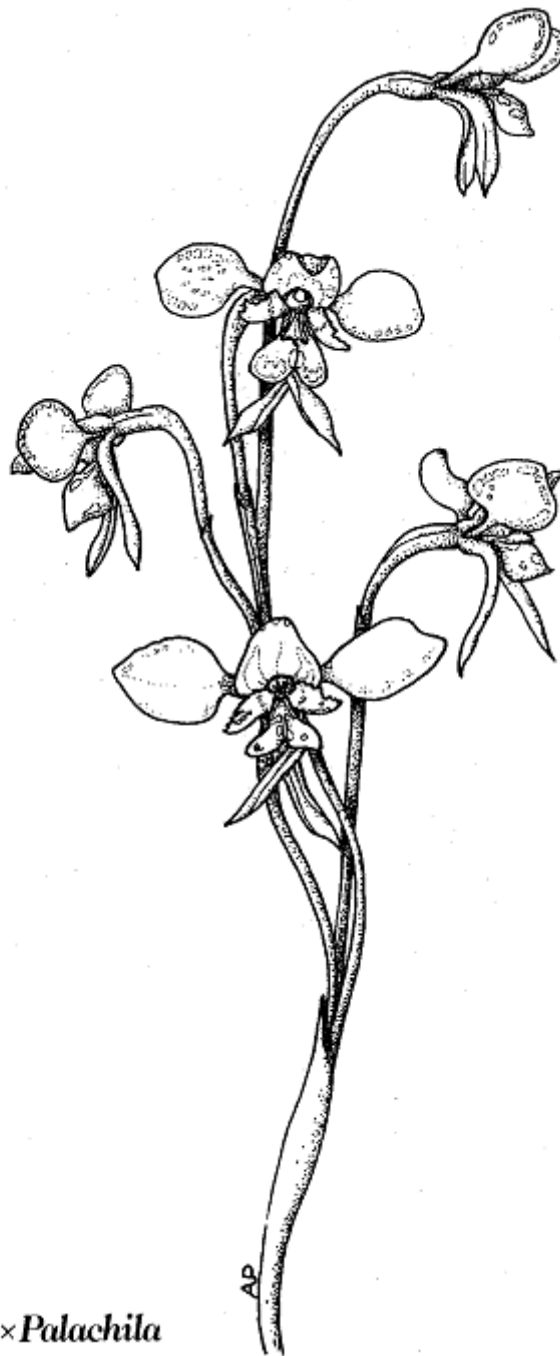


NATIVE ORCHID
SOCIETY
of
SOUTH AUSTRALIA



Diuris x Palachila



NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA

JOURNAL

Volume 7, No. 5, June, 1983

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NEXT MEETING

When: Tuesday, 28 June, 8.00 p.m.

Where: St. Matthews Hall, Bridge Street, Kensington.

Subject: Mr R. Bates will give an illustrated, talk on "Pollination of Orchids." Bob, of course needs no introduction; he is one of our well-known members who spends a lot of his spare time collecting plants (not only orchids) for the Adelaide Herbarium and studying orchids and their pollinators. This work takes him just about all over Australia. He has also published many articles on orchids and other native plants. Don't miss this meeting, it is sure to be fascinating.

NEW MEMBERS

We would like to welcome the following new members:

Mr R. Heberle
Mr C.J. Chambers
Mr T. Reeve, P.N.G.
Mr Hutchings

COMMITTEE

Mr Jim Jacobs has been appointed to the committee in place of the Editors position. Jim has kindly agreed to be our liaison officer.

NAME BADGES

Have you ever wondered what the name is of the person you are speaking to at the meetings? I know I have. Let's all wear our name badges in future. I am sure it will create a more personal and friendly atmosphere. If you have't got yours yet, see the Secretary at the next meeting.

