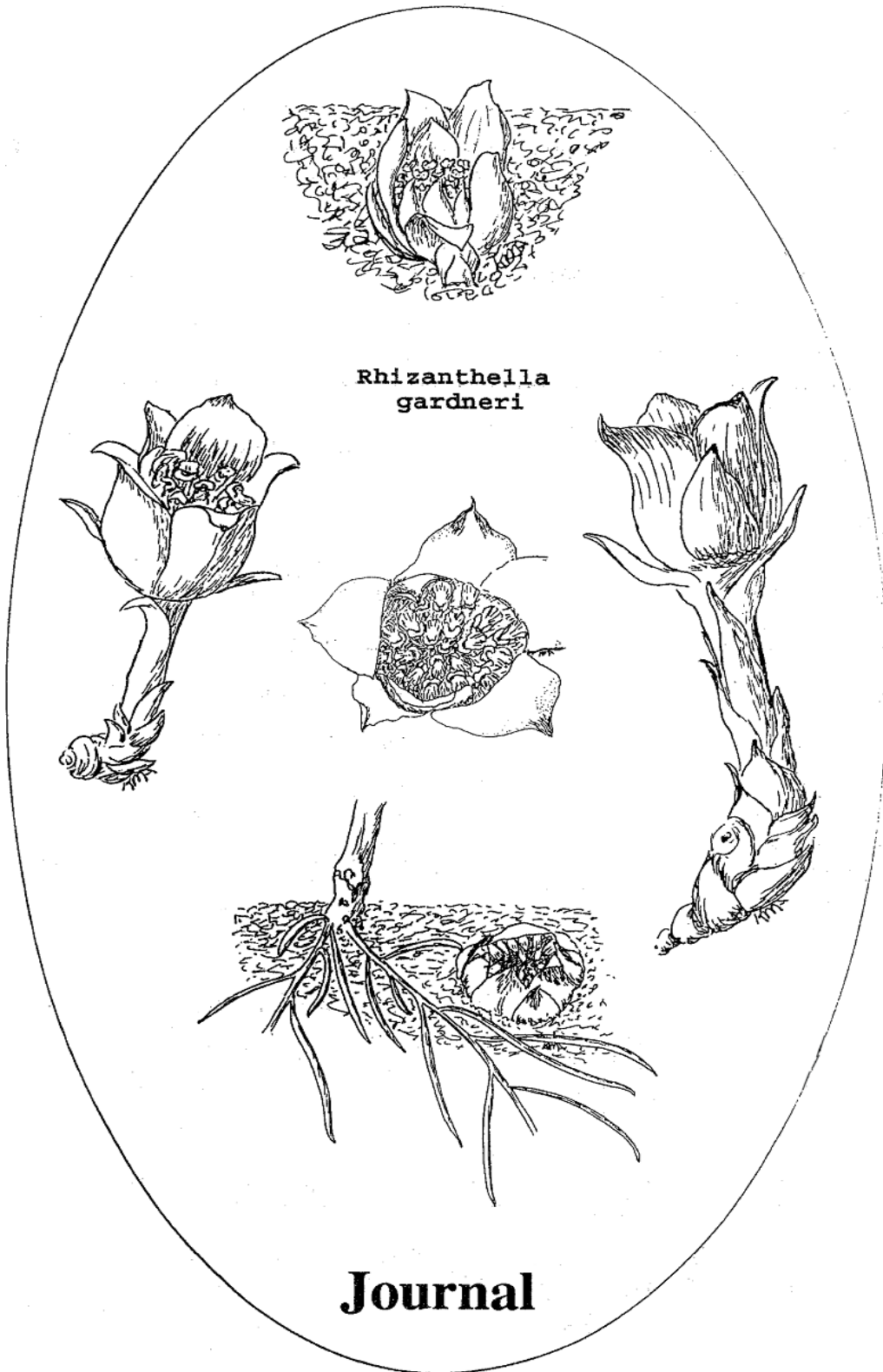


# Native Orchid Society of South Australia Inc.



# **NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC.**

P.O Box 565,  
UNLEY S.A 5061

The Native Orchid Society of South Australia promotes the conservation of native orchids through cultivation of native orchids, through preservation of naturally-occurring orchid plants and natural habitat.

