



Western Australian Native Orchid Study and Conservation Group

May 2016 Bulletin



Pygmy orchid (*Corunastylis tepperi*), Harrismith.
Photo by M. Petridis

WANOSCG ON FACEBOOK

The WANOSCG Facebook group is up and running now — thank you to the Treasurer, Paul Winthrop for setting up and moderating.

The group has 49 members already (out of WANOSCG total membership of around 130 members) and is growing everyday. This group is for WANOSCG members only.

Members are posting details of their latest finds (and there have been plenty already): hares, bunnies, pygmies, winter spiders and an occasional shell orchid (that's early!).

If you have not yet tried it, give it a go! If you have a Facebook account, go to groups, find WANOSCG and ask to join. If you have not got a Facebook account, set up one first.

Facebook is easy — just ask Margaret Fox (and 48 other members)!

INSIDE:

- Meeting Minutes
- Field Trip Reports
- Fire and orchids
- New orchid names
- And more

Contacts: President, Jay Steer, [redacted]
Email: : wanoscg@gmail.com
Postal: PO BOX 323, VICTORIA PARK, W.A. 6979
Website: [redacted]

General Meetings are held 7:30pm the 3rd Wednesday of the month, March through November, at the BGPA Boardroom, Kings Park

WANOSCG General Meeting Minutes

Wednesday, 20th of April 2016

Meeting held at: BGPA Boardroom, Kings Park.

Meeting opened: 7:35 pm. The meeting was chaired by Jay Steer.

ATTENDANCE: Number of members present: 40

Apologies: Urszula Kokosinska, George Kokosinski, Alison Higgins, John Ewing

Visitors: Jennifer Gunn, Rob van Oosten, Adrienne Saunders (all applicants for membership)

Welcome to new members: Jon Warren (membership Officer) was introduced to membership applicants.

CIRCULATION OF REPORTS: Attendance Book, Conservation and Treasurer's Reports were circulated to the members

RAFFLE: Prize donated Jay Steer

1. PREVIOUS COMMITTEE MINUTES

Members were asked if they had any amendments to the minutes of the 16 March 2016 General Meeting that appeared in the April bulletin.

It was moved by Marina Karyagina and seconded by Matz Dahlkamp that the General Meeting Minutes of 16 March 2016, as published in the March 2016 bulletin are a true and accurate record of that meeting. *Carried.*

2. BUSINESS ARISING FROM THE PREVIOUS MEETING

2.1 Rosters for 2016: Raffle and supper rosters were tabled and members asked to sign up. In addition members interested in becoming involved in one of the subcommittees associated with each of the programs were invited to add their names to the lists on the table.

2.2 Fees are due

2.3 Speakers for 2016 are still being sought for August, September and October.

2.4 Website of validated digital photos of all WA native orchids: Noel Hoffman is still collecting photographs and there are pictures of around 280 orchid species already uploaded.

2.5 Strategic plan (Review of 5-year plan): addressed in general business.

2.6 WANOSCG brochure: Minor amendments were suggested to the wording and layout, including:

- Use of the word "native" was agreed as preferable to "indigenous" when applied to orchids.
- "/home" was removed from the website address.

Pat Richards made the suggested amendments and saved it in pdf format.

Pat Richards provided final printed copies at the general meeting on 20 April for the immediate use of Margaret Petridis, while further copies will be obtained on an ad hoc basis through a commercial facility.

2.7 WANOSCG Photographic Competition for 2016: See general business

2.8 ADORP report: The 2015 ADORP report by Coordinator, Kim Hanson, appeared in the April bulletin. There was a vote of thanks for Kim's hard work on this very successful program.

3. REGISTRAR'S REPORT

WANOSCG Database: Sightings reports continue to be entered into the database and members are encouraged to use the Excel sightings spreadsheet entry form for ease of transfer of the data.

4. TREASURER'S REPORT

For the period 1 March 2016 to 31 March 2016:

	MTD (1/03/16– 31/03/16)	YTD (1/02/16– 29/02/16)
Income (operating account)	\$1,381.50	\$1,496.50
Expenditure	\$28.00	\$28.00

Of the term deposits one matures the day after the next (May) meeting, when a decision will be made on whether to roll it over.

It was moved by Kim Hanson and seconded by Tom Burbidge that the Treasurer's report for March 2016, be accepted as a true record of the club's finances. *Carried.*

5. CORRESPONDENCE

From 17 March 2016 to 20 April 2016

Electronic or hard copies of Newsletters and Bulletins have been received over the period from: Orchid Society of Western Australia Inc, ANOS Illawarra, ANOS Sydney, ANOS Macarthur, NOSSA. Correspondence covered a wide range of topics.

5.1 Inward emails to the WANOSCG Web site and jay.steer@gmail.com:

Date	Sender	Topic
16/4/16	Robert Lawrence	NOSSA Flyer for Orchid Picture Auction
18/4/16	Timothy Hodgkins	Receipt: payment to Urban Bushland Council WA Inc.
13/4/16	WanoscgNewsletter	WANOSCG Facebook group
11&12/4/16	Timothy Hodgkins	Bunbury Outer Ring Road Construction
6/4/16	Helen Bryant	General Meeting Notice - Weds 27 April 2016
28/3/16	Murray Baker	Vale Shirley Masters
27/3/16	Ramon	Creating an Email address for the Registrar
27/3/16	Paul Winthrop	RE: quotes for website upgrade
21/3/16	Tim Hodgkins	Warwick Bushland and current projects
20/3/16	Anna de Haan	March Field Trip (first field trip)
20/3/16	Marina Karyagina	Quotes for website upgrade - first quote received
17/3/16	Tim Hodgkins	Urban Bushland Council
20/3/16	Graeme Russell	email for ANOS Sydney now anossydney@gmail.com
9/3/16	Jon Warren	Membership list and duties of the Membership Officer

5.2 Business arising from Correspondence:

- Members interested in the NOSSA orchid picture auction should contact Jay Steer by email.
- Urban Bushland Council – see Conservation section.
- Quotes have been received for the upgrade of the website and were further discussed in General Business.

