WANOSCG The Official Bulletin Of The Western Australian Native Orchid



Study & Conservation Group Issue 5 - July 2023

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"How native orchids have affected my/our life journey."

As many members would be aware, the Western Australian Native Orchid Study and Conservation Group will celebrate its 50th Anniversarv in 2024.

WANOSCG Management Committee:

President: Vice President: Vice President: Secretary: Treasurer: Jon Warren Ramón Newmann Andrew Brown Martina Fleischer Jay Steer

Ordinary committee members:

Peter Gee Debbie Proudfoot Peter Proudfoot Kevin Uhe Graham Warren

Subsidiary Positions:

Field Trip Coordinator Conservation Officer Membership Officer Branch Liaison Officer SRG Bulletin Editor Librarians

Supper Coordinator Webpage Administrator Facebook Page Administrators

Perth metro field trip Coordinator Registrar ADORP Coordinator Graham Warren Vacant Jay Steer Jon Warren Annie Bowerman John Ewing and Alison Higgins Trish Newmann Ramón Newmann Graham Warren & Nathan Piesse Vacant Ramón Newmann Kevin Uhe

We would like to include a series of articles in 2024 Bulletins written by club members, on the positive impact native orchids have had on your lives, families, careers or relationships. Rather than more general biographies, we would like to focus on how native orchids and/or WANOSCG have impacted your lives.

Although these articles will not be used until next year feel free to send them this year so they are ready for next year's Bulletins. Your stories should be emailed to <u>wanoscg@gmail.com</u> with the Subject Line: 50 Year Celebration, to assist with filing.

Peter Gee and Ramón Newmann

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President's Musings July

Crickets, all I hear is crickets.

The one thing I muse upon every time I sit down to write this piece is 'does anyone read it and, if so, do they take any notice?'. The evidence for non-compliance of reading or noticing is overwhelming.

Over the past few years, I have repeatedly sought a range of input from members to spread the load of work required to run WANOSCG successfully and received almost no responses. However, to the very few who respond (and they are the same few) and my fellow committee members a very big thank you for your contributions.

Membership

On the theme of thank you, a big thank you to the majority of members who, through accessing the bulletins, notice of meetings, website or Facebook, paid their membership fees in a timely manner and a bigger thank you to those who paid the correct amount. It saved our volunteer committee members a lot of time that could then be used for other life activities.

Banking

Bankwest is moving out of business accounts and has informed us that it will be closing our account later this year.

Fortunately, we have already set up an account with CBA, which you have been informed of repeatedly over the past 18 months. So there really isn't any need to send money to the Bankwest account so please don't.

We will tell you closer to the day Bankwest closes our account but please start now to make sure you have the right account for future membership and other payments otherwise your hard earned could end up floating in the ether.

September meeting

We are planning for the September meeting to be a 'have an orchid chat night'. The idea is to have several 5–10-minute members presentations (with photos) that highlight an orchid discovery, showing off some very interesting, good or bad orchid photos or an amusing incident that happened while on the quest for orchids.

The story can be from any time in your orchid hunting history.

Being regionally based doesn't preclude you from participating as we can get you in on Microsoft Teams.

Here I take a deep breath (hoping that I don't hear more crickets) and again ask for members to volunteer and hopefully the request is not as futile as many other of my other requests.

If you want to volunteer or want more information or even help putting something together, email me on wanoscg@gmail.com, subject matter 'September chat', and I will give you a call to discuss.

Teams v Zoom

Due to problems using Zoom on Kings Park equipment we are moving over to using Microsoft Teams which is compatible and the preferred system of our hosts.

Still waiting

Still waiting and happy to get responses on the Regional Eyes and Hidden Gems requests from the May bulletin.

Enjoy your orchid adventures, share your experiences, do your bit and watch your step.

Jon Warren President

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Can anyone shed any light on this hybrid ??

It does have Caladenia paludosa resemblance, but is lacking all clubbing and the raceme is only 120 mm high.

The flower is approx. 50 x 50 mm, the lip does not curl under, and the leaves are very short and narrow with fine hairs along the length. I found about 15 plants growing in wet and very thick scrub habitat a few years ago.

I checked the areas last year but could not locate any in flower.

I will check again this season in October.

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Ron Fauntleroy

IDENTIFYING WESTERN AUSTRALIAN *DIURIS* SPECIES (i.e. Donkey Orchids) John Ewing

PART 1 - DIURIS ID FIELD TRIP PROPOSALS

There are a total 53 *Diuris* species in Andrew Brown's most recent Field Guide. There are 31 species in the *corymbosa* complex, 20 in the *laxiflora* complex and 2 in the *laevis* complex. I am proposing to lead four main field trips and some supplementary Perth region trips to enable members who wish to learn more about identifying each of the *Diuris* species.

The field trips are designed mostly for newer members, but anyone who would like to join in is invited to come. Depending on who and how many sign up (e.g. if some can only come on weekends and not midweek), weather and avoiding clashes with other club trips the proposed times and places for trips are:

- 1. late July (3rd week) 1-day trip to Moora, including a couple of side roads
- 2. early September (2nd week) 3-day trip up as far as Kalbarri this will mean 2 overnights
- 3. late September (4th week) 2-day trip to Augusta and returning via the wheatbelt one overnight
- 4. mid October (2^{nd} or 3^{rd} week) 3-day trip via Albany and a winding route home 2 overnights.

The trip will presume that participants have read and studied the two documents following *DIURIS* OF WA ID: *Diuris* corymbosa key by species features; *Diuris laxiflora* key by species features. For those participants who join in, they will be provided with a Field Data Sheet for recording information.

