

ISSUE 5 - JULY 2020



WANOSCG

The Official Bulletin of the Western Australian
Native Orchid Study and Conservation Group



A Royal Recognition

The month of June brought the incredible news that one of our members has made it onto the Queen's 2020 Birthday Honours List. Congratulations to Noel Hoffman for receiving the Medal of the Order of Australia for his service to the conservation of native orchids. Noel Hoffman has dedicated his life to searching, identifying, documenting and protecting Western Australia's native orchids after first seeing them as a boy in the 1930's. As well as being a founding member of WANOSCG, his contribution to education and increasing public awareness of these unique Australian flora has been extraordinary. Most members would know that Noel has co-authored four editions of the *Orchids of South-West Australia* with the 2019 edition being the most up to date reference for local orchid enthusiasts. This was certainly the first orchid book that I purchased after finding it on a shelf in an Albany book shop when I was a university student and supposed to be attending clinics but instead finding myself traipsing around the Stirling Ranges, armed with my 'orchid bible' in backpack. A most deserved award for Noel, congratulations from all of WANOSCG and thank you for being an inspiration to many of us and your continued involvement in this group's work.

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Next General Meeting:

Kings Park Administration
Building

Next date to be advised

The Committee:

President – Ramón Newmann
Vice President – Ian Puddey
Secretary – Pat Richards
Treasurer – Jay Steer
Committee Members – David Lawson, Kevin Uhe, Debbie Proudfoot, Andrew Brown, Bill Gaynor



Image by Andrew Brown of *Caladenia hoffmanii* – named to honour Noel Hoffman

“Recollections Part IV – The 1970’s” by Alex George

Well, actually from 1969 after my year at Kew. My research on orchids continued but as the decade progressed other activities increased and later, I focused on completing my revision of *Banksia*.

Besides slipping back into my spiritual home during that year, a major event was the 6th World Orchid Conference, held in Sydney in September 1969. I gave a talk on the orchids of Western Australia. It was one of several that set the Australian scene for our visitors. It was daunting to have an audience of around 1000 but great to meet so many people, including Warren Stoutamire of the University of Akron, Ohio, who would later visit W.A.

During the 70’s my collecting continued, sometimes on specific orchid trips, sometimes as part of wider flora surveys such as in nature reserves and national parks. These took me to all parts of the State, from the far north Kimberley to the south coast and from the west coast to and beyond the State border. I can mention just a few finds here.



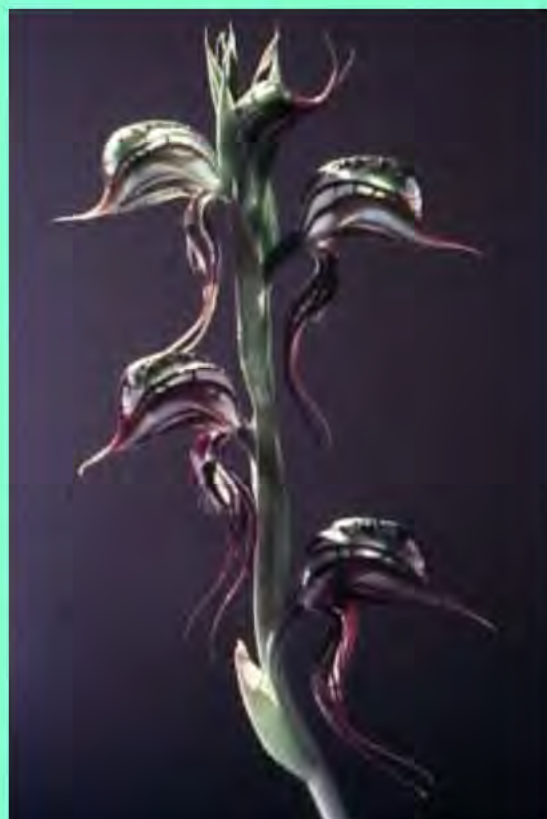
For many years we knew of only one species of *Corybas* in W.A., known as *C. dilatatus* (now *C. recurvus*), and it was thought to occur only in the wetter forests. In 1963, another was found near Walpole and identified as *C. unguiculatus*. In 1970, the common species (*C. recurvus*) was found at Gingen Brook, well north of its previously known range. A new species (now *C. despectans*) was found by schoolteacher Laurie Byrne at Ledge Bay, E of Albany. I visited this with him in October 1971, finding *C. limpidus* in fruit nearby the same day.

Image top left: × *Cyanthera glossodioides*, a presumed hybrid, *Caladenia sericea* × *Elythranthera brunonis*, West of Albany, 1971.

