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of the
Native Orchid Society
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South Australia Inc

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NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA

PO BOX 565 UNLEY SA 5061

www.nossa.org.au.

The Native Orchid Society of South Australia promotes the conservation of orchids through the preservation of natural habitat and through cultivation. Except with the documented official representation of the management committee, no person may represent the Society on any matter. All native orchids are protected in the wild; their collection without written Government permit is illegal.

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Front cover from an original drawing by Thelma Bridle. Used with her kind permission.

JOURNAL OF THE NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA INC.

MARCH 2010 VOL. 34 NO 2

CONTENTS THIS JOURNAL

The Native Orchid Society of South Australia meets every 4th Tuesday of the months February -November

NEXT MEETING 23 MARCH 2010

Tuesday, 23 March, St Matthew's Hall, Bridge Street, Kensington. Meeting starts at 8:00 p.m. Doors to the hall will be open from 7:15 p.m. to allow Members access to the Library and trading table.
The meeting begins with the AGM.
The speaker will be Les Nesbitt on Orchids of the Adelaide Hills.

DIARY DATES

March 23rd	AGM
Saturday March 27th	Midge Orchids at Mylor 10 am morning walk only
Sun April 18th	*Eriochilus* sp. Bridgewater 10am

NEXT COMMITTEE MEETING

Tues, 30th March at the home of Bodo Jensen. Meeting commences at 7:30 p.m.

FEBRUARY MEETING

Plants Benched

Epiphyte Species: *Dendrobium lithocola; Sarcochilus eriochilus.*
Epiphyte Hybrids: *Dockrillia* Limestone *(Doc. cucumerina* 'Big Dill' x *Doc*. *bowmanii* 'Lemonade'); *Sarcochilus* Velvet.

Terrestrial Species: *Genoplesium rufum*.
Terrestrial Hybrids: none benched

Judging Results (and Popular Vote results)

Open div epiphyte species	**Grower**
1st *Dendrobium lithocola*	Bodo Jensen
No 2nd or 3rd	
Second division Epiphyte species	
1st *Sarcochilus* eriochilus	Kris Kopicki
No 2nd or 3rd	
Open division Hybrids	
1st *Dockrillia* Limestone	M. & L. Guy
No 2nd or 3rd	
Second division Epiphyte Hybrids	
1st *Sarcochilus* Velvet	Kris Kopicki
No 2nd or 3rd	
Open division Terrestrial species	
1st *Genoplesium rufum*.	Les Nesbitt
No 2nd or 3rd	
Plant of the night	
Dockrillia Limestone	M. & L. Guy

Plant commentary on Terrestrials given by Les Nesbitt & on Epiphytes by Reg Shooter

To New Members and Novice Exhibitors

To encourage new growers who may think their orchids are too small or not good enough to show, committee decided in 2008 to have separate benches at monthly meetings for novice growers to display their plants. retaining the usual benches at the back of the hall for open growers. Judging and popular voting are separated for the two divisions.

NOSSA has only two levels of exhibitor, open and novice (Instead of open, first division and second division). The NOSSA judging panel will recommend to committee when novice growers should be promoted based on the quality and variety of plants exhibited during the previous year or two.

There could be a card at the end of the year for the aggregate points winners in each of the four sections at monthly meetings. This is based on 3 points for first, two for second and 1 point for third in each of the terrestrial species, epiphytic species, terrestrial hybrid & epiphytic hybrid sections.

Winning prizes is not the only reason to bring your flowering plants to meetings and shows. The more orchids we all see the more we learn. Often your plant will be the only one there of its type. The photographers and members love to see lots of orchids. Do not be too critical of your own orchids, if it is in flower bring it along.
Condensed from an article by Les Nesbitt in the February journal 2008.

FOR YOUR INFORMATION - NOSSA NEWS

N.O.S.S.A. FIELD TRIPS

Saturday March 27th Midge orchid walk in Mylor CP. Meet at the Mylor War Memorial by bridge at north side of town at 10am. Morning walk only.