You will be shown how to fill this in (participants will work in pairs or threes) and for each population of each species seen, they will then analyse the data measured to come to a conclusion about which species it is (and be able to explain to others why that is their conclusion). As a second string, we may need to use Lucid Key information in addition to direct sighting (if the sighting data is inconclusive).

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While other species of orchids are sure to be seen on the trips, the focus will be on *Diuris* ID. It is not anticipated that every one of the species will be seen. Some that are rare and hard to find (e.g. *D. eburnea* and *D. sp* 'Arrowsmith late') and will not be searched for. Two in the *laxiflora* complex have not been seen for a long time (*D. immaculata* and *D. filifolia*). In addition, a few others won't fit into our timetable and locations. Altogether it is expected that over 40 of the *Diuris* species will be seen, studied and identified.

If you think you MIGHT be interested in coming to one or more of these studies, please contact John as soon as you can. Email <u>jrewing45@gmail.com</u> or phone (text or ring) with your name and contact details to 0408 628 781.

PART 2 - IDENTIFYING WESTERN AUSTRALIAN *DIURIS* SPECIES (i.e. Donkey Orchids)

The following paper assumes that you know what a *Diuris* (Donkey Orchid) looks like. It also assumes that you know and can recognize each of the three complexes (*corymbosa* complex, *laxiflora* complex, and *laevis* complex) into which all the WA *Diuris* species have been divided.

Introductory Notes: measurements – measuring one flower in a population is never enough to provide certainty. If you only find one or two flowers at a site you may be able to make a 'best guess' but you need a population of at least 10 plants. Measurement data should ignore the largest and the smallest plants and try to get the 'average' sized plants. Be wary of very small plants as they may be growing in an adverse environment which causes them to be smaller than the stated 'minimum size'. For the purposes of this ID a small tape measure will do as absolute precision is rarely needed for these IDs.

Firstly, plant groupings are initially based on months from when flowering starts with the early species of June and July for the *Diuris corymbosa* complex. For convenience of ID, this study then skips to *D. corymbosa* complex species which begin flowering in October and then finishes with species that flower in August-September. With the *Diuris laxiflora* complex, the beginning is August and then continues with other *D. laxiflora* complex species beginning in September, then October, and finishing with those that begin in November and onwards. The *Diuris laevis* group has only 2 species and their IDs are based essentially on geographical location.

Secondly, all species are considered by geographical area with five divisions used. A proportion of the state is not included as essentially no *Diuris* of the corymbosa complex grow there.

The Five Areas – with abbreviations use - Perth [Pth], North of Perth [NoP], Wheatbelt (north, central, south) [W/B N, W/B C, W/B S], Mandurah to Albany [Ma/Alb], South Coast East of Albany [Scst EoAlb]. The rest of the state is essentially ignored.

DIURIS CORYMBOSA COMPLEX

JUNE - three species – *Diuris <u>brumalis</u>* – in Pth, *D. <u>perialla</u> in NoP, <i>D. brockmanii* in WB S – location is the only distinguishing feature needed – go hunting in mid-June.

JULY - 10 Additional SPECIES

NoP five more species – The first three extra species are *Diuris recurva*, *D*. sp 'Chapman Valley' and *D. refracta*: *D. <u>recurva</u> has a leaf width 8-10 mm [<i>D. perialla* 3-7 mm, *D.* sp 'Chapman Valley' 4-6 mm but *D. refracta* is 7-10 mm] so *D. recurva* can be separated on basis of leaf width from the first two but not with *D. refracta*. *Diuris* sp 'Chapman Valley' and *D. refracta* both have red colouring on the flowers which the other two do not, and then these two can be separated on the basis on leaf width.

So ...

D. recurva – wide leaf and no red; D. perialla smaller leaf width and no red; D. sp 'Chapman Valley' small leaf width and red colouring; D. refracta wider leaf and red colouring.

Next two are *Diuris tinkeri* and *D. oraria* which both have a purple midlobe that the above four do not. They are distinguished both on the basis of plant height (*D. oraria* is 150-300 mm and *D. tinkeri* is 200-500 mm). This means any population with purple midlobes which has many/most plants over 300 mm is *D. tinkeri*. Also, the distributions don't overlap with *D. tinkeri* being Yanchep to Dongara and *D. oraria* being Port Gregory to Kalbarri (and a bit north to Zuytdorp Cliffs, but this area is pretty inaccessible).

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WB two more species - Diuris brachyscapa and D. porrifolia are both in the Wheatbelt.

While *D. porrifolia* is also in Perth where it can be distinguished from *D. brumalis* by its smaller height (max 350 mm vs *D. brumalis* up to 600 mm and by its paler, smaller flowers). *D. brachyscapa* is in all three W/B areas but in WB S *D. brockmanii* will still be flowering. One distinguishing difference between these two is the leaf width, which is wider for *D. brachyscapa* being 8-12 mm whereas *D. brockmanii* is 3-5 mm wide. *D porrifolia* is also located both in WB S and in WB C. To distinguish between these two is quite difficult. Both have pale flowers; both have similar leaf dimensions, and so it comes down to the 'size' of the flower.

Petal dimensions show this best. *D. porrifolia* has the common name of the 'small-flowered donkey'. *D. porrifolia* petal dimensions are 10-13 mm x 5-7 mm whereas *D. brachyscapa* has petals 13-20 mm x 5-10 mm. The margin as you can see is reasonably clear but requires some more careful measuring. Curiously the lateral sepals of *D. porrifolia* are marginally longer being 15-19 mm whereas in *D. brachyscapa* they are 11-18 mm.

Scst EoAlb three more species – none of these overlap in distribution with any of the 9 above. *Diuris* sp 'Toolina Cove' is distinguished on the basis of location. It is the only *Diuris* growing there.