Other finds in 1971 included the as-yet unnamed *Pterostylis ciliata* in the Stirling Range and *P. leptochila* at the Oldfield River.

In 1971 I published my checklist of the Orchidaceae of W.A. in the Western Australian Herbarium’s new journal *Nuytsia*. In this I summarised the results of my work to that point, especially from my year overseas (see last Bulletin). In the same number, I published four distinctive new species. One of these, *Caladenia crebra*, was brought in to the Herbarium in 1969 by Clem Burns, a wildflower enthusiast from Geraldton. He had called in at a farm near Arrowsmith and been intrigued by a vase of unusual spider orchids on the kitchen table—they certainly were! I visited soon afterwards and saw them in the wild, and was told that for the locals it was one of the common orchids!

Image bottom right: *Pterostylis leptochila*, Oldfield River, 1971.



"Recollections" continued...

On a flora and fauna survey of Dirk Hartog Island in September 1972, I found a plant (in fruit) of *Eriochilus dilatatus* subsp. *dilatatus*, the northern-most record of a south-western orchid. Earlier, in August 1969, I noted leaves of (now) *Pyrorchis nigricans* and a *Caladenia*, possibly *flava*, on the coastal track near Tamala Station, just south of Shark Bay. A little farther south was *Thelymitra sargentii*.



Image left: The type collection of *Caladenia crebra*, 1969



Image right: The habitat of *Eriochilus dilatatus* on Dirk Hartog Island, the northern-most record of a south-western orchid, 1972.

A significant event in this decade, of course, was the formation of this society. This was instigated by Herb Foote, a very keen orchid enthusiast, who I knew through his visits to the herbarium to have his photographs identified. He had asked me to write the text for his book *Orchids of Western Australia*, published in 1969 by Westviews, for whom he worked. In 1974 he invited 38 fellow enthusiasts to a meeting at his home in Forrestfield, when it was decided to form a group within the Orchid Society of WA, then from 1976 as an independent group. For the history, see *WANOSCG 2014 celebrating 40 years*. Initially the group met in a small theatre at the then Department of Agriculture in South Perth.

In 1973 we had a visit from Warren Stoutamire to study pollination of orchids. Through his work we learnt how widespread pseudocopulation is.

Another diversion (but wholly relevant) was my appointment to the Technical Subcommittee of the Conservation Through Reserves Committee.

Establishment of this committee was among the first actions by the Environmental Protection Authority after its formation in 1972. The task was to review all conservation reserves (including national parks) in the State, make recommendations concerning them, and recommend new reserves. Initially we were seconded from our departments for 2 or 3 days a week but it involved much time including several aerial/ground surveys around the State until the first report appeared in 1976. Among the new reserves accepted by the Government were the Rudall River and Shannon National Parks and large reserves in the desert regions.



Image right: Warren Stoutamire and a young Steve Hopper examining *Prasophyllum regium* SW of Frankland, Nov. 1977

"Recollections" continued...

A success story at a local level was having a proposed new bridge over the Frankland River on the Manjimup–Mt Barker road moved to avoid an important orchid site. I was alerted to this by Ron Heberle, of Albany, who spotted survey pegs there. I contacted Main Roads and we had a meeting on site in 1977. They accepted the significance of the site and decided to move the bridge 250 metres downstream, entailing an increase in road length of 530 metres. Alison Harrington, as President of WANOSCG at the time, wrote to Main Roads thanking them for their attention and support for orchid conservation (see *Western Roads* 5, 1: 1–3, 1980). (In 2018 I visited the site. The piles of the old bridge and the approach roads are still there, but the area of richest orchid diversity is very overgrown. Perhaps a good summer fire would reveal them again!)



Image left: At the Muir Bridge, Frankland River - *Caladenia flava*, *C. marginata* and a presumed hybrid, 1977.

Image right: *Megaselina* bearing pollinia of *Rhizanthella*, Munghlinup, 1980.

The end of the decade was marked by the discovery of the Underground Orchid by farmer John McGuinness at Munghlinup in 1979—see WANOSCG Bulletin June 2018, p. 1. A campaign to find it had been taken up by Alex Harris, the reporter on natural history and conservation with West Australian Newspapers. Her articles appeared in several papers during the '70s and it was in one of these that John McGuinness read of our search. In 1980, John Cooke from Oxford Scientific Films came to try and film it being pollinated. Although he didn't succeed he did collect a small fly emerging from an inflorescence bearing pollinia on its thorax. Identified by CSIRO as a species of *Megaselina*, it has not yet been given a specific name. Later that year I found that the orchid also has unusual fruit—succulent and indehiscent containing few, very large (for an orchid) seed 0.6–0.7 mm long with a brittle seed-coat.