6. FIELD TRIPS

An updated outline for field trips in 2016 was published in the April 2016 Bulletin.

6.1 Upcoming Field trips

- **April:** No organised group field trip this month. We suggest members use the Anzac Day long weekend to explore various areas south/east of Perth to look for *Eriochilus species*, *Leporella fimbriata*, *Praecoxanthus aphyllus* and *Corunastylis tepperi*.
- **May:** Sunday 1 May: Burnt areas off Forrest highway and then West Coolup/Pinjarra (*Eriochilus*, *Leporella fimbriata* and *Praecoxanthus aphyllus*).
Sunday 15th May: Northam and Meenar NR (*Caladenia drummondii*, *Eriochilus*)
- **June:** Saturday 4th – Monday 6th June: Stirling Range and Albany Staying at or near Stirling Range Retreat: please arrange your own accommodation.
Sunday 26th June: Cataby/Badgingarra areas (*Thelymitra apiculata*)
- **July:** Sunday 24th July: Bullsbrook and Jurien areas (*Thelymitra pulcherrima*)

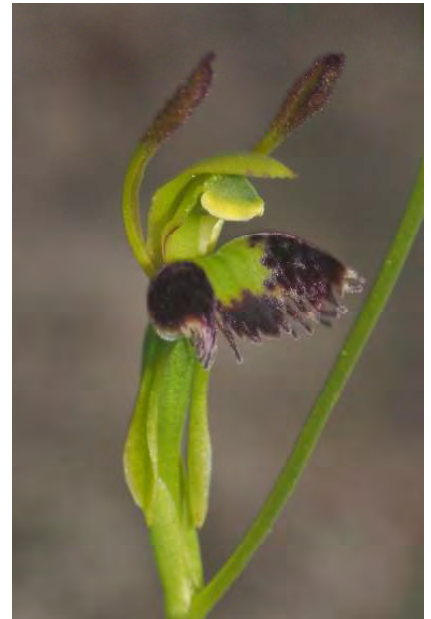
It was suggested that those interested in participating in the subcommittee for field trips should meet separately for the purpose of submitting further ideas and developing protocols. The procedures for field trips have been distributed to members and those members with comments or suggestions for improvements should forward them to Margaret Petridis.

6.2 Personal Field Trips:

Members are requested to fill out the personal field trip report form on the front table to make the Secretary's job easier and send electronic Orchid Sighting sheets to the Registrar (Ramon Newmann [redacted] or [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.

It is reiterated that the visits to Harvey/Waroona should exclude the immediate vicinity of Yarloop in consideration of the ongoing clean-up following the damage to the buildings during the fires; there are plenty of places of potential interest to the west of the Forrest Highway.

- ◇ Paul Winthrop 17-Apr-16 – Merredin — looked for *Corunastylis tepperi* but no luck.
- ◇ Ron Fauntleroy 17-Apr-16 – bushfire areas
 - Lake Clifton – very hot bushfire during summer – looked along roadsides and edge of lake areas, did not see any plants in flower
 - Johnson Road – numerous orchid leaves emerging before and after pine plantations on western end of this road, approximately a dozen orchids in flower (*Eriochilus dilatatus* subsp. *undulatus*) along road cutting embankment on north side approx. 3 km east of Forrest highway.
 - Drakesbrook Dam around reservoir area – no orchid plants seen.
- ◇ Margaret Petridis
 - 12-Apr-16 – Sandy track to the north of Gull Rock Road, found leafless orchid (*Praecoxanthus aphyllus*) and red-lipped bunny (*Eriochilus valens*)
 - 13-Apr-16 – Torndirrup National Park, Stony Hill (burnt last summer), found:
 - * Granite bunny (*Eriochilus pulchellus*)
 - * White bunny (*Eriochilus dilatatus* subsp. *dilatatus*)
 - * Red beak (*Pyrorchis nigricans*) leaves
 - * *Prasophyllum* (2 types) leaves, and
 - * On the corner of Stony Hill Road, the common bunny (*E. dilatatus* subsp. *multiflorus*)
 - 14-Apr-16 – Mondurup nature reserve near Mount Barker
 - * Leafless orchid (*Praecoxanthus aphyllus*)
 - * Red beak (*Pyrorchis nigricans*)
 - * Common bunny (*Eriochilus dilatatus* subsp. *multiflorus*)
 - * Robust snail (*Pterostylis dilatata*)
 - * Rattle beak (*Lyperanthus serratus*) leaves
 - 14-Apr-16 – private property, Moodiarrup
 - * Crinkle leaved bunny (*Eriochilus dilatatus* subsp. *undulatus*)
 - * Hare orchid (*Leporella fimbriata*)
 - 18-Apr-16 – Large granite rock at Del Park Road north of Pinjarra
 - * Swamp bunny (*Eriochilus helonomos*)
 - * Donkey orchid (*Diuris* sp) leaves
- ◇ Pat Richards, 20-Apr-16 – Darlington, White bunnies (*Eriochilus dilatatus*).



Leporella fimbriata.
Photo by M. Petridis

7. CONSERVATION

It was moved by Tim Hodgkins and seconded by Tom Burbidge that the Conservation report as circulated be accepted. *Carried.*

In addition the following conservation issues were raised:

- The committee has endorsed Eddy Wajon's suggestion that WANOSCG become a member of the Urban Bushland Council and Tim has joined that group at a cost of \$45.
- Anyone able to attend the CCWA meeting on 27 April on Tim's behalf should contact him.
- Bunbury Ring Road submission, including the possible relocation of orchids in the path of the project.