Diuris littoralis and *D. pulchella* are separated by two aspects; leaf width [*D. littoralis* is 3-8 mm wide but *D. pulchella* is 8-12 mm wide]. They are also separated by plant height [*D. littoralis* is 180-300 mm high but *D. pulchella* is 200-500 mm high]. This means any population which has many/most plants over 300 mm is *D. pulchella*.

<u>OCTOBER – 11 other species</u>: this group includes species that are still in flower in October. There are three that have started flowering well before October and only last into EARLY [E] in that month. All others last towards the end of October with two lasting into November [N] and one into December [D]. So, using location as the second criterion:

Diuris sp. 'Newdegate' [E] is less than 200 mm high and is in WB S. This distinguishes it from all others.

Diuris carectum [also E] is found in NoP region but is located well north from Mullewa to Nerran Nerran station (you may prefer to go in September).

Diuris amplissima is the only species found in the wheatbelt [W/B S] in October. It begins in September but lasts into early November.

The next four are in Perth although they are also found widely elsewhere. Height separates out *Diuris magnifica* as it is the only one growing more than 400 mm. If a population has most plants over 400 mm (*D magnifica* grows up to 600 mm) then it must be *D. magnifica*. The other three only grow to 400 mm. While all of the others have purple in their flowers, *D. corymbosa* is separated by its brown marked dorsal sepal whereas both the others have purple dorsal sepals. *D. ostrina* is separated from *D. longifolia* by leaf width with *D. longifolia* being 8-12 mm wide whereas *D. ostrina* is 4-8 mm wide (curiously, *D. longifolia* has, on average, shorter leaves than *D. ostrina* (100-150 mm vs 80-250 mm for *D. ostrina*).

The remaining four are all in the Mandurah to Albany area. The easiest to separate is *Diuris jonesii*, as it is found south of Bunbury and over as far as Albany. The other three are all located in Yalgorup (which is north of Bunbury). Height separates out *D. cruenta* which grows to a maximum height of 400 mm. In addition, only *D. cruenta* has RED-brown suffusions which the other two do not. Colour also separates *D. porphyrochila* which is the only one to have purple in the labellum midlobe. *D. tinctoria* is described as light brown but it seems to have a fair bit of reddish tinges. To be sure of the separation from *D. cruenta* (other than height), leaf length differs with *D. tinctoria* being longer (100-300 mm) whereas *D. cruenta* is 100-150 mm.

THE OTHERS – seven other *Diuris corymbosa* **complex species** – these are all species that flower in August-September.

They are *Diuris pallescens*, *D. suffusa*, *D.* sp 'Wongan Hills', *D. hazeliae*, *D. conspicillata*, *D. brevis* and *D.* sp 'late Northern'. However, all of the July flowering species continue into August, and some into September (S) as well [*D. brachyscapa* (S), *D. recurva*, *D. refracta* (S), *D. brumalis*, *D. brockmanii*, *D. porrifolia* (S), *D. pulchella* (S), *D. littoralis* (S), *D. sp* 'Toolina', *D. oraria*, *D. tinkeri* (S)]. Thus, the picture is now rather more complicated.

SOOO ...

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Starting first with Diuris pallescens and D. suffusa.

These are both distinguished by having distinctly PALE yellow flowers. Apart from location [*D. pallescens* is WB N (from Moora to Mingenew) whereas *D. suffusa* is WB C (from Wongan Hills to Kelleberrin) – they differ in leaf length with *D. pallescens* being longer (150-300 mm vs *D. suffusa* being 100-200 mm).

Both these pale-flowered species differ from the other pale-flowered species from July (*D. brachyscapa* and *D. porrifolia*, which occur in the same WB areas) in terms of leaf width, where they are much narrower (4-7 mm and 4-8 mm), whereas the two July species are 8-12 mm (*D. brachyscapa*) and 10-15 mm (*D. porrifolia*).

Next is *Diuris* sp 'Wongan Hills', which has reddish brown flowers and a very narrow location. It also does not flower until late August. Of the other July flowering species, four have similar colouring (*D*. sp 'Chapman Valley', *D. refracta*, *D.* sp 'late northern' and *D.* sp 'Toolina'). None of these are in the same location, therefore, *D.* sp 'Wongan Hills' is quite distinctive from the other pale-flowered species in the area.

Next is *Diuris conspicillata* which is located only in the Esperance area at Dempster head. It is also the only species of *Diuris* at this location so it cannot be confused with anything else. See if you can see its 'spectacles'.

Next is *Diuris brevis*. Again, this is very location-specific, being found only at a swamp in the Perth suburb of Kenwick. As its common name (Short-Nosed Donkey) suggests, it has a very small labellum midlobe.

The other *Diuris* growing with it is *D. brumalis*, which by August is coming to the end of its flowering period. However, these two species are also distinguished by height (*D. brumalis* is 200-500 mm vs *D. brevis* being 150-330 mm, and by leaf dimensions with *D. brumalis* being 140-200 mm long x 8-10 mm wide, whereas *D. brevis* is 50-160 mm long x 3-8 mm wide. This clearly separates these two species. The other Perth species that are in flower in August do not grow in the swampy environment.

Now to *Diuris* sp 'late northern'.

As mentioned earlier, this also has red-marked flowers, but the red in this species is quite strong and dark, leading to its common name of the Dark Donkey Orchid. Also, like *D*. sp 'Wongan Hills', it only comes into flower late in August; AND also, like *D*. sp 'Wongan Hills' it is in restricted locations, being found in coastal and near coastal areas from Coorow to Geraldton.

The other *Diuris* species growing in these areas at this time (late August) are *D. recurva*, *D.* sp 'Chapman Valley', *D. tinkeri* and *D. refracta* which, since it has red-brown colouring but no purple, is distinguished from *D. tinkeri*, which does have purple as the main colour of the labellum side lobes and midlobe.

