



2.

With COVID restrictions stopping us having our June meeting, there is of course no report on the meeting, specimen table or Pick of the Bunch. It is hoped that we can have Chris Long sometime next year to talk to us about Boronia Oil - sadly his talk has been cancelled twice now due to the pandemic – but we'll try again.

### **From the Quarterly**

APS Vic's Quarterly meeting was held via Zoom recently and the following points have direct relevance to our members:

**Fees:** No increase this year, but maybe next year, as APS Vic has operated at a loss for the last two years. Next year, we expect fees to be payable online, though obviously those who aren't connected via the internet will have other means available.

**Growing Australian:** It is expected that Growing Australian will be available online soon to those members who would prefer not to receive a printed copy. There should be very little change in the economics this way when allowances are made for envelopes, postage and only small differences in printing costs.

**Grampians Quarterly Meeting:** This will be held at the Pomonal Community Hall on September 25<sup>th</sup> and 26<sup>th</sup>. The hosts will be APS Grampians which is celebrating its 40<sup>th</sup> anniversary. The group is planning several activities over the following week in the hope that those attending will extend their stay to attend the Pomonal Wildflower Show the following weekend (October 2<sup>nd</sup> and 3<sup>rd</sup>). This is during school holidays so if you plan to attend, please organise your accommodation as soon as possible. Details of the week's activities, including the Quarterly Meeting are expected to be available soon.

**New book:** Russell Wait is producing a new book on Eremophilas. Look out for details of this publication soon.

NEXT MONTH WILL BE OUR AGM AND SLIDE NIGHT. HELEN WILL BE STANDING DOWN AS SECRETARY/PUBLIC OFFICER AS SHE IS MOVING TO THE COUNTRY AND WE WILL NEED TO HAVE SOMEONE TO REPLACE HER. PLEASE GIVE CONSIDERATION TO WHETHER YOU WOULD BE WILLING TO HELP THE GROUP BY TAKING ON THIS ROLE. The main aspects of the role include: \*monitoring the Group's emails and distributing them to members as appropriate, \*submitting a report to the Justice Department each year, \*taking Minutes at the AGM and at our two committee meetings held every two months and \*organising the Hall bookings.

**NOMINATION FORMS AND MEMBERSHIP FORMS FOR THE NEW FINANCIAL YEAR ARE TO BE FOUND AT THE END OF THIS NEWSLETTER.**

### **Not from the Specimen Table – 8**

**By John Thompson**

Unexpectedly this is the eighth in a series of articles on plants that you are unlikely to see on the specimen table. After resuming meetings in December 2020 it looked like we would have a clear run in 2021. This, however, was not to be with our June meeting cancelled at the last minute. We hope to be able to hold our July meeting albeit with some restrictions in place.

This month features the genus *Stenocarpus*. Wait, I hear you say, that genus includes the Firewheel Tree (*Stenocarpus sinuatus*) which gets a run on the specimen table from time to time. True, but did you know Australia has another nine species and there are about another fifteen species that occur outside Australia? Both the Firewheel Tree and the Scrub Beefwood (*S. salignus*) also occur in New Guinea.



3.

The most widely grown of all the *Stenocarpus* species is the Firewheel Tree, *Stenocarpus sinuatus*. It is a tree up to 25 – 30 metres tall. It is smaller in cooler areas and in cultivation, rarely exceeding 10 metres. Its natural distribution is from north east NSW to the Atherton Tableland in north Qld. It also occurs in New Guinea. The dark green foliage can be simple or lobed with a glossy upper surface, with the under surface being a paler green. It yields a lovely grained red timber that is sought after by wood turners.

The flowers are bright red and are produced on the older wood. The flowers occur in umbels<sup>1</sup> of 6 to 20 with the pedicels<sup>2</sup> radiating out to form a 'wheel' up to 10 cm in diameter. Flowering in Melbourne usually occurs from late summer to early winter.

*Stenocarpus sinuatus* will grow in most well drained soils in a sunny or partially sunny aspect. It is sensitive to frost while young and moderately drought tolerant, though it appreciates supplementary watering during summer.

Propagation is from seed or from cuttings. If the plants are

seed grown they may take seven years or more before producing their first flowers. Cutting grown plants may flower within four years or less.

*Stenocarpus salignus* (right) is less commonly grown. It is a tree up to 15 – 25 metres tall but rarely exceeding 10 metres in cultivation. The flowers are white and occur in late spring to mid summer. Whilst quite conspicuous they lack the dramatic impact of the red Firewheel Tree flowers.

There are good examples at RBGV South Yarra and at Maranoa Gardens.



