February 2026, Volume 3

Marginata

Celebrating Australia's wonderful flora

In the past few months I have visited both Southern Africa and New Zealand. Two Australian plant-related topics immediately came to mind in these countries: weeds, and Gondwana links.

In this edition I explore some of the fascinating Southern African connections, and will look at New Zealand links in a future newsletter.

Our featured genus for this issue is the iconic Eucalypt. There is no other continent or country on earth where one genus so strongly shapes its landscape: nearly 80% of our 1,300,000 km² of native forest is eucalypt. But this is just 17% of the country: Australia's area is nearly 7,700,000 km², and gum trees grow across the entire country from the high plains to the arid lands.

And Southern Africa now almost looks much the same in this respect!

Many of our plants have become weeds there – whereas most of us assume the weed "generosity" is all the other way! This stand of mature ***E. sideroxylon*** (Mugga Ironbarks) are growing at 1,635 meters (5,363 feet) above sea level in the mountainous nation of Lesotho, a tiny country surrounded by South Africa. The species in Australia grows in altitudes up to around 600m. Only ***E. pauciflora*** (Snow gum) and ***E. perriniana*** (Spinning Gum) survive in Australia at 1,635m. This adaptability of our plants to South African conditions fascinated me! It also poses huge problems for Africa...

In this edition you will see several items written by APSSA members – short and long, with lots of pictures and with fewer. I am thrilled by these contributions, and invite all members to become involved in any way they wish.

IN THIS ISSUE...

Next time:

- ***Hakea feature***

Welcome to our new members!

- **Michelle Haby**
- **Naomi Blanchard**
- **Catherine Allen**
- **SJ King**
- **Cate Cahill**
- **Carolyn Deane**
- **Mark Tuckwell**

Closing date for contributions for the next issue close on

20 April, 2026

Next edition our feature genus will be

HAKEAS

Please send your favourite photos to me.

CELEBRITY SQUARE

In each newsletter we will feature a plant special to one of our "Celebrity" members. This time our celebrity is **Ken Warnes OAM**, from Owen in the Mid-North.

Ken has been a member of the Society since the mid 1960s, Like many of us, the wonderful plants of WA initially caught his attention, and he had a particular interest in Goldfields eucalypts. But the reality of SA's low rainfall and his heavy alkaline soils moved his focus firmly to dry-land and inland flora. His interest in eremophilas became central to his APS journey and he founded and remains a mainstay of the Eremophila Study Group - a genus virtually unknown before the Study Group was formed.

Ken found it very difficult to pick just one favourite plant for this feature, but finally suggested ***Swainsona stipularis*** (left). With the setting sun behind them they have a special glow. The Desert Oak, ***Allocasuarina decaissniana,*** is **"**Creation's gift to mankind", as is the Centralian Ironwood, ***Acacia estrophiliata*** and the wonderful Ghost Gum, ***Corymbia papuana.***

Among smaller plants Ken lists an inter-dune swale of Sturt Desert Peas, ***Swainsona formosa*** in full flower, and the soft pink brushes of ***Ptilotus exaltatus*** as special memories**.** Of the eremophilas, ***E. maculata*** "takes a power of beating".

Ken is a Life Member of APSSA, and was awarded the National "Australian Plants Award" medal in 2011. He was also awarded a Medal of the Order of Australia on Australia Day 2026! See our congratulatory note overleaf.

Autumn plant sales

The APSSA plant Sale at Urrbrae Agricultural High School is back!

Saturday 11 April, 10am – 3pm

Mark your diaries now!

In addition, several regional Groups are also having autumn sales. We encourage all members across the State to support these events if at all possible.

Fleurieu Group's plant sale at Nangawooka on Sunday 26th April, 9am – 1pm. Many plant vendors will attend!

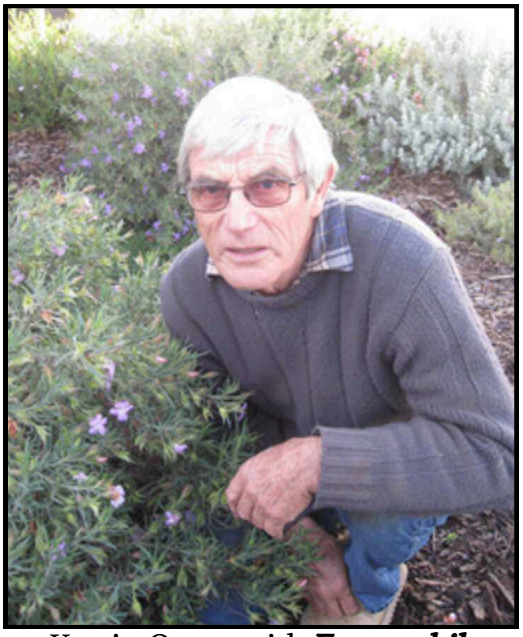
Northern Yorke Peninsula Group's plant sale will be held on Sunday 9th May, 10am – 3pm at 55 South Tce, Kadina. Sausage sizzle, drinks and advice!

