



AUSTRALIAN PLANTS SOCIETY
SOUTH EAST MELBOURNE REGION INC.

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FEBRUARY NEWSLETTER 2021

Meetings are held on the first Tuesday of each month, February to December except November.

The venue is the Hughesdale Community Hall, Cnr Poath and Kangaroo Roads, Hughesdale (MEL 69 C7)

Visitors are always very welcome

COMMITTEE:

PRESIDENT: John Thompson thomme@netspace.net.au
SECRETARY: Helen Appleby
TREASURER: Norm Seaton normarjs@bigpond.com
PUBLIC OFFICER: Helen Appleby
NEWSLETTER EDITOR: Marj Seaton normarjs@bigpond.com
APS VIC DELEGATE: Marj Seaton
COMMITTEE: Amanda Louden amandalouden@icloud.com
Chris Bain

Please forward any newsletter contributions, comments or photos to Marj at 36 Voumard Street, Oakleigh South 3167 or to the email address above.

*******Note: Deadline for the March newsletter is FEBRUARY 24th*******

February Meeting
8pm Tuesday 2nd February
Hughesdale Community Hall
Cnr Poath and Kangaroo Roads, Hughesdale

Our first meeting for 2021 will feature a talk on the Early Botanical Exploration in Australia with John Thompson as our guest speaker. There will be some mention of Banks and Solander but also many more early collectors.

There will be hand sanitiser available and all attendees are asked to wear masks. Be prepared to maintain social distancing. Monash Council is allowing the use of the kitchen so there will be supper available (thank you Mandy). It will be important for all members to sign the attendance book.

If you have a few specimens to share, please bring them along.

RAINFALL RECORDS for 2020

(2019 totals in red)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Oakleigh South	98	90.5	77	167.5	70.5	44.4	33.9	84	46.8	78.6	63.4	51.1	905.7 494.8
Highett	114	76	63	136.7	56	44.3	33.5	64	48.7	67.5	66.3	46	816 437.9
Hampton	119	75	57	132	48	32	23	60	27	57	58	32	720 NA
Cranbourne South	99	64	72	167	89	49	44	93	81	95	37	56	946 787
Caulfield South	127	70.5	62.5	148	58	33	19	62	38	63	58	42	781 621
Elsternwick	120	86	67.5	141.5	74	38	25.9	66.5	46.2	66	57.5	37	826.1 477.95

2.



Impressa awards

APS Vic has awarded two Impressa awards for 2020. One is our own John Thompson for service to our group over many years – hearty congratulations John. The other award is to Graham Goods from Horsham for his service to APS Victoria.



Membership Renewal

There are still a few of you who have not paid your membership subscription for the year 1/7/20 to 30/6/21. We would normally have removed unpaid members from the distribution list for our newsletter by this stage of the year. However, given the circumstances caused by COVID, we have extended the period until the end of February. If you have not yet paid, or have decided not to rejoin, please contact our Treasurer, Norm Seaton at normarjs@bigpond.com or 9570 6293, or see him at the February meeting.

Annual General Meeting 2020 **1st December**

This meeting was held in December after a delay of four months due to the Covid pandemic. Monash Council had set the hall up so that we were spread around the room, socially distanced and wearing our masks. This sometimes made it hard to hear, but on the whole the meeting passed without any problems.



The meeting was preceded by a 'clear the decks' plant sale and followed by our regular show-and-tell slide night.

14 members attended and there were obvious happy faces as we could finally have a face-to-face meeting.

In the election for office bearers, John was re-elected as Leader, Helen as Secretary for the last time before she and Scott move to the country, Norm was re-elected as Treasurer and Marj as Newsletter editor and APS Vic delegate. Chris Bain agreed to join the committee with Mandy Loudon.

The only General Business raised was the possibility of an excursion to the Jawbone Sanctuary in Williamstown at the end of March after we hear about the Sanctuary at our meeting earlier that month. There seemed to be sufficient interest for this to go ahead. Further details in next month's newsletter.

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John, Mandy and Marj provided the slides for the rest of the meeting (photographs this month are taken from the internet).

Marj showed several slides from hers and Norm's garden including a *Bossiaea aquifolium*, *Olearia phlogopappa* (love that name) and one of the many *Xerochrysums* which had self-seeded after the 2019 APS Vic give-away. Two shots followed of the native wisteria (*Callerya megasperma*) and grasses planted in the Homes garden at Cranbourne and a couple of photos of the Herd and Cooper gardens featured as part of the FJC Rogers garden visits held over the last weekend.