Except with the documented official representation from the Management Committee of the native orchid society of South Australia, no person is authorised to represent the society on any matter.

All native orchids are protected plants in the wild. Their collection without written Government permit is illegal.

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Price: ONE DOLLAR

NATIVE ORCHID SOCIETY OF  
SOUTH AUSTRALIA INC

MAY 1994 VOL. 18. NO. 4 JOURNAL

MAY MEETING

Tuesday, 24 May, 1994, 8.00 pm: at St Matthews Hall, Bridge Street, Kensington. Doors to the hall will be open at 7.15 pm for those wishing to borrow from the library or purchase/sell through the trading table. Les Nesbitt, society co-founder, life member and past president will speak on Growing Terrestrial Orchids. Also present and speaking to us will be several members of the ANOS council including Barry Collins. Tea, coffee and biscuits will be served after the meeting.

NOSSA OPEN DAY

To be held on Sunday May 29th 1994, 2 pm, at the home of Charles and Helen Edwards, 33 Oliphant Avenue, Marion. All members, old and new are welcome.

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BUS TRIP to Bruce Mules' Orchid Nursery (Port Pirie) in September. Full cost \$15. Some seats are still available. If interested ring Bill Dear. Please pay \$10 deposit next meeting.

## DIARY DATES

May 29 Open Day at Marion.  
 June 19 Conservation Group meeting.  
 July 16 Excursion to Morialta Falls.  
 July 31 Weeding at Scott Creek Conservation Park.  
 Aug 21 Excursion to Aldinga Conservation Park.  
 Sept 17 - 18 NOSSA Spring Show.  
 Oct 8 - 9 SGAP Show

## COMMITTEE MEETING

To be held at the home of Thelma O'Neill, 19 Parana Ave Flinders Park, at 7.30 pm Friday 27th May.

## NEW MEMBER :

The Society welcomes Mrs Dianne Smit of the Black Hill Flora Centre.

## SEEDLING PLANTS :

Would anyone who bought a plant of *Dendrobium speciosum* X *Dendrobium* Star of Gold from the Society please bring it in at the May meeting for show!

WANTED : regular articles and art work for the Journal.

Help to make your journal original and interesting!

WANTED : seed for the ANOS Seed Bank.

The seed bank requires seed of Australian orchid species so could members hand pollinate their more interesting species and hand seed to Ron Robjohns or Bob Bates. The Conservation Group is sending seed of several endangered South Australian species this year.

## OPEN DAYS

Collette Makin

This year has started off well with two very successful Open Days and our thanks go to Beverley and Gerald and Kate and Allan for making our visits so interesting.

In addition to picking up lots of information on orchid culture we have been treated to a wealth of other information on the rearing of birds, begonias, ferns, geraniums and african violets which were growing under the most scientific conditions.

Although Allan has not been growing orchids for long he is having tremendous success with the plants he has established on logs and rafts and has them growing in a lovely tropical setting.

Our Open Days provide an excellent opportunity for members to socialise and see how our natives can be grown very successfully under varied conditions.

## ON THE BENCH

Epiphytes: *Dendrobium* Hilda Poxon (2)

Terrestrials: *Eriochilus cucullatus* (2); *Pterostylis abrupta*; *P. fischii*, *Pterostylis X furcillata* (3); *P. procera*; *P. dolichochila*; *P. Rogoff*; *P. Sentinel*.

It was disappointing that so few epiphytes were on display. We know there are a lot more out there, how about bringing them in to meetings.

Reg Shooter gave the commentary on the Epiphytes.

Les Nesbitt spoke on the Terrestrials.

Commentators Choice :

Terrestrial Species: *Pterostylis abrupta* grown by Thelma O'Neill

Terrestrial Hybrid: *Pterostylis Sentinel* grown by Les Nesbitt

Popular Vote:

Terrestrials: *Pterostylis Sentinel*

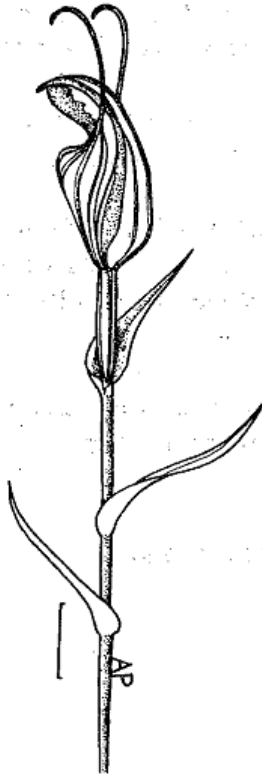
Epiphytes: *Dendrobium* Hilda Poxon grown by Bill Fisher

## EASY TO GROW LOCAL TERRESTRIALS

Les Nesbitt

*Pterostylis robusta*

*Pterostylis robusta* is a common orchid, as orchids go, in the Adelaide Hills. It prefers well drained locations in half shade and is usually found on hill sides or tops. In cultivation I use a sandy soil mix in plastic pots.



Striped Greenhood

This species belongs to the cauline group and is a colony forming species. Its multiplication rate is 3:1 annually. It forms dense colonies in favourable sites although only about 2% of the plants flower. With good culture the flowering percentage can be increased to 20%. Plants grow much better if repotted annually when dormant. If tubers are stored in an ice cream container they shoot in January-February, those that are likely to flower can be selected by their strong shoots. Pot these up together and you can produce a showy pot full in June-July. Pot up the non-flowering tubers to grow on for another year. Flowering plants have tiny leaves so do not make good tubers. All the strength goes into the flower. You have to grow a second pot of rosettes for flowers the following year,

*Pterostylis robusta* has a large attractive flower on a shortish stem. It has green stripes on a white background. The common name, Sharp Leaf Greenhood, comes from the spiky leaves on a flowering plant. Non-flowering plants have a rosette of dark green rounded leaves on short stalks. Large rosettes make big tubers, ready to flower next year.

#### NEW RECORDS FOR S.A. IN 1993

By R. Bates V. Maloney

A number of new species were collected and sent to David Jones in 1993-94. These included a *Dipodium* which we have previously treated as a cross between *Dipodium roseum* and *Dipodium campanulatum* as it often occurs in the same areas of the lower South East growing in deep fertile sands. But it is not truly intermediate in features! Jeff Jeanes has found it to be locally common in South West Victoria and David Jones expects to describe it as a new species. It is a taller plant than *Dipodium campanulatum*, has pale flowers with dozens of tiny distinct spots rather than the suffused blotches of *Dipodium roseum*. The author photographed a plant in Caroline State Forest near Mt Gambier in January.

Two undescribed species of *Microtis* were sent to David Jones for illustration. One of these, similar to *Microtis unifolia* occurs only in fertile woodland in the Adelaide Hills area but is more common in Victoria and NSW. A large population occurs on the slopes below Greenhill Road overlooking Adelaide. This again emphasises that there are new species of orchids right under our noses!

Several new species of *Pterostylis* were collected for the first time in 1992. One of these was the *Pterostylis* aff. *nana* found during the NOSSA survey of Warren Conservation Park and written up in the December NOSSA journal.

The others were 'rufa + group' species.

- A. One from the Broughton River Gorge near Spalding. This river flows through fertile farmland throughout its length. There are black bogs and fertile flats but the native vegetation of the area has been destroyed. For any orchid to have survived is a miracle. Needless to say the Broughton River *Pterostylis* is close to extinction!
- B. Another new species occurs only on the summit of Mt Olinthus near Cowell on Eyre Peninsula. It would seem relatively safe there but the area is not a reserve and it should be.
- C. The Mt Olinthus area is rich in rufa group species and at least two other new ones were collected within 30 kms ie on Mt Gerhardy and at Coolanie. I would suspect that due to the diversity of soil types and landforms in the area that as many as six undescribed 'rufas' will be found!

*Spiranthes*: For the first time David Jones has had a good look at South Australian *Spiranthes*. He is convinced that at least two species are involved: neither of them *Spiranthes sinensis* in the strict sense.

Not surprisingly all of the above mentioned new species are under threat!

Andrew was born in England in 1951; his family emigrated to Western Australia the following year; to live along side the Kelmscoff bush where he was fascinated by the wildlife. His primary school headmaster encouraged him to take a more focused interest and showed him a copy of Rica Erickson's "Orchids of the West". From then on Andrew was hooked.

