

NOSSA Journal – July 2017 Volume 41 No. 6



President

Robert Lawrence

Email: nossa.membership@gmail.com

Vice President

Vacant

Secretary

Vacant

Email: nossa.secretary@gmail.com

Treasurer

Christine Robertson

Email: nossa.treasurer@gmail.com

Editor

Lorraine Badger

Email: nossa.editor@gmail.com

Committee

Michael Clark

Bob Bates

Craig Humfrey

Rosalie Lawrence

Other Positions

Membership Liaison Officer

Robert Lawrence Ph: 8294 8014

Email: nossa.membership@gmail.com Life Members

Botanical Advisor

Bob Bates

Conservation Officer

Thelma Bridle Ph: 8557 6553.

Field Trips Coordinator

Michael Clark

nossa.fieldtrips@gmail.com

Librarian

Pauline Meyers

Registrar of Judges

Les Nesbitt

Show Marshall

Vacant

Trading Table

Vacant

Tuber Bank Coordinator

Jane Higgs

Ph: 8558 6247

Email: jhiggs@activ8.net.au

Website Manager

Rosalie Lawrence

Email: nossa.enquiries@gmail.com

NOSSA WEBSITE https://nossa.org.au/

The Native Orchid Society of South Australia promotes the conservation of orchids through preservation of natural habitat and 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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Mr R Hargreaves†	Mr G Carne	Mrs T Bridle
Mr H Goldsack†	Mr R Bates	
Mr R Robjohns†	Mr R Shooter	
Mr J Simmons†	Mr W Dear	
Mr D Wells†	Mrs C Houston	
Mr L Nesbitt	Mr D Hirst	

Patron: Mr L. Nesbitt

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Front cover – Celebrating 40 years - Lorraine Badger with the help of Adrian Ward, using the NOSSA logo.

On 22 March 1977 at an inaugural meeting NOSSA was formed and the committee called for members to "submit designs for consideration of a logo for letterheads, badges, signs, car stickers, etc." The winning entry, Chris Butler's Caladenia menziesii (Leptoceras menziesii) commonly known as Rabbit Orchid was announced in the June journal 1977 Vol 1 No 5. This distinctive and attractive design in colours of red and white on a green background has changed very little and is still in use today.

Bulletin Board

The Native Orchid Society of South Australia meets every 4th Tuesday of the months February to November at St Matthew's Hall, Bridge Street, Kensington. Meeting starts at 8:00 p.m. Doors to the hall open from 7:15 pm to allow Members access to the Library, Trading Table.

Date	Event
July 25 th Tues	General Meeting - Speaker: Andrew Brown
July 29 th Sat	Orchid Seed Growing Laboratory Working Bee – refer to President's report page 64
Aug 1 st Tues	Committee meeting – Lorraine & John Badger's – 23 Cumming St., Craigburn Farm
Aug 3 rd Thur	Journal articles due – NOTE 1 day earlier than previously – late entries not published
Aug 5 th Sat	Field Trip – Kyeema & Cox's Scrub
Aug 26, 27 Sat, Sun	YP FIELD TRIP – Refer to p. 69

ECOME

TO NEW MEMBERS

Colin Cichon of VALLEY VIEW, SA Bruce & Cathy Chester of BROADVIEW, SA and Madi Chandrasena

FIELD TRIPS 5th AUG – KYEEMA & COX'S SCRUB

5th August (Sat) – Bring lunch, cameras & chairs.
26th August (Sat) YP morning TBA and pm join with
Nthn Yorke Pen (Kadina) - Ausⁿ Plants Society as they
share a special location - Victoria Park (Moonta)
27th August (Sun) Join APS group at Halbury.
Not booked for YP trip? Please do so now!!
REMEMBER: Field trips must be booked through
Michael Clark our field trip co-ordinator nossa.fieldtrips@gmail.com

COMMITTEE MEETING AUGUST 1st

Next committee meeting is on Tuesday 1st August Badger's home – 23 Cumming St., Craigburn Farm

ARTICLES FOR NEXT JOURNAL – AUG 3rd

Articles / Reports need to reach the Editor *no later* than <u>Thursday</u> 3rd August, Thank you.