8. GROWER'S TABLE

Nothing tabled



9. GENERAL BUSINESS

9.1 WANOSCG Photographic Competition for 2016:

Suggestions included:

- Hybrids
- Yellow orchids
- Photos including pollinators
- *Caladenia flava*
- More than 10 orchid plants in the field of view.

It was also suggested that we could introduce a competition for the best projected image in 2016, however no decision was made about

this. Members were invited to submit any other ideas to the Committee prior to the committee meeting on 4 May. (Ed: The Committee has now made the decision — see last page).

9.2 Upgrade of the Current WANOSCG Website: On behalf of the Committee, Marina Karyagina approached three web designers to quote for a professional upgrade.

- The two quotes received were felt to be relatively expensive (5 —6 K).
- Paul Winthrop pointed out that the current web site hosted by Google is a free service based on standard templates. Our requirements are not complex and we could potentially choose a different template with a more appropriate structure.
- The current site is available for anyone to view and a suggestion was made for a site to be set up for members only.
- It was further suggested that a web site development subcommittee be set up.
- Marina will advise the two web site services that have provided quotes that the Group's requirements are still under consideration.

9.3 WANOSCG Facebook group: Following interest from members Paul Winthrop has set up a closed Facebook group page for members only and has agreed to act as the administrator for the page.

9.4 New rules for Associations and Incorporated clubs: Consideration of the implications of the new rules and the Group's adaptation response is ongoing.

9.5 Strategic plan 2016 - 2020 (action plans and subcommittees): members interested in participating in any of the subcommittees and who had not already indicated were urged to do so.

9.6 Naming species: Kevin Uhe will write an article regarding the naming of eight *Diuris* species .

9.7 WANOSCG library: Members were advised that the library is now being looked after by Thea Hanson who can advise on the procedures for borrowing items.

10. PRESENTATION:

Margaret Petridis gave a presentation on the 2015 field trip to look for snail orchids.

- Ramon Newmann and Margaret have been working on a book on the trip based on the Bulletin report from last year. They are hoping to have a printed copy available for the Group's library by the meeting after next and are taking orders from members for copies. Cost for copies in a limited print run will be \$65 plus \$15 delivery. A pdf copy is expected to cost about \$5 or an e-book version for about \$15. (Ed: See updated cost on p. 15).
- A considerable amount of data from the trip has been entered into the database and a comprehensive list of orchids identified on the trip, including those other than snails (approx 160 species), has been added at the back of the book.
- Also included in the book are photographs of the 18 snail species (with both flower and leaf for most). It was noted that many snail species have still not been identified.



Top: *Eriochilus dilatatus* sp., Augusta. Above: *Leoporella fimbriata*, Warwick bushland.
Photos by T. Hodgkins

RAFFLE DRAW: Margaret drew the raffle and the winning ticket was held by Carol Royal.

MEETING CLOSED: 8:50 pm

NEXT MEETING: 7:30 pm Wednesday 18 May 2016 BGPA Boardroom, Kings Park

MAY

- ◇ Sunday 15th May: Northam and Meenar NR (*Caladenia drummondii*, *Eriochilus*)

JUNE

- ◇ Saturday 4th – Monday 6th June: Stirling Range and Albany
- Day 1: In and around Albany. Trip leader: Anna de Haan
- Day 2: Driving through and around the Stirling Range. Trip leader: TBA (Volunteer wanted)
- Day 3: We may spend some time around the Stirling Retreat, depending on what we do the previous day

Attendees will be able to leave and make their way home when it suits them, after advising the trip leader or FT Co-ordinator.

Further details, once determined, will be sent to members who register for the trip during the week prior to the June long weekend. Please arrange your own accommodation either at **Stirling Range Retreat** (Phone: 98279229 info@stirlingrange.com.au) or nearby.

- ◇ Sunday 26th June: Cataby/Badgingarra areas (*Thelymitra apiculata*)

JULY

- ◇ Sunday 17th July: Nature reserve on Noble Rd, NE of Arthur River (*Pterostylis* species)
- ◇ Sunday 24th July: Bullsbrook and Jurien areas (*Thelymitra pulcherrima*)

****Meeting time and place details to be advised the week before the trips ****

Please contact the Field Trip Co-ordinator (FTC) if:

1. You wish to attend any of these trips
2. You have suggestions for other field trip locations/changes
3. You would be willing to lead a field trip to your well-known locations

Margaret Petridis, Field Trip Co-ordinator

From the top: *Caladenia drummondii*. Photo by P. Winthrop
Thelymitra apiculata. Photo by W. Gye
Thelymitra pulcherrima. Photo by K. Hanson



FIRE AND ORCHIDS

Andrew Brown and Kevin Uhe

Following the large number of bush fires over the past few years, WANOSCG members have often remarked on the lack of flowering orchids in these areas and wondered why this could be so? At least 32 orchid species are known to respond favourably to fire by predominantly flowering or flowering in greater abundance following fire and, although not requiring fire to flower, many other orchid species flower well in burnt areas. Why then are so few of these orchids flowering?

The answer may be attributed to one or a combination of factors. Some species may not be there in the first place due to the area being outside their geographic range or the wrong habitat. The searches may have been conducted at the wrong time of the year to see species which flower earlier or later. The fire may have occurred at the wrong time of year to stimulate flowering and may have killed plants if it took place during their active growing period. Even if the fire was at the right time of year (summer) a previous fire, perhaps a few years earlier, may have been at the wrong time of the year. The earlier fire may have killed plants that would have normally flowered following the summer fire. It is the effect that different fire regimes have on flowering and survivorship of orchid populations that we will be covering in this article. But first we need to understand a bit about the biology of our south-west orchids.

