

Western Australian Native Orchid Study and Conservation Group



March 2018 Bulletin

IN THIS MONTH'S EDITION:

- Photo Competition
- End-of-year Celebration
- Reports
 - President
 - Registrar
 - Conservation officer
 - Field trip coordinator
- Field Trips
 - Southern Rivers Group
 - 2018 Planned
- Membership Corner
- Orchid News
- Study Groups
 - ADORP
 - *Caladenia drummondii*
 - Snail orchids
- General meeting minutes
- Notices

NEXT GENERAL MEETING and AGM
21 March 2018

Management Committee:

Ramón Newmann – President
Jon Warren – Vice President
Kim Hanson – Vice President
Jay Steer – Treasurer
Margaret Petridis – Field Trip Coordinator
Pat Richards – Secretary
Ian Puddey – Committee
Marina Karyagina – Committee

WANOSCG PHOTO COMPETITION (2017)

Orchid with Pollinator (or any appropriate bug)

Heartiest congratulations to Trish Newmann whose photograph of an Eyre rufous greenhood (*Pterostylis* sp 'Eyre') took out first prize with 24 votes. The orchid was being visited by what looks like a mosquito that already had a load of pollen on its back. Voting was carried out at the November general meeting by members present who viewed the 6" x 8" printed entries that were displayed anonymously at the meeting. Each voting member was provided with three voting sticker dots they could apply to the three photos they most fancied. The votes were then scrutinised by members Bob Steer and Kevin Uhe, neither of whom had submitted entries to the competition. Trish's photo was enhanced by the delicate rainbow glint off the creature's transparent buzzing wings – beautiful!



The winning photo *Pterostylis* sp 'Eyre'
photo courtesy Trish Newmann

Second place was won by Rob van Oosten's picture of a duck orchid, while there was a tie for third place between Jay Steer's white china and Jon Warren's picture also of a duck orchid.

Pictures below clockwise from left:

Second place – Flying Duck Orchid (*Paracaleana nigrita*),
Equal third place – Flying Duck Orchid (*Paracaleana nigrita*), White China Orchid (*Cyanicula ixioides*)



Image courtesy of Rob van Oosten

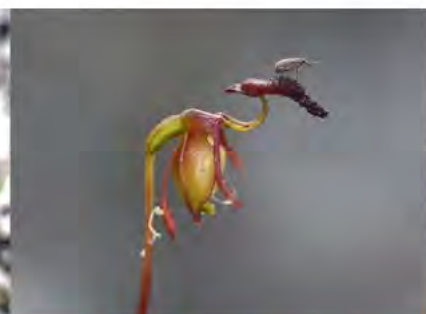


Image courtesy of John Warren



Image courtesy of Jay Steer

Trish was presented with the trophy by her husband and current president, Ramón.



Trophy presentation to the winner (L) and Trish with her winning photograph (R)

END OF YEAR CELEBRATION (2017)

Perth Metropolitan

On Saturday, 18 November, Ian Puddey and wife, Peggy, were kind enough to offer their home as venue to WANOSCG members to celebrate coming to the end of another great orchid season. The weather was kind being neither too hot nor too cold so a friendly and sociable time was had by all as witnessed by photos below.

When our members had finished eating and chatting, Katerina Hnedovska gave an interesting illustrated presentation on wild orchids with which she had been familiar in the Czech Republic. In some cases these were shown growing en masse in fields with a back-drop of stunning scenery.

Pictures below clockwise from top:

Hosts, Ian and Peggy; lunch around the table in the garden; orchid chat in the shade; lunch around the table



Images courtesy of Ramón Newmann



REPORTS

WANOSCG President's Report 2017-2018 – Ramón Newmann

WANOSCG has had another successful year in 2017 pursuing the aims and objectives of the Group. The success and fun of it all has been entirely due to the fantastic efforts of individual members, supported by the committee and sub-committees. The membership, WA's native orchids, and hopefully the community, are all the better for all of these efforts. Many thanks to you all!

At the start of the year three new committee members were elected – Rob van Oosten, Ian Puddey and Stuart Gale – bringing new blood, skills and enthusiasm to the management of the Group. Rob and Stuart brought their media technology skills, which helped to keep us in the right century, and Ian brought his long and established committee management expertise, clear thinking and sheer data processing grunt.

In March 2017, through the WANOSCG 2016 Award, we recognised Andrew Brown's outstanding past and present support of WANOSCG.

During 2017 there were a number of very informative technical articles submitted to the Bulletin, which help to keep us all up to date with recent developments in orchid identification and naming. In particular there were articles submitted by Andrew, Mark Brundrett and Kevin Uhe, who also submitted a number of articles on WANOSCG Study Groups and the Adopt-an-Orchid Project (ADORP). Later in the year Kevin took on the management of ADORP, arguably one of the most successful of WANOSCG projects, following the great work by Kim Hanson who helped to establish and develop it into what it is today – a well-recognised and regarded project in collaboration with the Department of Biodiversity, Conservation and Attractions.

Throughout the year Noel Hoffman has been the driving force behind our on-line digital image database (to help identify and admire our wonderful native orchids) which forms an integral part of the Group's new and fantastic website. Many thanks to all who have contributed, developed and maintained it.

In addition to the image database, the orchid reports throughout 2017 have greatly bolstered the Sightings Database – we now have over 18,000 records, with more yet to go in.

A special thanks goes to Pat Richards who, besides setting new standards for the secretary role, stepped up to additionally take on the Bulletin editor's role when time would not allow Stuart to continue. I think that you will all agree that they have both done a sterling job through 2017.

Towards the end of the year, following a prompt from our past treasurer Paul Winthrop, the committee developed guidelines for using the Group's funds for the direct betterment of WA's native orchids – through the establishment of a grant which will be piloted in 2018. This will be complimentary to the great orchid conservation efforts of our conservation officer, Tim Hodgkins, and all those members fighting the good fight to help preserve our native orchids, including, as ever, the tenacious Eddy Wajon.

How can I not mention the many, varied and geographically expansive field trips we have had this year – thanks to the hard work, dedication and organisation of our field trip coordinator, Margaret Petridis, the Southern Rivers Branch convenor, Anna de Haan, supporting sub-committees, individual members and of course Kevin tirelessly working in the background.

Get ready to do your rain dance in June and July so that we'll have a great year for orchids!

It was a great pleasure and honour to serve as president of this great group in 2017, many thanks for your support. Please think about stepping up to the plate and join the committee in 2018 to ensure that we have another great year!



Images courtesy of Ramón Newmann

Pictured from top:
Babe-in-a-cradle - (*Epiblema grandiflorum*)
Beautiful Mignonette - (*Microtis pulchella*)
Spider hybrid (*Caladenia* X)
Tiger Orchid (*Thelymitra tigrina*)

Registrar's Report 2017-2018 – Ramón Newmann

During 2017 the WANOSCG Sightings Database continued to grow, with over 18,000 sightings now recorded, and 11 sighting reports provided during the year to help with the organisation of field trips and/or for conservation purposes.