Although working for years as a painter Andrew spent many weekends in the bush and after meeting another orchid enthusiast, Noel Hoffman, the two formulated a plan for a comprehensive book on Western Australian orchids. About this time he was offered the position of horticulturalist in charge of the WA Herbarium garden and worked toward his certificate in Horticulture.

In 1984 *Orchids of South Western Australia* was published with Andrew as co-author. It was in the same year that I visited with and experienced Andrew's hospitality as he took me into his home and taught me much of what he knew about orchids in the West.

In 1985 he began work as a technical officer in the Dept. of Conservation and land management and began working on orchid taxonomy with Dr Steve Hopper. This soon resulted in a major paper with some 140 new orchids described.

In 1992 when Steve Hopper was appointed Director of Kings Park. Andrew began working with the newly formed Western Australian Threatened Species and Communities Unit where he has responsibility for threatened flora. Andrew is writing guidelines for Recovery Plans for these threatened plants. He is developing a photographic catalogue of threatened flora and promotes conservation.

Over the years Andrew has written numerous articles and given talks to wildflower societies, field naturalists and orchid clubs.

In 1992 Andrew's second edition of *Orchids of SW Australia* came out and the text described 320 different wild orchids. He is currently vice president of WANOSCA (Western Aust. Native Orchid Society) and is a member of the Australia Orchid Foundation.

In addition to this Andrew has been a state tennis champion and is an expert badminton and table tennis player.

Lets hope Andrew will continue his contribution to the discovery, naming, illustrating, cultivation and conservation of WA orchids for many years to come.

#### AUSTRALIAN DENDROBIUMS NO. 2 *D. AEMULUM*

By Sandy Philips

*Dendrobium aemulum* is one of the best known Australian dendrobiums, one of the most widespread, commonly cultivated, frequently used in creating hybrids and one of the easiest to grow. There are numerous forms some of which are cool growing. I have seen it growing in the Adelaide area in glasshouses, bush houses and even attached to back yard fruit trees.

*D. aemulum* is a favourite of many growers because when well grown it can be smothered with medium size crystalline white flowers (to 3 cm across). The flowers open widely but segments are often rather narrow. Line breeding in NSW is now achieving fuller flowers with a colour range being developed to include pinks and yellows.

*D. aemulum* is easily recognised even when not in flower because of its dark often purplish pseudo bulbs and when in flower by the wavy yellow ridge on the middle of the labellum.

It grows naturally in its various forms from Southern Cape Yorke to Southern NSW from sea level to mountain tops usually in forest, in trees over hanging creeks, but occasionally on water splashed rocks.

Common name: White-feather orchid or Iron-bark orchid. The name *aemulum* means 'similar' probably indicating that Robert Brown who named the species in 1810 found it difficult to separate from a number of other similar dendrobies.

## SARCOCHILUS FITZGERALDII

By Darryl Smedley

### HISTORY OF THE SPECIES

*Sarcochilus fitzgeraldii* F.Muell was described by the Victorian colonial botanist Baron Sir Ferdinand von Mueller in 1870 in his *Fragmenta Phytographiae Australiae*. Von Mueller's type plant was collected from Naroo Falls on the Bellinger River near Dorrigo NSW by that outstanding 19th Century orchidologist, Robert Fitzgerald. He was justly commemorated in the specific epithet by von Mueller. Two varieties have been described, 'var. *alba*' by Schultz in 1927 in the *Orchid Review* and 'var. *aemulus*' by Rupp in 1944 in the *Proceedings of the Linnean Society of New South Wales*. There is considerable variation in the amount of pink or crimson markings no longer recognised at a taxonomic level. However, both 'varieties' (or more appropriately, colour forms) are of horticultural value, especially 'var. *aemulus*' where a beautiful red or crimson colours the whole of the petals and sepals.

### HABITAT

The habitat of *S. fitzgeraldii* has to be some of the most wonderful country on the east coast of the continent. Its home is the deep shaded gullies and ravines of the Great Dividing Range from the Macleay River in NSW to about Malaney in southern Qld. Such country gave rise to that evocative description by Fitzgerald in his *Australian Orchids of 1877*:

"Within the sprays of the Naroo Falls and the surrounding streams, *Sarcochilus fitzgeraldii* was found in masses clinging to the dripping rocks and covering the black basalt and with its green roots that stretched for yards over the smooth surface and followed the mossy crevices... The rich vegetation, black basalt and white foaming river, with glimpses through the tops of the trees of the ever-falling water made one of those rare spots in which the world is forgotten and the longings of the naturalist realised".