Orchid biology

Orchids are part of a large group of plants collectively called geophytes. These can be defined as herbaceous plants with underground storage organs such as bulbs, corms, tubers, rhizomes and tuberous roots. The storage organ holds reserves of carbohydrates, nutrients and water and is a mechanism for plant survival through adverse climatic conditions (Brown 2006). During conditions such as drought or extreme cold, the aboveground parts of geophytes will die back and the plant will undergo a period of dormancy until conditions are suitable for growth. In south-west Western Australia, most geophytic species (including all but one of our orchids – *Cryptostylis ovata*) are dormant over the summer drought period and resprout between late March and May with the onset of rainfall and cooler conditions.

Geophytes are perennial and produce a replacement underground storage organ annually. Some species are able to produce more than one new storage organ each year, resulting in large colonies of plants.

The south-west of Western Australia has a high geophyte diversity of over 550 species, which is 12% of its entire estimated native vascular flora (7100 species) (Brown 2006). Orchids are the major group with more than 324 named species in 28 genera, most of these endemic to the south-west (Brown *et al* 2013). Genera that contain geophytic species include: *Burchardia*, *Drosera*, *Wurmbea*, *Hypoxis*, *Chamaescilla*, *Caesia*, *Thysanotus*, *Sowerbaea* and all south-west orchids.

Geophytic species are found in a variety of habitats, some areas being more diverse than others. Most geophytes are relatively abundant, however, some are threatened or rare. Forty species of orchid in south-west Western Australia are listed as threatened and a further 58 are listed as priority flora.

Fire ecology and post-fire regeneration

Geophytes occur in many fire prone parts of the landscape and have persisted in these areas for thousands of years. In fact,



Fire that occurs in the summer months does not generally negatively impact geophyte populations

fire is a natural part of the lifecycle of many geophytes. It should be noted, however, that the response of geophytes to fire varies with species and the intensity and season of the fire.

Fire that occurs in the summer months when no part of the plant is above ground, or developing shoots are not in the upper soil layer, does not generally negatively impact geophyte populations. During summer, these plants are in their dormant stage and most underground storage organs are located deep enough in the soil to escape the heat of the fire. In fact, summer fire can be beneficial for many geophytic species which only flower following summer fire or flower much better following summer fire (Brown *et al* 2013). At least 32 orchid species respond in this way (*Pyrorchis* spp., several *Cyanicula* spp. and many *Caladenia* and *Prasophyllum* spp.), as do 239 other geophyte species (including many

liliaceous species, *Chamaescilla* and *Sowerbaea*, and many *Drosera* species). The stimulation of flowering following summer fire is probably due to ethylene gas produced by fire and a flush of fungal activity (Dixon and Barrett 2003). The flush of available nutrients, especially nitrogen, has also been suggested as contributing to growth and germination (Grant and Koch 2003).

Although the vast majority of geophytes are not adversely affected by summer fire, a few species that have storage organs in the upper litter layer, i.e. some *Corybas*, *Cyrtostylis* and *Pterostylis* species, may not respond well to an extremely hot summer fire. A fire at this time of year may burn through the leaf litter, damaging or killing the shallowly deposited storage organs. Fortunately, however, these species are relatively few in number and, as they are predominantly clonal, surviving plants can quickly re-establish colonies.

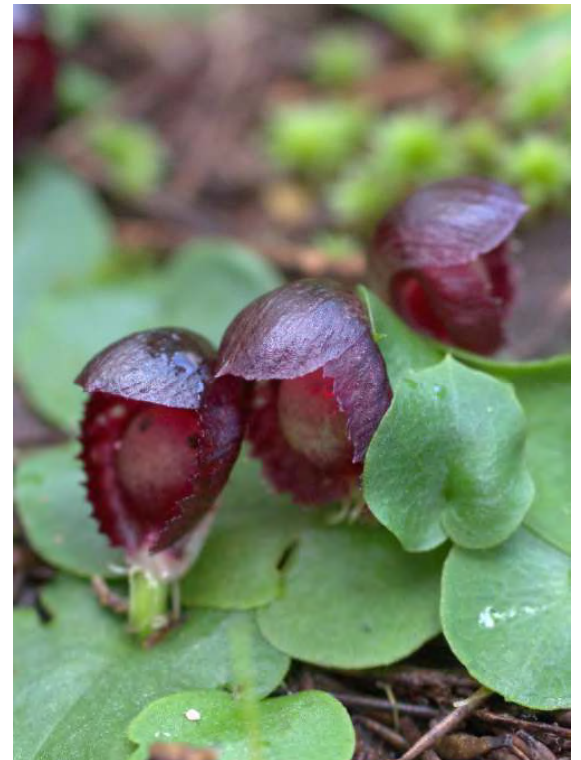
Western Australian geophytes can be placed into categories depending on their response to summer fire. The following modified from Duncan (2012).

- **Fire sensitive species.** These are species that may be killed by summer fire due to their shallow tubers and leaf litter habitat. They often show a reduction in numbers in the season following summer fire but recover naturally over subsequent years.
- **Fire neutral species.** These species do not require summer fire to flower and flower in roughly equal numbers in burnt and unburnt bushland.
- **Fire stimulated species.** These are species that do not require summer fire to flower but do flower in greater numbers in the season following fire.
- **Fire dependent species.** These are species that flower profusely following summer fire but rarely flower at other times.

Fire that occurs between the flowering and fruiting stages of the geophyte may affect the long-term viability of geophyte populations if it occurs too frequently as seed will not be produced and no seedling recruitment will occur until plants flower and produce seed the following year. However, a fire during the flowering and fruiting stage will not kill existing plants if late in the season when new underground storage organs are fully developed. Populations will persist, at least in the short term, in the absence of seed development and dispersal.