LAST MONTHS MEETING

Last month was a bit unusual insofar that orchids were hardly mentioned by our speaker. However, he had a most interesting story to tell. Brandon Lay and his wife, Elizabeth, own a property in the upper Bremer Valley, part of the eastern Mount Lofty Ranges. This area, with its 18" rainfall per annum has, in the past, been cleared of almost all of the native vegetation. The timber was logged for mining timbers. The area was then burned, super-phosphated and used for grazing, at times down to the bare rock, and some of it surrounding the land in question still is.

However, Brandon and Elizabeth set out to revegetate their land and try to bring it back to what it was originally. This they attempted by using stump analysis to ascertain what some of the original species were, and observation and seed collection of species remnants in the district. The resulting progeny were then planted out. It was found that native pines were a feature of the area.

We were shown a series of slides, and judging by these, Brandon and Elizabeth are succeeding very well in their task. Tree growth is now quite prolific and bird life is becoming increasingly frequent. A dam has been established and stocked with silver perch, a native fish species. They have created their own little bit of bush from bare land in fairly arid country, a project many of us only dream of doing. Their project has been, and probably still is, a lot of sheer hard work, but it has been a well planned and thorough piece of work, something they can be proud of.

TINTINARA CONSERVATION TRIP

The S.G.A.P. group at Tintinara has requested assistance from our Society, using our expertise to rescue orchid plants from an area of scrub about to be bulldozed for the erection of Elderly Citizens Homes, and replanting the orchids in a safe, fenced, native reserve, supervised by the local area school.

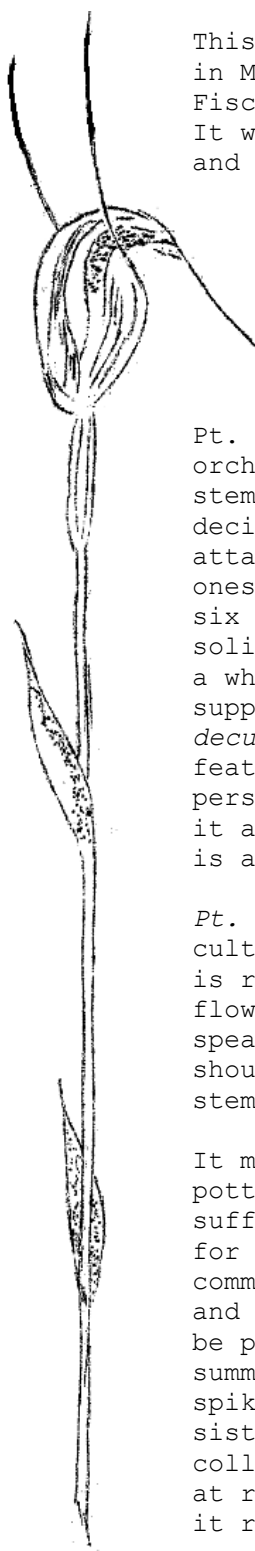
We have been invited to attend their meeting on Tuesday evening, 9th August, 1983, where a member of our club will be a guest speaker.

As the transfer of orchids is the following day (10th August), billets will be found by the host group for members of NOSSA requiring same.

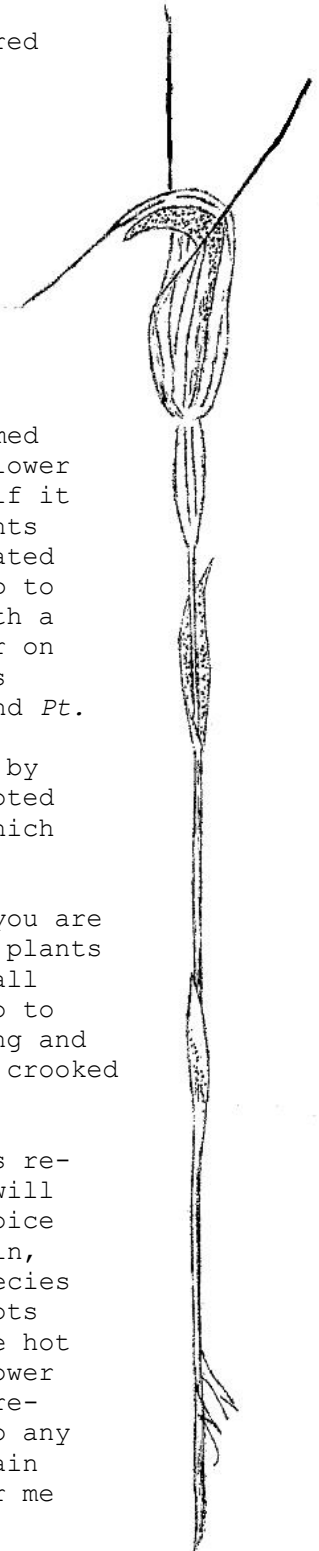
Members of NOSSA wishing to participate must contact me on or before our next meeting (28th June) to enable me to compile a list to be forwarded to the Tintinara Group.