I will include here my final major orchid activity before I moved to Canberra to take up the position as Executive Editor of the new *Flora of Australia*. This was an expedition undertaken in 1980 under the auspices of the Australian Orchid Foundation. Warren Stoutamire visited again to join us. Local participants were Don Voigt, Ron Heberle and Andrew Brown (it was soon afterwards that Andrew joined the staff of the WA Herbarium as gardener, leading to greater things ...). More than 60 orchids were collected, among them what would become *Diuris pulchella* and *Pterostylis faceta*. See M.A.Clements & A.S.George, *Report of the Australian Orchid Foundation expedition to Western Australia August 1980*.

A postscript was a paper that I published in 1984 describing seven new orchids including *Caladenia wanosa*.

General Meeting Rosters

It's hard to believe we have made it to June and still not had an official in person meeting for WANOSCG in 2020. We are hoping to recommence meetings soon and will keep members updated on any changes through email and the Facebook page. The Committee still continues to convene monthly via Zoom and has been keeping the organization running in a caretaker mode. Members are encouraged to continue emailing in any conservation issues or other orchid related news that presents in their local areas. Similarly, please contribute to the monthly bulletin as it is currently our main means of communication to members.

2020 WANOSCG Photographic Competition

Due to the uncertainty of future meetings at this stage and the limitations on travel for the first half of this year, this year's photo competition will be completed a little differently and the subject matter has been kept quite broad to encourage as much participation from members as possible. The theme for 2020 is "Your Favourite WA Native Orchid, taken in situ". Details on how to complete your electronic photo submission were posted in the June Bulletin but will be repeated later in the year close to the entry deadline. Hopefully the electronic entry will allow more members to participate who are normally unable to make meetings due to geographic location.

2020 Proposed Field Trips

At this stage, there are no planned field trips for 2020. As the orchids come out, we hope to announce some WANOSCG Field Trips later in the season. Keep in mind any suggestions you have for potential locations to explore. Wherever we end up on our first field trip, I'm sure there will be a mandatory celebratory ice cream stop.



ADORP News by Kevin Uhe

Welcome to Melanie (Mel) George who has recently joined the project and we now have 69 active members working over 35 projects.

Some members have been doing ad hoc surveys for *Thelymitra apiculata* as the low numbers of this orchid being recorded is possibly raising the prospect of this being raised in Priority level once more data is available. Any sightings of this orchid away from the usual area would be very helpful to ascertain how this orchid is faring.

Priority four orchids are largely forgotten and many have not been surveyed for many years either by DBCA or ad hoc surveys by others. It is proposed that we try and target and record any populations of one or two of these each year so that there is a better understanding of their status.

For this year it is suggested we look at *Caladenia integra* and *Corybas limpidus*. Both of these could be candidates to remove off the priority list once enough information is known about the current numbers. Any information on either of these two species would be appreciated as people happen to come across them during the season.

Membership News

Without a membership officer this year keeping us up to date with all membership news, we've let a few new members join WANOSCG without an official welcome.

May we welcome Dorte Muller, Charlene Scott, Jess Parker, Glynn Brook and Valerie Hack to the group and hope to meet you all eventually in person once meetings and field trips are up and running. It's great to see more people interested in the conservation of native orchids.

Thelymitra variegata Notice from Graeme Walker

A friendly reminder to all members to please avoid visiting the only known remaining site for this species if they have already seen this orchid. There are only a handful of plants remaining in their native habitat and recovery efforts are continuing to ensure the long-term survival of this species.



Vale Phil Bunney

It is with much regret that I inform WANOSCG members that Phil Bunney passed away on the 4th June after lengthy illnesses. He was 67.

Phil loved orchids. As well as being a WANOSCG member Phil was also an active member of the WA branch of ANOS. He was a keen grower and shower of both native and exotic orchids.

Phil joined WANOSCG in 1995. He has been a stalwart of our club over many years and will be sadly missed. Phil audited the club's books from 2007 to 2017 and was an active participant in the early days of ADORP. Before he retired to Dalyellup, Phil often attended club meetings where he was known for his good humour, wry smile and the native orchids that he displayed on the growers table.

Our thoughts and condolences are with Shirley and his family.

By Jay Steer

Vale Gillian Burbidge

Tom's wife Gillian passed away last Thursday 11th June after a short illness. Gill was diagnosed with a level 4 Brain Tumour (the worst level which is incurable), early last December and went through the usual radiotherapy and chemotherapy. However, it recently started to spread to other parts of her brain. Due to the fact that she had lost a lot of weight and become more unwell, the decision was made to go no further with anymore treatments and just keep her comfortable. Gill died in her sleep the morning of the 11th June. Gill had a Holy Communion service at St Basil's Anglican Church in Murdoch on Thursday 25th June which was followed by a Cremation service at Fremantle Cemetery.