Sun April 18th, *Eriochilus* sp. walk in the Deanery, meet 10am at the old Bridgewater Mill behind Bridgewater Hotel. Morning walk only looking at midge orchids and the un-named parsons bands orchids.
Contact Bob Bates

IF A RED DOT APPEARS ON YOUR JOURNAL IT INDICATES THAT YOU HAVE NEGLECTED TO RENEW YOUR SUBSCRIPTION AND THE APRIL JOURNAL WILL BE YOUR LAST.

JUDGES MEETING

The next NOSSA judges meeting will be on Saturday April 10th commencing at 9.30 am at 18 Cambridge St, Vale Park.

NOSSA TUBER BANK

Jane Higgs.

South Australia has numerous native terrestrial orchid species and the aim of the tuber bank is to preserve them and keep them from extinction.

One way this is done is with anyone who has excess tubers donating them to the tuber bank and the tubers are then offered for sale at $1 per lot for members of NOSSA around Australia to purchase and grow. Hopefully, this low price encourages members to buy lots, grow them on and when they multiply, donate them back to the tuber bank and so on. This method is especially good with endangered species because it ensures that they are kept in existence, or at least gives them a chance they wouldn't otherwise have.

Another way to help preserve these orchids is with rescue digs in areas where road works or clearing for housing etc. is about to occur. For example, a few years ago, at Kuipto Forest, they were about to spray, plough and re-plant one of the areas where the pines had been cut down. This area was full of native terrestrial orchids, many of which would have been lost. NOSSA was given a licence to carry out rescue digs in this area over a set period of time, so members went with spades, pots, boxes etc to dig up and collect tubers. Loads of these

tubers were later donated to the tuber bank and distributed to other members and thereby given a chance of survival.

With the ever-increasing clearing of native scrub, rescue digs and the subsequent distribution of the tubers through the Tuber bank are one way to save these native orchids and ensure that they are not lost forever.

There were only seven contributors this year and 15 purchasers. The total amount that came to the club after expenses was $152.50

I would like to thank all members who donated tubers to the Tuber Bank for 2009/2010 and also say 'thank you' to all who purchased tubers this year.

ARTICLES/ITEMS FOR THE NEXT JOURNAL

Closing date is Friday 9th April

The latest count of wild orchid taxa in South Australia: December 2009

R. Bates

Using the orchids treated in the Orchids of South Australia CD, 4th edn we get a count of over 340 taxa including named hybrids and subspecies, or more than 330 without the subspecies.

The count per genus is Acianthus-1; Anzybas-2; Arachnorchis-58; Bunochilus-7; Caladenia-2; Caleana-1; Calochilus-6; Chiloglottis-1; Corunastylis- 8; Corysanthes-9; Cryptostylis-1; Cyrtostylis-2; Diplodium-12; Dipodium-4; Diuris-13; Eriochilus-3; Gastrodia-3; Glossodia-1; x Glossadenia-1; Hydrorchis-1; Hymenochilus-6; Jonesiopsis-6; Leporella-1; Leptoceras-1; Linguella-8; Microtidium-1; Microtis-16; Myrmechilus-1; Nemacianthus-1; Oligochaetochilus-39; Orthoceras-1; Paracaleana-3; Petalochilus-12; Pheladenia-1; Plumatichilos-3; Prasophyllum-40; Pterostylis-8; Pyrorchis-1; Simpliglottis-2; Speculantha-3; Spiranthes-2; Stegostyla-5; Taurantha-1; x Taurodium-1; Thelymitra-50, (includes ten undescribed taxa); *Urochilus-1*.

The genus with the most species is *Arachnorchis,* with *Thelymitra*, the sun orchids, second. *Thelymitra* is a genus which has not been broken into subgenera, otherwise the next greatest number of species belongs to the greenhoods *Pterostylis* but only if we do not accept its segregate genera!

There are no less than 48 wild orchid genera in SA although this includes two weed genera *Disa* and *Serapias*. It is likely that a few of these genera will be sunk as DNA studies are more finely tuned!

Twenty of the 48 genera have only one species in South Australia and a dozen of these are monotypic genera anyway.

Coordinated flowering of native orchids in South Australia

R. Bates

There are many ways orchids achieve coordinated mass flowering in the same week, often years apart and several reasons why they would benefit from doing so.