D. sp. 'late northern' is distinguished from D. recurva which, while it has smaller flowers, is separated more clearly by its very strongly recurved lateral sepals (with D. sp 'late northern' having almost no recurving of its lateral sepals) and also with leaf width, which is narrower for D. sp. 'late northern' (4-8 mm wide) whereas D. recurva is 8-10 mm wide.

With D. sp 'Chapman Valley' and D. *refracta*, the depth of colouring is the key distinction; D. sp 'late northern' being a much stronger red. D. *refracta* also has slightly wider leaves (7-10 mm vs 4-8 mm and very recurved lateral sepals), while D. sp 'Chapman Valley' has slightly narrower leaves (4-6 mm).

Finally, this brings us to *Diuris hazeliae*. This species is found throughout the eastern margins of the WB and also in more inland areas, so it is quite widespread. In these drier areas it is often the only *Diuris* flourishing. The key location characteristic is that it grows on and around granite rocks.

The flowers are bright yellow with large petals that are 16-25 mm long x 10-13 mm wide. It also has only slightly recurved lateral sepals. The location overlap is generally small but includes *D. recurva* (in some areas southeast of Geraldton). The difference is both in the curvature of the lateral sepals (not strong in *D. hazeliae*) and in the intensity of flower colour (much stronger for *D. hazeliae*).

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DIURIS LAXIFLORA COMPLEX

August - three species – *Diuris segregata*, *D. septentrionalis* and *D. decrementum* – the first two are found NoP with strong overlap in distribution (*D. segregata* from Badgingarra to Kalbarri and *D. septentrionalis* from Regans Ford to Kalbarri). They are distinguished by plant height and leaf length (*D. segregata* 60-150 mm high with leaf length 60-150 mm, whereas *D. septentrionalis* is 200-400 mm high and leaves 80-200 mm long).

Height clearly separates the species but leaf length should reinforce the difference. The third species is very widely distributed but does not overlap the location of the other two and therefore, if you find a *D. laxiflora* complex species in August, anywhere other than the two north of Perth species, it will be *D. decrementum*.

September - five more species – Diuris micrantha, D. laxiflora, D. picta, D. concinna, D. setacea - beginning first with D. laxiflora, which is most widespread like D. decrementum.

It is distinguished from all the August species on the basis of height (300-800 mm). Any population with flowers regularly over 400 mm will not be any of the August species. The other widespread species of September that is unique is *D. setacea*. It is the only *D. laxiflora* complex species with twisted leaves and this separates it out from all other *D. laxiflora* complex species, both in this month and in every other month. It also flowers through to January, so it is often flowering quite late, but is one of the smaller plants (150-300 mm high) and this separates it from most of the other late flowering plants which are much taller. It also has 5-8 leaves, which is more than most others.

Next is Diuris picta.

This is separated out firstly on the basis of location. It is found at the eastern margins of the Wheatbelt and into more semi-arid areas (located from Paynes Find to Lake King) whereas all the other main Wheatbelt species (*D. laxiflora* and *D. decrementum*) are much more to the west. Being in these drier areas, *D. picta*, which is a very colourful species, is often found growing around granite rocks or near winter wet soaks. *D. picta* also does not flower until late September and this is a limitation.

The fourth species is *Diuris concinna* and is distinguished from all the others (apart from *D. laxiflora*) so far mentioned by location. It is the only other species found on the south coast east of Albany (Bremer Bay to Cape Arid). Up to the end of September in this area, the distinction from *D. laxiflora* is again one of plant height. *D. concinna* grows to a maximum of 400 mm whereas *D. laxiflora* mostly exceeds this height. Once again, a "population as a whole" basis needs to be applied. If ALL plants are less than 400 mm tall the ID is *D. concinna*. If average height well exceeds 400 mm, then it is *D. laxiflora*.

Now finally we come to Diuris micrantha.

As the name implies, this species has a very small flower. However, it is distinguished from ALL other *D. laxiflora* complex species by the pale colour of the flower. In this sense, it is like some of the *D. corymbosa* complex species but the *D. laxiflora* 'shape' should mean there is no confusion about its identity. Another part of its distinction is also in reference to location.

The distribution of *D. micrantha* overlaps with *D. laxiflora*, as it sometimes found near Perth but does not extend out to Brookton where both *D. laxiflora* and *D. decrementum* are found. However, apart from colour, it also has a much shorter labellum than either of the others and the lateral sepals are both shorter (6-10 mm vs *D. laxiflora* which has lateral sepals 10-14 mm long and D. decrementum has lateral sepals 8-13 mm long) and almost never crossed (which is sometimes the case with both *D. laxiflora* and *D. decrementum*). These characteristics should make the ID clear.

October 6 further species – Diuris eburnea, D. sp. 'Arrowsmith late', D. sp. 'Albany Hwy late', D. insignis, D. sp. 'Augusta', D. carinata.

Beginning with *D. eburnea* we find two very distinctive characteristics; first is colour as it is the only *Diuris* of any complex that is white. In addition, it is very location specific being only known from the banks of the Arrowsmith River. It is very rare and is rarely seen. One for the specialists – the next species is also delineated by colour. *D. insignis*, as the name implies, is a very dark colour with the marking being reddish brown. Some species in the *D. corymbosa* complex have similar colouring but this species is unique in the *D. laxiflora* complex.

While it is similar in most dimensions to *D. laxiflora* (larger plant than *D. decrementum*), it is later flowering and continues into November. (*D. laxiflora* in this area is generally finished by late October and is only flowering in November on the south coast.)

There are now three very new, very localised species – *Diuris* sp. 'Arrowsmith late', *D*. sp. 'Albany Hwy late' and *D*. sp. 'Augusta'.