I take solace from the fact that some of these places still exist. They take a little searching out but are worth the effort, particularly if you're amongst *S. fitzgeraldii* to add the pleasure of being in that spectacular part of Australia. Within the gullies and ravines, *S. fitzgeraldii*'s special niche is the large boulders and steep rock walls of the high mountain streams, always in localities that are cool and humid and, because of the swift flowing water, have constantly moving air. In such places, *S. fitzgeraldii* can grow into extensive mats covering large areas of rock. Just occasionally it will extend onto the butts of trees, otherwise it is strictly lithophytic.

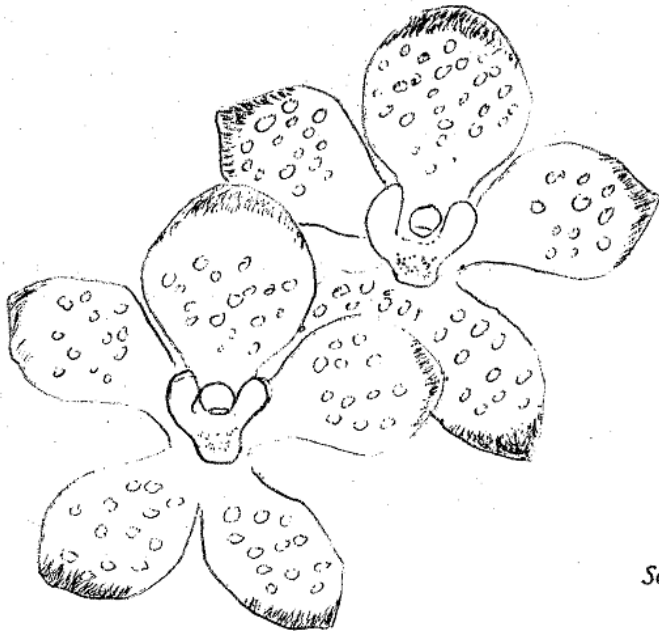


## CULTIVATION

I purchased *S. fitzgeraldii* 'Alison' CC/NSW as a single growth in a 70 mm squat pot from Bob Deane's nursery in 1978. Growth was reasonable and it was re-potted into its present container in the spring of 1983. This was after I first read Mike Harrison's initial article (Harrison 1981) in his excellent series published in *The Orchadian*. I would recommend this series to anyone making a serious attempt at cultivation of native orchids.

Having regard for the natural habitat of this species, the media chosen was as chunky as possible to provide good aeration for the roots with materials selected to retain that all important moisture without being constantly wet and soggy. The media consists of a mix of 3-4 cm pieces of sandstone, pine bark and *Casuarina* bark in approximately equal proportions. This mix would probably last another couple of years but will be replaced to ensure the plant remains in sound media. Bearing in mind that the roots run long and free in the bush, the pot had to be wide and shallow rather than tall and deep terra-cotta saucer 22 cm diameter with three 6 mm holes drilled around the edge and one in the centre of the base. Root growth after transfer to this arrangement was excellent; roots quickly growing through the media and around, over and out of the container. A large healthy root system means a strong vigorous plant. So it was, and is, with *S. fitzgeraldii* 'Alison' (named after my wife incidentally).

The plant continued to expand, covering the saucer and then some. At the time of the award at the OSNSW meeting in October 1989 it was 44 cm in diameter with multiple growths. 'Alison' has proved to be a very floriferous clone, each lead producing up to six inflorescences each season with about 10-12 flowers per raceme.



