaller parts of the flower.

Macro-lenses.

So far we have discussed close-up lenses, extension rings, and bellows, as aids to the close-up photography of our Native Orchids. Of the optical equipment, only macro-lenses remain to be considered.

Since they have been especially designed to work at close focusing distances, macro lenses undoubtedly provide the best optics for close-up work, some even automatically compensating for extensions.

Macro lenses capable of focusing from infinity to close up are available to suit many of the popular SLR cameras- but they are generally quite expensive to purchase.

Two superb brand-name lenses are the 55 mm and 105 mm Micro-Nikkor (NIKON) close-up lenses. Without any special attachments, both of these lenses will focus up to ½ life size with excellent resolution. This magnification is suitable for photographing the larger of our generally quite tiny South Australian orchids. Used with special Auto-extension rings which preserve the full aperture exposure measurement and automatic diaphragm functions, their close-up capability extends to life-size, generally suitable for detailed photographs of all but the smallest species, e.g. Microtis and the miniature Prasophyllums. Both offer a minimum aperture of f32 permitting good depth-of-field, while the longer focal length of the 105 mm lens permits a greater working distance which allows for easier illumination of the subject

I use a 90 mm Vivitar Automatic Fixed Mount Macro Lens with a Nikkormat FTN. It functions very well as a medium telephoto lens, focusing to life-size without any attachments at a lens to subject distance of 17 cm. Using certain techniques basic to good close-up photography (to be discussed in a future article), this lens has produced very acceptable results in the field.

These lenses are examples of normal macro lenses. The other type is the special short-mount macro lens designed for use with bellows. These lenses don't have a focusing ring of their own. Many of the popular camera manufacturers produce such lenses, commonly with a focal length of 135 mm. Like ordinary general purpose lenses, they will focus from infinity down to their closest focusing distance, but of course, they are not as convenient to use for general applications.

(Editor's note: those members who are interested in photographing native orchids but have yet to find the results that they have hoped for, or who have not yet attempted macro-photography, are encouraged to join the N.O.S.S.A. Camera Group.)

The following has been extracted from ANOS Victorian Group Bulletin - February 1989:

WHAT TO DO IN FEBRUARY Helen Richards and Robin Waltrowicz

TERRESTRIALS

Another hot month is expected, being the last summer month. Most tuberoids are still dormant at the beginning of the month, but by the end of February most are shooting, although most don't appear above ground until March/April.

Extra shading is left in position during this month to prevent excessive temperatures in the shade house. Watering is varied according to the weather and growing stage of plants.

Plants which are actively growing need their mix to remain moist. These include *Spiranthes sinensis, Cryptostylis* species, summer and autumn flowering *Pterostylis, Chiloglottis* and *Eriochilus* species.

Other species which are still dormant are just lightly watered about once a week to prevent dehydration of tuberoids. In the latter half of February, watering of most pots can be increased until, by the end of the month, they are all moist. The exceptions are *Caladenia, Glossodia* and *Caleana* which do not start growing and are therefore not watered heavily until into March. If they are watered thoroughly too early, their tuberoids tend to rot.

Autumn flowering *Pterostylis* are more likely to flower if they are kept in a cool place until their shoots appear above ground. Under the benches, or under the house, are suitable places.

Repotting can still be done in February, although care must be taken not to knock off new shoots if tuberoids are growing. If shoots are knocked off, repot both tuberoid and broken off shoot. The tuberoid will usually shoot again, and the broken off shoot will sometimes grow into a small new plant.

This is the time of the year to divide *Spiranthes sinensis* plants after flowering and repot *Cryptostylis* after flowering. They need re-potting every two to three years.

For list of autumn flowering *Pterostylis* species, and details in dividing *Spiranthes* and repotting *Cryptostylis* species, see "Cultivation of Australian Native Orchids" second edition, pages 67, 75 and 80.

EPIPHYTES

The main cultural requirement this month is water. Plants will need drenching on most days and will also appreciate frequent mistings. Misting raises humidity but is no substitute for a good regular soaking. Water pots until the water runs freely from the drainage holes. This flushing prevents the accumulation of salts in the mix which can lead to root damage.

Many plants will still be maturing their new growths and will benefit from continued fertilising. These immature growths are susceptible to attack by aphids, snails and caterpillars and need appropriate protection.

Although a mixed collection of epiphytes will provide flowers for most of the year, they are sparse this month. The native cymbidiums may still provide some flowers and the occasional dendrobium hybrid may produce welcome but short-lived blooms.

There are a number of *Liparis* species that flower now which are easy to grow and flower, and should be included in all collections. Although their flowers are small, unspectacular and often have unpleasant odours, the plants are attractive when well grown. *Liparis coelogynoides, L. nugentae* and *L. reflexa* look attractive when grown in shallow terracotta saucers or pots using a mix containing a proportion of sandstone or gravel.

Well grown specimens of liparis are unfortunately rarely seen at meetings. Perhaps it is time for members of our Society to become better acquainted with this genus.