Contact D. Wells
86 Pitman Road
Windsor Gardens

Telephone 261 6030



This beautiful orchid was only discovered in May 1949 by Mr and Mrs P. Fisch and described by W.H. Nicholls. It was found near Verrem in Victoria and since in New South Wales, particularly the Grose Valley in 1955, and further in the Gibraltar Range near Glen Innes, New South Wales, Bathurst and also the Australian Capital Territory.



Pt. fischii is a tall and slender-stemmed orchid of the cauline type, i.e. the flower stems appear before the rosette does, if it decides to flower. Natural or wild plants attain a height of 15-20 cm but cultivated ones may reach 35 cm. The stems have up to six stem-clasping acuminate bracts, with a solitary green and brown striped flower on a white background on top. The shape is supposed to be similar to *Pt. obtusa* and *Pt. decurva* but it has its own distinctive features which can be appreciated best by personal observation. W.H. Nicholls quoted it as having a proud martial bearing which is an apt description for it.

Pt. fischii flowers around May and if you are cultivating it a pot full of flowering plants is really eye-catching. However, the tall flower stems are also wind catching, so to speak, they bend easily while developing and should be grown in a wind free spot or crooked stems will result.

It multiplies quite freely and requires repotting each season. A sand, soil mix will suffice: plastic pots are the first choice for containers. It is suggested that, in, common with many of our *Pterostylis* species and a few other genera it seems, the pots be placed in a cool position during the hot summer period to help initiate more flower spikes. *Pt. fischii* is fairly disease resistant, and is a desirable addition to any collection. Tubers are not hard to obtain at repotting time. On a scale of 10 for me it rates a 9.

References;

W.H. Nicholls, "Orchids of Australia", Part IV. "The Orchadian", No. 8 October 1964. "Flora of the Sydney Region", Beadle, Evans, Carolin.

PLANT DISPLAY - MAY1983

Epiphytes: The *Dendrobium dicuphum* on display was the most attractive clone any of us had seen.

Bulbophyllum aurantiacum etc.

Terrestrials: A record number of eighteen different *Pterostylis* made for an outstanding exhibition. Huge *Pt. baptistii* on metre tall stems were eye-catching, and the three different varieties of *Pt. vittata* were seen together for the first time.

<i>Acianthus exsertus</i> (2)	<i>Pt. obtusa</i>
<i>Pterostylis alata</i>	<i>Pt. affin. obtusa</i> , grown
<i>Pt. affin. alata</i> (S.A.)	from seed (Qld)
<i>Pt. augusta</i>	<i>Pt. robusta</i> (4)
<i>Pt. baptistii</i> (2)	<i>Pt. rogersii</i>
<i>Pt. concinna</i>	<i>Pt. x toveyana</i> (4)
<i>Pt. affin. decurva</i> (Qld)	<i>Pt. vittata</i> green form
<i>Pt. fischii</i>	with seedlings
<i>Pt. pedoglossa</i>	<i>Pt. vittata</i> maroon form (3)
<i>Pt. ophioglossa</i> sub sp.	
<i>ophioglossa</i>	<i>Pt. vittata</i> var
<i>Pt. ophioglossa</i> sub sp. <i>fusca</i>	<i>subdifformis</i>

Popular Vote: Epiphytes - *Dendrobium dicuphum* - Edda Viskic

Terrestrials - *Pterostylis baptistii* - Mr and Mrs B. Maher

Commentaries; Epiphytes - R. Shooter. Terrestrials - G. Nieuwenhoven.