Our thoughts are with Tom Burbidge and his family during this time.

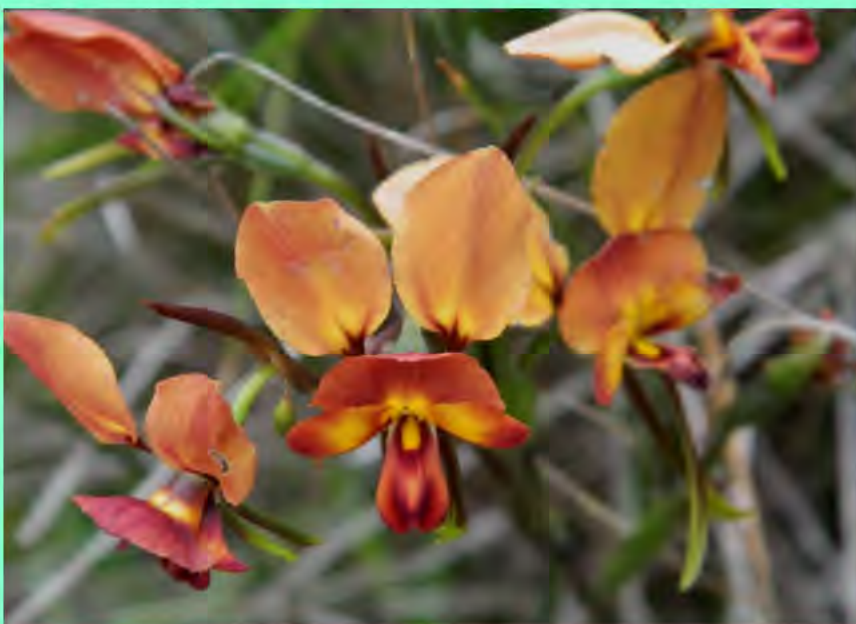
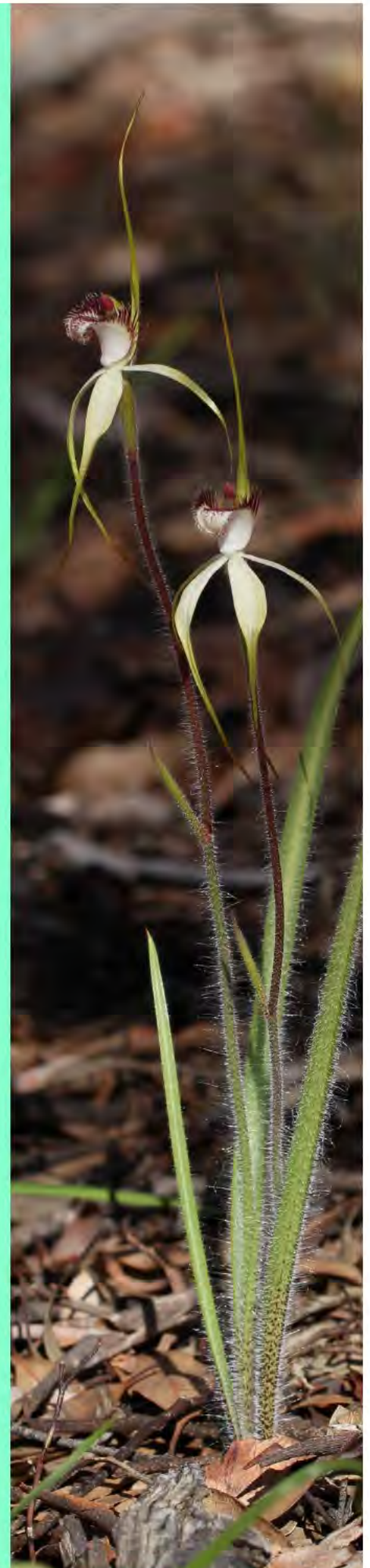


Image below supplied by Tom Burbidge in memory of Gillian: *Diuris amplissima* from Dunsborough area, one of her favourite regions to look for wildflowers



Edith Coleman – Her Contribution to Australian Orchids by Kevin Uhe

Caladenia integra, *Caladenia rhomboidiformis*, *Caladenia longiclavata* and *Pterostylis rogersii* were all named by E. Coleman in the early 1930's but who exactly was E. Coleman and what was the connection to WA orchids?