Preparing for a NYP Group sale

Ken Warnes, OAM

By Tim Wood, APSSA President

We all congratulate Ken, who is a worthy recipient of the Order of Australia Medal – not just for his irreplaceable energy and knowledge of eremophilas – but for his other community involvement as well.



Ken in Owen with ***Eremophila gilesii*** from S.W. Queensland

Ken became addicted to Eremophilas early in life: he tells me he was 22 when he was smitten after visiting the Flinders Ranges in 1963. Only a few species were readily obtainable at that time. This addiction was never cured, and Ken watched as the number of known species quickly grew and has now reached over 250. Ken has been heavily involved in introducing new species and forms to gardens around Australia and his plantation at Owen has had many visitors from Australia wide who always bring their secateurs.

Ken is at pains to point out others have helped him, starting with Margaret Lee who in 1968 founded Project Eremophila, which by 1972 had become the Eremophila Study Group. Bob Chinnock started his research leading to a Ph.D and the definitive book on Eremophila and allied genera in 1975. Other APS members that Ken always references include Ray Issacson, Russell Wait, Colin Jennings, Norma Boschen, Tom Loffler, Bryan Barlow, Geoff Needham, Maree Goods, Kaye Bartlett and members of the still vibrant Eremophila Study Group, now led by Dr Lyndall Thorburn.

Ken loves to share his knowledge, never more so than when the NYP APS group visited Hiltaba station in the Gawler Ranges. It quickly became apparent that Ken knew a lot more plants than just Eremophilas, and Ken helped identify a lot of arid zone plants.

In his local community at Owen, Ken is involved with many groups. He is a life member of the Owen Agricultural Bureau, the Adelaide Plains Choir, and former President of the Owen Bowls Club and Owen Cricket Club, as well as former chair of the Owen Primary School Council.

In the Australian Plants Society, Ken was awarded Life Membership in 2014 and he was also awarded Life Membership of the Eremophila Study Group in 2012. To cap it all he won the prestigious national Australian Plants Award Amateur Award in 2011. Ken will be the first to acknowledge the support given to him by his wife Liz in keeping him on track.

Well done Ken Warnes OAM!

APSSA AGM, 26th March

The Annual General Meeting of the Australian Plants Society – South Australian Region Inc is to be held on Thursday March 26th 7.30pm at the Unley Community Centre, 18 Arthur St, Unley. President's and Treasurer's reports will be presented.

Interested members can nominate to be elected to Council. Contact Rae at office@australianplantssa.asn.au to obtain a nomination form.

We welcome the opportunity to answer your questions of office bearers. Members can either attend in person or attend on-line. Details will be sent via email in February

In addition, David Lindley is looking for a member to take over the librarian job.

Australia's favourite tree

Eucalypts

In 2022, the ABC conducted a national poll to find Australia's favourite tree. Over a quarter of a million people voted, with 8 of the top 20 favourites being taken by eucalypts:

1. River Red Gum (***Eucalyptus camaldulensis***), top left
2. Snow Gum (***E. pauciflora***), top right, and
3. Ghost Gum (***Corymbia aparrerinja***)
5. Mountain Ash (***E. regnans***)
7. Karri (***E. diversicolour***)
8. Red-flowering Gum (***C. ficifolia***)
12. Gungurru (***E. caesia***)
14. Sydney red gum (***Angophora costata***)

I doubt many people were surprised by the popularity of our most numerous tree: it is estimated there are tens of billions of eucalypts in Australia, with 8 new trees per person sprouting every year (>200,000,000 pa).

One of several controversial areas of botanical taxonomy over the past 30 years has related to eucalypts. **How many genera should be recognised under this broad heading?** Up until 1995, two[1] genera were recognised:

- ***Eucalyptus*** **(many hundreds of species)**, first formally described in 1789 by Charles Louis L'Héritier de Brutelle, from a specimen collected on Bruny Island in Tasmania in 1777 by David Nelson, who was board Captain Cook's third voyage. L'Héritier named it ***Eucalyptus obliqua***, coining the term "eucalyptus" from the Greek words "eu" meaning "well", and "calyptos[2]" meaning "capped or "covered".
- ***Angophora*** **(about 10 species)**, first formally described in 1797 by Antonio José Cavanilles, from specimens collected near Port Jackson by Louis Nee in 1793. *Angophoras* lack the cap over the flower capsule of eucalyptus, and have opposite leaves rather than alternate leaves. These two genera were considered taxonomic "sisters".