NOSSA SPRING SHOW

17th and 18th September 1983

The Society will be mounting a Spring Show of Native Orchids again this year. It will be held on Saturday 17th and Sunday 18th September at the same venue as last year - the Old Goodwood Orphanage, Goodwood.

Thanks to everybody concerned, last year's show was an enormous success. We would like to repeat that success this year if possible and the only way it can be done is with members becoming involved. So if you can help in any way, either on the Friday evening before the show helping to set up trestles, laying plastic, etc., or helping out at the show on the Saturday and Sunday, please do so. A list will be passed round at one of the monthly meetings in the near future. Please indicate in which area you would like to assist.

Now is the time to start selecting your plants for the show. Please bring along any plants you have in flower. Let's see if we can beat last years number, and you never know, the plant you bring may win a certificate for you.

Any queries regarding the show, please feel free to contact any one of the Show sub-committee: Margaret Fuller, Les Nesbitt, Peter Barnes or Reg Shooter.

FIELD TRIP TO HINDMARSH FALLS AND SPRING MOUNT
CONSERVATION PARK - 30.4.83

Bob Markwick

Twenty-four members, one visitor, and five children gathered at Hindmarsh Falls (1) on Saturday afternoon, 30 April, for the first of the 1983 field trips. It was encouraging to see many new members availing themselves of the opportunity to involve themselves in this aspect of the Society's activities.

The weather, although fine, was overcast and cool, temperatures being somewhat down on the 22°C experienced in Adelaide.

The main objective of the visit, *Pterostylis obtusa* (the blunt tongue greenhood), obliged by providing a number of nice flowering specimens. These were admired by all and were the subject of much photographic attention. Other orchids found in flower were *Acianthus exsertus* (only one in flower although many were in bud) and a single plant of *Eriochilus cucullatus*. Rosettes of several *Pterostylis* sp. and a basal leaf of an unidentified *Thelymitra* sp. were also noted.

Pt. obtusa is rare in South Australia; the only other place where it is known to grow lies within the Deep Creek Conservation Park. On this occasion, it was noted that the flowering plants were concentrated higher on the hillside, while weeds were encroaching upon the lower slopes where flowers had been seen in previous years.

From Hindmarsh Falls the group convoyed to Spring Mount Conservation Park (2), an area not previously visited in Autumn. Spring Mount Conservation Park lies in an elevated area (410 m where we parked the cars), and differences in the vegetation type were signalled by the presence of Stringybarks (*Eucalyptus obliqua*) and brilliant pink flowers of the Victorian Common Heath (*Epacris impressa*) scattered sparsely through the understorey. Both of these species are confined to the higher altitude and rainfall areas of the Mount Lofty Ranges. Here, five more orchid species were added to the day's tally, although only one (*Pterostylis vittata*) was sufficiently advanced to show a fully developed flower.

Although few flowers were seen on the day, the congenial atmosphere shared by enthusiasts when they gather on occasions like this, makes such trips well worthwhile.

On the return trip to Adelaide Bob Bates, Paul Reece and the author visited Peter Creek (3), where flowers of *Leporella fimbriata*, basal leaves of *Paracaleana minor*, and *Prasophyllum rufum* in seed were seen.