NEXT MEETING TUESDAY July 25

Guest speaker – Andrew Brown is a true expert in his field, having spent over 40 years researching WA Orchidaceae.

NOSSA FUTURE MEETINGS 2017

August 22nd – Greg Steenbeeke, Senior Threatened Species Officer, NSW Office of Environment and Heritage

FOR THE 2017 DIARY

*NOSSA SPRING SHOW

9th & 10th September

NOTE: show brought forward 1 week *Volunteers needed – contact secretary*

Email: nossa.enquiries@gmail.com



*NOSSA Christmas BBQ Dec 2 at the Higgs place

ANOS VIC ANNUAL SPRING SHOW

23rd & 24th Sept Mt Waverley Community Centre, Vic.

PTEROSTYLIS Despectans - SURVEY 2017

This full count survey will take place on Sat & Sunday of **August 19**th **& 20**th **NOTE**: Areas were to include Hallett,

Koolunga & Wirrabara Forest, **HOWEVER**



the species to be counted <u>may</u> be changed to *P. lepida* at Halbury rather than *P. despectans* at Mount Bryan after Erica has had a chance to check which species will be most suitable on the planned date of **August 19**th & **20**th.

<u>For further details</u> interested folk should contact the <u>NOSSA Conservation Officer</u>, Thelma Bridle Ph: 8557 6553, OR Erica Rees, Threatened Flora Officer, Northern & Yorke - mobile: 0408 812 677 OR email: ericar@treesforlife.org.au













From the President

Robert Lawrence

June 2017 general meeting

Despite the cold weather, a small gathering of 22 members attended our general meeting. John Eaton is developing the role of coordinating speakers and he took the opportunity to give a well-researched introduction to Les Nesbitt, one of our founding members and current patron of our society. Les gave us a different perspective of China, including the orchids

in propagation. They have amazing displays of orchids for sale, with a preference for yellow and red. Les said it was like being a small boy in a lolly shop but he was not able to buy anything to take home. He had growers drooling at the quality and price of the plants on offer. Thanks to Les for his fascinating presentation of some spectacular orchids.

Orchid Seed Growing Laboratory

In April this year, several NOSSA members attended a meeting at the home of Don and Jane Higgs to consider a Grower's Group. One of the results of that meeting is that the NOSSA management committee has approved a budget to set up an orchid growing laboratory at Strathalbyn which includes the cost of a second-hand laminar flow cabinet. This is an important and exciting step towards developing orchid-growing skills in our Society. Craig Humfrey and Christine Robertson are co-ordinating the group with Les Nesbitt and Kevin Western as mentors.

Laboratory Working Bee 29th July at Christine Robertson's property, Strathalbyn to clear a shed ready for setting up the orchid seed growing laboratory If you are interested or would like to help, please contact Craig Humfrey. Phone: 0421 784 449 OR nossa.secretary@gmail.com

Lofty Block Threatened Orchid Recovery

Meetings of the Southern and Northern Lofty Threatened Orchid Recovery Programs have been held in the last month and NOSSA has been well represented by members. Anyone interested in getting involved with orchid conservation work should contact our Conservation Officer, Thelma Bridle. Ph: 8557 6553.

The Vital Importance of Fungi!



Recently Dr Sapphire McMullan-Fisher from Fungimap gave an extremely interesting and thoughtprovoking presentation organised by Vale Park Our Patch (the group that has successfully introduced orchids near the River Torrents). NOSSA presented a poster display and Les Nesbitt had a display of orchid

propagation including seed, seedlings in flasks and even a flowering *Pterostylis sanguinea* propagated from seed using isolated fungi.

She sought to give a broader perspective or ecology; it is all living things, not just the plant and animal kingdoms; these only comprise 7% of biodiversity. We learnt something about photobionts, different types of lichens, including cyanolichens that fix nitrogen. She pointed out that herbivores depend on gut microbes and that fermentation, moulds and yeasts are important in food production. We could not have chocolate without them.