At the end of 2017 there was another key database milestone achieved. The Adopt-an-Orchid (ADORP) sightings data (going back to 2009) have now all been digitised (thanks to a mammoth effort by Ian Puddey) and incorporated into the same database as the main WANOSCG sightings. This is an important step for ADORP as it allows data reports, overviews and tracking over the years to be done relatively easily. There are over 440 ADORP entries, with each entry representing a complete day's report of a site, which can include, for instance, the number of flowering plants, plants gone to seed etc. In the old database format this would have been shown as over 1200 entries. This data set will also be added to the DBCA database.

In order to incorporate the ADORP data, and the accompanying data requirements, the WANOSCG Sightings Database structure has been modified such that it now accommodates both sets of data. One key thing that will be noticed is that if you find various plants of the same species in different states at a site (eg flowering, in fruit, just leaves etc) all of those data are now captured on a single line, and there is an opportunity also to report the threats, habitat, landform, etc, of the site. These are ADORP reporting requirements which have now been incorporated into the all-encompassing database.

The Sightings Template used for data recording has now been modified accordingly, as per the spreadsheet sent out to members. Any data reported in the old format can still be used, so no worries on this front. However, in order to minimise the amount of double-handling required, it is preferable to use the new template.

You will also find a listing (see Addendum) of the south-west WA species for which we have no reported sightings, where they are found and when – a target for you all during 2018.

If you have any queries, concerns or comments, please do not hesitate to contact me directly.

As well as updates of the structure of the database, there has also been a fresh wave of species name and conservation status updates. Thanks to the input of Andrew Brown and Kevin Uhe, various names have been updated (especially the mercurial *Pterostylis* species). When entering the species name you will still find the old names listed (at the bottom of the drop-down lists, beginning with "z.") which, when selected, will be converted to the current names.

Looking forwards to your sighting reports and any queries that you may have, including requests for any specific reports. (Bear in mind, of course, that ADORP data and details concerning threatened and endangered species and their precise locations are not released for general use.)

Conservation Officer's Report 2017-2018 – Tim Hodgkins

The profile of conservation matters has lifted within the Club in the past 12 months. Members are continuing to report matters of concern and providing support where needed in terms of site visits and representation. The portfolio certainly provides a variety of interesting challenges, with a seeming steep increase this year in matters that we must address. I am pleased to be able to continue and thank the committee and members for their wholehearted support.

Sites and areas of interest:

These have been many and varied throughout the year and are fully covered in the monthly reports to the Club. I will report verbally on Manea Park at the next meeting of the Club.

40th Anniversary site:

Nothing firm yet but the site in Johnson Road, McClarty is a possibility with a process of approvals that I plan to commence this year (with the State Planning Commission).



Potato Orchid (*Gastrodia lacista*)

Image courtesy of Ramón Newmann

Membership of the Conservation Council WA:

We have maintained our membership of the CCWA, through e mail, keeping our members informed of events and matters where we can be involved.

Membership of the Urban Bushland Council:

We committed to membership of this group in 2016 and it has provided us with valuable communication particularly about areas threatened with clearing or development.

Field Trip Coordinator's Report, 2017 – Margaret Petridis

In 2017 we had some widespread heavy rain in late summer followed by a long dry stretch in autumn and early winter. The dry period impacted negatively on most of the early orchids inland and was particularly noticeable on the early June field trip to the Merredin area looking for *Caladenia drummondii* and other later trips further east.

In addition to our official WANOSCG monthly trips, Christine Lock initiated a program of half-day field trips in the Metro area, focusing on reserves within one hour of the GPO, to enable members to meet and survey locations close to home. Some of the early planned trips were cancelled due to the dry season and lack of orchids. Of the twelve planned trips, only four went ahead due to lack of orchids or scarcity of volunteer leaders. It is hoped that these trips will be better attended in 2018 and help to add to our knowledge of orchids in local metropolitan reserves.

On our first trip in April, led by Lyn Alcock, we found and extended the range and numbers of the leafless orchid (*Praecoxanthus aphyllus*) in a reserve south-west of Narrogin. There had been an old record for this orchid in the reserve and it had been re-discovered there in small numbers in 2016.

There were a lot of prescribed burns north of Walpole in the summer so we visited some areas in the burns a few times during the year to see what effect the burns had had on the orchids. David Edmonds from Walpole led an interesting trip to some burnt areas in early May, focusing mainly on *Eriochilus* species.

In July we had two Metro trips with Christine but no other official trip due to the generally dry season up north. We received good rains in mid-late July and the orchid season picked up from then.

In early August we had our first visit to the very interesting Goodale Sanctuary near Pinjarra and were shown around the property by Robert and Lynette Goodale. We identified 24 species of orchids, with eight in flower, including snails, banded greenhoods, ducks and hammers. Later that month Kevin Uhe took us on a trip along the Brookton Highway where we found our target orchid, the rare leek (*Prasophyllum* sp 'Brookton Highway'.)

The following weekend Graeme Walker led a trip south of Mandurah where we found various snail orchids and other species.

Ian Greeve had planned to do a trip in early August to Perenjori, Charles Darwin NR and areas nearby, but this was cancelled due to the dry start to the season. He organised a trip out to Corrigin in early September instead, which was disappointingly poorly attended by members, perhaps due to the short notice and other commitments.

In mid-September, Jon Warren organised a trip in the Busselton area for country members to get together and survey some local areas. This was attended by 10 members who enjoyed the opportunity to go orchid hunting together and to meet Jon.

Over the September long weekend we had a field trip back to the Walpole area and were planning to visit areas extensively surveyed by Lyn, Maggie, June and Krystyna et al in the previous few months. Plans were altered by the forecast of severe gales and wet weather but we still managed to see a lot of orchids.

In September and October some members were recruited by Mark Brundrett to assist DBCA staff with surveys for two threatened species, *Caladenia huegelii* and *Drakaea elastica*. As part of this project we returned to the Goodale Sanctuary to survey the *Drakaea elastica* population there.



Grand Spider Orchid
(*Caladenia huegelii*)

Image courtesy of Pat Richards

Another trip in October was led by Eric Swarts to some reserves south and south-east of Mandurah where we saw a variety of orchids – *Caladenia*, *Microtis* and *Thelymitra* species.

The final WANOSCG trip for the year was the break-up trip based in Pemberton. We found enough orchids to keep everyone happy on the Saturday, despite cool and cloudy weather, finishing off with a large population of pink beaks *Pyrorchis forrestii*, found by Jon and Tim on the way down. We had an excellent dinner at the Pemberton Sports Club on the Saturday night.