One of the best known ways of achieving mass flowering is to employ a trigger such as fire. Many SA orchids flower freely only in the year after a summer bushfire.

One of our commonest orchids *Pyrorchis nigricans*; and the name *Pyrorchis* or fire orchid tells it all; may go for many years without a single plant developing so much as a single bud. But after fire populations of many thousands will all bloom together in the same week. Such mass flowering increases the chances of pollination and decreases the chance that all flowers will be eaten. But fire orchids are self pollinated having lost their pollinator eons ago so improved pollination is no longer the reason. What is improved are the conditions to produce more flowers and larger capsules ie more light, higher soil nutrients and less competition from other plants, all of which are met after fire. Additionally the return of new colonising soil fungi and high nutrient level, less insect pests and the like all ensure a higher germination success rate.

For other outcrossing fire orchids like many leek orchids such as *Prasophyllum elatum, Leporella, Leptocera*s, *Arachnorchis,* sun-orchids like *Thelymitra epipactoides*, and the duck orchids; in fact some fifty SA orchid species do so much better after fire when they have massed flowerings and improved pollination chances.

Another trigger for massed flowerings is flood or at least heavy rain. This applies to species of the dry country and there are about fifty of these which produce no flowers in dry years and appear to be rare only to flower in millions after the ground is saturated. This includes many O*ligochaetochilus* species, the desert greenhoods and leek orchids such as *Prasophyllum* sp. 'Desert'. There are vast areas where in dry years there appear to be no orchids at all which in a wet year will put on massed displays of leek orchids to a metre tall.

Many times I had walked across Wilpena Pound at orchid flowering time and never seen an onion orchid in flower but one year over 400 mm fell in winter early spring and the Pound was covered in millions of onion orchids, all flowering in the same week in late October.
Of course some orchid species of high rainfall areas will still not flower in a year of good regular rain, they need a flood to fill the waterholes in which they grow. Water orchids like *Hydrorchis* only have massed flowerings after they are flooded and flowering is at the same time for those in deep water as it is for those in shallow water. Coordination is of benefit again because they are less likely to be eaten. Rabbits for example will not eat orchids flowering in water, nor will caterpillars.

With other species the trigger is not so obvious with the self pollinated species of leek orchid, onion orchids and sun orchids, flowering occurs over just a few days when all plants in the same area flower at once. In 2009 NOSSA members noted that all plants of the rare *Thelymitra cyanapicata* were in tight bud on the Monday, but Wednesday was a warm day and many flowers opened, Thursday was hotter and every plant was in full bloom and on Saturday all were finished. Yes I know that you will have guessed that the trigger for massed flowering with sun orchids is a hot day!

But what about the leek orchids, they don't need a hot day but still open up in the same week. Significantly these self pollinated species are genetically all similar so they all have the samegene for coordinated blooming.

Sometimes flowering appears to be cyclical. A certain sun orchid *Thelymitr*a sp. Slate buds flowers well every second year no matter what the conditions, wet or dry and I am sure there are many other species that are the same.

For some orchid species massed flowering years appear to be random.
If every orchid species flowered en masse every year at the same time, grazers, browsing animals and even insects may keep this information in their collective memories and arrive on the same day to eat the lot! Even fires and floods happen so infrequently that no creature will have a memory good enough to remember what happens.

Many orchids have quite the opposite strategy to coordinated flowering. Outcrossing vegetatively increasing, large-colony forming greenhoods like *Pterostylis nutans* even in the same colony may have one flower opening in June, a couple more in July, lots in August yet some as late as November. Coordination of flowering in a large clonal colony would ensure too much inbreeding in that colony. It is better to stagger flowering so that a single flower in one colony will have to cross with a genetically distinct individual from a different colony. You will by now have realised that there are as many different strategies, reasons, triggers and other variables as there are species. This is what makes orchid studies so interesting.

