ISSUE 7 - SEPTEMBER 2019



Official Bulletin of the Western Australian Native Orchid Study & Conservation Group



Oh... Hello there Spring!

It is that time of year again when the sunshine is out, new flowers are carpeting the countryside in pink and yellow and everyone's friends and family have taken a backseat while orchid lovers roam the landscape in search of the new life and beauty that Spring brings. I'm sure most would agree that it has been an incredibly mild winter this year with many sun-filled days leading us to feel like Spring started at least a month ago. Wherever you are this Spring, make sure you take an opportunity to get some time out from the rat race and get some muchneeded nature therapy from time spent in the bush. Whether it be your local remnant bush reserve or further afield. The Japanese have termed walking in nature 'Shinrin-Yoku' which literally translates to 'forest bathing' and have found that it reduces stress and improves overall cardiopulmonary health. There are many purported benefits of time outdoors including living healthier, happier, more creative lives. So, with this in mind and Spring finally arriving, let's all do our minds, bodies and souls a service and start exploring. Happy hunting!



Caladenia dimidia at Wongan Hills - Image by

IN THIS ISSUE:

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- Your Orchid Story
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Next General Meeting:

Kings Park Administration Wednesday September 18th 2019

The Committee:

President -

Vice President 1 -

Vice President 2 -

Secretary -

Treasurer -

Committee Members -



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Orchid Conservation in Western Australia by Belinda Davis

King's Park Science Orchid Conservation Program

Members who were able to attend our last General Meeting had the pleasure of enjoying a presentation by Dr Belinda Davis on her many years of work at King's Park in the Orchid Conservation Program. We were privileged to learn about the successful research that Belinda has been conducting around cultivating threatened orchid species and reintroducing these species into the environment with a focus on Caladenia leucochila previously and Caladenia busselliana at present. A fully mature specimen of each species was on display. Hopefully at least one member in attendance remembered to fill in a Threatened and Priority Flora Report Form on the Collie Spider and Bussell's Spider sighted at King's Park of all locations for Ramon's database! It was particularly fascinating to hear about the process involved in growing orchids in cultivation and the challenges of then reinstating populations into known previous habitats. Belinda has kindly provided us with access to her presentation so those who were unable to be there will not miss out. The following summary and images has been adapted from her slides.

Background History of Kings Park Orchid Conservation:

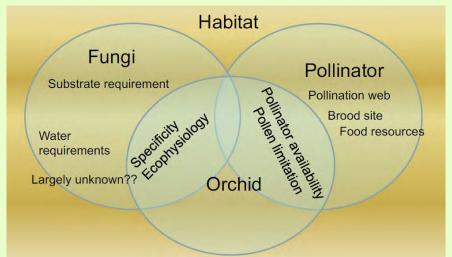
- Running in different capacities for last 20 years
- Made up of students, staff, postdoctoral researchers, institutional collaborations
- Currently houses over 60 species in living collection and 550 species in liquid nitrogen storage (seed and fungal)
- Active Friends of Kings Park Orchid carers volunteer group aid maintenance of living collection





Integrated Conservation Approach:

Knowledge of the particular requirements for all three habitat elements are required for successful growing of an orchid in cultivation but particularly for later translocation. Must have knowledge about the plant, fungi and pollinators.



Orchid Translocations:

But what happens when major knowledge gaps are unlikely to be filled?

- Few individuals low power
- Multiple year studies
- Threatening processes

Orchid Conservation in King's Park Continued...

Lessons learned from the Collie Spider Orchid - Caladenia leucochila

- Grows in Jarrah, Marri, Sheoak woodland east of Collie –
 200km south east of Perth
- Discovered in 2008, recently named, EPBC listed Endangered.
- Formed a three-year collaborative project between Kings Park Science, Griffin Coal and UWA
- Genetic, mycorrhizal, pollination studies completed culminating in a translocation

Image right: Caladenia leucochila Image below: Caladenia busselliana



Bussell's Spider Orchid - Caladenia busselliana

- Occurs at northern end of Leeuwin-Naturaliste Ridge 240 km south of Perth
- Grow in Jarrah/Marri forest in remnant bushland and road reserves
- 1990 populations over 100 known plants, 2017 only 4 plants
- DRF and EPBC listed as Critically Endangered
- Core range now highly fragmented within 10km urban developments
- Previously found in roadside corridors now extinct
- In 2017- known from two reserves four individual plants
- Poor recruitment low natural seed set, 1 in 34 000 seeds becomes an adult
- Species is in a very precarious position
- Seed and fungi collected in Spring 2017 from all individuals
- Fungal cultures grown on, seed processed
- November 2017 we discovered a plant had been removed now down to three plants
- December 2017-January 2018 germination plates set up

But what information can be gathered with so few plants left?