In the past fungi were only regarded as pests and when it was discovered how abundant they were, it was presumed that they were latent, waiting for the right conditions, seeing there was no obvious harm. Now we realise that they play a vital part in the ecology. They don't digest food within themselves, but they "slobber" chemicals into the environment that digest on the outside so that nutrients are available for other organisms.

Despite the important role of fungi, natural resource management plans only consider fungi that are pathogens. However, as Sapphire said, the 'orchid people' understand! We know that fungi have a vital part in the restoration of habitat for orchids. Mycorrhiza that were thought to be root diseases are now understood to share resources with plants with mutual benefit.

Sapphire also touched on the importance of truffle-like fungi that are spread by native marsupials; these are important in our situations in Australia. The summary statement for ecology is that there is strength in diversity.

Lobethal Bushland Park Field Trip: June 2017

Lorraine Badger

The 17th June was one of those clear frosty mornings. Just six members braved the chilly morning weather at Lobethal seeking orchids in flower. With a very dry start to winter they were still difficult to find but Robert Lawrence had heard of a small colony of *Urochilus sanguinea* atop a former white ant, or more correctly, termite nest. It was in the Lobethal Bushland Park a little beyond the town on the Kenton Valley Road. Endeavouring to make this trip more convenient for those who lived to the north of Adelaide this sighting seemed ideal. Sadly all participants came from the other side of town.

Making our way up the embankment adjacent to the car park we discovered the small reservoir which served Lobethal in the past. The tall trees surrounding the opposite shore reflected in the still, clear waters, providing a wonderful photographic opportunity for all.



Following the designated red/yellow track we first had to pass through a Phytophthora Foot cleaning station. Before crossing Robert shared that some 'experts' are now saying foot scraping on upturned brushes may well leave phytophthora ridden soil on the brush for the next person's shoes! We scraped our shoes across the metal grid instead and made our way along the track where many stops were made to photograph the numerous ferns and fungi of all types.

Nestling into the undergrowth around the trees we noticed dark green, heart shaped leaves standing on slender petioles set well above the ground. Closer

inspection of the leaves showed the purplish-red of the leaf underside, typical of *Acianthus pusillus*. A few flowers were later found.

We walked on, and on, enjoying the day finding only the odd colony of *Pterostylis* leaves (possibly *P. pedunculata*) but no termite mound. We began to wonder if we were on the right track when, just as the path began to wind its way down to a second reservoir - growing on the top of the mound were about 25 *U. sanquinea* flower spikes.



Having found our target orchid we continued to walk around the circuit loop to the cars for lunch. As we passed through a section of pines near the car park we found several fungi which I have long wanted to find, *Amanita*

muscaria as seen in Ros Miller's photo below.

After a wonderful walk in the bush we agreed to have lunch at the prize winning bakery in Lobethal. After lunch we decided to help Robert look for his GPS lost when he was working out Kersbrook way. After an hour and finding nothing, Robert took us to a spot nearby where orchids have been found in the past, but not that day.



It was an interesting day and we enjoyed the weather, the walk, the friendship and the field trip with a difference.

RE-ENACTMENT of 1st FIELD TRIP

Bevin Scholz

The idea of the NOSSA field trip for July 1 2017 was a re-enactment of the 1st field trip NOSSA conducted 40 years ago on July 3 1977 to Belair National Park. Whilst a report of the trip was available it gave little clue as to the route that was taken that day. The

only contact made with anyone who went on that trip was with Les Nesbitt, who could recall walking near Pines Oval but little else. The report indicated that the walk started some 100 metres from the entrance to the Park, which back then was over the railway bridge in the North West corner of the Park rather than the current entrance. A list of the orchids found, either in leaf, flower or seed exists and from this Jamie McGregor deduced a possible route. The list of plants is set out below, with likely current names in brackets as many of the names

were not recognizable having been changed over time.

With little else to go by, the appointed leader – Michael Clark had the small group of 7 walkers meet at the railway bridge and took

us on a loop along Lodge Track, south on the Carawatha Track then back along Brady Gully Track. Michael Clark, Jamie McGregor and Bevin Scholz are locals at Belair and have some inside information on where to look for orchids in this area of the Park and at this time of the year. The orchids found on the walk this year are also listed below.