In 1995, taxonomists found the bloodwood eucalypts to be more closely related to *Angophora*, so about 100 species of eucalypts were moved into a new genera, ***Corymbia***. This was not without criticism, especially as Corymbia now included many iconic eucalypt species such as ***C. citriodora*** (lemon-scented gum), ***C. ficifolia*** (red-flowering gum), ***C. maculata*** (spotted gum) and both species of ghost gum, ***C. papuana and C. aparrerinja***. Reference books, plant labels and online materials across the world were amended to make the changes. We all learned to live with this...

Then in early 2024, an incendiary breakthrough was announced. Emeritus Professor Michael Crisp, of University of Queensland[3], proposed that ***Corymbia*** be further split, with nearly 40 species moving from *Corymbia* to a new genus to be called ***Blakella***. *All* of the iconic species named above would become *Blakellas****: Blakella maculata, B. ficifolia, B ficifolia*** and so on. Only the red bloodwoods (and a single species of brown bloodwood) would remain in *Corymbia*. Regarding the announcement, one online pundit said he had to check his calendar to make sure it wasn't April Fools Day!.

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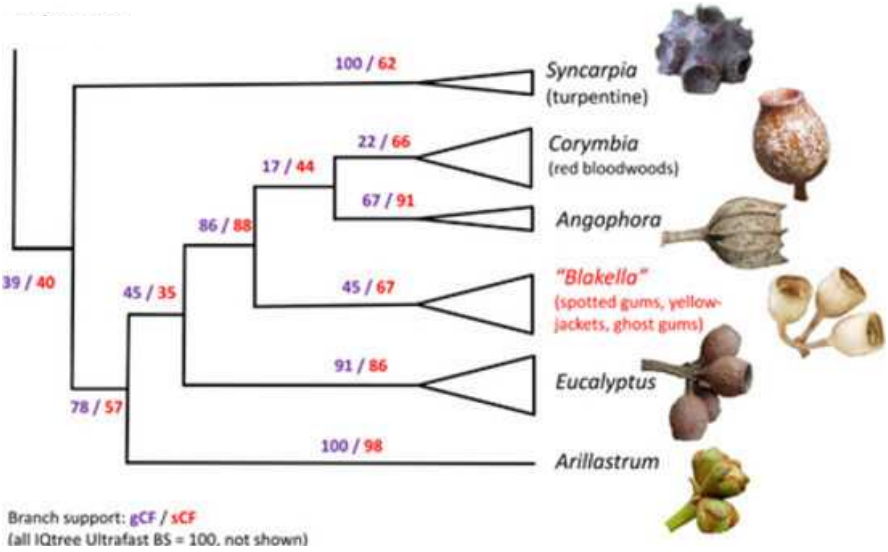
1. Four other genera are recognised as part of the eucalypt tribe, but are much rarer. They are ***Stockwellia*** and ***Allosyncarpia*** (each comprising a single species confined to Queensland rainforests), ***Eucalyptopsis*** (two species found in Indonesia and New Guinea) and ***Arillastrum*** (one species from New Caledonia).
2. Several spellings are current.
3. ***"Perianth evolution and implications for generic delimitation in the eucalypts (Myrtaceae), including the description of the new genus, Blakella"***, Michael D. Crisp, Bui Q. Minh, Bokyung Choi, Robert D. Edwards, James Hereward, Carsten Kulheim, Yen Po Lin, Karen Meusemann, Andrew H. Thornhill, Alicia Toon, Lyn G. Cook. First published: 23 January 2024. https://onlinelibrary.wiley.com/doi/10.1111/jse.13047

The source of these changes seems to relate to where *Angophora* really fits into the eucalypts. Is it a "child" of *Corymbia* or a sister to it? If it is a "child", then maybe the *Angophora* genus should be removed and fully incorporated into *Corymbia*? Prof Crisp is perhaps a softie at heart, as he notes that *Angophora* "a name with a long history of recognition," and doesn't propose its elimination as previous scholars have mulled.

Although a number of plant parts are examined by Prof Crisp in proposing the new ***Blakella*** genus, one major issue is the "calyptus", or cap covering of the flowers: whether it exists at all, its shape, when it is shed, whether it leaves a scar, and so on. Taxonomists call the cap an "operculum". This diagram shows these differences:



The diagram shows *Angophora* and *Corymbia* as close "sisters", but Prof Crisp thinks sisterhood is unlikely based on statistical analysis, observation and DNA.