*Sarcochilus fitzgeraldii*

For the last five years it has been housed along with all my other cool growing *Sarcanthinae* species and hybrids, in a 50% shadehouse in the backyard. Fifty percent shade may not sound enough to many readers for this orchid but there are two things you need to know, one about the species and one about my backyard. In the aforementioned deep shaded gullies and ravines, there can be large breaks in the canopy over the stream. Some plants in the gullies can receive quite a few hours of sunlight during the day. Thus, the species has a degree of tolerance to strong light. The other thing is there is a large Lemon-scented Gum; *Eucalyptus citriadora* in the middle of my backyard. On the eastern side are my shadehouses. They receive full morning sun all the year and are protected from the searing heat and light of the harsh afternoon sun by the shade of the gum. Hence my ability to get away with only 50% shadecloth over my *Sarcochilus* plants. This extra light may contribute to the floriferousness of the clone.

Up until 1985 my fertiliser consisted of irregular applications of various proprietary Nitrogen based concoctions in the warmer months. I then readily embraced the ideas of Bill Johnson (Johnson 1984) and have used his re-balanced Aquasol recipe throughout the collection ever since without problems.

Of course, all we growers are prone to tinkering with systems with the aim of doing just that little bit better than one's colleagues. Accordingly, I vary the Johnson's routine one watering in four by changing to an organic fertiliser with an N:P:K ratio similar to that usually used. I believe, but don't have the facilities to prove, that the orchids respond just that little bit better to a varied diet incorporating organic material.

#### LINE-BREEDING

Unlike its close relative *S. hartmannii*, *S. fitzgeraldii* has been fairly neglected in line-breeding programmes. Only in the last few years have selected seedlings become generally available from such breeders as Ken Russell from Dungog NSW and Ted Gregory from Mount Tamborine Qld. Other growers have produced *S. fitzgeraldii* seedlings over the years but their distribution has been limited. At the time of writing, February 1990, *S. fitzgeraldii* 'Alison' CC/NSW is carrying three pods. The pollen came from another of my 'Fitzies', *S. fitzgeraldii* 'Lyndall' HCC/AOCNSW. This clone was awarded at the same OSNSW meeting as *S. fitzgeraldii* 'Alison'. Look out for these seedlings in the future, as well as 'Lyndall' x 'Bradford' being one of the late Lloyd Bradford's quality clones.

#### CONSERVATION

Regrettably, such undisturbed scenes that so moved the early naturalists such as Fitzgerald are no longer with us. Happily, what remains has a measure of protection as, following representations from the Australasian Native Orchid Society the NSW National Parks & Wild Life Service in 1984 removed *S. fitzgeraldii* (and *S. hartmannii*, *S. ceciliae* and *Dendrobium falcorostrum*) from the list of species for which they would grant commercial pickers licences. I'm not sure of the standard of legal protection in Qld.

We have been responsible for the removal of tonnes of this and kindred species from their special places over the years. I, and no doubt others, know of places where the habitat is apparently still pristine. I'll do my best to ensure they stay that way.

#### SUMMARY

So, the message is, patronise those growers producing this and other line-bred species. These seedlings will be bigger, brighter and better (if the breeder has done his job properly) than anything from the bush. They are the future of our hobby and the future for those plants still in the wild, they all deserve a fair go. Ensure that your plants have a moist open media in a container that allows a good root run, provide a cool humid and airy environment and fertilise regularly. You will be blessed with an orchid you will be proud of to display on any show bench or just smugly admire at home.

#### REFERENCES

- Harrison M. 1981; Cultivation Based on Habitat Observation - I *Sarcochilus fitzgeraldii*, The Orchadian Vol. 7 No. 2 pp 34-35.  
 Johnson WR 1984; A Simple Nutritional Programme for Orchids, Aust. Orchid Review Vol. 49 No. 3 pp 197-204.

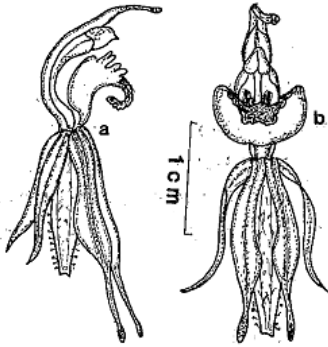
*Reprinted from Australian Orchid Review April 1990.*

## RECENTLY NAMED TERRESTRIAL ORCHIDS FROM S.E. AUSTRALIA

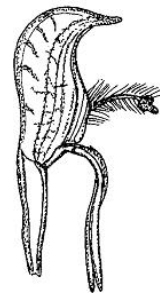
By M. Philips

(Muelleria 8:177-192 (1994))