Pyrorchis forrestii rarely if ever flowers unless its habitat has been burnt in summer



Corybas recurvus is one of a few species that may be killed by summer fire

Of much greater impact on populations of geophytes is the seasonality of fire. Although flowering of geophytes is throughout the year, the timing of the development of the replacement underground storage organ is much the same for all geophyte species, with the new replacement storage organ beginning development in March-April and usually fully developed by late September-October. A fire during this period (before the new tuber is fully formed) will not only result in no flowering and therefore no seed development for that year, but may set back or kill the plant. Studies have shown that large populations of geophytes have been decimated by fire that has occurred before the underground storage organ has fully formed.

It should be noted that, even if a summer fire occurs within an area of bushland that would normally contain good populations of geophytes, if only a handful of plants survived the previous fire (one that occurred before the development of the plants replacement underground storage organ) and there has been insufficient time for populations to recover, only the surviving plants will respond to the summer fire. Given time, and provided there are pockets of unburnt associated bushland or associated bushland that has only been burnt during the appropriate time, orchids will re-establish but this may take many years.

A summary of the effect of fire on geophytes at different stages of their reproductive lifecycle

Time of year/season	Stage of geophyte lifecycle	Likely effect of fire on geophytes
Mid-autumn (April to mid-May)	For most species still no new shoot aboveground, but new shoot may be present in upper soil profile, after the summer dormant period. The new underground storage organ is just beginning to develop. Very few species flower at this time.	Not life threatening for many species, but for some species where the new shoot has emerged or is in the upper soil layer, fire may kill it and potentially threaten the development of the new underground storage organ and therefore the survival of the plant.
Late autumn to early Spring (mid-May to mid-September)	Plants are going through active growth – with aboveground parts clearly visible. The new underground storage organ is developing. A number of species begin flowering during this time.	Geophytic species may be killed or damaged. For most, the new underground storage organ has not developed enough to survive through to the following season.
Mid Spring (mid-September to mid-October)	For some species the new underground storage organ is fully developed, but for most it is in the later stages of development. Many species flower during this time.	Aboveground parts including flowers and any seed that has been produced that year may be destroyed. For some species, the underground storage organ is fully developed or close to being fully developed and therefore less likely to be killed or damaged. Most plants can survive but they may be weaker and less likely to flower the following season, depending on the stage of the new underground storage organ.
Late Spring (mid-October to mid-November)	Flowering continues for many species. For most species the new underground storage organ is fully developed.	Aboveground parts including flowers and any seed that has been produced that year may be destroyed. For most species, the underground storage organ is unlikely to be killed or damaged as it will be fully developed. Most plants can survive.
Summer (Mid-November to March)	Dormant stage of the lifecycle. Aboveground parts for many species have died back and the underground storage organ is fully developed.	Most species have finished flowering and have set seed. The new underground storage organ is fully developed. Some species respond favourably by increasing in abundance and flowering prolifically the following season after fire.

In summary

- With the exception of few species in the genera *Corybas*, *Cyrtostylis* and *Pterostylis*, a summer fire will have no detrimental effect on geophyte population viability and may stimulate some species into flowering.
- A fire during the flowering and fruiting stage will not kill existing plants if late in the season when their new underground storage organs are fully developed. However, if it occurs too frequently it may affect the long-term viability of populations as seed will not be produced and no seedling recruitment will occur until plants flower and produce seed the following year.
- A late autumn, winter, early spring fire that occurs during the active growing period of the geophyte before the new tuber is fully formed will not only result in no flowering plants and therefore no seed development for that year, but may kill the plant.
- If a fire occurs in the habitat of a geophyte during the development of its underground storage organ, perhaps killing many plants, and there has been insufficient time for the population to recover, it may explain the poor flowering following a subsequent summer fire.

Selected References

- Brown, A.P., Dixon, K.W., French, C. & Brockman, G. (2013). *Field Guide to the Orchids of Western Australia*. Simon Nevill Publications, York, Western Australia.
- Brown, A. (2006). Geophyte Biology, Ecology, Phenology and Fire Response in South-Western Australia (with particular reference to the Orchidaceae): Background Information and Guidelines For Management, presented at the 'South-west Coastal Plain Fire Management Workshop', Walpole, 14-15th August 2006
- Cargill, J. (2005). *Impact of Fire on Geophyte Abundance, Diversity and Composition in the Jarrah Forests of south-west Western Australia*, Thesis submitted for the fulfilment of a Bachelor of Science (Environmental Management) Honours, Edith Cowen University, Western Australia.
- Dixon, K. & Barrett, R. (2003). Defining the role of fire in south-west Western Australian plants. Abbott, I. and Burrows, N.D. (eds.) *Fire in ecosystems of south-west Western Australia: Impacts and Management*, Leiden: Backhuys Publishers, The Netherlands, pp. 205-223.
- Duncan, M. (2012). *Response of Orchids to Bushfire: Black Saturday Victoria 2009 – Natural values fire recovery program*. Department of Sustainability and Environment, Heidelberg, Victoria.
- Grant, C.D. and Koch, J. (2003). Orchid species succession in rehabilitated bauxite mines in Western Australia, *Australian Journal of Botany*, 51, pp.453-457.

All photos in this article are by Andrew Brown.

NEW ORCHID NAMINGS

In the latest edition of the Australian Orchid Review, David Jones and Chris French have named no less than eight new *Diuris* species. All of the newly named *Diuris* are currently depicted in Brown et al (2013) under phrase names.

Diuris sp. 'Perth Swamps' now becomes *Diuris brevis* which is named after the Latin *brevis* meaning 'short' which is reference to the abbreviated labellum midlobe of this species. Currently it is only known from one swamp in the Kenwick area but may be located in other swamps. Be one to look out for in other areas to extend its current range.

Diuris sp. 'Green Range' is now *Diuris littoralis* which is named after the Latin *littoralis* which means 'sea shore' relating to the coastal and near coastal habitat of this species. The range of this orchid is from near Denmark and to Esperance with a disjunct population at Toolina Cove. However, it has been seen as far inland as south of Jerramungup indicating that its range maybe far more extensive than just coastal and near coastal areas.