*Stenocarpus angustifolia* (below) sometimes sold as *Stenocarpus* 'Doreen', is a small tree to 5 metres tall. It is only found in the



subtropical ranges from the Mingela area south-west of Townsville to the

Atherton Tableland west of Cairns, Qld. Very hardy once established, it too has white flowers in late spring to early summer. Not common in cultivation but it is becoming more readily available.

*Stenocarpus davillioides*, another large tree from Northern Queensland that has attractive fern like foliage. Occasionally offered for sale.

*Stenocarpus cryptocarpus* or Giant Leaf *Stenocarpus* (the juvenile leaves can be over a metre long) is also a large tree from Northern Queensland that has white flowers arranged in a wheel not unlike *S.*

*sinuatus*. It is very rarely offered for sale.

4.

Other Australian species are *S. acacioides* from WA (Kimberley Region) and N.T., *S. cunninghamii*, from WA (Kimberley Region) and N.T., *S. reticulatus* from the Atherton Tablelands Qld, *S. verticis* from Melville Island to Gove Peninsula, N.T. and *Stenocarpus* sp. 'Hinchinbrook Island' from northern Qld.

The name, *Stenocarpus*, is from the Greek, *stenos*, narrow and *carpos*, a fruit, a reference to the characteristics of the seed capsules.

1. Umbel - a flower cluster in which stalks of nearly equal length spring from a common centre and form a flat or curved surface.

2. Pedicel - a small stalk bearing an individual flower in an inflorescence.

The following article is based on one published under common licence in The Conversation:



Caley's grevillea (*Grevillea caleyi*) occurs in Sydney. It needs fire to germinate but burns are hard to carry out near urban areas. (Photo: Tony Auld, Author provided)

## **The 50 beautiful Australian plants at greatest risk of extinction — and how to save them**

Authors: Jennifer Silcock (Post-doctoral research fellow, University of QLD )  
Jaana Dielenberg (University fellow, Charles Darwin University)  
Roderick John Fensham (Associate Professor, Biological Sciences, University of QLD)  
Teghan Collingwood (University of QLD)

As far as odds go, things don't look promising for the slender-nerved acacia (*Acacia leptoneura*), a spiky plant with classic yellow-ball wattle flowers. With most of its habitat in Western Australia's wheat belt cleared for agriculture, it was considered extinct for more than 160 years.

Now, just two plants are known in the world, and they're not even in the same place. This species is among many Australian plants that have come perilously close to extinction.

To help prevent the loss of any native plant species, we've assembled a massive evidence base for more than 750 plants listed as critically endangered or endangered. Of these, we've identified the 50 at greatest risk of extinction.

The good news is for most of these imperilled plants, we already have the knowledge and techniques needed to conserve them. We've devised an action plan that's relatively easy to implement, but requires long-term funding and commitment.

5.

### What's driving the loss?

There are 1,384 plant species and subspecies listed as threatened at a national level. Twelve Australian plant species are considered probably extinct and a further 21 species possibly extinct, while 206 are officially listed as critically endangered.



Two known plants of slender nerved acacia (*Acacia leptoneura*) remain, about 1 kilometre apart. Propagation attempts have been unsuccessful and the genetic diversity is probably very low. (Photo, Joel Collins, Author provided)

Australian plants were used, managed and celebrated by Australia's First Nations people for at least 60,000 years, but since European colonisation, they've been beset by a range of threats.

Land clearing, the introduction of alien plants, animals, diseases, and interruptions to ecological processes such as fire patterns and flooding have taken a heavy toll on many species. This is particularly the case in the more densely populated eastern and southern parts of the continent.

Ironstone pixie mop (*Petrophile latericola*) occurs on a soil type that's been heavily cleared for agriculture, and is suspected to be susceptible to an introduced root-rot fungus. In 2020 fewer than 200 plants remained, in poor condition. (Photo: Andrew Crawford, Author provided)



Things aren't improving. Scientists recently compiled long-term monitoring of more than 100 threatened plant species at 600 sites nationally. And they found populations had declined on average by 72% between 1995 and 2017.

This is a very steep rate of decline, much greater than for threatened mammal or bird populations.

### On the brink

Many species listed as threatened aren't receiving targeted conservation action or even baseline monitoring, so an important first step in preventing extinctions was identifying the species at greatest risk. To find the top 50, we looked at the evidence: all available published and unpublished information and expert surveys of over 120 botanists and land managers. They're targeted by our 'Action Plan for Australia's Imperilled Plants'.

### Action Plan for Australia's Imperilled Plants.

Thirty of the species in the plan have fewer than 50 mature individual plants remaining and 33 are known only from a single location, such as the Grampians pincushion-lily (*Borya mirabilis*), which occurs on one rocky outcrop in Victoria. This means the entire population could be destroyed by a single event, such as a major bushfire.