We did not think we would see much more on the Sunday so some members chose to leave and head home. Those members who stayed were able to revisit some sun orchids that were out due to warmer weather, and a few special finds closer to Walpole, which meant a long drive that day.

It has been a very full programme of field trips this year and I thank all members who assisted with the field trips, particularly Christine for organising the Metro trips and to all of the other members who volunteered to lead a field trip during the year. It was very much appreciated.

We are hoping for better rainfall during 2018 so we can visit areas north and east that were not very productive this year.

I urge members to consider leading a trip in their local area or a location that they are familiar with, so that others can see and learn about them. If any members have ideas about places to visit on trips this coming year, please get in touch with me by phone, email or in person at meetings.



Dinner at the Pemberton Sports Club



Images courtesy of Ramón Newmann



FIELD TRIPS

Southern Rivers Group

Denmark Hinterland, 11 November 2017 – Anna de Haan, SRG Convenor

On a lovely sunny and warm morning our SRG members met by the Hay River. Those travelling from Albany made comment as they passed the roadside weedicide team spraying the verge and embankments. At our meeting spot we spread out in all directions of the compass. Too early for *Epiblema grandiflorum* (babe-in-a-cradle) for those who ventured into the swamp, however, on the edges there were plenty of common mignonette (*Microtis media* subsp *media*) flowering. A number of plain sun orchids (*Thelymitra paludosa*) were flowering in between the paperbarks as well as the odd club-lipped spider (*Caladenia corynephora*) and one huge Christmas spider (*Caladenia serotina*) in bud. The annual roadside spraying program has caused the colonies of the latter two orchids to crash into very low numbers.

Northwards we drove to a one year old burn. Here we found purple enamel (*Elythranthera brunonis*) in seed, whilst blue sun (*Thelymitra crinita*) and slender sun (*T vulgaris*) were in full flower. A number of king leeks (*Prasophyllum regium*) had started to flower as well as leopard orchids (*Thelymitra benthamiana*). Over a cuppa one member sighted dozens of pink beaks (*Pyrorchis forrestii*), a great result as many patches of leaves had been sighted.



Pink Beaks
(*Pyrorchis forrestii*)

Heading towards Denmark we found cowslip orchids (*Caladenia flava* subsp *flava*) flowering very late into the season.

After lunch beside Wilson Inlet, Jeff and Wendy brought us to a swamp which had been burnt within the last twelve months. An absolute treasure of orchids, both in abundance and range of genus. Here we added pink enamel (*Elythranthera emarginata*), karri spider (*Caladenia brownii*), humped leek (*Prasophyllum gibbosum*), swamp leek (*P drummondii*) and laughing leek (*P macrostachyum*), swamp mignonette (*Microtis atrata*), swamp bee (*Diuris pauciflora*) and late donkey (*D emarginata*), and swamp sun (*Thelymitra cucullata*) to the list.

A very satisfying day which finished in brilliant hot sunshine.

Planned Trips for 2018 (draft proposed)

14 – 15 April	Corrigin/Kondinin FTL: Robin Campbell Target orchids: <i>Corunastylis</i>
28 – 30 April	Dunsborough – Augusta – Walpole FTL: Andrew Brown Target orchids: <i>Eriochilus</i> , <i>Praecoxanthus</i>
27 May	Bunbury area FTL: TBD Target orchids: <i>Pterostylis</i> (shells)
2 – 4 June	Wongan Hills FTL: Margaret Petridis Target orchids: <i>Caladenia drummondii</i>
TBD July	Mundaring (burn) FTL: Ross and Margaret Fox?? Target orchids: <i>Eriochilus scaber</i>
18 – 19 August	TBD
25 – 31 August	Perenjori – Charles Darwin NR – Ninghan Station (camping) FTL: Ian Greeve
19 – 24 September	Jerramungup (staying at caravan park Extended trip – 6 days FTL: TBD Target orchids: <i>Caladenias</i>

13 – 14 or 20 – 21 October	Busselton and the Capes FTL: TBD Target orchids: <i>Caladenias</i>
24 – 25 November	Augusta (break-up field trip) FTL: TBD Target orchids: <i>Caladenias</i> , <i>Thelymitras</i>

April Field Trips

14/15 April: Corrigin/Kondinin, FTL Robin Campbell

This will be a weekend trip based in Corrigin to search for new populations of the pygmy orchid, *Corunastylis tepperi*.

- Members could have the option of doing a long day trip on Saturday, 14 April, if that suits them better. Please let the FTC know if this is your preference.
- Accommodation is available at the hotel, motel or caravan park in Corrigin.
- We will meet for dinner on the Saturday night at the Corrigin hotel.
- Details of meeting place and time will be sent to members who register with the FTC by 12 April.

28 – 30 April: FTL Andrew Brown

Andrew is planning to lead a 3-day trip from Dunsborough to Walpole at the end of April. He will be looking for various *Eriochilus* species and sub-species. The first day will go from Dunsborough to Augusta, the second from Augusta to Walpole and the third from Walpole back to Perth.

- Members attending for 2 or 3 days will have to arrange their own accommodation in Augusta and Walpole.
- Members can choose to attend for 1, 2 or 3 days so please state your preference when registering.
- Details of meeting times and places will be sent to the registered members by 26 April. Registration opens at the end of March and closes on 26 April.

To Register for a Field Trip

1. Contact the field trip coordinator: Margaret Petridis on [REDACTED] (text message) or email [REDACTED].
2. Names for the trips will be accepted four weeks prior to the trip and no later than 2 days before.

We will aim to limit numbers to around 20, so if more people register, we will probably split the group and stagger the start, as long as another field trip leader is available.

Please think about volunteering to lead a trip this year.

We are looking for trip leaders for the Bunbury area in late May, Busselton and the Capes in mid-October and for the Augusta area in November.

Suggestions for a location and trip leader in mid-August would also be welcomed.

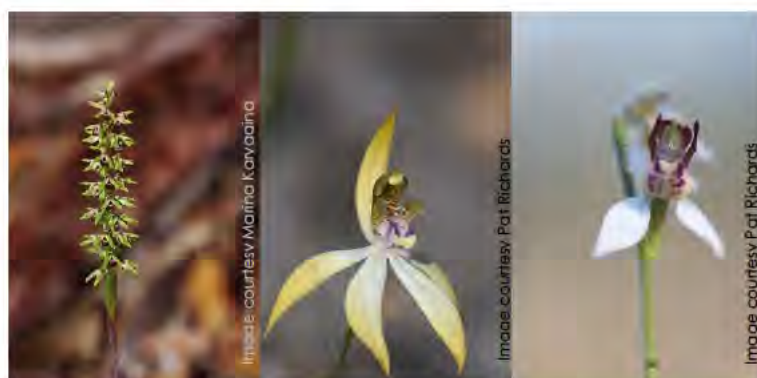
The proposed field trips list is flexible and may be altered due to rainfall, weather conditions, feedback from members and availability of leaders.