Orchids Seen (Locations indicated by number in parentheses):

In flower:	Basal leaves:	In bud:
<i>Acianthus exsertus</i> (1)	<i>Lyperanthus nigricans</i> (2)	<i>Acianthus caudatus</i> (2)
<i>Eriochilus cucullatus</i> (1)	<i>Paracaleana minor</i> (3)	<i>A. exsertus</i> (1)
<i>Leporella fimbriata</i> (3)	<i>Pterostylis curta</i> (1)	<i>Pt. vittata</i> (2)
<i>Pterostylis obtusa</i> (1)	<i>Pt. nana</i> (1)	
<i>Pt. vittata</i> (2)	<i>Pt. nutans</i> (1), (2)	Past flowering:
	<i>Pt. pedunculata</i> (1)	<i>Prasophyllum rufum</i> (2)
	<i>Thelymitra pauciflora</i> (2)	
	<i>T. rubra</i> (2)	
	<i>Thelymitra</i> sp. (1)	

Locations: (1) Hindmarsh Falls,
(2) Spring Mount Conservation Park,

The Eighth Australian Orchid Conference, to be held in Townsville, from 28th August to 4th September, promises registrants a wonderful list of guest speakers from both overseas and Australia.

Most fortunately, the Research Committee of the Australian Orchid Foundation will have their bi-annual meeting in Townsville during the Conference and the foundation has arranged a day of lectures on Australasian Orchidaceae.

The provisional list of speakers and their subjects are:

Dr. P.S. Lavarack: With the A.O.F. on Cape York Peninsula.
 Rev. Dr. R.D. Collins; History of Orchid Discovery in Tropical Queensland.
 D.F. Blaxell: History of Orchid Discovery in Southern Australia
 A.W. Dockrill: Rudolf Schlechter and his work in New Guinea.
 Dr. P.J. Cribb: The Section *Latouria*
 L.J. Lawler: Ethnobotany of Orchids.
 D.L. Jones: Orchid Pollination
 J.W. Wrigley: Orchids of the North Coast N.S.W. Regional Botanic Garden.
 B. Gray: Orchids of the Atherton Tableland.
 Y. Stocker: Some Aspects of the Orchid Ecology and Physiology.
 Dr. B. Wallace: Implications of Ecology and Physiology to Orchid Cultivation.
 N.H.S. Howcroft: Orchids of *Nugini*.

As well as the most prominent botanists and taxonomists working on Australian Orchidaceae, registrants will have the opportunity of hearing lectures from Neville Howcroft on New Guinea orchids and Dr. Philip Cribb of Kew on Section *Latouria*, *Dendrobium*. Both have been regular contributors to the "Orchadian" in recent years.

ERATA

Last month's article on *Eriochilus dilatatus* was written by R. Bates and not G. Nieuwenhoven. My apologies to the real author.

JOURNAL - PLEASE NOTE

If you have not yet paid your subscriptions for 1983, we regret this will be your last journal until you are financial.

POLLINATION OF ORCHIDS (Number 17) R. Bates

Collection of Pollen Vectors on South Australian Orchids.

We are setting up at the State Herbarium (Botanic Gardens, Adelaide) a collection of insects which pollinate our native orchids. At present we have pollen vectors from about 20 different South Australian orchids, but we would still like pollinating insects from any species except *Cryptostylis subulata*.

Specimens captured should be placed in a container of alcohol (specimen jars with alcohol are obtainable from R. Bates at meetings). Collections should be accompanied by the following information:

Name of collector.

Date and location of capture (orchid house or wild).

Pollination of Orchids (contd.)

Observations (weather, behaviour of insects, length of visit to flower, mode of entry, attachment of pollinia, etc.).

The more detailed the observations are the more valuable they will be.

Pollinating insects are usually most active on warm, sunny days, usually when the barometric pressure is falling.

We do not require insects which visit the flowers without removing the pollinia, i.e. hover flies, beetles eating the pollinia, etc., nor do we need insects found dead inside the flowers as these are generally not the pollen vectors.

We do require insects which remove the pollinia, insects which appear to "copulate" with the flowers and those which are on the flowers and bear pollen on their head or thorax.