Diuris sp. 'Darling Scarp' is now *Diuris ostrina* which is named after the Latin *ostrinus* which means 'purple' in reference to the predominance of this colour in the labellum. This orchid has a narrow range between Greenmount and Armadale on the Darling Scarp. It is interesting that we did find this species at Taylor Road, Jandakot after a fire in 2014. It was also abundant after a fire along the Toodyay Road a few years ago.

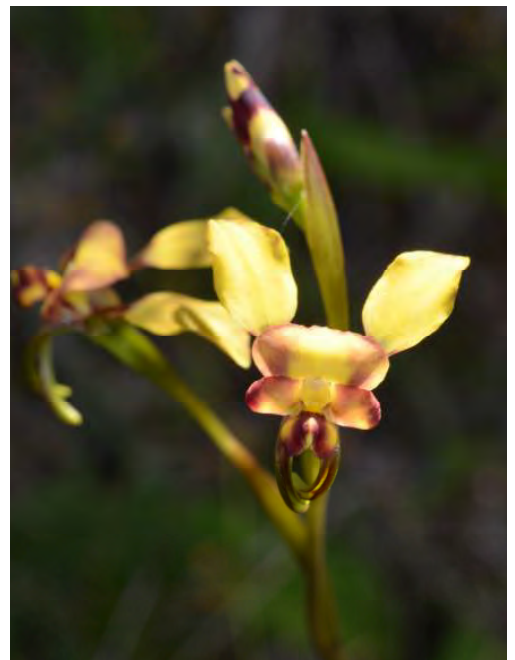
Diuris sp. 'Wyalkatchem' is now *Diuris suffusa* which is named after the Latin *suffusus* which means 'suffuse, tinged' in reference to pale, lightly tinged flowers or stained with darker colours. This species has a narrow range between Dowerin to Trayning and upwards to Koorda and Ben-cubbin. In goof rainfall years it can be quite prolific within its range.

Diuris sp. 'Mid North' is now *Diuris pallescens* and is named after the Latin *pallescens* which means 'pale, wan and becoming paler', in reference to the very pale coloured flowers. It has a narrow distribution between Three Springs, Coorow and Dalwallinu. This orchid is often found in large clumps of many flowering stems and can be very common.

Diuris sp. 'Sandplain' is now *Diuris tinctoria* which is named after the Latin *tinctorius* which means 'tinged, dye', in reference to the colour pattern on the flowers. This species is found between Lake Clifton to Bunbury. This species requires good winter rain to flower freely and should be found in the Forrest Highway burn area in early spring.

Diuris sp. 'Murchison River' is now *Diuris carecta* which is named after the Latin *carectum* which means a sedgy place as this species is mainly found growing through the protection of sedges. This species is found between south of the State Barrier fence to Binnu and inland to the East Yuna Nature Reserve.

Diuris sp. 'Zuptdorp Cliffs' is now *Diuris oraria* which is named after the



From the top: *Diuris ostrina*, *D. pallescens* and *D. carecta*.

Photos by K. Uhe

Latin *orarius* which means 'of the coast' as this species is found in coastal and near coastal areas. This species has a very isolated distribution from the Zuptdorp Cliffs down to south of Kalbarri.

These new namings facilitate a greater recognition of the different *Diuris* species but as we know there are quite a few *Diuris* with phrase names and others out there waiting for recognition.

Kevin Uhe

FIELD TRIPS

SOUTHERN RIVERS GROUP — EAST OF THE STIRLING RANGES

26th March 2016

Our aim of the field trip was to extend the locally known sites for *Corunastylis tepperi* (Pygmy Orchid).

Heading east under heavy cloud cover we drove into fine mizzle which became intermittent drizzle. The bush at our first stop along the roadside was wet but open enough to stay reasonably dry ourselves. Soon our first target orchid *Corunastylis tepperi* (Pygmy Orchid) was found. Most of the 13 plants had the bottom third in full flower whilst the tops were still in tight bud. Keen eyes also spotted *Eriochilus dilatatus* subsp. *multiflorus* (Common Bunny). These two had not been seen flowering together at this site before.

By morning tea, the drizzle had become rain. Time to head further east to bush, which was so thick, and wet we did not venture into it. No orchids were found along the roadside, tracks or firebreaks either.

Our next stop was further north on the edge of an old burn along the eastern boundary of the Stirling Range National Park. Beside the farm fence line dozens of *Leporella fimbriata* (Hare Orchids) were sighted. Most were still in tight bud. Shortly afterwards *Praecoxanthus aphyllus* (Leafless Orchid) was found, small in stature and very colourful. Lunch was eaten as the drizzle became rain.

Due east again we had a look in Mailalup Nature Reserve. Only one *Eriochilus dilatatus* was found although a positive ID was not made. Heading home we still had two stops in mind. The first, under the veranda of the local community hall for afternoon tea where we were surrounded by *Prae. aphyllus*. Our final stop was in the South Stirling Nature Reserve. Here we found hundreds of *Lep. fimbriata* in full bloom, not a bud in sight. Colours varied from deep green to rustic red, a great sight to finish the day.

We may not have increased the locally known range of Pigmy Orchid sites, however we did find an unexpected range of early flowering orchids in vast numbers.

Anna de Haan



Corunastylis tepperi, Karlgarin Hill NR.
Photos by P. Winthrop (L) and M. Karyagina

FIELD TRIPS

WANOSCG Field Trip to Areas Near Forrest Highway Mandurah District — 1 May 2016

A group comprising 13 members and one visitor gathered at the junction of Forrest Highway and Peppermint Grove Road, with a view to visiting orchid habitat that had been affected by the major summer fires to the south of Mandurah. In particular, it was hoped that flowering specimens of *Praecoxanthus aphyllus* could be located. Proceedings officially began at 10:00 am but those arriving early took the opportunity of checking on the bush-land in the immediate vicinity of the meeting point where specimens of bunny orchids, *Eriochilus dilatatus*, were identified.