Pollination considerations:

- Want to know who, how and where?
- Pollinator ID and distribution informs translocation site selection
- How many pollinators involved (inside/outside orchid range)?
- Does the pollinator pollinate other orchids?
- Is the pollinator present at potential sites?
- Are pollinator requirements met at potential sites?

Caladenia leucochila pollination: was not so simple!

- Natural capsule set relatively high 32.7%
- Pollinator baiting revealed a strong response from an undescribed species of Thynnine wasp.
- Multiple recognised hybrids with Caladenia longicauda at one population growing in sympatry
- Pollen marking experiment revealed Bombyliid fly removing pollen – also roosts







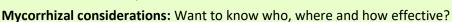
Orchid Conservation in King's Park Continued...

Multiple years of pollinator baiting revealed:

- Wasps found only at sites marked in yellow
- Highest abundance in main orchid distribution
- Wasp appears to be restricted
- Potential translocation sites very restricted

See Graph (right)

- Wasps were utilising two species Hypocalymma angustifolium(14.5% of floral abundance), and Hakea prostrata
- Wasps also seen in copula on these plants
- Regional flora surveys showed that the four most utilised wasp food plants were not present at sites where the orchid and wasp were also absent
- Translocation sites limited by:
 - Wasp distribution
 - Hybridisation potential
 - Food plants to support wasp populations
- Could be ameliorated by management actions:
 - o Co-planting food plants
 - Hand pollination



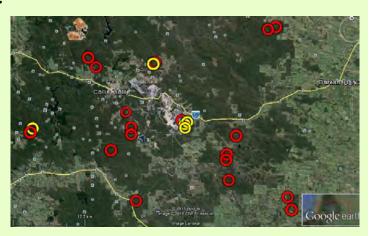
- Mycorrhizal ID and distribution inform potential translocation site selection
- How many and which mycorrhiza are effective in germination and sustaining growth?
- Is the mycorrhizal partner present at the site?
- How to best determine presence?
- Can we establish symbiosis at a novel site?

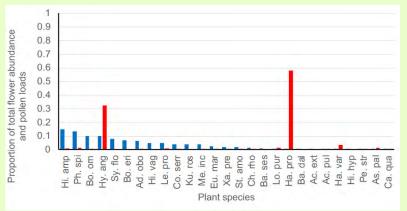
Mycorrhizal study: An immense and intensive study

- 1320 baits placed at 3m intervals along 33 transects regionally in 2010
- Corresponding microhabitat variables measured
- Baits scored following growing season in late 2010
- Grand total of 3 protocorms all within the main orchid population
- Concluded that mycorrhizal baiting has diminishing returns in low rainfall years, 1-15%
- Questionable use of seed and resources for very rare species like C. busselliana

Landscape-scale Habitat Preferences – *C. leucochila*: from micro-site habitat preference study

- Higher sheoak, lower shrub cover within populations
- Greater litter depth, and a more open understorey favours sites of orchid establishment
- Likely to be linked to greater soil moisture and decreased competition
- Trial translocation of C. leucochila aimed to test this but lacked power (n=50, 15 re-emerging)







Orchid Conservation in King's Park Continued...

Caladenia busselliana germination and seedling growth:

- In 2018 923 seedlings growing
- Re-emergence of seedlings starting in 2019
- Monitored for survival and destined for translocation
- Further +300 plants in 2019
- Four further individuals found on private property in 2018 yay!
- Flowers for pollination studies

Caladenia busselliana - future works:

- Potential translocation sites very limited for C. busselliana one secure, fenced site
- Bolstering current populations
- Structuring introductions to test site selection, cohort ages
- Pollinator surveys
- Habitat matching





Current population habitat

Potential translocation site

Ultimately all this research hopes to extend conservation actions to other threatened orchid flora of the Capes region including *Caladenia procera*, *Caladenia viridescens*, *Caladenia lodgeana* pictured below.