Capture: one of the most effective methods is to drop a large plastic bag over the flower and close the neck, removing the flower and insect together. Both the insect and flower should then be transferred to the collection bottle. Fortunately insects are usually so rapt in what they are doing that they can be captured easily. If there are quite a number of the pollinators in action it is useful to photograph them at work although this may require a high degree of patience as well as technical skill. If you are really serious a small nylon mesh net would be useful in catching the fast flying wasps which pollinate our spider orchids. Remember that if you catch an insect pollinating an orchid you may be the first person to have caught the pollen vector of that orchid species which is no mean achievement!

DR. R.S. ROGERS 1862-1942 J.T. Simmons

No history of orchid study in Australia would be complete without acknowledging the contribution made by Richard Sanders Rogers in the early decades of this century. When he died in 1942 at the age of 80 he left a list of achievements that made him a most distinguished South Australian.

Although medicine was his profession, botany was his hobby and orchids were his particular interest. He was active in a number of fields of Natural History, Art, a Lecturer in Forensic Medicine at the Adelaide University, and at various periods, a Board Member of the Public Library, the Museum and Art Gallery.

When he died he was the Senior Graduate of the University of Adelaide with degrees in Arts and Medicine as well as degrees in Surgery and Medicine from Edinburgh University. He took his Doctorate of Science at Adelaide at the age of 74, using as his thesis a paper on "Developments in Orchidaceae".

It was with pleasure and surprise that the writer found that R.S. Rogers' only son, living in retirement in Queensland, is currently seeking information on his father to complete a biography.

Mr L. Scott Rogers, who is 82, followed a career in Engineering in Melbourne before retiring to the "Sunshine Coast" some years ago. He would welcome any information on his father that members may have.

His address is: L. Scott Rogers,
23 Fielding Street,
BUDERIM. Qld. 4556

Dendrobium Ellen

D. Ellen is a combination of *D. kingianum* crossed with *D. tetragonum* and is possibly one of the oldest of the man-made hybrids. The cross was registered by Schmidt in 1928 and must be one of the most popular of the tetragonum hybrids, being free flowering and with a pleasing habit of growth having robust, upright growth, tending toward the form of kingianum with just a touch of squareness from tetragonum.

D. Ellen is a typical hybrid exhibiting characteristics from both parents. The flowers vary from the spidery forms of *D. tetragonum* (with the typical tetragonum brown colouration) through to the more rounded form of *D. kingianum*, with pink to white flowers and the odd albino turning up now and again. The size of the flowers are as diverse as the shape and colour. Some have quite large flowers, up to 40 mm (1½ inch), with beautifully marked labellums while some do have rather small flowers. I suppose it depends largely on the parents used - most newer crossings use the variety giganteum to encourage larger flowers. But large or small flowers, almost all of them have the free-flowering habit of both parents plus the inherent ability of *D. tetragonum* to flower at almost any time of the year, sometimes more than once.

D. Ellen grows happily in a shadehouse under 50% sarlon or an unheated glasshouse in South Australia. I find that in common with many of our native dendrobiums, it grows best in a squat pot rather than the deeper conventional pot. I have not tried to grow it on a mount, or, come to that, have I seen one mounted, however, looking at the natural habitat of the species parents, *D. tetragonum* grows epiphytically while *D. kingianum* is more truly a lithophyte preferring to grow on rocks, it would suggest the mount would be the ideal growing medium. However, I find that the compromise of a shallow pot with a compost of medium sized fir bark and charcoal mix to give good drainage is quite satisfactory.

METHODS AND MADNESS OF AN ORCHIDOLOGIST

R.C. Nash

(Continued from NOSSA Journal, Volume 7, No. 4, page 39.)

Having given some idea of the range of this species, let us now discuss briefly the range of the flowers (*D. pedunculata*). The flowers we find around the Mount Lofty Ranges are more or less typical in form, that is, they are of a canary yellow or sulphur yellow in colour, ranging in size from almost 20 mm to 35 mm in height. The oval petals and the spade-shaped labellum are the most prominent segments. Sometimes the petals may carry small blotches, near the margins on the rear side. The labellum may also have small dark lines running down its length. The ornate growths on the labellum do show a small amount of variation, but not as great as those plants in the eastern states.