Having come across the name whilst doing some background research I decided to investigate further and found that E. Coleman was actually Mrs Edith Coleman and she had a remarkable history that was worth writing about. Edith was born in England in 1874 and emigrated to Victoria in 1887 where she was a school teacher until her marriage and then, at the age of 48, joined the Victorian Field Naturalist Club and presented her first paper "Some autumn Orchids" in 1922.

This was the start of many articles that Edith wrote, many of which were based on orchids but also other flora and fauna she was interested in. What was more remarkable was that Edith had no formal training in botany and yet she presented her papers in fine detail which stood up to close scrutiny. While many papers were based on Victorian orchids, she did present papers on pollination of *Prasophyllum*s with reference to *Prasophyllum drummondii* and *Prasophyllum elatum* and a very detailed paper on pollination based on the function of the caudicle on *Prasophyllum parvifolium*.

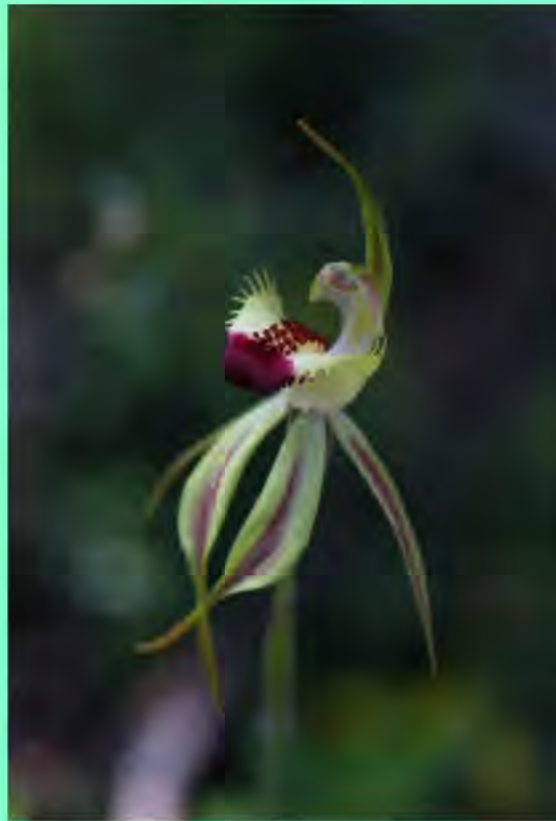


Image left by Kevin Uhe – *Caladenia integra*. Image right by Rachel Halls – *Caladenia rhomboidiformis*

Edith visited Western Australia on a number of occasions and it was during those visits and regular correspondence with Rica Erickson (nee Sandilands), amongst others, that she became the first woman to formally name the above-mentioned WA orchids (All published in the Victorian Naturalist).

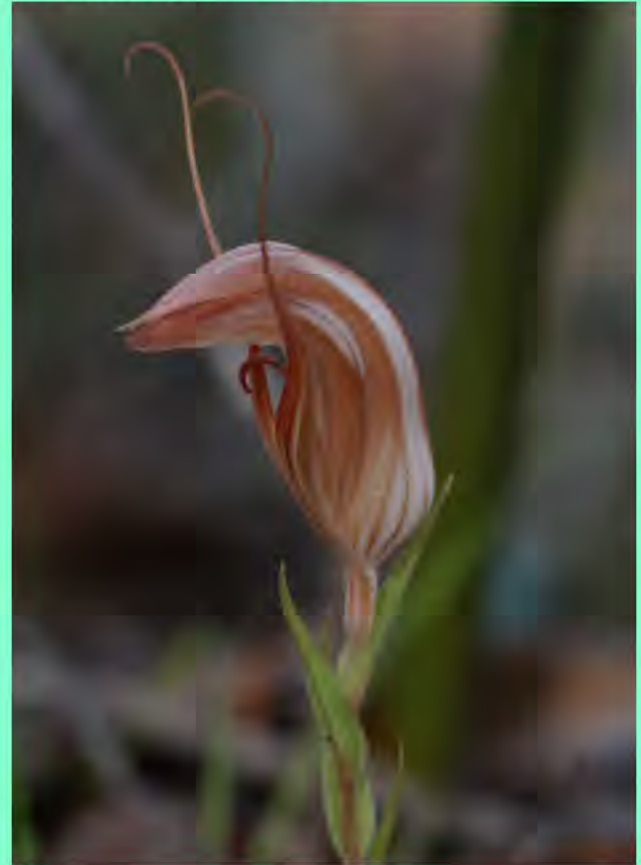
In 1927, Edith's daughter witnessed some strange behaviour of a wasp around *Cryptostylis leptochila* by backing into the flower. This was a mystery that Edith took on board and in the same year she wrote her first paper on how the Ichneumen wasp *Lissopimpla semipunctata*, entered the flower backwards and in doing so, pollinated the orchid. Whilst Maurice Pouyanne in Algeria and Colonel Masters Godfrey in Hyeres in France had previously presented papers on their own observations of strange behaviour of insects around the mirror orchid *Ophrys*, their findings were speculative and Edith set about to build on their work to understand what was attracting the wasps.