The Arrowsmith late species looks like a *D. laxiflora* but is smaller in height and flower size. Its markings are often rather darker than *D. laxiflora* which grows in this area but has generally finished, or nearly so, whereas this species flowers into November and has fresh flowers in October. It is also distinctive in having only two or three leaves, whereas *D. laxiflora* has up to five (may of course still only be two or three, so it makes the plants you are looking at as NOT Arrowsmith late if they have four or five leaves). The distinction from *D. eburnea* is the standard yellow/brown colour and not white. It is further distinctive in being found at the edges of natural springs, sometimes growing in water.

This species is never confused with either *D. septentrionalis* or *D. segregata* as both of these have finished flowering well before *D*. sp. 'Arrowsmith late' begins. *Diuris* sp. 'Albany Hwy late' is also very location specific. It is only known from a narrow area between Jarrahdale and Williams and in moderate proximity to the highway. It only begins flowering late in October when *D. decrementum* in this area is finishing.

Additionally, it is only found in winter wet areas such as river flats and low-lying moist locations. As with the D. sp. 'Arrowsmith late' species the flowers are strongly marked with brown (a little more so than D. decrementum – but this is a matter of judgement and familiarity rather than a clear distinction.) Leaves however are shorter and narrower (70-150 mm x 1-1.5 mm) as compared to D. laxiflora (150-300 mm x 2-3 mm). This would be the further confirmation to separate the two species. Finally, is Diuris sp. Augusta. Timing and location are the distinguishing factors.

No other *D. laxiflora* complex species are to be found flowering in Augusta in October. *D. laevis* as well as *D. jonesii* and *D. longifolia* from the *D. corymbosa* complex are in flower in Augusta at this time, but they should not be confused with this *D. laxiflora* form of the donkey orchids. The last of this group of six is *Diuris carinata*. It is found between Perth and Mt Barker. This species overlaps with *D. laxiflora* in flowering time and location and height.

So, some care needs to make a distinction between the two. Leaf length overlaps but *D. carinata* is shorter (up to 200 mm) whereas *D. laxiflora* grows to 300 mm. In addition, October is the beginning of the flowering of *D. carinata* so there should be fresh flowers and new buds. For *D. laxiflora* it is the end of its flowering, especially in the location of *D. carinata*, so it will most probably have finished flowers and very few/no new buds. While *D. carinata* also overlaps with *D.* sp. 'Albany Hwy late', these two are clearly distinguished on the basis of height. *D. carinata* grows from 500-800 mm tall whereas *D.* sp. 'Albany Hwy late' is only 250-400 mm. They are clearly different.

Nov and on, four extra species – in addition to these extra species (*Diuris pauciflora*, *D. heberlei*, *D. emarginata* and *D. drummondii*) there are also eight others that have begun earlier and are still going in November (*D. eburnea*, *D.* sp. 'Arrowsmith late', *D.* sp. 'Albany Hwy late' (+Dec), *D. laxiflora*, *D. picta*, *D. insignis*, *D. carinata* and *D. concinna* (+Dec). This seeming complexity is virtually resolved in terms of location. All of these last four species are found on or near the south coast (with *D. drummondii* having a couple of outliers – Northampton, south of Perth, and at Bunbury). Apart from *D. laxiflora* which finishes in early November, there is only *D. concinna* which has locational overlap. All other November flowerers are not found on the south coast. *D. pauciflora* is most like *D. concinna*, with the flower appearance being very similar in size (height 200-350 mm/400 mm) and shape.

So once again the distinction is partly based on leaves. *D. pauciflora* has leaves that are 70-120 mm long with *D. concinna* being 80-150 mm. In truth, this is not much to go on but location is also a separating factor. Plants growing west of Albany (right over to Augusta) will be *D. pauciflora* and those to the east of Esperance will be *D. concinna*. Clearly, this is not much help for the ones growing between the two towns. One site that has only *D. concinna* growing is Helm's Arboretum north of Esperance. At least that can be a definite ID. There are lots of other orchids there as well.

Now to the other three. *D. drummondii* is the giant growing to as much as 1000 mm. Any population which has a number of plants over 600 mm will be *D. drummondii*, and it will not be confused with *D. laxiflora* (which grows to 800 mm) as, in mid to late November, *D. drummondii* is just beginning to flower and *D. laxiflora* is either entirely finished or nearly so. *Diuris emarginata* is separated on the basis of height (300-450 mm) and so should not be confused with *D. drummondii*.

But now comes another challenge. *Diuris heberlei* grows as far west as Augusta and is thus linked to *D*. sp. 'Augusta' (both flowering in December and through to at least January). *D. heberlei* has longer leaves (100-150 mm compared to *D*. sp. 'Augusta late' with 60-100 mm) and is taller (200-600 mm high compared to 250-400mm.) As before, this difference is not very obvious and requires a bit of dedication. One slight salvation is that most of the *D. heberlei* plants are found in and around Albany, extending out to Two People's Bay, where it is found among coastal sand dunes. If you find a flower in February it will be *D. heberlei*, as it is the only one lasting that late.

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DIURIS LAEVIS COMPLEX

There are only two species in this complex and they have distinctively different flower shapes from the other two complexes. Each is completely separate on the basis of location.

Diuris laevis is found along the south coast and near coastal areas between Bunbury and Albany. It is a swamp loving species so it only found in/near swamps or seasonally wet areas. It only flowers in the season after summer fires, so look for a burnt swamp from October to November.