The convoy then moved off to a location to the north east adjacent to Coronation Road where several specimens of hare orchids, *Leporella fimbriata*, were seen in flower. (Also of interest at this site was the discovery of a curiously ugly, wingless bug, identified as a female “bird of paradise fly”. It’s apparently only the male of the species who has the wings and other anatomical splendour to warrant its descriptive name – he wasn’t in evidence.)

Having spent a happy half hour wandering and taking photographs of hares and bugs the group drove back to the Forrest Highway and then south to Johnston Road. Two stops were made along Johnston Road where more bunnies were identified. At the first stop it appeared that two subspecies of *E dilatatus* were represented in close proximity to one another and considerable discussion ensued regarding the respective attributes of *E dilatatus* subsp. *dilatatus* and *E dilatatus* subsp. *multiflorus*.

Midday saw the group halted for lunch further south on Riverdale Road. Only a solitary specimen of *L fimbriata* was found in the vicinity but some “swampy” locations were identified as potentially interesting orchid habitat to be visited later in the season.

The last site visited was a location on the corner of Old Bunbury Road and Herron Point Road near West Coolup. It was here that several fine specimens of the final target of the field trip, the leafless orchid, *P aphyllus*, were found.

The explicit aims of the field trip’s having been achieved, the group dispersed at 2:30 pm.

Pat Richards



L-R: *Eriochilus dilatatus* subsp. *multiflorus*, *E. dilatatus* subsp. *dilatatus*, *Praecoxanthus aphyllus*. Photos by P. Richards

ALBANY AND SURROUNDS

In January 2016 a bush fire raged through bushland and pastures extending from Normans Beach, where it originated, to Two Peoples Bay. Tanya Barnett, June Scott and Maggie Whittle have visited these sites a few times. Recently we discovered several *Eriochilus dilatatus* subsp. *dilatatus* and *Eriochilus dilatatus* subsp. *multiflorus*. We also spotted a couple of flowing *Praecoxanthus aphyllus*.

June and Maggie returned on the 1st of April to search for more. We counted 21 *Praecoxanthus aphyllus* and a similar number of *Leporella fimbriata* in the same area.

We were very pleased to have found, a new to us, area of the Leafless orchid in the Albany region.

Maggie Whittle

WINTER SPIDER TRIP

After hearing reports that the Winter Spider (*Caladenia drummondii*) was flowering early this year I headed up to the Bolgart area on the 1st May.

First I visited Wongamine NR, *C. drummondii* has been found here before. This is a large reserve at the southern end Bejoording Rd, NE of Toodyay. I walked around the south east corner near the CALM gate and found Crinkle-leafed bunnies (*Eriochilus dilatatus* subsp. *undulatus*) in flower and bud but no *C. drummondii*. Next spot visited was the well known spot near the northern end of Bejoording Rd. I parked at the higher southern end and walked down the slope. Plenty of Crinkle Leaf bunnies flowering. In the area where *C. drummondii* flowers I quickly found 6 plants in flower and 4 in bud. There were many mosquitoes to so I quickly left to visit some other nearby nature reserves I had found on maps that I hadn't visited before.

Heading north towards Bolgart, next visit was Wattening NR. A small reserve, the northern end doesn't look very likely, Crinkle-leafed bunnies scattered around, then I moved to the southern end, some possibility there around a disturbed area that was a roadworks borrow pit.

I next headed east to Bewmalling NR and Drummond NR on Old Plains Rd, no spiders but more bunnies. My last stop for the day was Wyening NR north east of Bolgart on the edge of the unusually named Behanging Rd. The habitat here looks very promising, light orange clay soil, some wandoos and eucalypts, open areas, lots of leaf litter and unfortunately, LOTS of mosquitoes. As it was getting late in the afternoon I could only spend less than an hour. There were Crinkle-leafed bunnies scattered around but no spiders to be found. I think this will be a good spot to visit again later in May.



Eriochilus dilatatus subsp. *multiflorus*, *Leporella fimbriata*.

Photos by M. Whittle

Paul Winthrop

Caladenia drummondii (flower) and typical habitat.

Photos by P. Winthrop

ANZAC WEEKEND WANDERINGS



Praecoxanthus aphyllus, East Yornanning Rve,
Eriochilus dilatatus subsp. *undulatus*,
Yilliminning Rock.
Photos by M. Petridis

The Anzac long weekend provided the chance to explore for early season orchids and rather than visit the usual spots, we decided to head into the Wheatbelt. Last year Lyn Alcock relocated a good population of *Praecoxanthus aphyllus* (Leafless orchid) north east of Narrogin and we went with Lyn to a few of the reserves around the Narrogin area.

First stop was out near Wickopin to see the *Praecoxanthus aphyllus* that Lyn found last year. This was a completely different habitat than at the usual place near Pinjarra. It was sand over laterite with low shrub cover. The orchids, in many cases, were under the bushes for protection. Also of interest was that the inland ones seemed to be more yellow and squat compared to their more coastal cousins. It was pleasing to find nearly fifty leafless orchids in flower.

We then went over to Lake Toolibin way where we had an old record for *Corunastylis tepperi* (Pygmy orchid). The challenge was to try and relocate this orchid in the area. We pulled up at a likely spot and after much searching came up with nothing. Going a bit further along we again stopped at a likely spot and found a small number of these tiny orchids growing against the trunks of trees.

We spent the remainder of the day searching in suitable reserves without any luck but feel sure that the very dry year last year affected the flowering this year. We will check a number of these reserves next year as most had very good habitat.