Edith Coleman History continued...

Her meticulous work and study then led to a further paper in May 1928 which Edith detailed how she suspected the orchids used scent (even though it is not discernible to the human nose) and mimicry to lure the male wasps into attempting copulation with the orchid, thus leading to the removal of the pollinia from one flower and depositing it on the next flower visited. Edith was able to support the work done by Pouyanne and Godfery and expand it with detailed research, diagrams and detailed study of how the wasps were attracted to the flowers. Tarlton Rayment used the word “pseudocopulation” to describe Edith’s work and this is still used today.

That Edith could reach the conclusions she did which even baffled Charles Darwin, was an incredible achievement and her papers were then published in two international journals. This led to world-wide acclaim of Edith’s work and led to others further expanding on her work over the years.

Edith continued to write prolifically over many years, expanding from orchids to studying other flora and fauna species. While she wrote scientific and other articles for many different outlets, Edith did not write any books of her own. In 1949, Edith became the first woman to receive the Australian Natural History medallion for her contributions to the natural history. Edith died on June 3, 1951 in Victoria and while she has been largely forgotten over the years, she deserves a prominent place in the history of Australian Orchid knowledge and science.



Images by Rachel Halls – *Caladenia longiclavata* and *Pterostylis rogersii*

References:

- Erickson, R. (1965) *Orchids of the West 2nd edn.* Perth; Paterson Brokensha Pty Ltd.
- Coleman E. (1927) *Pollination of the Orchid Cryptostylis leptochila* The Victorian Naturalist xliv, p20 – 22,
- Coleman E. (1928) *Pollination of Cryptostylis leptochila, F. v M.* The Victorian Naturalist xliv, p333-p340,.
- Coleman E. (1934) *Pollination of Prasophyllum parvifolium (lindl) , The function of the caudicle.* Victorian Naturalist Vol 1.1 p 101-p107
- Coleman E. (1933) *Pollination of Orchids: Genus Prasophyllum.* The Victorian Naturalist. Vol XLIX p 214-p221
- Further reading
- Clode, D . (2019). *The Wasp and the Orchid: the remarkable life of Australian Naturalist Edith Coleman*, Pan Macmillan Australia Pty Ltd

Winter Flowering Species

The snap in cooler weather brings about a range of early flowering orchid species around the South West, particularly *Pterostylis* species. This selection represents a few of the finds by our members this year.



Image top and centre by Terry Dunham – A delightful surprise *Caladenia reptans* subsp. *reptans* in a burn area at Stirling Range National Park on Tuesday 16.6.20. There are quite a few plants in flower and many more buds about to open.



Image above by Mick Hurdus – *Cyrtostylis robusta*

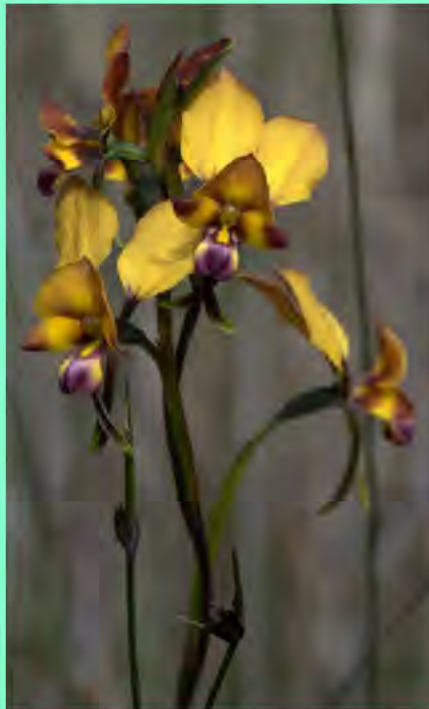


Images from left: Rachel Halls – *Pterostylis rogersii*, Mick Hurdus – *Pterostylis rogersii*, Robin Parsons – *Pterostylis angusta*

A year of orchids in my local bush reserve – Wireless Hill

I've taken up Andrew Brown's challenge to members to write a few words about the orchids they find in the local reserve they most frequent during the year. For me that's Wireless Hill Park, a 15-minute walk or a 5-minute drive from home. Unfortunately, I usually opt for the drive rather than the walk, but assuage any guilt by meandering for an hour or two around what has to be one of the most beautiful bushland settings south of the river, with spectacular views across the Swan River to the city. The views are especially dramatic from mid to late November when the whole of Applecross turns purple with the blooming of the Jacaranda trees, providing an outstanding annual vista.