A special thanks to Belinda Davis for sharing her work with our group membership.

Spotlight on Wongan Hills and Surrounds by

As the season is now well and truly underway, I thought I would take the opportunity over the next couple of editions to highlight some of the small towns in Western Australia that are well worth a visit during wildflower season starting with Wongan Hills.

Wongan Hills is an agricultural town in the Central Wheatbelt that can be reached in a two-and-a-half-hour drive heading north-east of Perth. The more extreme members may think this is an easy day trip in fitting with the town's slogan of 'Only a picnic away' but if you do have the time, a weekend stay would not be wasted given the variety of wildflowers and particularly orchids in this hotspot. Having now visited this town twice, I still feel that I've barely scratched the surface on what it has to offer in the few days I've spent there.

Over 250 species of wildflowers grow in this area with 16 endemic species. There are also numerous bird species including the mallee fowl for the birders amongst us. Orchids can be found at Wongan Hills particularly from July to October but the highest yield would probably be found between the last two weeks of August and first two of September.









Images top line by — Caladenia roei x C. dimidia and Caladenia radialis x C. dimidia
Images bottom line by — Caladenia doutchiae and an unknown hybrid

What makes this place particularly special is the pure variety of habitats in such a small area and the hybrids that result. To the south of the centre of town lies Lake Ninan and all the flora that salt lakes have to offer including Salt Lake Spiders (Caladenia exilis subsp. exilis) and Purple Veined Spiders (Caladenia doutchiae). North of the Caravan Park, Elphin Nature reserve can be reached within a 5-minute drive. This reserve is full of low-lying scrub and eucalyptus. A wide variety of orchids grow here including Dwarf Zebras (Caladenia pachychila), Flying Ducks (Paracaleana nigrita), several species of Leeks, Greenhoods and Shirt orchids (Thelymitra campanulata). Located South-east of town is Gathercole Nature Reserve which is a beautiful granite outcrop with views of the surrounding farmlands. Chameleon Spiders, Little Laughing Leeks (Prasophyllum gracile), Vanilla suns (Thelymitra anteniferra) and a few species of Diuris grow here in abundance.

Opposite the Caravan Park is the famous and easily accessible, Christmas Rock Walk Trail. This 2.5km walk loop will take you up to the rock and past many species of wildflowers including Drooping Spiders (*Caladenia radialis*). However, you don't even need to enter this walk trail to see most of the species as they are growing right at the road's edge. Next to the road you can find Donkey orchids, Cowslips (*Caladenia flava*), Ant Orchids (*Caladenia roei*), Lemon Spiders (*Caladenia denticulate subsp. denticulata*), Blue Beards (*Pheladenia deformis*), Pink Candies (*Caladenia hirta subsp. rosea*) and Chameleon Spiders (*Caladenia dimidia*).

Wildflowers grow all around the time including areas that aren't formal reserves like down by the railway dam. There are several other hiking trails and reserves that are also listed for wildflower viewing if you have the time to explore. Reynoldson Reserve is famous for its Verticordia displays in October but I'll be honest and say I haven't checked it out because Verticordia just isn't orchids.





Images above by Images below by

: Caladenia denticulata subsp. denticulata and subsp. rubella : Caladenia exilis subsp. exilis, Tinged Spider and Pt. galgula







So, if you haven't had a chance to get there this year, then pencil a weekend trip into your calendar for next year, book a spot at the caravan park, grab a pie from the bakery and head out there, wear yourself out and finish with a parma dinner at the pub! You surely won't be disappointed in the floral display.

FIELD TRIP REPORT - AUGUST 31st

A group of eight WANOSCG members met up with at New Norcia at 10 o'clock - thank you to the Roadhouse for the great coffee. We were joined by , who was to guide us through the paddocks, and from the New Norcia Chimes. With all present we set off westwards from New Norcia township to the Westminster Reserve, driving along the edges of wheat paddocks before being amazed by the carpets of cowslip orchids (Caladenia flava) in the bush. Morning tea, sandwiches and wraps supplied by were enjoyed before we set off looking for our orchids. Here we found a number of species, including Sugar (Ericksonella saccharata), Sugar candy (Caladenia hirta subsp. hirta) and also one pink form (C. hirta subsp. rosea), Cowslips in masses, a Donkey (Diuris sp.), Greenhoods (Pterostylis sanguinea) and some snail orchids (Pterostylis ectypha).