Mandy started with the large pink flowered *Verticordia ovalifolia* and Albany Swamp Daisy, *Actinodium cunninghamii*. John commented that this last is not a daisy – in fact it is closer to the eucalypts than to any daisy. Mandy followed these with two orchids – *Diuris sulphurea* and the orange blossom orchid, *Sarcochilus falcatus* (Wikipedia photo right).



Mandy can be relied on to show an animal of some kind, and tonight was no exception. We saw a skipper butterfly on a white patersonia, a gecko on an orchid and a couple of dragon flies.

Other shots included *Backhousia myrtifolia* (unlike *B. citriodora* there's no scent), a gymea lily spike, and *Davidsonia pruriens* (one of the Davidson plums, with a mass of flowers directly on the trunk).

John's collection also included a few insects – a leaf cutter bee, a green insect on a *Dianella* and



a damsel fly. Among his plant slides were the Albany bottle brush (*Callistemon glaucus* left, one of only two *Callistemons* in WA, the other being *C. phoeniceus*), *Acacia guinetii* which has soft fern like foliage and no prickles and *Richea scoparia* from Tasmania. This last can be in a variety of colours, John's was yellow.



He also showed a photo of the rare *Prostanthera galbraithae*. This plant is found in East Gippsland and has mauve, open flowers with darker centres, see left.

Not from the Specimen Table – 7

This article is the seventh in a series featuring plants that are not often seen on the specimen table during the normal yearly meetings. This will be, hopefully, the last of these articles as we resume our meetings in February, albeit in a slightly restricted fashion.

As the festive season has just passed, this article is about a genus of plants commonly known as Christmas Bells – *Blandfordia*.

Blandfordia is a genus consisting of four species – *B. nobilis*, *B. grandiflora*, *B. cunninghamii* and *B. punicea*. All are endemic to Australia and are only found on the east coast.

Blandfordia nobilis is a NSW endemic found in sandstone country, coastal heath and mountains in the Sydney – Shoalhaven region and inland to Braidwood.



Blandfordia grandiflora (left) is found in damp sandy and/or peaty soils in coastal and tableland areas from north of the Hawkesbury River up to Brisbane.

Blandfordia cunninghamii is a NSW endemic found in damp shallow sandy and peaty soils, often on sandstone cliff edges, mainly in the Blue Mountains and the Illawarra area.

Blandfordia punicea (below) is a Tasmanian endemic found in button grass and damp heaths on very nutrient poor soils, ranging from Bruny Island to Rocky Cape.



All four species are difficult to maintain in the garden but they do make excellent container specimens. The potting mix must be well drained as although they all prefer moist conditions, if plants are excessively wet it can cause root rot. Full to part sun is recommended for optimum flowering. Flowering occurs in all species from November to March. The bell-shaped flowers are arranged in clusters (three to 20+ flowers) on erect stems up to one metre tall, which extend above the foliage. The bells are generally a reddish orange with yellow tips but all yellow forms are known. In cultivation *B. punicea* is a reluctant flowerer with my plant flowering only twice in the past twenty years. The other species will flower annually or every second year depending on the conditions. In the wild *Blandfordia* grows happily in nutrient poor soils but in cultivation they respond well to small amounts of fertiliser such as Bush Tucker. Propagation is by seed or by division. Plants grown from seed may take three to four years to flower.

B. nobilis, *B. grandiflora* and *B. punicea* are the most common species offered for sale with *B. cunninghamii* being rarely available.

The genus *Blandfordia* was named by the English botanist Sir James Edward Smith, the Founder of the Linnean society in 1804 based on specimens supplied by the Colonial Surgeon John White from Port Jackson. The genus name commemorates George Spencer-Churchill (1766 - 1840), 5th Duke of Marlborough, the Marquis of Blandford. *Blandfordia* was included in the family Liliaceae but is now in its own family, Blandfordiaceae,



Blandfordia grandiflora
– developing seedpods

DIARY FOR 2021

APS South East Melbourne Meetings:

2 February Topic: “Early Plant Collectors other than Banks and Solander”. Speaker: John Thompson

2 March Topic: “Jawbone Sanctuary”. Speakers: Drs Sandy Webb and Marilyn Olliff

6 April Topic: “Malvaceae”. Speaker: Trevor Blake

May

June Topic: “Boronia Oil”. Speaker: Chris Long

August AGM and members’ slides

Other dates:

24 - 28 March - 25th Melbourne International Flower & Garden Show, Royal Exhibition Building and Carlton Gardens, Melbourne.