The group did not make it down to the Pines. Due to other commitments, some had to leave early but Michael took Robert and Rosalie to a location where they noted 22 *Plumatochilus* plants in leaf.

1977 Field Trip Sightings

Plants in flower

Acianthus exsertus (Acianthus pusillus)

Corybas dilatatus (Corysanthes diemenica)

Prasophyllum nigricans (Prasophyllum elatum)

Pterostylis longifolia (Bunochilus viriosus)

P. scabra var. robusta (Diplodium robustum)

P. vittata (Urochilus sanguineus)

Plants in Seed

Eriochilus cucullatus

Prasophyllum nigricans (Prasophyllum elatum)

Miniatures

Caladenia dilatata (Arachnorchis tentaculata)

C. menziesii (Leptoceras menziesii)

Diuris longifolia (Diuris orientis)

D. maculate (Diuris pardina)

Pterostylis barbato (Plumatichilus plumosa)

P. nana (Linguella hills nana)

P. pedunculata

Thelymitra aristata (Thelymitra glaucophylla)

T. rubra

2017 Field Trip Sightings

Plants in flower

Acianthus pusillus

Diplodium robustum – flower stems very short, maybe due to dry season

P. Linguella hills nana

Urochilus sanguineus – very few flowers on short stems

Plants in bud:

Corysanthes diemenica

Cyrtostylis robusta

Plants in leaf:

Pterostylis nutans

Cyrtostylis reniformis

Thelymitra glaucophylla

Glossodia major

Plants in Seed

Eriochilus cucullatus

Corunastylis rufa







Plant recall 2017

Les Nesbitt

There were a good number of growing exercise plants brought in to the last meeting, coming from the past 5 year's selections.

2012 - Dendrobium teretifolium

These seedlings have been very slow to develop as they make only one new leaf a year and any setback when the new leaf is extending stunts the plant's growth. One plant had a couple of long leaves but still no extended rhizome such as flowering plants possess. The other plant was still very small although healthy. Both plants were mounted on cork bark. It could be years before we see any flowers.

2013 - Dendrobium linguiforme

There were 2 plants on mounts and one in a pot. The potted plant had a thick layer of moss that needs to be removed to allow air to the roots. The larger mounted plant was growing in several directions and could flower this year or next as the tongue-like leaves were near adult size. The second mounted specimen demonstrated what happens when conditions are tough. Even though it was healthy, it had tiny leaves and was standing out from the mount on its roots.

2014 – Dendrobium comptonii

Four very healthy-looking plants in pots were on display. They were all developing nicely with pseudobulbs that have already reached adult diameter although they need to be much taller to be flowering size. These pencil orchids are still a year or three off flowering.

2015 - Sarcochilus hartmannii

Three plants in pots were all clumping up nicely and looking very healthy. These orchids are developing much faster than the dendrobium seedlings and we could see flowers this year or next.

2016 – Pterostylis sanguinea

Who said terrestrials are harder to grow than epiphytes? To prove a point Kildare College have produced a flowering plant from seed in less than 18 months. Seed was sown with the fungus in the lab to prove that the fungus and seed supplied in the seed kit was a viable combination. It was planted out from a petri dish as a tiny seedling last winter and put in the shade-house. The other pot of dry mix contained 7 seedling rosettes with up to four leaves each. These seedlings have regrown from last year's single leaf seedlings.

Diuris behrii Project Update, July 2017

Les Nesbitt

One hundred and fifteen daughter plants were returned to the Kanmantoo copper mine lease area in June. This makes a total of 400 plants that have been reintroduced in the past 4 years. There are 706 plants in my shadehouse, 85 mothers, 207 daughters, 374 smalls and 40 seedlings. This is a

good result following last season's lack of increase due to the continually wet Spring. If this Spring is normal it should be possible to produce 200 extra plants using the tuber removal method. Any new seedlings will be a bonus.