Diuris purdiei, which has similar but more rounded flowers, is found between Perth and Yarloop. It is the same in the sense of only being found in/near swamps or seasonally wet areas. It only flowers in the season after summer fires. Look a bit earlier for a burnt swamp from September to October.

corymbosa sp	Floy	Months.		general	location	areas				SotE	height	variations	1	leaf	width		Lat sepals	Lab mid	lobe	max flws		other
as in AB from	June	t July	October	Pth	N of Pth	Wh/B N	W/BC	W/BS	Ma/Alb	of Alb	<300 av<250	>300 av > 250	400 av >350	<5 av <4.5	>8 av >7	>10 av >9	recurved	has ppl	red-brown	5 or <	8+	
recurva		XX(Au)					10.00								x		1	Y	1		x	broad rec dor sep
sp Newdegate			x (early)					×			ĸ			*				Y	x			broad rec dor sep
pallescens						x												v				v pale flws
brachyscapa		XX				×	*	ix.								×	1 3	¥7		*		pale flws
suffusa							×			-	×							¥'				pale flws
sp Wongan Hills							H.								×		1					and the second
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OTHER FREQUENCY			8 (Aug/Sept only)		_		-				0		12 (200-300)	1		11 (5-8)	not = 15		9 (brn/y)		17 (6-7 max)	
					-									-			rec = 16					
TOTAL			3	1)		Total >31	due to	multiple	r locations	4	1		31			3	1 3	1	3	1	31	

PART 3 – *Diuris corymbosa* Spreadsheet with special features...(please zoom in for clearer details – above.

PART 4 – Diuris laxiflora Spreadsheet with special features...(please zoom in for clearer details).

laxiflora sp	First	Flower	Month		gener	ral	location	areas				S cst E	height	variations		leaf	length	1	Lat sepals	OTHER
as in AB vol 1 2022	Aug	Sept	Oct	Nov+	Pth		NofPth	Wh/B N	W/BC	W/BS	Ma/Alb	ofAlb	<200 av<250	>300 av > 250	400 av >350	<120av<100	<150av>100	>150av>120	crossed	
micrantha		x													×	x				
eburnea			x				x							×			x		n	
segregata	XX						x						×				x		?	
decrementum	XX								x	x	x	x	x			×			n	
sp Arrowsmith late			x				x										x		y?	2-3 leaves
sp Albany Hwy late			x(I)								x		x				x		Y	
septrionalis	XX						*							×				*	Y	
laxifiora		x			x		x		x	×	×	x			×			×	v	
picta		X{L)						x[E]	x[E]	x[E]					×		×		y?	
Insignis			×								x			x			x		Y	
sp Augusta			×								x			×		x			Y	
carinata			x								x				×			×	n	2-3 leaves
concinna		×										x		×			×		n	
pauciflora				y .							x	×		*		x			?	
heberlei				Y							x				×		x		Y	2-3 leaves
emarginata				y							×				×			×	n?	
drummondii				v	×						x				×			×	n?	leaf width 4-8
setacea		x			x		x	x	x	×	x					x			n	twisted leaves
																			y .	
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Other frequency					0							1000	0		2 (200-300)			0	h	
TOTAL					18			Total >18	dueto	multiple	locations	3	14		18	1		18	1	
											-	-								
Immaculata		2									-	-						-		
filifolia																				

ADORP NEWS

Welcome to Sally Page and Diana Gilbert who have recently joined ADORP and will be assisting Jon Warren with the Tuart Rufa (*Pterostylis frenchii*) surveys.

Surveys for the Roleystone Bunny (*Eriochilus glareosus*) have been completed with a few new small locations having been found and other known locations having fewer flowering plants this year. Preliminary surveys for Cleopatra's Needles (*Thelymitra apiculata*) have only just commenced due to inclement weather, with results in most locations considerably down in numbers. This maybe a reflection on the very dry May rainfall.

With the end of the financial year DBCA, will commence tallying up the annual volunteer hours and those volunteers who are eligible for the volunteer rewards should start receiving them in August. The rewards are a small recognition for volunteers who do 20 hours or more during the financial year.

Kevin Uhe

Thelymitra apiculata (Cleopatra's Needles)

Whilst most of the ADORP focus has rightly been on Priority one, two and three orchids, there are a few Priority four orchids that have recently been taken, one of these being *Thelymitra apiculata*. Most of the Priority four orchids have very little information apart from WA Herbarium records, many of which are very old records with scanty location information and inaccurate GPS readings. There is a big gap in the knowledge base to know how these orchids are faring and whether they need to retain or upgrade their priority status.

A small group of ADORP members, including myself, decided to "adopt" this spectacular orchid as it provided an interesting early season challenge to survey the few known locations and try and discover other locations. This would hopefully provide a much better understanding of the species, including plant numbers and locations and whether the current priority listing was adequate. Our first task in 2018 was to survey locations that were known so we could start getting some baseline data for these areas and also to learn more about the habitat requirements. We were also lucky enough that year to find a small number of new locations which gave us hope that we could find further populations in the following years.



The following two years had poor rainfall and, despite locating some new populations, our overall plant numbers were still very low.

It also became quite obvious that plants do not always flower in the same location every year, so a lot of searching is required to locate plants.

The other major drawback is having a sun orchid flowering in winter with fewer daylight hours and a high chance of inclement weather.

In many cases, we only get

around 4 hours per day of warm weather to bring out the flowers, as plants in bud or closed are very hard to locate in the heathland country the species prefers.

In 2021, we were able to spend more time searching for new locations with slightly better weather conditions and being more aware of the specific habitat requirements of the species. We were also lucky to be able to gain the help of Fred and Jean Hort, who were doing general flora surveys in one area of interest, and they noted sightings of *Thelymitra apiculata*, which they kindly passed on to us along with some sightings by one of local DBCA rangers.

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2022 was a bumper year with a record number of plants being located, and a number of new locations being found due to some excellent rainfall and assistance from some extra team members, including one of our younger members who walked many kilometres to locate plants. Once again helpful information was received from the Horts, fellow members, general public and a very useful local contact. In most of our previous recorded locations there was a big increase in plant numbers which proved that in good seasons plant numbers respond in a positive manner.