This 40 hectare park is located in Ardross and its banksia and eucalypt woodland has been well maintained, largely due to the conservation efforts of the Friends of Wireless Hill (<http://www.friendsofwirelesshill.org/>) who invest many hours on bush care each year removing weeds (such as Veldt grass and gladioli) and planting new native trees and shrubs. The Veldt grass (from South Africa) was apparently planted to stabilise the soil after the entire site was cleared, apart from a small patch of land near the current Melville City Council Office carpark, to make way for the Applecross Wireless Station, which was opened on 30 September 1912. The Wireless Station, used for telecommunications during World War One and World War Two, was vacated in 1968, and now the old engine room of the Station has become the Wireless Hill Museum. Remarkably, the bushland has regenerated over the decades and the park is now the site for nearly 260 native flora species (<http://www.friendsofwirelesshill.org/wildflowers.html>) including approximately 20 orchid species which flower between June and November.



Images from left: *Pheladenia deformis*, *Diuris corymbosa* and *Caladenia arenicola*

The Greenhoods are the first orchids to be seen each year –with the reddish brown to dark green flowers of the Small-banded Greenhood (*Pterostylis orbiculata*) on the scene from mid-June. The next cab off the rank is the Winter Donkey Orchid (*Diuris brumalis*) with its welcome bright yellow and reddish-brown flowers regularly seen each year in early July in a small patch off Davy St.

In August, the park really comes alive with widespread and often prolific populations of both the Common Donkey Orchid (*Diuris corymbosa*) and the Pansy Orchid (*Diuris magnifica*). Pale to bright yellow Cowslips dot the landscape (*Caladenia flava* subsp. *flava*), scattered populations of Jug Orchids (*Pterostylis recurva*) put in an appearance and by late August, Rattle Beaks (*Lyperanthus serratus*) are regularly seen along the edge of one of the many popular walkways. I have previously photographed the Murdoch Snail Orchid (*Pterostylis ectypha*) in August at 2 separate locations but have not seen them in the park since 2008.

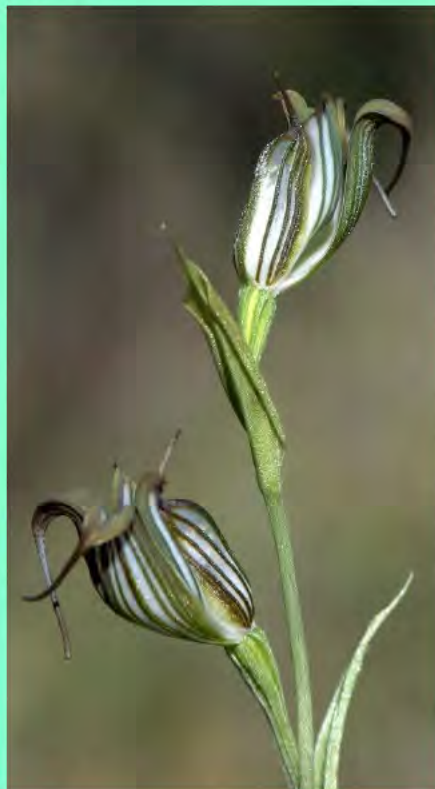
Wireless Hill continued...

Mid to late August also marks the arrival of the first Spiders - the beautiful Dancing Spider Orchid (*Caladenia discoidea*) and the Carousel Spider Orchid (*Caladenia arenicola*) that continue through September. The latter have been in disappointing numbers for the last couple of years and it will be interesting to see what might turn up with this year's increase in rainfall. I have previously seen Coastal White Spider Orchids (*Caladenia longicauda* subsp. *calcigena*) but none since 2012. A single patch of Pink Fairy Orchids (*Caladenia latifolia*) was a regular late August to early September arrival in the bushland adjacent to the Melville City Council offices but again I haven't seen these since 2011.



Images from left – *Caladenia flava* subsp. *flava* and *Caladenia discoidea*

Yawning Leek Orchids (*Prasophyllum hians*) were seen in late Aug – early Sep 2011 after a fire but not since. Similarly, I have only ever seen a single Blue Fairy Orchid (*Pheladenia deformis*) in the park and that was in 2016 again following a large fire. In that same year, the many Elephant Ears that cover large areas of the bushland came to life with forests of Red Beaks putting on a magnificent display.



Images from left – *Lyperanthus serratus*, *Pterostylis recurva* and *Caladenia longicauda* subsp. *calcigena*

Wireless Hill continued...