Next month's guest speaker: Andrew Brown TUESDAY July 25

Come and hear Andrew Brown who is an expert in his field, having spent over 40 years researching WA Orchidaceae. He is conservation biologist and taxonomist at WA Dept of Environment and Conservation; Curator of Orchidaceae and Myoporaceae at the WA Herbarium; foundation member of Australian Orchid Foundation and WA Native Orchid Study and Conservation Group (WANSOCG). He has written over 100 journal articles and seven books on the Western Australian flora including 'The definitive guide to the Native Orchids of Western Australia' and has been involved in the description of many new Western Australian orchid species.



From the Editor

Looking for J. G. Morley

Do you know a J G

Morley? He or she has

paid the membership fees for 2017 but we have no other information and so he or she is not receiving any information or journals.

Possible Changes to P. despectans Survey

For further information please refer to Bulletin Board p. 63

NOTE: no change in original date

August 19th & 20th





Condolences

to Bob Bates whose mother died recently. Bob described her as an environmental warrior who introduced him to nature. NOSSA has much to thank her for as she taught him not only to love nature but to actively share his appreciation and knowledge gained. In no small way, Bob has contributed to NOSSA since its inception, serving in almost every role at one time or other. Bob, she must have been a wonderful lady.

York Peninsula Field Trip Aug 26th & 27th 2017

For this to be a memorable time away plans need to get underway. We have been invited to join the local APS group on the Sunday as they visit Halbury Parklands (10 minutes east of Balaklava). Not quite on YP, but they have said that they would appreciate NOSSA's company. On the Saturday we will probably visit an area on the peninsula in the morning and then visit Victoria Park on the edge of Moonta in the afternoon. Some may like to stay over on the Saturday night, but if not both locations are within

driving distance from Adelaide. If you think you might like to join us for this weekend, or either Saturday or Sunday please register your interest with our Field Trip Co-ordinator, even if you cannot commit at the moment. This would be a great opportunity for both the experienced orchid hunter and those who are new to NOSSA and an opportunity to get to know the YP folk. Why not contact the Field Trip co-ordinator today?

Overview of Pterostylis Pollination in Victoria

Rudie H. Kuiter and Mitchell J. Findlater-Smith

Abstract

Members of the large terrestrial orchid-genus *Pterostylis*, collectively known as greenhoods and rusty hoods, attracted only insects of the order Diptera, the flies, as their principal or primary vectors. With few exceptions, the pollinator species were part of the superfamily Sciaroidea: infraorder Bibionomorpha: families: Mycetophilidae and Sciaridae, that are commonly known as fungus-gnats and dark-winged fungus-gnats respectively.

Want to know more? The entire article, along with other articles is available on the NOSSA web site https://nossa.org.au/ **OR can be found at:**

https://www.researchgate.net/publication/318282443 Overview of Pterostylis Pollination Orchidaceae in V ictoria

June 2017 Photographic Competition

Blue or White Orchid Theme

Rosalie Lawrence

This month's theme for the photo competition was blue and white. White flowers occur as a result of lack of colour such Rosalie Lawrence's Caladenia latifolia which is normally pink. White orchids can also occur naturally, such as the **Arachnorchis** argocalla and Arachnorchis intuta both photographed by John Fennel, or as a dominant colour such

as Lorraine Badger's Eriochilus collinus.

Of the blue orchids, both Ricky Egel and John Badger entered pictures of *Thelymitra* x *truncata*, whilst Robert Lawrence entered a *Thelymitra grandiflora*, which was the outstanding winning picture.

Blue is an unusual colour in the floral world for it is not a naturally occurring colour. In fact, the "key ingredient for making blue flowers are the red anthocyanin pigments. Less than 10 percent of the 280,000 species of flowering plants produce blue flowers." (Lee 2010 as cited in Oder 2014)

Whilst blue orchids occur outside of Australia their "colour cannot rival"... "the intensely blue flowers"

Rules of entry:

The subject matter must have something to do with Australian orchids. Any format is acceptable including Photoshopped images, artwork, etc.