One last stop at Yilliminning Rock revealed a large number of *Eriochilus dilatatus* subsp. *undulatus* (Crinkle-leafed bunny) happily flowering amongst a group of sheoaks.

Next day Lyn took us to a reserve to the north west of Wagin that had an old record for *Praecoxanthus aphyllus*. Using the previous habitats as a guide we located a laterite ridge with sand areas and much to our joy we located some plants growing amongst some low shrubs. It was especially pleasing that we could relocate and verify this old record.

Under a group of sheoaks nearby there were a large number of *Leporella fimbriata* (Hare orchids) and a number of *Eriochilus dilatatus* subsp. *undulatus* scattered around the area. A number of *Pterostylis* snail rosettes were located and a return visit later in the season to verify these will be on the cards.

After saying goodbye to Lyn we journeyed homeward past a reserve that looked promising for orchids and after a couple of stops where we located good numbers of hare orchids, we found a developing seed pod of a leafless orchid. Despite much searching we were unable to locate any more leafless and as far as we can tell this would be a new location for them.

One final stop outside Collie in a winter wet area revealed a large number of *Eriochilus helonomos* (Swamp bunny) happily growing under melaleuca species.

All in all a very rewarding weekend and very pleasing that we can add some new locations into the WANOSCG database. We thank Lyn for her hospitality and for showing us around some of her favourite reserves.

Kevin Uhe, Margaret Petridis

CORRECTION:

The name of the WANOSCG Life member, Beryl Yates (deceased), was given incorrectly in the April issue of the Bulletin (as Barbara).

Thank you to Ian Greeve for getting the record straight.

WANOSCG 2015 Snail Orchid Field Trip Book



A book of the 2015 Snail Orchid Field Trip has now been produced and is available for sale.

To quote from Andrew Brown's Foreword in the book

"This fine book is a wonderful account of the trip, providing the reader with a summary of each day's discoveries, followed by a set of photos of the places visited, the members conducting their searches and of course the orchids that were seen."

Members can order a copy of the book through WANOSCG and receive a discount, or it can be ordered directly from the Blurb book publishing website, with no discount, and shipped to your address.

The book can be previewed at the Blurb website link provided below (but don't order it through the website if you want a Member's bulk discount).

1. To order a Member's bulk discounted book @ \$40, delivered to a WANOSCG meeting:

- Order at the May General Meeting (if you have not already done so)
- Email Ramón on [redacted] by May 28th.

2. Alternatively, order from the Blurb website directly at \$48 plus shipping (typically \$15 to Perth) for delivery anywhere in the world using the following link (also provided in the email that this Bulletin came in):

- [WANOSCG 2015 Snail Field Trip](#)
[Ramon Newmann & Margaret Petridis](#)

For those Members who have already ordered a copy, your copy should be available at the May 18th General Meeting (if the delivery is on schedule) – so please bring your \$40 (correct change would help).

We are also working on making a manageable sized PDF version of the book available to Members.

Ed. If the link above does not work in PDF, please use the one in the email.

Vale Bernard James Sangster

Bernie passed away at home on 16th April 2016.

A private cremation has been held. Our thoughts and sympathies are with Cheryl and family at this difficult time.

Bernie joined WANOSCG in 2013 and was a keen member.

His generous and friendly demeanor will be missed, field trips will not be the same without Bernie.



THANK YOU

To good Samaritans, Gaetano and Robyn, for getting me out of a sand ditch near Coronation Road. Next time I will check where I am backing into. Promise.

Marina Karyagina



CONGRATULATIONS

To WANOSCG members Alison Higgins and John Ewing who got married recently.

We wish them many happy orchid seasons together!!!

MEMBERSHIP FEES FOR 2016

All members are reminded that annual subscriptions are now due. The annual single or family membership fee is **\$30**. Payment can be made :

- to the Treasurer in person
- by mail with cheques made out to WANOSCG and sent to: WANOSCG PO BOX 323, VICTORIA PARK, W.A. 6979
- by electronic transfer to the club's bank account:
BSB: 306044 Bank name: Bankwest
Account number: 5492468

If you choose to send money electronically please identify what the payment is for (eg "Annual Fees" and send a copy of your receipt of electronic transfer with your name on it to the club's email account (wanoscg@gmail.com)

BECOME A PUBLISHED AUTHOR!!!

Please email any Bulletin contributions to Marina at wanoscg.newsletter@gmail.com

Please email any orchid-related articles (and photos) that may be of interest to members: scientific or personal, all types are welcome.

Articles should be in Word. Please send photos separately, as good quality as your email will allow (2 –5 MB) — please do not reduce.

DEADLINE FOR JUNE ISSUE:
1st of June 2016



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Upcoming Field Trip List

Month	Date	Location
May	15th	Northam and Meenar NR
June	4th-6th	Stirling Range NP and Albany
June	26th	Cataby/Badgingarra areas
July	17th	Noble Rd, NE of Arthur River
July	24th	Bullsbrook and Jurien areas

2016 PHOTO COMPETITION

After much deliberation, the Committee decided that WANOSCG 2016 photo competition will be an open competition. That is, any photograph taken in 2016 that contains one or more Western Australian native orchids is eligible.

Members will be asked to choose the best orchid photograph.

The maximum size of entries will be 8" x 10" or A4.

2016	ROSTERS		SPEAKERS 2016
	Raffle	Supper	
MAY	Debbie and Peter Proudfoot	Margaret Fox / Urszula Kokosinska	Andrew Brown — "Sun Orchids"
JUNE	Ross and Margaret Fox	Jeanette Wheatley	Mark Brundrett, topic TBA
JULY	Jeanne and David Cumming		John Ewing — "Red Spider Orchids"
AUG	Tom Burbidge		Kingsley Dixon, topic TBA
SEPT	David Lawson		TBA
OCT	Bob Steer		TBA
NOV	Marina Karyagina		Photo competition, Members photos