After a bit of a delay before all were back to the cars, we head back into New Norcia, passing House, along a gravel road, through paddocks and around farm sheds to arrive at Poison Paddock. We set off, now equipped with radio (thanks), and explored the sheoak scrub area. It wasn't long before lots of Stark White spiders (Caladenia longicauda subsp. eminens) were spotted, along with more Sugar orchids, one surviving Blue Beard (Pheladenia deformis), a few Vanillas (Thelymitra antenniferra) and two Blue Chinas (Cyanicula gemmata). Also seen were Hare leaves (Leporella fimbriata) and Thelymitra leaves and buds (possibly villosa and benthamiana).







Images by from left to right: Cyanicula gemmata, Caladenia denticulata subsp. denticulata, Caladenia hirta subsp. rosea

We then travelled back between the New Norcia buildings and past the hotel to golf course road where had seen a group of red wispy spiders. The little group of spiders was located and provoked a discussion as to what species, but no firm opinion was reached.

Next it was back through New Norcia to Calingiri-New Norcia road and through a locked gate to Reservoir Reserve for a late lunch. Some explored up the track to the old Hermitage and others north back towards the road in a moist run off area. Large numbers of Yellow Spiders (Caladenia denticulata subsp. denticulata) singles and in groups were found. In addition, there were more Stark White Spiders, Sugar Candies and Snails (Pterostylis setulosa). The snails were growing out of a pile of old bitumen; orchids can be amazingly resilient.

New Norcia Field Trip Report Continued...

Three o'clock, and it was time to head back to Perth for the and but not before took a group photo for her story. The last two cars () followed and south east, once again through a gate, alongside a wheat paddock and dirt track to Yullen's Gate; a junction of properties surrounding a bush reserve. Again, Stark White Spiders, Cowslips, Sugars and Sugar Candies were spotted, but in smaller numbers, along with Enamel buds (Elythranthera sp) and finished donkeys. Going down from the ridge into more of a wash area we were rewarded to find an early flowering Bee (Diuris decrementa), a number of small Frog Greenhoods (Pterostylis sargentii), several common Greenhoods (past), two different Snails and even a bright red spider of the arachnid type.

All too soon it was 4:30 pm and time to head home. What a great day out - well, except for the mozzies (bitey variety) at the end – and how lucky to have a fine day after the rains and in spite of the forecasts. Our sincerest appreciation to for organizing the trip, leading the day and providing morning tea, to for guiding us on his birthday and supplying us with mandarins, and a special thank you to the New Norcia Community for permitting us to visit their properties.













Images clockwise from top left: Diuris decrementa, Pterostylis sargentii, Caladenia filifera, Caladenia denticulata subsp. rubella, Pterostylis ectypha, Ericksonella saccharata.

Images 1,2,5 and 6 by Images 3 and 4 by

"Cape Riche" by

FIELD TRIP REPORT: SOUTHERN RIVERS GROUP - AUGUST 4th

Sometimes it's interesting to visit sites outside the main flowering period. You do not know what you may find.

Heading east along the highway, our temperature gauges read 10°C. At the planned first stop, everything was damp with dew and far too cold for the Thelymitra to be open. Eastwards to the second stop. This site was a lot more promising for later in the season due to the range of orchids leaves sighted. We still found lots of Caladenia cairnsiana (Zebra) in bud as were a number of Cal. pectinata (King Spider). Diuris littoralis (Green Range Donkey) became the first flowering orchid on the list.

Next we headed south to the coast. The first sighted orchid here, had over the years been called by at least two different names, as its ID never truly reflected descriptions in the orchid books. So we tried again, only to add a third possible name. Days later, after a flurry of photos and phone calls we were no closer to a positive ID as a range of undescribed species grow along our coastline. "Undescribed" was written down for this orchid in question.

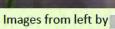
Along the coastal cliffs we found Pterostylis recurva (Jug), Pt. vittata (Banded Greenhood), Pt. orbiculata (Small Banded Greenhood), Pt. parva (Fawn Snail), D. brockmanii (South Coast Donkey), Cyrtostylis robusta (Mosquito) and Pterostylis sp. 'crinkle leaf' (Slender Snail). Thinking lunch was due, some headed for the cars only to be called back up the rise for two more finds, Cal. falcata (Fringed Mantis) and Cal. reptans subsp. reptans (Little Pink Fairy). The latter was the most colourful, shortest and smallest orchid plant of the morning. One plant of Pt. dilatata (Robust Snail) had to be identified once home as it was an unusual find in this location.