17 April 2021 - APS Geelong Australian Native Plant Sale, ‘Wirrawilla’, Lovely Banks.

25 April 2021 – APS Yarra Yarra Autumn Plant Sale, Eltham Senior Citizens Hall, Eltham. 10 am – 4 pm.

1 May 2021 - APS Mornington Peninsula Plant Sale, Seawinds Gardens, Arthurs Seat Park, Purves Road, Arthurs Seat. 10 am - 3.30 pm

26 & 27 June – APS Ballarat Winter Flower Show. Flower show, plant sales etc. Robert Clark Centre, Ballarat Botanic Gardens, Gilles Street, Ballarat. 10 am – 4 pm.

4 & 5 September – APS Yarra Yarra Australian Plants Expo, Eltham Community & Reception Centre, Eltham. 10 am – 4 pm.

2 & 3 October - APS Grampians Group Pomonal Native Flower Show, Pomonal Hall.

9 October - APS Echuca Moama Native Flower Showcase, Echuca Masonic Lodge Hall, 426 High Street, Echuca. A huge flower display, plant sales, floral art, Native Bonsai, basket weaving and other displays and demonstrations. 9 am - 4 pm.

23 & 24 October – APS Ballarat Spring Flower Show. Robert Clark Centre, Ballarat Botanic Gardens, Gilles Street, Ballarat. 10 am – 4 pm.

13 & 14 November - Garden DesignFest, Metro Melbourne & Mornington Peninsula

20 & 21 November - Garden DesignFest, Regional Victoria: Ballarat, Euroa, Geelong and Macedon Area.

11 – 16 September 2022, ANPSA Biennial Conference – Kiama, New South Wales.

The theme ‘Australian Flora – Past Present Future’. The Conference will be hosted by the Australian Plants Society (NSW).

Preliminary details of the Conference, pre- and post-Conference tours and the beautiful town of Kiama can be found on the APS (NSW) website.

15 & 16 October 2022 – 14th FJC Rogers Seminar.

Topic: Fabulous peas (the typical ‘pea-flowered’ plants from the sub-family Faboideae. York on Lilydale in Mt Evelyn. Expressions of interest and queries to

fabulouspeas2022@gmail.com

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The following article is an edited reprint under common licence from "The Conversation".



Rhizanthella speciosa from Barrington Tops.

'Like finding life on Mars': why the underground orchid is Australia's strangest, most mysterious flower

Author: Mark Clements, botanist, CSIRO

If you ask someone to imagine an orchid, chances are pots of moth orchids lined up for sale in a hardware store will spring to mind, with their thick shiny leaves and vibrant petals.



Orchids like this may be what comes to mind when you think of them, but there are actually more than 30,000 different orchid species.

But Australia's orchids are greater in number and stranger in form than many people realise. Rock orchids, fairy orchids, butterfly orchids, leek orchids and even onion orchids all look more or less the same. But would you recognise a clump of grass-like roots clinging to a tree trunk as an orchid?

What about a small, pale tuber that spends its whole life underground, blooms underground and smells like vanilla? This is the underground orchid, *Rhizanthella*, and it's perhaps the strangest Australian orchid of them all.

Even to me, having spent a lifetime researching orchids, the idea of a subterranean orchid is like finding life on Mars. I never expected to even see one, let alone have the privilege of working on them.

Known for almost a century, but rarely seen

The family Orchidaceae is the largest group of flowering plants on Earth, comprising more than 30,000 species. Australia is home to around 1,550 species and 95% are endemic, meaning they don't occur naturally anywhere else in the world.

Rhizanthella has been known to science since 1928, when a farmer in Western Australia who was ploughing mallee for wheat fields noticed a number of tuber-like plants among the roots of broom bushes. Recognising them as unusual, he sent some specimens to the Western Australian Herbarium.

The species *Rhizanthella gardneri* occurs in Western Australia.

In 1931, another underground orchid was discovered in eastern Australia at Bulahdelah in NSW by an orchid hunter who was digging up a hyacinth orchid and found an unusual plant tangled in its roots.

Three quarters of a century later, I was involved in conserving the population of *Rhizanthella* in this location when the Bulahdelah bypass was built.

And most recently, in September, I confirmed an entirely new species of underground orchid, named *Rhizanthella speciosa*, after science illustrator Maree Elliott first stumbled upon it four years ago in Barrington Tops National Park, NSW.

Elliott's discovery brings the total number of *Rhizanthella* species known to science to five, with the other two from eastern Australia and two from Western Australia.



The newly discovered species, *Rhizanthella speciosa*, found in Barrington Tops. Mark Clements, Author provided

All species are vulnerable

For much of its life, an underground orchid exists in the soil as a small white rhizome (thickened underground stem). When it flowers, it remains hidden under leaf litter and soil close to the surface, its petals thick and pink, its flower head a little larger than a 50 cent coin.