About 2,000 Morrisby's gums were growing in the early 1990s, but by 2016 fewer than 50 remained. Climate change and damage from insects and animals threaten those left. Protecting trees with fencing has led to new seedlings. (Photo: Magali Wright, Author provided).

6.

Fewer than 10 lax leek-orchids (right, *Prasophyllum laxum*) remain. Declines are ongoing due to drought and wildfire, and the South Australian species only occurs on private property not managed for conservation. Proposed recovery actions include habitat protection and establishing the orchid and its mycorrhizal fungi in conservation reserves. (Photo, Shane Graves, Author provided )



Fewer than 15 woodswell sphyridium (*Spyridium fontiswoodii*, left) shrubs remain on a single roadside in South Australia. Research into threats and germination requirements is urgently needed, plus translocation to conservation reserves. (Photo, Daniel Duval/South Australian Seed Conservation Centre, Author provided)

### So how can we protect them?

Some of the common management actions we've proposed include:

- preventing further loss of species' habitat. This is the most important action required at a national scale
- regularly monitoring populations to better understand how species respond to threats and management actions
- safely trialling appropriate fire management regimes, such as burning in areas where fires have been suppressed
- investing in disease research and management, to combat the threat of phytophthora (root-rot fungus) and myrtle rust, which damages leaves
- propagating and moving species to establish plants at new sites, to boost the size of wild populations, or to increase genetic diversity
- protecting plants from grazing and browsing animals, such as feral goats and rabbits, and sometimes from native animals such as kangaroos.



Once common, the dwarf spider-orchid (*Caladenia pumila*) wasn't seen for over 80 years until two individual plants were found. Despite intensive management, no natural recruitment has occurred. Propagation attempts have successfully produced 100 seedlings and 11 mature plants from seed. This photo shows botanist Marc Freestone hand-pollinating dwarf spider-orchids. (Photo, Marc Freestone,)



7.

Only 21 mature plants of Gillingarra grevillea (*Grevillea sp. Gillingarra*) remain on a disturbed, weedy rail reserve in southwestern WA. Half the population was destroyed in 2011 due to railway maintenance and flooding. Habitat protection and restoration, and translocations to conservation reserves are needed to ensure its survival. (Photo, Andrew Crawford, Author provided)

Another common issue is lack of recruitment, meaning there's no young plants coming up to replace the old ones when they die. Sometimes this is because the processes that triggered these plants to flower, release

seed or germinate are no longer occurring. This can include things like fire of a particular intensity or the right season.

Unfortunately, for some plants we don't yet know what triggers are required, and further research is essential to establish this.

### **Now we need the political will**

Our plan is for anyone involved in threatened flora management, including federal, state, territory and local government groups, First Nations, environment and community conservation groups, and anyone with one of these plants on their land.



The Border Ranges lined fern (*Antrophyum austroqueenslandicum*) and its habitat are exceedingly rare. It's threatened by drought and climate change, and fewer than 50 plants remain in NSW. If the threat of illegal collection can be controlled, the species would benefit from re-introduction to Queensland's Lamington National Park. (Photo, Lui Weber, Author provided).

Plants make Australian landscapes unique — over 90% of our plant species are found nowhere else in the world. They're also the backbone of our ecosystems, creating the rich and varied habitats for our iconic fauna to live in. Plants underpin and enrich our lives every day.

Now we have an effective plan to conserve the Australian plants at the greatest risk of extinction. What's needed is the political will and resourcing to act in time.

### **NEXT MEETING** **Tuesday 6th July**

**Supper:** Jean Staunton  
**Write-up:** Marj Seaton

**DIARY FOR 2021****APS South East Melbourne Meetings:**

- July 6** Chris Clarke: Alpine flora  
**August 3** AGM and members' slides  
**September 7** Propagation night  
**October 5** Malcolm Dow. A Sustainable garden and the St. Kilda Eco Centre  
**November** Visit to Kuranda for lunch?  
**December** "Clear the Decks", slide night, Christmas break-up