Over lunch we all scanned the choppy seas for whales. Last week on the reconnoitre we watched a Southern Right Whale calve and nurture her newborn in its first hours. No whales were seen today, thus onto the second loop of the walk. Wildflowers, orchid leaves, birds, orchid leaves, great views, more orchid leaves, till finally Cal. longicauda subsp. australora (Southern White Spider) was found.... in tight bud.

Back to our first stop of the day, alas, Arctic breezes and overhead clouds thwarted us again. I went back a week later in warmth and sunshine to find twenty-six colourful Thelymitra uliginosa (Southern Curly Locks) flowering.

We were a good month earlier than the height of the flowering season. A great variety of leaves, some with buds, were encouraging for good sightings of flowering orchids in the months ahead.











: Pterostylis barbata, Caladenia filifera, Caladenia macrostylis

"Your Orchid Story" with

How many years have you been a member of WANOSCG? About 40 years

How did you first become interested in orchids?

As I kid, I grew up near Riverton Bridge. We still had lots of bush nearby as well as on our own block, and after school with the local kids we spent our time looking for orchids. We only knew them by the common names such as spider orchids, donkeys and cowslips. I am sure we found the grand spider orchid, but had no idea of its significance in those days. In my late teens I did a botany unit which brought back fond memories of the wildflowers I had encountered in my early days, particularly orchids. I did a lot of orchiding in Canning Vale before it succumbed to suburbia and after seeing an orchid display at King's Park by some of the early members of WANOSCG, I was hooked.

Which orchid is your favourite and why?

Probably like many in our club, *Thelymitra variegata*, *speciosa*, and *pulcherrima* are all my favourites. The *Caladenia caesarea* complex and *Caladenia luteola* are also up there.

Are there any orchids left on your bucket list to find and if so, which one(s) are you most interested in finding? I have never found Caladenia winfieldii and Paracaleana lyonsii.

What's the furthest distance you've driven in a day or on a trip to see a particular orchid?

We went from Perth to Corrigin to see the Underground Orchid....which we did find. Incidentally we also took the whole family (four kids under 12 at the time) which had its challenges and certainly not all the kids could appreciate the significance of the trip and the find!

Do you have a favourite memory from any group or personal field trips that you would like to share?

Certainly last year's trip to Ningham station and Mt Gibson was special not just for the orchids but also the great group that went along. Some of the early Stirlings and Fitzgerald NP trips (especially after fires) as well as trips to and blocks at both Tenderdin and Chingarup were memorable. The 'pig on the spit' for birthday will long be remembered.

As a member of WANOSCG, what's your ultimate goal for the organization or is there anything in particular you hope to see achieved over time?

I believe the focus of the group towards conservation has really gained momentum over the past number of years and the success of the 'Adopt an Orchid' project with excellent WANOSCG member participation is a credit to those who initiated the project and all those involved.







Images by

from left to right: Caladenia caesarea subsp. caesarea, Thelymitra variegata, Caladenia luteola

ADORP News by

Welcome to who has joined the ADORP program and will be helping with *Caladenia cristata*. This brings the total active ADORP members to 76 which has allowed further taxa to be studied and reported.

Whilst the project cannot cover all the priority orchids, some due to their remote locations, it is important that opportunistic surveys are recorded to provide DBCA with up to date population information. A number of opportunistic surveys have been completed so far this year for *Thelymitra apiculata*, *Thelymitra pulcherrima*, *Caladenia pluvialis*, *Caladenia longicauda* subsp. *minima* and *Diuris recurva*. Thanks to members who have assisted in these surveys.

ADORP surveys are underway or in some cases, have been completed, for the current season. Three completed surveys and a few currently in progress have revealed lower numbers compared to last year. This appears to be the result of late Autumn rain and a drier than average July which has affected the late winter flowering orchids.

On a brighter note, the just completed survey for *Thelymitra variegata* at Albany has recorded an increase in plant numbers this year despite losing plants earlier due to road works and track maintenance. This was a result of a very comprehensive survey by and her team and provides a good baseline as to plant numbers.