How to enter:

Email nossa.enquiries@gmail.com – jpg as large as you are able to send

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... "especially [are] unique in the orchid world"... "of their Australian counterparts. The sun orchids (*Thelymitra*) in particular are famous for their sky blue flowers." (Ronse 2008: 103)

Based upon Jones 2006 tome, the following genera have true blue orchid species – Cyanicula (9 species), Pheladenia (1 sp), Epiblema (1 sp)

and the largest group *Thelymitra* (about 65 out of potentially 118 species) plus one hybrid, *X Glossodenia tutelata*. Of the epiphytes, blue is almost non-existent except for three which Jones lists that rarely might be bluish and they are *Vappodes bigibba*, *V. lithocola* and *V. phalaenopsis**.

With such rarity, is it any wonder then that the Chinese attached special significance to it as a plant that could cure lung disease and the Aztecs saw it as a symbol of strength.

*Names used as they appear in Jones 2006 tome

Theme for July

Helmet Orchids

NOTE: Orchid photos from any Australian state

are acceptable

References

Jones, D. L., (2006) A Complete Guide to Native Orchids of Australia Incl. Island Territories. Reed New Holland Lee, David (2010), Nature's Palette: The Science of Plant Color, Chicago, University of Chicago Press

Oder, T, (2014) The Science of Blue Flowers https://www.mnn.com/your-home/organic-farming-gardening/stories/the-science-of-blue-flowers accessed 6 July 2017

Ronse, Anne (2008) $Orchids: The \ Fatal \ Attraction, Oostkamp, Belgium: Stichting \ Kunstboek$

June 2017 Benched Orchids

Photos Courtesy of David Hirst

Epiphytes: Open Division Species:

1st Bulbophyllum weinthalii Kris Kopicki 2nd Dendrobium compactum Edda Viskic

Hybrid

1st *Den*. Esmee Poulton Edda Viskic 2nd *Den.* Avril's Gold Gibb Kevin Western

3rd Nil

Epiphytes: Second Division

Species

1st Den. Star of Gold X fleckeri X bigibbum Janet Adams

No entries

Terrestrials: Open Division

Species:

1st Diplodium robustum 2nd Dipodium dolichochilum

3rd Pterostylis ophioglossa

Les Nesbitt D & J Higgs

D & J Higgs

Terrestrials: Second Division Nil

POPULAR VOTE

OPEN DIVISION_Epiphytes:

Species: Nil

Hybrid: Den. Jonathon's Glory 'Dark Joy' Eric Nesbitt

SECOND DIVISION Epiphytes:

Hybrid: Dendrobium Eclipse Janet Adams **Hybrids**

1st *Den*. Ellen Surprise X Aussie Victory

2nd *Dendrobium* Eclipse

3rd *Den*. Eleanora Star X Aussie Victory

R & R Lawrence Janet Adams

D & J Higgs

R & R Lawrence

Hybrid

1st Pterostylis X conoglossa

2nd Nil 3rd Nil

POPULAR VOTE

OPEN DIVISION Terrestrials

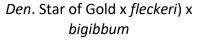
Species: Corybas hispidis D & J Higgs

Hybrid: Pterostylis trunkfish D & J Higgs

Plant of the night

Diplodium robustum

Les Nesbitt







Bulbophyllum weinthalii ssp. striatum



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PHOTOS - David Hirst

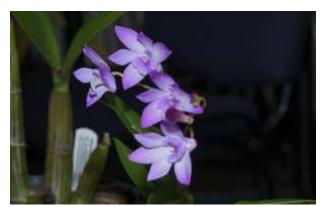


Dendrobium Avrils Gold 'Gibbo'

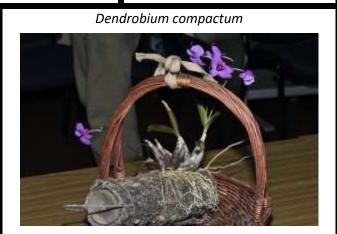


26.4

Diplodium truncatum



Dendrobium Esmee Poulton 'Tinonee'







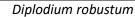
Linguella nana



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PHOTOS - David Hirst





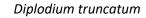


Pterostylis x furcillata

Pterostylis x conoglossa

Diplodium laxum













Les Nesbitt presenting award to Steve Howard_

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