If any members have information to assist the FTL on any of the trips, please advise the FT coordinator. (as above)

Members are encouraged to look for the following orchids in March and April:

- *Corunastylis tepperi*, *Praecoxanthus aphyllus* and *Eriochilus*.
- Please look in new areas and send sighting data to the Registrar [REDACTED]

Images from left:
Corunastylis tepperi,
Praecoxanthus aphyllus,
Eriochilus dilatatus



Perth Metropolitan Field Trips 2018 – Coordinator, Christine Lock

As in 2017, members are being encouraged to participate in (and, where they can, lead) small groups on half-day orchid hunts in the Perth metropolitan area, ie within an hour's drive of the GPO. Exact dates will be dependent on availability of the field trip leader and further information will be published nearer the time. Metro trip coordinator, Christine Lock, has tentatively sketched out some potential plans as below but this is still very much a work in progress and constructive suggestions from members are welcome.

Month/ Week beginning				Field trip Leader
June				
4-Jun				
18-Jun	Metro	Your local reserve, remnant bush, road verge	ORCHID CHALLENGE	Members
July				
9-Jul	Mundaring		Burn	R & M Fox
23-Jul	Perth	Kings Park	Burn	
August				
6-Aug	Beckenham	Kenwick wetlands		M Roepen
20-Aug	Ferndale	Adenia Road bridge		
27-Aug		Your local reserve, remnant bush, road verge	ORCHID CHALLENGE	Members
September				
3-Sep	Warwick	Warwick Open Space	Conservation Area	
10-Sep	Canning	Holmes Street Reserve	WALGA survey City of Gosnells	C Lock
17-Sep	Mundaring		Burn	R & M Fox
October				
8-Oct	Winthrop	Piney Lakes		
15-Oct	Yanchep	Yanchep NP		
22-Oct				
November				
5-Oct				

Some Orchids from the Metro Area



Images clockwise from top:

Pink Fairy albino form (*Caladenia latifolia*), Helmet Orchid (*Corybas recurvus*), Slender Snail (*Pterostylis* sp 'crinkled leaf'), Autumn Leek (*Prasophyllum parvifolium*), Carousel Spider (*Caladenia arenicola*), Large Pansy Orchid (*Diuris magnifica*), Scented Sun Orchid (*Thelymitra macrophylla*), Darling Scarp Donkey (*Diuris ostrina*), Tuart Spider (*Caladenia georgei*)



MEMBERSHIP CORNER

Jon Warren – Vice President/Membership Coordinator

Our October meeting in recent years has celebrated "Octogenarians' Night" when we honour those of our members who have reached and surpassed the grand age of 80 and continue to express their enthusiasm for our wonderful native orchids. This is not to overlook several of our younger members who nevertheless have been loyal members for many years as indicated following (as at 31 December 2017.)

40 years' or more

- Andrew Brown (founder member)
- Alex George (founder member)
- Noel Hoffman (founder member)
- Jean Long
- Alison Harrington

30 – 39 years

- | | | |
|---|--|---|
| <ul style="list-style-type: none">• Paul Armstrong• Sarah Atkinson• Noel Clark• Margaret Collins• Chris & Marie French• Peter & Cheryl Gee | <ul style="list-style-type: none">• Ian Greeve• Stuart & Mary Harris• Ron Howlett• Stephen Hopper• Gloria Jackson• Christine Lock | <ul style="list-style-type: none">• Ginton Reed• Barry & Helen Richards• Jane Scott• Judy Williams |
|---|--|---|

20 – 29 years

- | | | |
|---|---|---|
| <ul style="list-style-type: none">• Graeme Anderton• Mark Brundrett• Phil Bunney• Anna de Haan• Mike Duncan | <ul style="list-style-type: none">• Ross & Margaret Fox• Minna George• David Lawson• Ken & Aileen McKay• Steve & Kathy Phillips | <ul style="list-style-type: none">• Don & Eva Smith• Joff & Joan Start• Eric Swarts• Eddy & Donna Wajon• Don Ward |
|---|---|---|

10 – 19 years

- | | | |
|---|---|---|
| <ul style="list-style-type: none">• Tom Burbidge• Trevor & Jean Cunningham• Matz Dahlkamp• Peter & Maria de Haan• Etienne Delannoy• Jack & Mary Eborall• John & Alison Ewing• Bill & Margie Gaynor | <ul style="list-style-type: none">• Ray & Cynthia Grant• Helen Hamersley• Kim & Thea Hanson• Ron & Beth Kinsey• Bill & Helen Kosky• Peter McCauley• Gary & Sue McDonald• Wayne & Louise Merritt• Robin & Marj Moyle | <ul style="list-style-type: none">• Ramón & Trish Newmann• Frank O'Connor• Jim & Eve Parry• Jeff & Wendy Spencer• Jay Steer• Ann Storrie |
|---|---|---|

Over the past three years membership numbers have grown as follows:

2015

129 paid memberships covering 189 people plus 10 life members and a patron, which includes 11 new memberships for 17 people

2016

142 paid memberships covering 216 people plus 10 lifers and 1 patron, which includes 26 new memberships covering 35 people, 13 memberships not renewed covering 14 people

2017

154 paid memberships covering 230 people plus 10 life members and 1 patron, which includes 16 new memberships covering 22 people, 15 memberships not paid covering 19 people, 2 resignations covering 3 people

We warmly welcome three new members who joined us late last year. All are from the southern suburbs with Cathy Hurst from the Rockingham region and Malcolm and Erin Roberts from Kwinana country.



ORCHID NEWS

Rare Orchid Surveys last year – Mark Brundrett

Thank you to WANOSCG Members

Anne Harris has sent a thank you card for all your many hours of participation and valuable expertise during rare orchid surveys last year. The Banksia Woodland Restoration project is also very appreciative of all your efforts. In total there were 29 days of volunteer time for the glossy-leaved hammer orchid alone (including the Capel area). I will try to get the card to you before the first meeting.

I have attached some orchid pollinator antics photos for your amusement (you can also see videos of the same insects on YouTube).



Images courtesy Mark Brundrett

Pollinator Antics:

Left and centre – male wasps on slipper orchid (*Cryptostylis ovata*), Right – Male ants on hare orchid (*Leporella fimbriata*)

Orchid Taxonomy – Kevin Uhe

In the February March edition of the Australian Orchid Review David Jones and Chris French published a paper to recognise new combinations in the *Pterostylis* complex. During 2016 a number of taxa were named in the banded greenhood, bird and snail complexes but were placed into genera not recognised by the WA Herbarium. This paper brings these namings into the *Pterostylis* complex.