We have been able to relocate most of the old records for *Thelymitra apiculata* despite some very vague descriptions and odd GPS readings. Many of the old records only had a rough GPS reading so we have been able to update many of the locations to accurately record the location and correct GPS readings.

The biggest threat to this species that we have observed is the over-visitation at known sites with resulting damage and trampling of the habitat and this species has also been the target of illegal digging up of plants on at least two known occasions. Other threats include prescribed burning, as many areas are subject to late Autumn burns (which have the potential to severely impact the emerging plants), climate change and mining tenements. Indeed, two of our new locations that were found in 2022 have been subject to late May prescribed burns this year and it remains to be seen if plants will emerge in the coming years.

Whilst we only have a few years of data to date, this species, while not being plentiful in numbers compared to many other species, is doing well and currently is not in any immediate danger. It is conserved in National Parks and Nature Reserves and in years of good rainfall can be quite plentiful. Going forward, we shall continue to gather data on populations to build up our database and associated mapping and continue to look for other locations. All our data has been incorporated into the DBCA database so Departmental staff have access to these records for planning requirements. Another area of interest is how the species responds to fire. A recent summer fire in two populations will provide some indication of how the species responds and timeframes for plants emerging following a fire event.

Our work would not have achieved such positive outcomes without the help of a number of different people who have kindly passed on sightings and also to the commitment of the ADORP team members who have spent considerable hours researching, surveying and recording plant numbers, exploring new locations and ongoing mapping of the areas.

Kevin Uhe - Team Leader

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Orchids of England and Ireland

Personal Field Trip Report - Marina Karyagina

We travel to England reasonably regularly (COVID-permitting) to see our daughter and her family who live near Manchester, in the industrial heartland of England. But it is not all about binge grand-parenting (which we do with pleasure) – I do try to incorporate a few orchid outings into our vacations.

The target orchid for this year's trip was Lady Slipper Orchid (*Cypripedium calceolus*) with anything else that we have not seen being a bonus. The Lady slipper orchid is critically endangered with only one native population remaining in existence in UK. The site is confidential and kept under guard, I believe. We were not attempting to locate and visit this site. Through conservation effort led by the Kew Gardens, laboratory-grown seedlings were planted some time ago at several locations and at least some of these now thrive at the Kilnes trout farm in Yorkshire.

The people at the trout farm were very impressed that we came all the way from Australia to see their orchids. The orchid is stunning, it has such a regal look – no wonder it has been a target for poachers and collectors for centuries. It is these people who are largely responsible for its dire conservation status.

The other (new to us) orchids that we saw in England on this trip were Greater Butterfly Orchid (*Platanthera chlorantha*) and Fly Orchid (*Ophrys insectifera*) in the Latterbarrow reserve in Cumbria. The reserve was well attended by other orchid tragics as well as butterfly people who wandered around the meadow. Some were guarded and vague in their answers about orchids whereas others were keen to share their finds with us. It was a lady from Cumbria who showed us the fly orchids that are very hard to spot otherwise for an untrained person.

We did see a few 'marsh family' orchids in other reserves in Yorkshire and Staffordshire, which we had seen before (but please do not ask me which one is which – it's a *Diuris*-like identification nightmare, at least to me, anyway. The marsh (or similar) orchids are quite conspicuous and grow in their hundreds in suitable habitats and seem to favour grazed meadows, often in various rehabilitated quarries and even old industrial waste sites.

I used Orchids of Britain and Ireland (A fields and site guide) by Anne and Simon Harrap for researching the orchid sites to visit. It has names and locations of the reserves and where best to access them – I had probably 50% success rate in finding orchids that way – some sites are quite large and we probably wandered in wrong places.

The focus of our short trip to Ireland was obvious - I chose to spend three nights in Burren (county Claire) and only one night in Dublin. Burren is where 23 out of 30 Irish orchid species grow.

This was a good choice. I spotted our first orchids even before we ventured on the orchid trip – strolling through the streets of Kinvarra (a small coastal village we visited to have dinner) I saw



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some (probably marsh) orchids growing on the lawn of the local school; the lawn of the tiny nearby park yielded the pyramid orchid (these ones are easy to identify) and two bee orchids – which are my favourite UK orchid – such a bizarre but beautiful shape. Dear me, I thought, the orchids just grow in the streets here.

The next day we spent a full day driving around Burren using the tips from the Field Guide as well as a field tour report by Travelling Naturalist (https://www.naturalist.co.uk/pdf/europe-ireland-burren-aran-islands-tour-report-jun16.pdf).

We saw lots of various orchids: lesser and greater butterfly orchid, fragrant orchid, O'Kelly orchid (a white variety of marsh orchid), common twayblade orchid, more bee and fly orchids, a few varieties of marsh orchids and a helleborine orchid in bud.

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We did not expect (or target) to see any orchids in Dublin – we were just doing normal touristy things - wandering the streets and looking at buildings.

But wait, what is this sign on the lawn of the University of Dublin saying?

It seems to be featuring an orchid of some sort! Here we go, the sign says "This lawn will not be mowed as a program is in place to identify if the helleborine that grows on this lawn is a rare green helleborine".

Aha, another country where one cannot tell what orchid it is just by looking at it – it requires a scientific program to be put in place. And they only have 30 species!

All photographs Marina Karyagina



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Bill Burton (1922 - 2015)

At right is a Memorial cake provided by Sarah Atkinson for the June General Meeting supper celebrating what would; have been Bill's 101 birthday - on the date of the GM, 21/6/2023.