David Jones has described the following new orchids (one of which extends to S.A.):

*Caladenia amoena*

1. *Caladenia amoena*: very closely related to the south Australian species *C. toxochila* (inland) and *C. conferta* (coastal) but confined to the Melbourne area. It is the opinion of many people that these three and *C. concinna* would be better treated as subspecies of *C. toxochila*! (see illustration of *C. amoena*)
  2. *C atrata*: this is the Tasmanian version of our own *Caladenia cucullata*.
  3. *C. hillmanii* this is another of the *Caladenia carnea* complex and occurs in coastal NSW and eastern Victoria.
  4. *Diuris ochroma*: this seems to be a southern version of *Diuris verosa*. At present it is known only from the Wonnangatta Valley in Victoria.
5. *Prasophyllum suaveolens* D. Jones and R. Bates: this member of the *Prasophyllum fuscum* complex has long been recognised as a distinct species. It seems to be mostly confined to the Basalt Plains of Victoria and is a rare grassland orchid species with small sweet smelling flowers.
  6. *Pterostylis atrans* this is the new name for the large colourful form of *P. obtusa* which is widespread and common in NSW, Victorian and Tasmanian mountains. It does not apply to the S.A. plants formerly known as *P. obtusa*. These remain as yet undescribed! (The species is in cultivation in Adelaide:)
  7. *P. commutata*: this is the new name for the Tasmanian '*P. biseta*'.
  8. *P. monticola*: a common species in NSW, Victoria, Tasmania and previously confused with *P. alpina* (Both species are in cultivation in Adelaide. *P. monticola* being the larger of the two).
  9. *Pterostylis tasmania*: this is the name for the short flowered self pollinated version of *P. plumosa*. (see article in NOSSA journal Aug 1993). See illustration. Although Jones suggests it occurs in Tasmania, New Zealand and Victoria it almost certainly extends to South Australia where it occurs in swampy sand heath at Honans Scrub and probably elsewhere.

*Pterostylis tasmania*

There are people who can take or leave native orchids. There are others who only go into the bush to admire the spring flush of orchids. Here is a way of looking at orchids which gives you a sense of whether they are important in a block of native vegetation.

Let's use the Mt Lofty Ranges as an example. There are about 1,000 species of plants in the ranges, excluding the grasses and reeds and their relatives. There are over 100 native orchids. So, on average, of every 10 non-grass species you record, one will be an orchid - that is 10% of all the variety of these plants. Or although *Eucalyptus* occupy the most space, there are more specimens of tiny orchids than trees in bushland.

Biologists say that variety is the spice of life (or, in bio-speak, biodiversity is important - it gives ecosystems their ability to survive natural disasters such as drought, hurricanes or fires). Orchids, then, are an important indicator of the health or stability of a block of vegetation.

(Although this 10% rule for orchids generally holds throughout the world, it is most accurate in high rainfall areas.)

Did you know?

- Most orchids are visible only for a short time each season, but they are present as tubers deep in the soil all year round.
- Almost all SA orchids grow where annual rainfall is more than 250 mm.
- Orchids usually grow and flower on a yearly cycle.
  - Although most orchids flower in spring, a keen observer will know where to find some orchid or other flowering each month of the year.
- Most orchids have a unique insect pollinator, with many species having an elaborate trick to attract insects. Some mimic the look or smells of insects ready to mate, while others mimic insect food sources.
- Many orchids have a close relationship with fungus. The fungus or mycorrhiza must be present to provide nutrients to the germinating seed. The mycorrhiza also provide nutrients to the roots of adult plants in the majority of the nutrient-deficient soils in SA.

Indicators of health

Loss of the variety of orchids from your block of vegetation could be caused by:

- Fertiliser drift from adjacent paddocks affecting the orchid-mycorrhiza interactions.
- Loss of insect populations that fertilise the orchid, so fewer seeds are set.
- Competition from weeds for nutrients, sunlight or water crowds them out.
- Grazing pressure during flowering and seed set prevents reproduction.
- Compaction and cutting up the soil surface by hooves can separate the flower stems from the food source in the tubers, exhausting their reserves for over-summering.

Fence your scrub from stock and you should improve both the variety of orchids you see and the variety of other understorey plants.

(From the Bush Chronicle)