The new names are as follows:

Snail complex

- *P* sp 'Cape Le Grande' is now *P meridionalis*
- *P* sp 'Helena River' is now *P angulata*
- *P* sp 'northern thick sepals' and *P* sp 'cauline leaves' have been combined into one taxon now named *P ectypha*.

Banded Greenhood complex

- *P arbuscula* is the new name for what was previously the Mallee form of *P sanguinea* but now considered distinct due to its short stature and few flowers
- *P* sp 'small bands' is now *P orbiculata*
- *P* sp 'crowded' is now *P atrosanguinea*.

Bird complex

- *P* 'plumed' is now *P faceta*
- *P* 'dwarf' is now *P galgula*
- *P* 'granite bird' is now *P saxosa*
- *P* 'Greenbushes' is now *P sigmoidea*



Image courtesy Pat Richards

Banded Greenhood (Crowded)
Pterostylis atrosanguinea

- *P* 'Mehinup' is now *P. precatorea*
- *P* 'Muir Highway' is now *P. longicornis*
- *P* 'plumed' is now *P. faceta*
- *P* 'The Knoll' is now *P. serotina*.

New e-Book – Spider Orchids: the Genus *Caladenia* and its Relatives in Australia

WANOSCG member, Gary Backhouse advises he has recently published a new e-book on *Caladenia* species. For members who are interested in acquiring a copy, details are as follows:

'Spider Orchids: the Genus *Caladenia* and its Relatives in Australia'
by Gary Backhouse
ISBN: 978-0-9946489-1-4

This is a new publication on the genus *Caladenia* and its relatives (*Adenochilus*, *Cyanicula*, *Ericksonella*, *Eriochilus*, *Glossodia*, *Elythranthera*, *Leptoceras*, *Pheladenia* and *Praecoxanthus*) and covers the 395 species and subspecies of orchids in the subtribe *Caladeniinae* that occur in Australia. The work is 844 pages long (landscape format) and is illustrated with over 7,800 photographs, including photos of 143 naturally occurring hybrids. Every species is featured with descriptive text and a distribution map and for almost all species there are multiple photographs showing whole plants, flowers and labellum details.



'Spider Orchids' is published as an e-Book: a PDF file available on DVD, USB stick or microSD card.

For further information on the E-Book and how to order, go to <https://bushorchids.weebly.com> or contact Gary at: bushorchids@gmail.com



STUDY GROUPS

ADORP Study Group – Kevin Uhe

It is pleasing to report that over the 2017 orchid season 1,781 volunteer hours have been recorded by the ADORP members which is a huge effort by all involved. Since the inception of the project over 7,700 volunteer hours have been recorded officially though this total is far short of the actual effort due to missing timesheets.

Currently there are 28 taxa under study and many of the groups have been involved since the project commenced in 2011. New locations are still being found for some of the taxa under review which is a good sign.

Now that many groups have seven years of data available this allows the ADORP project to move into a new stage whereby we can use the data possibly to upgrade or downgrade the status of some of the priority orchids.

It is apparent from the data collected that some taxa could meet the criteria to be nominated for Threatened status. Each year DBCA calls for nominations for taxa that could be considered as

Threatened Flora and the first taxon to be nominated as part of this process in the next round will be *Thelymitra magnifica*.

The Threatened Species Branch at DBCA has indicated that they will help us put together these nominations as they are reasonably complex and, by using their expertise, will give our nominations a better chance of success.

Going forward it is proposed that we nominate one or two taxa in each yearly round where we can justify that a threatening process is likely to cause the species to be in decline. This is an important use of the data that have been collected so far and is a good outcome of the project.

On the opposite side there are a few taxa that could be downgraded in status due to extra populations being located. This will be an ongoing process as we use the data to make determinations in conjunction with DBCA.

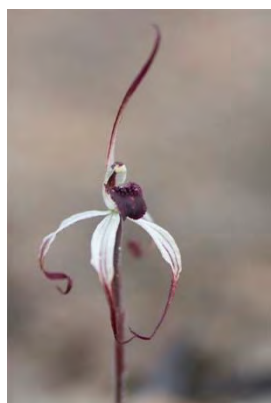
Thanks for all the ADORP members who have submitted timesheets and reports to date.



Crystal Brook Sun Orchid
(*Thelymitra magnifica*)

WANOSCG file image

Caladenia drummondii Study Group 2017 – Margaret Petridis



Winter Spider Orchid
(*Caladenia drummondii*)

Images courtesy Pat Richards

In 2017 we had some widespread early heavy rainfall in late summer but then a very dry autumn. We did not receive any significant rainfall in March, April, May or June in much of the south-west of the state.

This resulted in poor or non-flowering of orchids early in the season, including *Caladenia drummondii*.

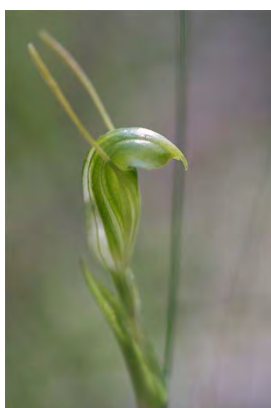
We targeted this orchid on a field trip around Merredin over the long weekend in early June. One area south of Merredin had obviously received some rain at the right time, as we found *C drummondii* in good numbers in two different locations.

Otherwise, numbers were very low in known populations this year, especially around Corrigin/Babakin, and reduced to approximately half the previous year near Dongara. They were found in reasonable numbers east of Kalbarri in early June.

No new sites were found this year, due to the dry season, despite searching north of Merredin as planned.

We hope for better rainfall in 2018 and will continue searching for new locations for this orchid.

Snail Orchid Study Group – Kevin Uhe



Snail Orchid
Pterostylis anquilata

Image courtesy Pat Richards

2017 proved to be somewhat of a frustrating year with the lack of rain in late Autumn/early winter severely impacting the growth of the earlier members of the snail orchid complex.

This resulted in a number of areas being totally devoid of even rosettes where in previous years hundreds of snails had flowered. This was particularly noticeable at the type site for the hairy leaf snail (*Pterostylis echinulata*) where nothing was seen on two visits during the flowering season.

Despite this we were able to locate a new population of *P echinulata* near Corrigin which enabled us to compare this taxon with the more widely spread *Pterostylis* sp 'inland' which grew in the same area but flowered a number of weeks later.

During November we did a field trip with Gary Brockman and Andrew Brown to study the late flowering snail (*Pterostylis* sp 'late flowering'). After seeing a number

of plants in full flower Gary was able to confirm that these plants are actually a late flowering form of the named snail – *Pterostylis glebosa*.

During 2018 the study will focus on a few unnamed snails that were located in 2017 to try and ascertain how these fit into the known species, if at all.

Many thanks to those members who have forwarded sightings of snails during the 2017 season.