During the 2018 ADORP surveys for *Thelymitra* sp. 'Ongerup,' a number of new locations were found. Following these surveys, a revision of the Priority status of this taxon by DBCA has now been downgraded to Priority 3.

Orchids from Madagascar

Our Next Speaker

Following on from our most entertaining and informative speakers this year, at our next General Meeting on 18th September, we will be privileged to have the President of the French Orchid Society, Jean-Michel Hervouet, as the Speaker.

Jean-Michel has had his photographs published in numerous publications and books and his talk on the night will be based on his 20 years of field observation in Madagascar. He has recently produced a book on the topic "A la recherche des Orchidées de Madagascar" available through www.leclub-biotope.com. Sounds fascinating, so please do come along!

This year we have been fortunate to have received great presentations from our Members; and as well as from very informative external presenters, Daniela Scaccabarozzi (University of Nates, Curtin University and Kings Park & Botanic Garden) and Belinda Davis (Kings Park & Botanic Garden).

For the October General Meeting, will present "New and Undescribed Orchids in WA". November, of course, is our Photo Competition as per the details in the Bulletin.

What a great year of presentations. Maybe you'd like to give a presentation next year or know of someone who would – just let a Committee Member know.

, President



Metro Field Trips by

The most recent metro field trip to Brixton Street Wetlands was a success with several species of Diuris identified including *Diuris brumalis*, *D. brevis and D. decrementa* amongst other orchids.

If you are interested in any of the following trips, please contact at for dates and details.

DATE (Week beginning)	LOCATION	FIELD TRIP LEADER
Wednesday, 4 th	Place: Hope Road, Bibra Lake	
September, 2:00 pm	Park at: Native Ark/conservation building/ or on Hope Road verge	
Monday, 9 th September, 9:30 am	Place: Koondoola Open Space Meeting place: Koondoola Recreation Centre car park, off Koondoola Drive	
Monday 16 th September	Winthrop - Piney Lakes	
Monday 7 th October	Caladenia huegelii	
Monday 14 th October		1
Monday 22 nd October	Thelymitra campanulata species	
Monday 5 th November	Yardarino Bushland	
Monday 7 th December	Spiculaea, Paracaleana brockmanii	



Thelymitra variegata by



Caladenia xantha by

General Meeting Rosters

Meeting	SUPPER ROSTER	RAFFLE PRIZE	SPEAKERS
18-Sep-19			President of the French Orchid Society Jean- Michel Hervouet - "Orchids in Madagascar"
16-Oct-19			- "New and Undescribed Orchids in WA"
20-Nov-19			Photo Competition

New Rules for the WANOSCG Facebook Page by

WANOSCG has its own Facebook Page for the exchange of news and photos by Members. As there are various alternative native orchid FB Pages open to the public, a decision was made right at the start that the WANOSCG page would be a 'closed group' FB page for Members only.

The intent is to keep our FB page focused solely on native orchids whilst always conforming to our Objectives and Values; and for it not to be used as a platform for other topics or issues that may be arise from time to time. This is all over and above the rules placed by Facebook itself on such closed groups (be courteous, no hate speech or bullying etc)

As the intended 'rules' have not been previously made clear, the Committee has decided that it was time to document these 'rules' and make them available to all Members.

The new WANOSCG Facebook Page Rules are as follows:

- 1. The WANOSCG Facebook page is only for the exchange of information directly related to native orchids, such as news and photographs, between WANOSCG Members.
- 2. Any issues and other matters that are not directly related to native orchid news or Members' photographs should be brought to the attention of a WANOSCG committee member, or emailed to wanoscg@gmail.com.
- 3. The WANOSCG Facebook page is only open to WANOSCG Members that are current.
- 4. All posts must be consistent with the Objectives and Values of WANOSCG.

, our FB Page Administrate	or, manages and administers the page,
including the processing of applicat	tions to join the closed group.
supported in her role by	as a Committee member.

Membership News by

New Members

A big welcome to three new members this month!

from metro area just south of the river. Secondly, a Our first is family membership for and , well south of the river down Warnbro way. All three are keen to get involved with the Adopt an Orchid projects to contribute to orchid conservation.

If you come across these folks in your orchid hunting travels please make sure you make them feel welcome and share a bit of orchid knowledge.



Question Time!