Book Review of *Mangroves to Mallee*

By R. Bates

This important book commissioned by Greening Australia (SA) and written by Todd Berkinshaw was recently released, published by Finsbury Green, Adelaide, November 2009 and is available at general bookstores, Nature Conservation Society, Adelaide Botanic gardens etc
The foreword is by David Knox SANTOS, CEO and Main Director, an indication of where funding came from.
The book has hundreds of great images spread over 400 pages and is easy to read. It deals mostly with the range of general woodland Plant Communities in southern South Australia from the coast (mangroves) to inland (mallee) and makes the concept of plant communities easily understood. Each community and its associated plants is discussed and illustrated.
This is followed by a section with the Trees and Shrubs found in each community, then a section on the understorey which includes orchids and finally a section on the bush-land weeds. Each section has illustrations, including quite a few orchids with generally correct names, although these are the old names. I would suspect however that the *Caladenia dilatata* flower shown is really *C. (Arachnorchis) tentaculata*. At least many of the recently named orchid species are included.
The final section is a list of most plant species in the area covered with their conservation ratings, at national, state and regional level and this is really useful as the list is now easily accessed by the general public and the huge number of native orchids which are threatened immediately becomes obvious to all. Conservation will be more easily achieved with such education.
At about $75 it is expensive but as it is a large and colourful book it could hardly be sold for less. It is certainly going to be useful to all students of our natural environment whether professional or amateur. It is always exciting to have these books dealing with our local environment.

Sarcochilus eriochilus Fitzgerald 1891. **D. Hirst**

A pot of his little known *Sarcochilus* was benched at the last meeting and I know a few members were puzzled by or were unaware of the name. However *Sarc. eriochilus* is not new but has been hidden for many years in the synonymy of *Sarc. ceciliae* (see below).

David Jones in A Complete Guide to Orchids Of Australia (page 448) gives the flowering time of November to March and that it is found growing in dense clumps on rocks in Qld and NSW at altitudes of 300-1000m.
The common name is given as "Southern Fairy Bells"

Sarcochilus ceciliae **F.Muell 1865** **Len Field**

A member of the subtribe *Sarcanthinae, Sarcochilus* is confined mostly to the Australian continent with one species *Sarcochilus moorei* extending to New Guinea and the Solomon Islands. Given the common name of "Fairy Bells" because of its bell shaped flowers *Sarcochilus ceciliae* was named after Cecilia Van Maseyh by Ferdinand Mueller in 1865.
Also named by the synonyms *Thrixspermum ceciliae* F.Muell 1871 and ***Sarcochilus eriochilus*** **Fitzgerald 1891.**

Once known as a species of 2-variety *Sarcochilus ceciliae* var. *ceciliae* and *Sarcochilus ceciliae* var. *albus ,* but the latter has been renamed the same as the type plant as it is just a variation of the colour.

Almost a true lithophytic plant and rarely found on trees *(*although I have seen it growing on the roots of hoop pines *Araucaria cunninghamii* north of Armidale in N.S.W) it forms small dense clumps spread out from each over by an extensive root system interlacing the face of the rocks, these roots can travel quite long distances to grow into the litter accumulation that is deposited in hollows on the rock faces.

Found in an area from S.E. Cape York in N. Queensland to the Hastings Valley in N.S.W. where it has now become quite rare due to extensive collecting. Growing from damp wet rainforest in very deep shade to exposed rock faces in full sunlight and conditions with temperature up to the mid forties and higher its thick fleshy leaves and roots buried in litter to keep cool offer protection against this harsh environment. These plants are sometimes found far from water, also growing in these exposed conditions they become prone to damage by fire. Other plants I have seen have been completely covered by long grass and unless they are in flower one would not know that these plants were there.

Flowering period is from late November to February but can be longer in favourable seasons. Flowers are bell shaped with 3 to 14 per spike coloured pale to bright pink. I was always impressed with the size of the flowers on some plants I saw growing near Townsville N.Q. until shown the plants that our local growers are producing, where through careful line breeding these plants have far surpassed anything I have seen growing in nature. *Sarcochilus ceciliae* is a close relative of *Sarcochilus hillii* with which it will easily hybridize.