October and November regularly see the emergence of the Scented Sun Orchid (*Thelymitra macrophylla*), the Blue Lady Orchid (*Thelymitra crinita*) and the Common Mignonette Orchid (*Microtis media* subsp. *media*) which together bring colour and life to a drying landscape that otherwise awaits the next autumnal rains to once again begin the cycle of regeneration and beauty that characterises Wireless Hill.

The impression of a diminution in the number and variety of orchid species in the park are a matter for concern and review. Are they related to changes in climate? Are they a response to the increased tourist traffic to the park each spring? Are they related to a decrease in specific orchid pollinators? Or more likely is it a combination of the above. Careful future scientific approaches to the categorisation and enumeration of orchid species in our local reserves is clearly necessary if strategies for the preservation of this precious ecological heritage are to be put in place at this reserve and others throughout Western Australia.



Images from left – *Diuris magnifica*, *Pterostylis orbiculata* and *Thelymitra macrophylla*

Species list for the reserve (main flowering time in brackets)

<i>Caladenia arenicola</i> (Aug-Sep)	<i>Pheladenia deformis</i> (July-Aug)
<i>Caladenia discoidea</i> (Aug-Sep)	<i>Prasophyllum hians</i> (Sep-Oct)
<i>Caladenia flava</i> subsp. <i>flava</i> (Aug-Sep)	<i>Pterostylis ectypha</i> (July-Aug)
<i>Caladenia latifolia</i> (Aug-Sep)	<i>Pterostylis orbiculata</i> (June-early Aug)
<i>Caladenia longicauda</i> subsp. <i>calcigena</i> (Aug-Sep)	<i>Pterostylis sanguinea</i> (July-Aug)
<i>Diuris brumalis</i> (July-Aug)	<i>Pterostylis vittata</i> (July-Aug)
<i>Diuris corymbosa</i> (Aug-Sep)	<i>Pterostylis recurva</i> (Aug-Sep)
<i>Diuris magnifica</i> (Aug-Sep)	<i>Pyrorchis nigricans</i> (Aug-Sep)
<i>Leporella fimbriata</i> (Mar-June)	<i>Thelymitra crinita</i> (Sep-Oct)
<i>Lyperanthus serratus</i> (Sep-Oct)	<i>Thelymitra macrophylla</i> (Sep-Oct)
<i>Microtis media</i> subsp. <i>media</i> (Oct-Nov)	

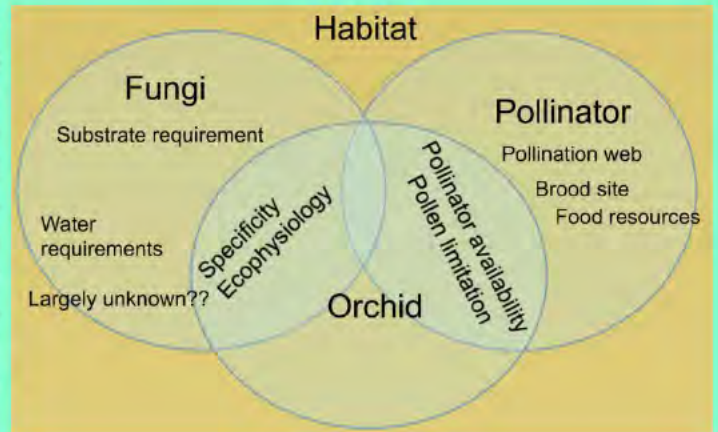
Question Time!

This section is for any burning questions members may have in regards to Western Australia's native orchids. Questions can be simple or complex, there is no minimum standard and the authors are kept anonymous. Answers will be published in the next edition of the bulletin.

Last month's question:

What factors influence the range of an orchid species as some are quite widespread while others confined to a narrow habitat range?

Last year Dr Belinda Davis from Kings Park gave us a talk about reintroducing cultivated native orchids back into habitat and she summed up quite nicely the different factors that a particular species needs to grow in habitat in this diagram. By understanding a species unique requirement, one can get an idea as to where may be a suitable habitat for the species to prosper. Orchids require the presence of a certain pollinator, food for the pollinator species, fungi to grow, rainfall and other cohabitating flora which can be responsible for narrowing their habitat range. The more specific the requirements of the orchid or pollinator, the more restricted its range is likely to be.



This month's question:

Some orchids have hairs on their stems and / or leaves. What purpose do these little hairs serve?



Image left by Lyn Alcock – 3 stages of *Caladenia drummondii* (old flower, enlarged leaf and dried seed pod). Image right by Rachel Halls – *Caladenia drummondii* in flower.



Bulletin Articles

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

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