**Other dates:**

- 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 Sept** - APS Wilson Park (Berwick) Plant Sale, Wilson Botanic Gardens, Berwick.  
**4,5 Sept** - Open Garden: Bill Aitchison & Sue Guymer garden, Donvale. 10 am to 4.30 pm both days, bookings need to be done online. Entry \$10 per adult. Further details on the OGV Website.  
**11, 12 Sept** - APS Yarra Yarra Australian Plants Expo, Eltham Community & Reception Centre, Eltham. 10 am – 4 pm.  
**18, 19 Sept** - APS Bendigo Plant Show at Kangaroo Flat Primary School, Freeman Drive, Kangaroo Flat. 9.30 am to 4.00 pm both days. \$3 entry.  
**25,26 Sept** - APS Grampians Group host APS Victoria COM Meeting.  
**2,3 Oct** - APS Grampians Group Pomonal Native Flower Show, Pomonal Hall.  
**9 Oct** - 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.  
**16 Oct** - APS Mitchell Annual Flower Expo and Sale, Memorial Hall, Kilmore.  
**23, 24 Oct** - APS Ballarat Spring Flower Show. Robert Clark Centre, Ballarat Botanic Gardens, Gilles Street, Ballarat. 10 am – 4 pm.  
**13, 14 Nov** - Garden DesignFest, Metro Melbourne & Mornington Peninsula  
**20, 21 Nov** - Garden DesignFest, Regional Victoria: Ballarat, Euroa, Geelong and Macedon Area.



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

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

**26 to 30 September 2022** - 7<sup>th</sup> Global Botanic Gardens Congress, Melbourne. *Influence and Action: Botanic Gardens as Agents of Change*. Includes a youth program for future gardens' leaders aged 18 to 24.

**15 & 16 October 2022** - 14<sup>th</sup> 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](mailto:fabulouspeas2022@gmail.com)

**Monthly Photo Gallery**

From Mandy, a bush she lost just prior to lockdown – *Grevillea olivacea*. A pity as it makes a very pretty picture. Note the similarity of the leaves to those of an olive tree so it was well named.

**AUSTRALIAN PLANTS SOCIETY**

South East Melbourne Region Inc A00131128P

**APPLICATION FOR MEMBERSHIP/RENEWAL**

Financial Year 1 July 2021 - 30 June 2022

	APS SE Melbourne	APS Victoria	<b>TOTAL</b>	<b>Optional annual subscription to Australian Plants magazine (4 issues)</b>	<b>Total with Optional subscription</b>
<b>A Single</b>	\$10	\$35	<b>\$45</b>	\$15	<b>\$60</b>
<b>B Household</b>	\$15	\$40	<b>\$55</b>	\$15	<b>\$70</b>
<b>C Student Full Time, under 16</b>	\$5	\$26	<b>\$31</b>	\$15	<b>\$46</b>
<b>D Member of another group</b>	\$5		<b>\$5</b>	\$15	<b>\$20</b>

- Membership includes subscription to the APS Vic magazine Growing Australian (4 issues per year).
- If you pay your APS Vic membership through another group, sign on with us as **D**.
- You may pay for 2 or 3 years in advance. Simply multiply your chosen annual total by the number of years
- New subscription paid after February 1<sup>st</sup> runs automatically until June 30<sup>th</sup> of the following year.

.....  
 I wish to join/rejoin the Australian Plants Society as (circle one) **A B C D**

I wish to join for (circle one) **1 2 3** years

I agree to be bound by the Rules and Bylaws of the Society

I wish to subscribe to Australian Plants Magazine also

Amount due \$ .....

Signed .....Date.....

Title(s) ..... First Name(s) .....

Surname(s) .....

Postal Address .....

Email .....Phone.....

Membership paid at other APS Group .....

**PAYMENT METHOD (Tick one)**

Direct bank deposit (CBA) with email notification to the Treasurer, Norm Seaton at

[normarjs@bigpond.com](mailto:normarjs@bigpond.com)

BSB 063 209 Account No. 1002 6413 Include your surname as a reference

**OR**

Cheque for APS South East Melbourne Region posted to Treasurer, APS South East Melbourne  
36 Voumard Street, Oakleigh South VIC 3167

**OR**

Pay by cash or cheque and deliver by hand to the Treasurer at our next meeting

**ANNUAL GENERAL MEETING 2021**

For APS South East Melbourne Region Inc A00131128P

Notice is hereby given that the AGM for APS South East Melbourne Region Inc will be held at **8pm on Tuesday 3rd August 2021** at the Hughesdale Community Hall, corner of Poath and Kangaroo Roads, Hughesdale.

- Agenda items:
1. Presentation of Reports by the President, Secretary and Treasurer
  2. Election of Office Bearers for 2021/2022.

The following positions are declared vacant: Leader, Secretary, Treasurer, Committee Members (3), Newsletter Editor.

If you are able to nominate for one of the above positions, please complete the form below. Nominations can also be made at the meeting.

The AGM will be followed by our usual slide night. Please get your slides to John in the week before the meeting.

**NOMINATIONS FOR POSITIONS**

**I wish to nominate**

.....

**For the position of**

.....

**Nominator:** ..... (Name and signature)

**Secunder:** ..... (Name and signature)

**Date:** .....