Bill joined WANOSCG in November 1986. He served on the committee in 1991 – 1995, handled clothing orders, arranged and manned flower displays and contributed to WANOSCG bulletin on many occasions. Bill has been WANOSCG longest-serving Librarian, serving in this position from 1996 – 2011.

As part of his duties, he did not just look after the books, but also explained library operation



and rules to members and devised a new library index with the help of Noel Clarke. Bill had always had a good eye for the unusual and, on one of his trips in the company of Bill Jackson, he found the orchid that was eventually named Burton's Rufous Greenhood in 1990 (*Pterostylis* sp. 'northwest'). Ramón Newmann

Regional Field Trips

The upcoming Field Trips are:

1. Hyden Area; 25th to 27th July;

Mel again has offered to organise a trip to see *Thelymitra speciosa* and *T. maculata* around the Hyden area. Dates to be confirmed for both trips once numbers of interested participants are known. We have 13 members registered and this is now a closed trip.

2. Diuris ID Field Trips x 4;

John Ewing has done a great job at setting up a Field Trip and Educational moment for those wishing to identify the *Diuris* genus. A separate article was attached to the May Bulletin detailing the four trips he has proposed. Some dates have been set other dates to be confirmed for the trips once numbers of interested participants are known. Register with possible dates suiting your attendance.

- a. To be on 9th July as a 1-day trip to Moora, including a couple of side roads,
- b. Early September (2nd week) 3-day trip up as far as Kalbarri this will mean 2 overnights
- c. Late September (4th week) 2-day trip to Augusta and returning via the wheatbelt one overnight
- d. Mid-October (2nd or 3rd week) 3-day via Albany and a winding route home 2 overnights

All dates to be confirmed one month before actual trip once interested party numbers are verified.

3. Noel Clarke Memorial Field Trips;

We are trying a different approach to the commemorative field trips that targets orchid conservation and information under a mutual obligation process.

The process is simple.

For this year WANOSCG obligation is to provide a member with a package of sites that Noel had visited in and around the Wandoo National Park east of Perth.

The member's obligation is as follows:

- Let the field trip coordinator know of your interest;
- Take on the role as field trip leader;
- We have put together five packages to date with data to assist those that would like to participate either with a group or on your own to retrace Noel's footsteps;

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- Round up 2-10 fellow members to join you;
- Carpool to limit number of vehicles;

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- Visit the sites and record orchids found;
- If not confident with the identification use photos and appropriate measurements;
- After the visit prepare a short report, with photographs, for the WANOSCG bulletin;
- Report orchid finds information via the WANOSCG data base spreadsheet;
- Both reports to be submitted to the field trip coordinator.

Once you have the package you can visit the site whenever you and your fellow members wish but packages are best around September to November.

We will leave it to the Group to go whenever suits them.

To date we have two people ready to complete these trips, a big thank you to;

- a. Peter Gee, date to be sorted, and
- b. Ric Woodland on the 1st to 4th August,
- c. Still room for others to participate or register to attend with Peter or Ric.

4. End of Year Trip;

Andrew Brown has suggested we have the End of Year Trip happen in Albany and Walpole areas we have proposed to set possible dates to be Saturday 2nd and Sunday 3rd Dec. Please add the dates to your diaries. The interim plan is;

- a. Meet at Bakers Junction Reserve at *** am on the Saturday morning and search the burn.
- b. Stay in the Walpole area that night (just over an hour's drive) and meet for Dinner at the Pub.
- c. Sunday, meet north of Walpole on Thompson Road in the morning and spend several hours in the burn area. More detail and accommodation options will be supplied closer to the date.

5. Eddy Wajon's 70th Birthday

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Eddy has kindly invited the club to attend his 70th Birthday celebration over the 23rd, 24th and 25th September 2023 as a Field Trip. For this I will need a Field Trip Leader (FTL) to lead the trip over the three days or three FTL to take a day each. Below is a copy of the invite with RSVP details to Eddy and Donna re your attendance of the Birthday Celebration and you will also need to register your attendance as well using the Field Trip Co-Ordinator's email address at the end of this bulletin article. Once you have registered with me, I will pass on the amazing program that Eddy and Donna have set up for the three days.



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Completed Field Trips;

1. Ravensthorpe Area; June 20th to the 23rd;

Mel George proposed a visit to the Ravensthorpe burn area midweek. This trip was held with 9 club members as well as three local people helping them with location finding.

It's great that we have some field trips on the go and have started to complete some but don't let this stop you from volunteering to be an FTL in your own area I am sure other would like to share your local knowledge. If you are interested in attending or leading a trip then email me at <u>fieldtrips.wanoscg@gmail.com</u> with dates you would like to participate in one of the trips or lead a trip and I will confirm these with you once we have some numbers of interest.

Please Note;

When emailing me your interest to attend a Field Trip please include your Contact Number and your Emergency Contact Name and Phone Number in the email please.

Happy Orchid hunting and stay safe and keep those Field Trip ideas rolling in. Graham W. Field Trip Co-Ordinator

Notice of WANOSCG July 2023 General Meeting

We hereby give notice that the next General Meeting of the Western Australian Native Orchid Study and Conservation Group Inc ("the Group") will take place at 7:30 pm on Wednesday, 19th July 2023.

This will be an informal meeting with the guest speakers Katie and Leanne White (orchid lovers and artists, Esperance and Nannup). Topic: "Speaking of Orchids"

The location of the meeting will be in the Administration Building, 1 Kattidj Close, Kings Park WA 6005.

Bulletin Articles - Please send Bulletin contributions to the editor at Wanoscg.newsletter@gmail.com.

Due date for articles for the August issue will be Friday, 28th July 2023.

UPDATED FLOWERING CHARTS – 2023.

Updated species names in the Members Only area. - https://wanoscg.com/flowering-this-month/

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