This is an open question section in the bulletin to allow members to ask any questions they have in regards to orchids and give an opportunity for anyone (expert or enthusiast) to provide a reply that will be published in the following issue. Hopefully this will facilitate sharing of knowledge and generate some member involvement throughout the year.

Last month's question:

Sourced from the archives, an article published In July 1979 edition of the bulletin by (the first official Bulletin editor 1974-76, and a past president) referred to the Lavender Orchid. Does the Lavender Orchid exist?

TO KEEP IN MIND -

Over the past few years there have been good discoveries of orchids, which we feared had become extinct and now the finding of the 'Underground Orchid' Rhizanthella gardneri proves the fact that the method is "keep the very rare orchids forever in the minds of members and adopt the saying of Seek and you shall find." There are still a few which members can keep in their minds while tramping the bush.

(1) Caladenia lavandulacea - Lavender Orchid.

It has been reported to have been found in sandy loam associated with red gum between York and Narrogin. A species approximately 250mm in height. Flowers lavender, petals and sepals have dark streaks with short clubbed tips, labellum on a slender claw and mobile with entire margins. The tip is blunt and recurved and dark purple with conspicuous radiating darker lavender lines, callidark purple, compactly crowded and stalked.

Special thanks to

for supplying the answer below.

In answer to last month's question see the following from Hopper, S.D. & Brown, A.P. Nuytsia 14(1/2): 296 (2001) and Clements, M.A. Australian Orchid Research 1: 26 (1989). The orchid was named as a species in 1927 and renamed a hybrid in 1989.

Caladenia x lavandulacea (R.S. Rogers) M.A. Clem., Austral. Orchid Research 1: 26 (1989).

Caladenia lavandulacea R. Rogers, Trans. & Proc. Roy. Soc. South Australia 51: 11 (1927). Typus: Western Australia, between York and Narrogin, Sept. 1926, W. Dedman s.n., holo: AD!

Notes: Until Hoffman and Brown (1984), Jones (1988) and Clements (1989) proposed it was a hybrid, *Caladenia* x *lavandulacea* was regarded by many authors to be an obscure species known only from the single plant of the type collection (Rogers 1927; Pelloe 1930; Erickson 1965; George 1971; Clements 1982). Similar hybrids are known derived from crosses between *C. doutchiae*, *C. brevisura*, *C. incrassata*, *C. voigtii* or *C. cristata* and members of the *C. filamentosa* species complex. The type is unusual in having clubbed petals and an entire labellum. We have yet to see a plant that matches the type in these attributes. Some plants derived from a *C. sigmoidea* x *C. incrassata* cross have clubbed petals and approach the type. However, neither of these species have been collected as far west as the type locality of *C.* x *lavandulacea* between York and Narrogin.

This month's question:

What is the relationship between orchids and fungi and how does orchid mycorrhizae provide nutrients to the plant?

Please send any questions / responses to wanoscg.newsletter@gmail.com. Looking forward to your contributions!

FIELD TRIPS 2019 by

Proposed field trips as follows:

SEPTEMBER 7th-8th: Corrigin area

Register from 7th August to

SEPTEMBER 28th-30th Long weekend: Dunsborough and the Capes

FTL: (by default)

We are planning to organise a self-drive tour with maps for each day in order to reduce congestion on the roads and in the locations. Any suggestions of locations to visit would be very welcome. Registrations from August 10th as members need to organize own accommodation.

OCTOBER: No suggestions or FTL volunteers have been forthcoming from members so far, so no field trip is proposed for this month as yet. Please contact the FTC if you have any suggestions or would like to lead a field trip (one day or longer).

NOVEMBER: Suggestions invited for a location to hold the final break-up field trip for the year.

Register for field trips by text to or Email:

2019 WANOSCG Photography Competition

Members are invited to submit a pair of photos for the November photo competition which show:

- An orchid in its natural habitat showing both the orchid and its surrounding habitat (trees, shrubs, rocks, swamp, logs etc).
- A closer shot of the exact same orchid.

The rules:

- The photos must have been taken between November 2018 and October 2019
- Printing size up to 10" x 8" or A4, unmounted and not framed.
- Please include your name and the date the photo was taken to be written on the back of each photograph.

Images right by Caladenia hoffmanii Caladenia pluvalis





Bulletin Articles

Please send Bulletin contributions to the Editor – at wanoscg.newsletter@gmail.com

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