NATIVE ORCHID SOCIETY OF SOUTH AUSTRALIA
STATEMENT OF RECEIPTS AND PAYMENTS FOR YEAR ENDED 30 DECEMBER 2009

Item	Receipts	Payments	Excess Receipts	Excess Payments
Memberships incl.				
raffles, trading tables, annual auction	3499.43			
Less Printing, postage, PO Box Hire,				
Editor, Auditor, Secretary, Xmas BBQ		3166.14	333.29	
Assets (at cost)				
Computer, software, speaker system		2400.95		2400.95
Products				
CDs (S.A. and W.A.), Posters less expenses	725.10	426.25	299.85	
Special Items				
Insurance, donation, awards		1904.80		1904.80
Shows/Sales				
NOSSA Show	760.00		760.00	
Australian plant soc.				
(*plus overpayment $100 to be adjusted)	250.56		*150.56	
Tuber bank	110.00		110.00	
Special Project – Grants	115739.14	6852.94	8886.20	
Including Nangwarry, Foul Bay, South East, Wirrabarra, Forestry SA 4 Forests, Environmental Biodiversity Services, Northern Yorke – Seven Hills Weeding Project				
Sundries				
Term deposit matured less reinvestment	10000	8500	1500	
Interest on cash at Banks	1502.40		1502.40	
TOTALS			13542.30	4305.75
EXCESS OF RECEIPTS OVER PAYMENTS FOR 2009				$9235.55

STATEMENT OF RECEIPTS AND PAYMENTS FOR YEAR ENDED 30 DECEMBER 2009

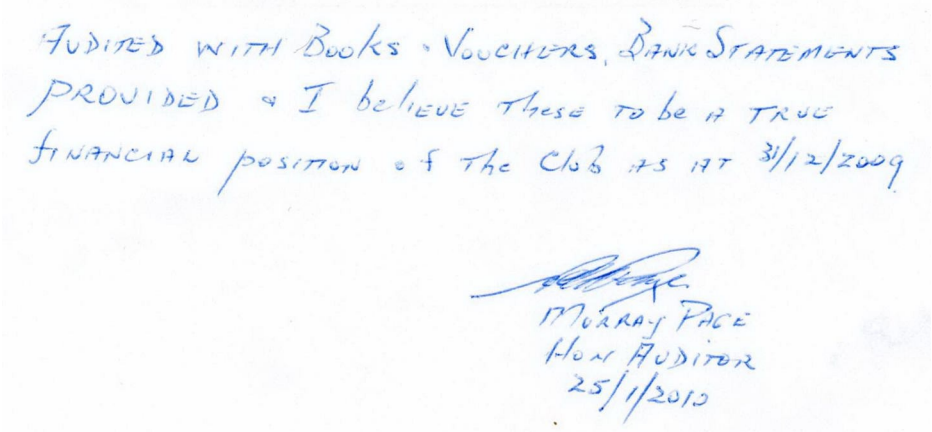
ANALYSIS

Funds held in trust for Special Projects (to be dispersed completely towards expenses of volunteers)		8886.20
Injection of funds from Term Deposit ($10000 matured, $8500 reinvested)		1500.00
Total received from non-recurring events		$10386.20
Less payments over receipts from general business	($3156.10 less $4305.75)	(1149.65)
Excess of receipts over payments		$9235.55

FOR THE YEAR ENDED 31DECEMBER 2009

STATEMENT OF ASSETS AS AT 31 DECEMBER 2009

SOCIETY CHEQUE ACCOUNT	2950.50
Plus excess receipts over payments 2009	9235.50
	$12186.05
TERM DEPOSIT BANK SA (1)	20000.00
TERM DEPOSIT B ANK SA (2)	8500.00
COMPUTER (AT COST)	728.95
SPEAKER SYSTEM	1534.00



The Stanhopea Book

Rudolf Jenny (2010)

The book includes beside chapters about history, taxonomy, pollination, habitat, culture, the documentation of 67 species and natural hybrids with more than 850 pictures.
The book will be available by summer 2010.
If you are interested, please send us your address and e-mail, we will inform you as soon as the book is available.
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Please inform me as soon as the book is available.
First name /Last name
Street/Nr.
Postcode/Place
E-mail

Sarcochilus Velvet

Sarcochilus eriochilus

Dockrillia Limestone

Dendrobium lithocola

Genoplesium rufum