Its pollinator is probably a tiny fly that burrows down to lay eggs in the orchid, mistaking the flower for a fungus.



Today, all *Rhizanthella* species are vulnerable: the species *R. gardneri* and *R. johnstonii* are listed as critically endangered under national environment laws, while *R. slateri* and *R. omissa* are listed as endangered. The most recently discovered species hasn't yet been listed, but its scarcity means it's probably highly vulnerable.



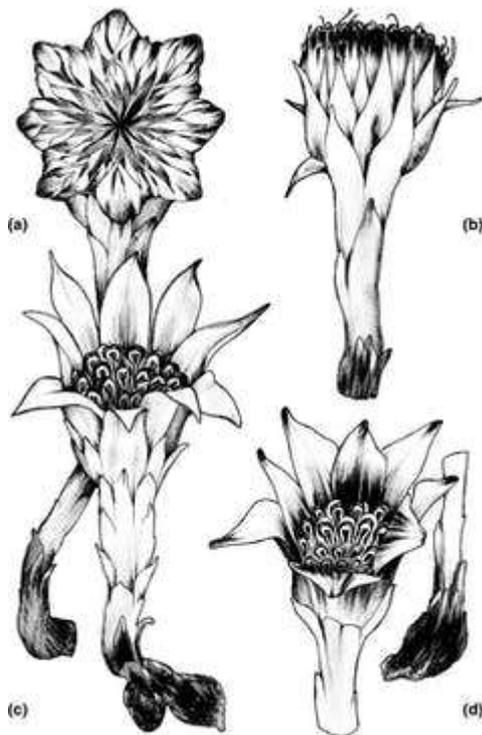
Rhizanthella speciosa. The seeds of underground orchids are like ball bearings, and the fruits smell like vanilla.

The conservation of the underground orchid is complicated. Knowing where it exists, and where it doesn't, is one problem. Another is knowing how to grow it.

All orchid species need a buddy, a particular soil fungus, for their seeds to germinate, and *Rhizanthella* must have its habitat to survive. Unfortunately, it's extremely difficult to just grow it in a pot.

We also know very little about the biology of *Rhizanthella*. But here's what we do know.

We've discovered the fungus that buddies up with underground orchids in Western Australia is indeed the same as that in eastern Australia. We know underground orchids tend to grow in wetter forests and that burning will kill them. And we know that after pollination, the seed head of an underground orchid takes 11 months to mature.



The floral structures of four described species of *Rhizanthella*: (a) *R. slateri* (b) *R. omissa* (c) *R. johnstonii* (d) *R. gardneri*

Most orchids have wind-dispersed seeds. Some are so light that drifting between Queensland and Papua New Guinea might be possible, and might explain its vast distribution.

The seeds of underground orchids, however, are like ball bearings and the fruits smell like the famous vanilla orchid of Mexico, whose seeds and pods add scent and flavour to everything from candles to ice cream.

In nature, bats disperse the seeds of the vanilla orchid. So we set up infra-red cameras in Bulahdelah as part of the bypass project to find out what animals might disperse the seeds of the underground orchid. We observed swamp wallabies and long-nosed bandicoots visiting the site where *R. slateri* grows.

We suspect they disperse the seeds of underground orchids via their excrement, finding the orchid among truffles and other goodies in the leaf litter and soil of the forest floor.

Swamp wallabies and long-nosed bandicoots may disperse the underground orchid seeds. In Western Australia, these animals are locally extinct. Without bandicoots and wallabies to transport seeds away from the parent plant, the natural cycle of renewal and establishment of new plants has been broken. This cannot be good for the long-term survival of the two Western Australian *Rhizanthella* species.



An alien in the floral world:

Conservation of the underground orchid might require intricate strategies, such as reintroducing bandicoots to a protected area, preventing bushfires and using alternatives to burning to manage the land. An important first step is to find more populations of underground orchids to help us learn more about them.

Our work with DNA has shown, in the orchid family tree, *Rhizanthella* is most closely related to leek orchids (right) (*Prasophyllum*) and onion orchids (*Microtis*).



Monthly Photo Gallery

Marg Margitta has been propagating the seeds sent with Growing Australian in 2020. Ivan sent in three photos, showing some of the different colours in the batch. I believe they are all of *Brachyscome iberidifolia* but someone may know otherwise – please let me or Ivan know if so..



Ray had a St. Andrew's Cross spider (*Argiope keyserlingii*) setting up home on his back window



Mandy had a large robber fly on a 5mm wide 'trunk' – love the wing pattern



10.

Ray and Eva had a special visitor on 11th January:



If I can't fit in it, I'll just sit on it!