General Meeting Minutes

Wednesday, 15 November 2017

Meeting held at: BGPA Boardroom, Kings Park

Meeting opened: 7:30 pm

ATTENDANCE: Visitors: Nil Number of members present: 43

Welcome to new member: Sally Bayley.

APOLOGIES: David and Janeanne Cumming, George Kokosinski, Ross Fox, Mary Hoffman, Bill Gaynor, Greg van der Vaart, Andrew Simpson, Stuart Gale, Adrienne Saunders, Lyn Alcock, Heather Hills, Marina Karyagina

CIRCULATION OF REPORTS: The Attendance Book and copies of the Treasurer's Report as at September 2017 and amended report as at August 2017 were circulated to the members.

RAFFLE: Prize donated by Marina Karyagina

1. PREVIOUS MINUTES

Members were asked if they had any amendments to the Minutes of 18 October 2017 General Meeting that appeared in the November Bulletin.

Moved by Sarah Atkinson and seconded by Tom Burbidge that the General Meeting Minutes of 18 October 2017, as published in the November Bulletin 2017 bulletin are a true and accurate record of that meeting. *Carried*

2. BUSINESS ARISING FROM THE PREVIOUS MEETING

- 2.1 **WANOSCG Award:** There was a reminder of the call for nominations to be submitted to Ramón Newmann or a member of the committee.
- 2.2 **Submissions for Grant:** Members were reminded of the terms for submissions with expressions of interest to be submitted to WANOSCG by the end of December. Following close of the submission period, the proposals will be narrowed down and the applicants requested to provide more detailed submissions for consideration.
- 2.3 **Meeting with Department of the Premier and Cabinet:** Eddy Wajon reported back on clearing issues. (See section 6 Conservation).

3. TREASURER'S REPORT

For the period October 2017:

	October 2017	1-Feb-17 to 31-Oct-17
Income (operating account)	\$263.50	\$5,421.59
Expenditure	\$2,263.58	\$3,949.58

Moved by Margaret Petridis and seconded by Geoff Foley that the Treasurer's Report for October 2017 be accepted as a true record of the club's finances. *Carried*

- 3.1 *Thanks were expressed to Eddy Wajon* – who donated funds from the sale of his books.
- 3.2 *Grant:* It was noted that the pilot grant won't eat into our capital funds as income and interest from this year and next would cover the outgoing.

4. CORRESPONDENCE 19 October 2017 to 17 November 2017

Electronic or hard copies of newsletters and bulletins have been received over the period from: ANOS Macarthur, ANOS Sydney, ANOS Illawarra, Invasive Species Council, CCWA, NOSSA. Correspondence covered a range of topics.

Inward emails to the WANOSCG Web site and members of the committee:

Date	Sender	Topic
22-Oct-17	Sasha Pol	Seeking a copy of Field Guide to the Orchids of Western Australia (Brown, A, et al)
25-Oct-17	Dave Lawrence	Wishing to buy a zebra orchid to own.
28-Oct-17	Tim Hodgkins	Attaching CCWA Executive Committee Nomination Form 2017 requesting WANOSCG committee to consider
31-Oct-17	Tim Hodgkins	Response for DFES website enquiry GE-009412 (Manea Park, Bunbury)
31-Oct-17	Tim Hodgkins and DFES	Flynn Drive, Banksia Grove – interim report
31-Oct-17	Invasive Species Council	Saving Island Species – Eradicating Invasive Animals
6-Nov-17	CCWA	Final hours to save Shenton Park bushland
6-Nov-17	ANBG Library	WANOSCG October Bulletin and WANOSCG reply
7-Nov-17	ANBG Library	WANOSCG October Bulletin
9-Nov-17	Secretary NOSSA	Missing Bulletins and WANOSCG reply
10-Nov-17	Secretary NOSSA	Updated email addresses for NOSSA
10-Nov-17	Ben Vrieling, Wellington Cottages	Enquiring about proposed WANOSCG research grant and WANOSCG reply
11-Nov-17	ANOS Sydney	Inaugural Australian Native Cymbidium Celebration 2017

Business arising from Correspondence:

- Responded to Sasha Pol, indicating we had no copies available but suggesting some tourist bureaux might still have one.
- Responded to Dave Lawrence indicating practical and legal difficulties of his intent to own a zebra orchid but pointing him in the direction of other groups who concentrate more on native orchid cultivation.
- Published Flynn Drive report in November Bulletin. Continue to monitor success or otherwise of transplanted orchids next season.
- Missing Bulletins forwarded to ANBG Library and NOSSA. Distribution lists updated accordingly.
- Anyone expecting to be in Sydney on 17 October in the vicinity of Baulkham Hills might like to attend the Inaugural Australian Native Cymbidium Celebration.

5. FIELD TRIPS

An outline for field trips in 2017 was published in the November 2017 Bulletin and details for attendees circulated by email.

- 5.1 *Field trip Berry Reserve near Toodyay:* The trip was conducted on Tuesday, 14 November, under the auspices of the Department of Biodiversity, Conservation and Attractions (DBCA). A survey for the cinnamon sun orchid (*Thelymitra dedmaniarum*) was conducted ahead of controlled burns by the City of Swan to create buffer zones. Luckily no target plants were found in the proposed burn areas.

Upcoming Field trips

- Saturday, 18 November, from 4:00 pm onwards. Hosted by Ian Puddey and Peggy Leung, who would provide a buffet of meats, salads and side dishes and some drinks.
 - Attendees were requested to bring a dessert to share, extra drinks, and bathers and towel (if wishing to swim). Those wishing to attend should already have advised Margaret Petridis by last Friday, 10 November, however were given a last chance to register at the meeting.
- Also planned was a weekend trip away on 25 and 26 November, looking to base ourselves in Pemberton this year. Field trips were being planned for the Northcliffe area all day Saturday and near Pemberton in the morning on Sunday. The dinner on the Saturday night would be held at Pemberton Sports Club with a catered buffet meal @ \$20 per head. Bar facilities were to be available.
 - Attendees to arrange own overnight accommodation.
 - Members wishing to register were advised to contact Margaret Petridis by 17 November using text on [REDACTED].
 - Members were also requested to advise Margaret if they would be travelling to Pemberton on the Saturday (to enable a meeting place to be arranged.) Otherwise she would assume people would arrive on Friday and be available for a whole day out (9:00 am – 4:00 pm approx) on Saturday.

Personal Field Trips: (Please use common names and full names where known)

Members are requested to fill out the personal field trip report form on the front table and send electronic Orchid Sighting Sheets to the registrar (Ramon Newmann [REDACTED]). If you don't have a copy of the report or sighting sheet then send an email to the secretary (Pat Richards – [REDACTED]) and she will provide you with an electronic copy.