In Victoria the range of the form is even wider, with small and large-flowered plants occurring mixed in the same areas. Some of the larger-flowered forms are quite spectacular. In some of the flowers observed in Victoria quite a range of size and shape has been noted in the labellum, especially the ornate growths. The overall colour remains more or less

Methods and Madness of an Orchidologist. (contd.)

constant, only those plants in the Alpine regions show some variation from the normal.

As this species is one of the easy ones to grow, as well as germinating freely from seed, I think much improvement in flower size, etc., could quickly come about from careful selective breeding. This does not mean that every intending grower should rush out into the bush and remove every plant found, such people will be given the horrid class of "Digger", a name no thoughtful orchid grower wants. Those interested in breeding this plant, and others in the genus, should note carefully the form of the flowering plants owned by other cultivators. By negotiations, spare tubers could be obtained from wild plants but PLEASE leave as many flowers pollinated as you can for the more wild plants that there are, then the greater the gene pool will be thus giving the breeder a wider working base. It may even be possible to arrange tuber, pollen and seed exchanges with interstate growers, but always keep good records of where and when this type of material is obtained.

Competitiveness between cultivators will also hasten the breeding of these plants, perhaps even inter club/society competitions could be arranged. No matter how keen all this competition becomes, always keep it in a friendly atmosphere and exchange material freely.

D. pedunculata is supposed to hybridise in the natural environment with other members of the genus. I say supposed in the sense that it really does but which hybrid is the result of any particular crossing is still guess work, except for a very few. In South Australia the indications are that natural crossings have occurred between this species and *D. maculata*, *D. longifolia* and *D. palustris*. In the eastern states the probable other parents of hybrids has become complex.

In my own work I have crossed and flowered *D. pedunculata* with *D. longifolia*, *D. palustris*, *D. brevifolia* and *D. palachila* which I will discuss later as some of the results were quite interesting.

For a species with great variation in size, shape and colour we shall examine *D. maculata*. Throughout the Mount Lofty Ranges I have noted quite a variation in colour - from a full wine red form found west of Mt. Pleasant to very yellow forms with a small amount of dark colouring, at various locations. Even in the one area I have often marvelled at the variation in form and colour between individual plants.

Out in the Murray Mallee variation in the forms of this species are also great. A pure yellow form has been observed in the Hartley district and further east. This plant is usually smaller than the normal plant in that area but can be considered to be more "rounded" in flower shape.

In the south east a very large form has been recorded and identified as *D. brevissima*. However, other forms in that area are similar to those in the Mount Lofty Ranges.

This plant also occurs about the southern part of Eyre Peninsula where great variation in size and colour is found. At Koppio a pure yellow form has been recorded but not the same shape as that found at Hartley.

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(To be continued.)

R.C. Nash

GROWING EPIPHYTIC ORCHIDS IN SOUTH AUSTRALIA R.T.R.

Dendrobium falcorostrum (Beech Orchid)

This is one of the most attractive of the New South Wales epiphytic orchids, the common name being derived from the fact that it is only found in the forests of the Antarctic Beech, which occur in the highlands, extending from the Barrington Tops in New South Wales northwards to the McPherson Ranges in southern Queensland. However, within those forests it does occasionally grow on other than beech trees.

Due to the clearing of those forests it is fast becoming an "endangered species".

It is a plant of the highlands and is rarely found below 900 metres, consequently it will tolerate cold conditions, however, it requires protection from frosts and needs to be grown where there is plenty of air movement.

There are from two to six light green lanceolate leaves at the top of the stem which is from 12 to 50 cm high and the mature stems are ribbed. The flowers number from four to 20 in the raceme and are intensely fragrant during the warmer part of the day. They are from 3 to 5 cm in diameter.

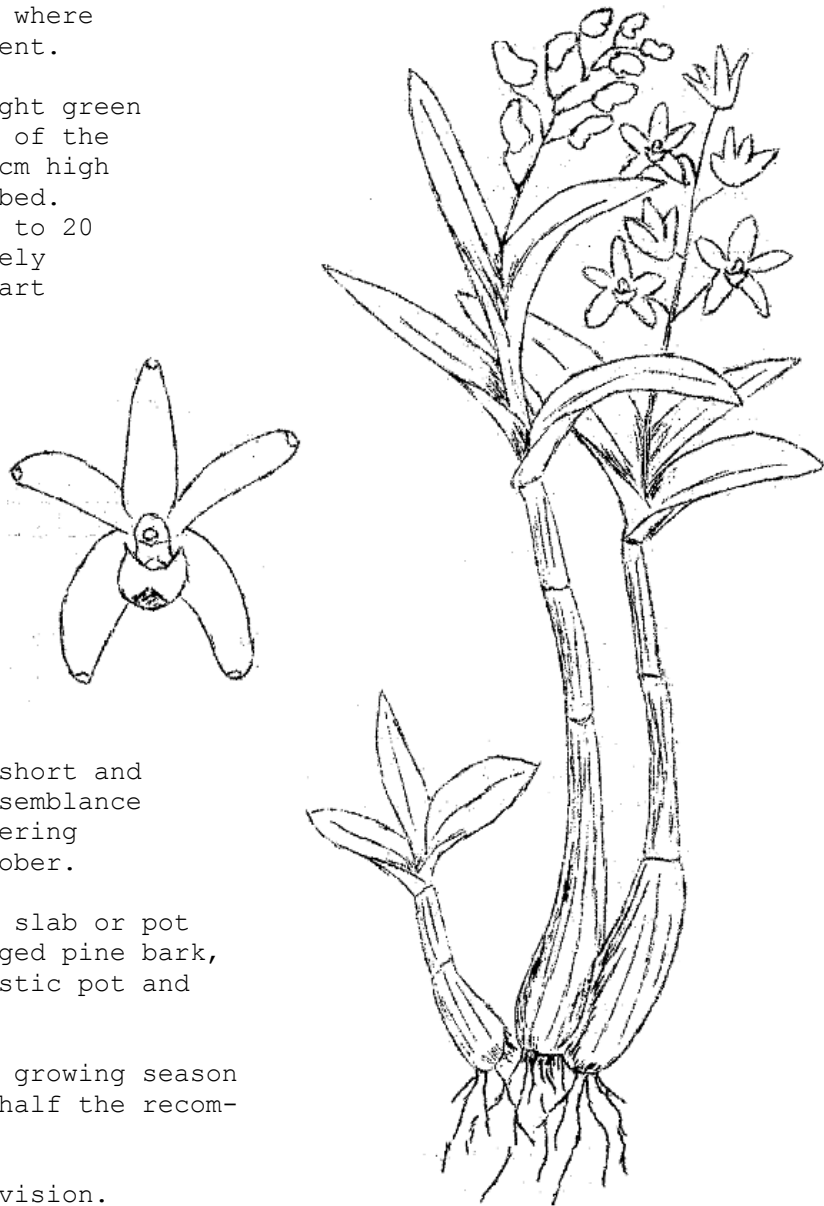
Flower spikes are terminal and some stems will flower for two or three years.

They are a glistening pure white to cream with the exception of the labellum which is streaked with purple. The common name is derived from the labellum, which is short and broad, bearing a fanciful resemblance to a falcon's beak. The flowering season is from August to October.

It can be grown using either slab or pot culture using a mixture of aged pine bark, scoria and charcoal in a plastic pot and grown under 50% shade cloth.

Fertilise lightly during the growing season using foliar fertilisers at half the recommended strength.

Propagation is usually by division.



Dendrobium falcorostrum