- John Ewing had been on a field trip looking for *Eremophila* species, however at Emu Rock he had seen the granite bee orchid (*Diuris picta*). At the southern edge of the rock he had found the elegant rufous greenhood (*Pterostylis elegantissima*).
- Jon Warren had seen dried up orchids near Pemberton, Walpole and Manjimup areas. He had seen karri spiders (*Caladenia brownii*) and, at a couple of spots, a rabbit orchid (*Leptoceras menziesii*). On Bevan Road, he had seen Starts' spider orchid (*Caladenia startiorum*).
- Margaret Petridis and Kevin Uhe had visited Eneabba to follow up on how the sand plain duck orchids (*Paracaleana dixonii*) had fared since a burn in 2012. This was a test population. One site had had a very large population which had been good for the first two years after the fire – it had gone from around 150 down to one in six years. There had also been a fresh fire and a new population had been found of about 70 plants. The number of sightings for 2017, however, had been rather low.

6. CONSERVATION

It was moved by Tim Hodgkins and seconded by John Ewing that the Conservation Report as published in the November Bulletin be accepted. *Carried*

Additional matters:

- 6.1 Chestnut orchids (*Thelymitra fuscolutea*) – Some of these had been under observation in Warwick and a specimen had been noted that was approximately 70 cm tall with 20+ flowers.
- 6.2 Road widening – Clearing notices had been published as follows:
 - Shire of West Arthur – Bowelling-Duranillin Road
 - Shire of West Arthur – Bowelling – McAlinden Road
 - Shire of Manjimup – Richardson Road, Northcliffe
 - Shire of Manjimup – Grace Road, Quinninup
 - Shire of Manjimup – North Walpole Road, Walpoleand there had been a wild fire at the crossing of Wanneroo Road and Flynn Drive.

Any member having knowledge of the orchids in these areas are requested to let Tim Hodgkins know the details.

- Eddy Wajon (EW) reported having visited the first clearing area where it is intended that three sections of road should be cleared. The first has already been cleared and clearing of the second is about to commence. The third is still being planned.

- EW has been asked to provide flora information on the flora along the Collie–Darkan Road and visited there, although he did not get to see the part that runs through state forest. He believes the clearing footprint is excessive and has tried to get it reduced but unsuccessfully. It is noted that these roads are local government roads. The road clearance in question starts at a DRF marker (for the dwarf bee orchid (*Diuris micrantha*)) and passes through wetland.
- In the Shire of West Arthur, farmers have been advised that they are allowed to clear 500 mature trees per year on their land, a quota EW believes to be excessive and a mis-reading of the state's conservation rulings. It is understood that the State Prosecutor will be contacting the Shire.
- As regards the North Walpole Road clearing a submission has been lodged and the matter is now subject to public appeal.
- For the shore of Bridgetown-Boyup Brook there are 54 pages covering roads that are intended to be cleared and they are applying to extend the permit. An appeal against this has been lodged.
- WANOSCG members are asked to take particular note of the location of orchids on road verges and advise Ramón Newmann so that they can be entered into the database and be available for prompt reference in connection with clearance notices.
- EW had a meeting with the Commissioner for Road Safety on Monday, 13 November, along with the Principal Policy Advisor for the Minister for Road Safety. It is understood that the Minister agreed with EW that making roads wider, straighter and flatter does not improve safety, but just tends to encourage vehicle drivers to travel faster. It was indicated that we have a problem that needs to be changed in that many accidents occur through fatigue not from being tired but from monotony.
- Sally Bayley indicated that in Wickepin Shire, they have now lost the trains so all the freight is carried in trucks on the road and this has triggered the road widening drive.

7. GROWER'S TABLE

Nothing tabled.

8. GENERAL BUSINESS

- 8.1 *ADORP* - Kevin Uhe has been helping with the organisation of ADORP and invited anyone who would like to join the program to let him know. An invitation for members to assist Bill Gaynor and David Stevens with their ADORP project monitoring slender-leafed duck orchids (*Paracaleana gracilicordata*) was noted.
- 8.2 *WANOSCG Database*: A reminder was made of the request for members to submit their orchid data for entry into the WANOSCG Database. It was also noted that there were some species for which there were no sightings entered in the Database and that of concern was the fact that Peel Shire has minimal entries.
- 8.3 *WANOSCG Committee 2018*: A call was made for members to volunteer for positions on the committee – committee members and Bulletin editor (or secretary).
- 8.4 *World Orchid Conference*: Ron Fauntleroy indicated that he had been overseas looking at orchids and had attended the World Orchid Conference in Ecuador. Conference delegates were reported to have been fascinated by our blue *Thelymitra* species.
 - On the second last day of the conference bids to host the next world conference were entered and the conference committee decided that the September 2023 conference will be held in Perth.
 - It was noted that preparation for that conference will entail considerable work, including the fact that delegates will expect flasks of orchids to be made available for them to take away with them. It was reported that Kingsley Dixon would be coordinating this task, which would entail collection of seed for the purpose and that approval would accordingly need to be obtained.
 - Input for the conference will be sought from all orchid groups in Western Australia.
 - The venue for the conference will be the Perth Convention Centre.
- 8.5 *Wishing Ross Fox well*: Margaret Fox indicated that Ross was home once more following his recent hospitalisation although he would need to return to hospital in February for further surgery. The members offered their best wishes to Ross and Margaret and hoped that all would go well.

PHOTO COMPETITION: Members submitted their printed photographs (6" x 8") with their names on the back passing them to the adjudicators, Bob Steer and Kevin Uhe, who laid them out on the table in

anonymous order prior to the judging by votes from the meeting attendees who were not told the identity of the entrant of each photo. Results of the vote were as follows:

First place went to Trish Newmann for her picture of an Eyre Rufous Greenhood with pollinator.

Second place went to Rob van Oosten for his picture of a Duck orchid

Third place was shared equally between Jon Warren's Duck orchid and Jay Steer's White China.

Well done to the winners and thank you to all entrants who delighted us with their photos of bugs on orchids.

RAFFLE DRAW: Trish Newmann drew the raffle which was won by Rachel Halls.

MEETING CLOSE: 9:20 pm

NEXT MEETING: Annual General Meeting 7:30 pm Wednesday 21 March 2018 immediately followed by March General Meeting, BGPA Boardroom, Kings Park



Notices

Wednesday, 21 March 2018

WANOSCG Award

The WANOSCG Award was inaugurated in 2011 to recognise outstanding contribution by a member to the furtherance of the group's objectives and operations. The Award is made annually and as a result of a nomination to the president and a decision by the committee. This year, the Award goes to Anna de Haan for being the driving force behind the creation of the regional branch of WANOSCG, now known as the Southern Rivers Group (SRG).

Anna's unstinting mentoring, support and leadership of the SRG has enabled members based in the south of Western Australia, who might otherwise be isolated from WANOSCG as a whole, to come together to study and enjoy the orchid populations in the south of Western Australia. This has enabled the SRG to contribute meaningfully to the Group's knowledge and conservation of our native orchids by the wider membership.

Nominations for Life Membership of WANOSCG

While the WANOSCG Award recognises specific contribution by a member, life membership is bestowed as a result of positive, more general, contribution by a member in the long-term. Under the present WANOSCG constitution, life membership is awarded from time to time as a result of nomination to or by the committee and ratified by a vote by the general members.

At a meeting of the WANOSCG committee on 17 February 2018 it was agreed that John Ewing and Kim and Thea Hanson be nominated for life membership (Kim and Thea being nominated jointly).

In his time with WANOSCG, John Ewing has served the group in many positions, including two years as president, five years as Bulletin editor, seven years as a committee member, two years as conservation officer, one year as registrar and one year as secretary. He has always been one, often at a moment's notice, to take on those tasks that just need to be done for the smooth running of the club. His positive outlook and friendly manner have smoothed the introduction of many a budding orchid enthusiast into the ways of WANOSCG.

As noted, Kim and Thea Hanson have explicitly been nominated jointly. They have been members of WANOSCG since 2006 and since then have held a number of office positions. Kim has been a vice president for five years, a committee member for four years and treasurer for two years. Thea has been a committee member for eight years and librarian for one year. They have demonstrated an ongoing dedication and service to the group. They have also made a number of other contributions, perhaps one of the most notable being the Adopt an Orchid Project (ADORP), a program that has been recognized both nationally and internationally as an extremely worthwhile and productive cooperative program.



Images from left:

Plain Sun Orchid (*Thelymitra paludosa*), Crab-lipped Spider (*Caladenia corynephora*), Swamp Mignonette (*Microtis atrata*), Blue Sun Orchid (*Thelymitra canaliculata*), Ray Spider (*Caladenia radiata*)

Images courtesy of Ramón Newmann

WANOSCG Officers

The March meeting is the first meeting of a new year and the general meeting will be preceded by the annual general meeting (AGM). At that meeting members will be asked to vote for those who have offered to fill the positions of officers of the association for 2018. Officers standing for election are as follows:

- Stephen Hopper has been the group's patron (yet to be confirmed for 2018)
- Ramón Newmann will offer to continue as president
- Jon Warren will offer to continue as vice-president
- Ian Puddey will offer to serve as vice-president
- Jay Steer will offer to continue as treasurer
- Kim Hanson will resign as vice-president but offered to continue as committee member
- Pat Richards will offer to continue as secretary
- Margaret Petridis will offer to continue as field-trip coordinator
- Rob van Oosten and Stuart Gale have resigned as committee members
- Marina Karyagina will continue as committee members
- Kevin Uhe has offered to serve as a committee member if no others offer their services
- David Lawson has offered to serve as a committee member
- Ramón Newmann will offer to continue as registrar
- Trish Newmann will offer to continue as supper coordinator
- Thea Hanson will offer to continue as librarian
- Tim Hodgson has offered to continue as conservation officer
- Paul Winthrop has offered to take over as editor of the Bulletin
- Jay Steer will continue as liaison with the Southern Rivers Group.

Rosters

As usual, each general meeting during the year will conclude with a raffle prize draw followed by an informal supper, the prize and light supper refreshments being provided by volunteers. Note that Trish Newmann has agreed to continue as coordinator of the suppers but we do need some members to step up and provide the prizes and refreshments. It's not onerous, so please consider putting your name down for one or other of these when the request sheet similar to that below is circulated at the meetings.

	Speaker	Topic	Raffle Prize	Supper
21 Mar	TBA			
18 Apr				
16 May				
20 Jun				
18 Jul				
15 Aug				
19 Sep				
17 Oct				
21 Nov				

*Thank you for
reading.
Welcome to the
orchid season of
2018*

BULLETIN ARTICLES

Please email any Bulletin contributions to the Editor at wanoscg@gmail.com. Items for the next Bulletin need to be submitted by 11 April 2018.

COPYRIGHT

All articles and images appearing in the Bulletin remain the property of WANOSCG or the original owner. WANOSCG is happy for any of the articles, items or images to be used by another orchid society for a non-profit purpose providing the society acknowledges the source and the author.

ARTICLES: Come from the author and not WANOSCG.

CONTACT DETAILS:

WANOSCG EMAIL: wanoscg@gmail.com

WANOSCG WEBSITE: www.wanoscg.com

Addendum to Registrar's Report

Species with NO sightings as at Jan 2018	Common name	Species distribution	Flowering start	Flowering finish	Conservation status	Previous name
<i>Diuris</i> sp 'Scaddan'	Rock-loving donkey orchid	Scaddan to Hyden	1-Jul-17	1-Sep-17		
<i>Diuris</i> sp 'Williams'	Little Williams donkey orchid	Williams area	1-Aug-17	1-Sep-17		
<i>Drakaea andrewsiae</i>	Lost hammer orchid	Gnowangerup to Tunney	1-Sep-17	30-Sep-17	P1	
<i>Microtis</i> sp 'Helms Arboretum'	Esperance magnonette orchid	North of Esperance	1-Oct-17	15-Nov-17		
<i>Microtis</i> sp 'Windy Harbour'	Late cupped magnonette orchid	Northcliffe to Windy Harbour	1-Dec-17	31-Dec-17		
<i>Prasophyllum paulinae</i>	Pauline's laughing leek orchid	Albany	15-Sep-17	30-Nov-17	P1	
<i>Prasophyllum</i> sp 'dwarf'	Dwarf leek orchid	North of Stirling Ranges	1-Sep-17	15-Oct-17		
<i>Pterostylis eremaea</i>		Wongan Hills and Mollerin	15-Sep-17	31-Oct-17		P sp 'red flowered'
<i>Pterostylis fuliginosa</i>		Peak Charles	30-Sep-17	31-Oct-17	P2	
<i>Pterostylis hadra</i>	Invisible rufous greenhood	Pootenup area	7-Oct-17	22-Oct-17	P1	
<i>Pterostylis</i> sp 'chocolate'	Chocolate flowered rufous greenhood	Karonie area	15-Sep-17	15-Oct-17		
<i>Pterostylis</i> sp 'large fawn'	Fawn rufous greenhood	Karonie area	15-Sep-17	31-Oct-17		
<i>Pterostylis</i> sp 'Walpole'	Walpole snail orchid	Walpole area	15-Jul-17	1-Sep-17		
<i>Pterostylis telmata</i>	Eastern swamp snail orchid	Esperance to Israelite Bay	31-Aug-17	30-Sep-17		P sp 'Cape Arid'
<i>Pterostylis virens</i>	Green spoon-lipped rufous greenhood	Peak Charles to Hospital Rocs west of Menzies	1-Sep-17	31-Oct-17	P3	
<i>Thelymitra</i> sp 'Denmark'	Yellow sun orchid	Denmark area	15-Oct-17	15-Nov-17		