Not unsurprisingy, in the hundreds of species to be considered, there are the "exceptions to the exceptions", those which don't quite fit the mould, and outright conundrums. Notwithstanding the challenges, Prof Crisp concludes that the best fit would be that *Angophoras* are a "child" of *Corymbia*, and that the *Blakellas* are different enough to warrant their own genus.

The NT Herbarium has announced that it will adopt the new Blakella genus for 14 of their 52 bloodwoods, including the Central Australian Ghost Gum ***B. aparrerinja***. I cannot find any other Australian Herbarium adopting the new genus name yet. The Queensland government's Wildnet website mentions Blakella for some entries, but only as part of the main Corymbia entries for the species. Many other authorities are also adopting the same approach at this stage.

So...the Blakella proposal has not received unanimous support. The most detailed response has been led by Dr Dean Nicolle[1]. Dr Nicolle argues that many of these species have had 3 different genus names since 1995, for little gain. The meaning of the major divisions in taxonomy is unclear, and clarity is particularly important for genus names, as they comprise half of the scientific name of any particular plant. He proposes a definition of genus as : "*a monophyletic group of species, supported by distinctive and identifiable field traits, and that lack natural hybridisation with members of other genera.*" This is a practical definition, not so reliant on DNA analysis. Dr Nicolle acknowledges that the definition still remains open to interpretation, but we "*should always fall back to maintaining existing well-accepted genera wherever possible.*"

He also suggests that larger genera are preferable to smaller ones, which leads to a call that we return to a **single genus** for all eucalypts, as was proposed in 2000 by prolific eucalypt author (and South Australian-born) Dr. Ian Brooker.

Australia's largest Ghost Gum, ***E./C./B. aparrerinja***, as Dean Nicolle refers to them, east of Alice Springs.

1. Dean Nicolle's paper is: "***The genus problem – Eucalyptus as a model system for minimising taxonomic disruption".*** Dean Nicolle, Matt K. Ritter, Rebecca C. Jones, Gavin P. Phillips, Malcolm E. French, Russell Cumming, Stephen A.J. Bell
https://onlinelibrary.wiley.com/doi/full/10.1002/tax.13240

Dr Nicolle sets out in detail six taxonomic Rules for deciding whether a new genus should be proclaimed, but many of his arguments against the *Blakella* proposal are practical:

- the proposed new genus *Blakella* still does not solve all the technical problems in the eucalypt tribe.
- the name itself is easily confused with some other genera with very close spelling.
- There is significant world-wide cost in changing genus names. "Taxonomic disruption" should be avoided where possible.
- why waste time and money delineating smaller divisions of a genus when there are other pressing needs for using taxonomy funds?
- the general public have a vested – but largely ignored – interest in having understandable and recognisable plant names. One genus would solve this.

Members will have their own views on this very important subject. I would very much value your thoughts for publication in our next newsletter.

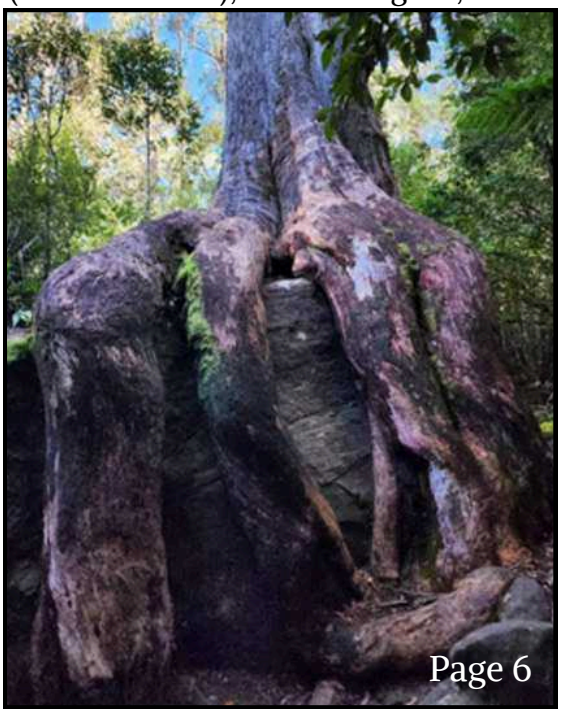
Big Trees are always impressive, and most of the big trees in Australia are eucs. Turn off your analytical brain and simply admire these giants of nature.

Starting in our own backyard, this River Red Gum is in Orroroo, SA

"Centurion", the world's tallest flowering plant, an ***E. regnans***. The 100m giant in Tasmania (just) survived the 2019 bushfires, but 15 other named giants did not.

"Octopus tree", with roots growing over a huge boulder. ***E. delegatensis*** (Alpine Ash) or ***E. regnans*** (Mountain Ash), Mt Wellington, Tas.

E. camaldulensis, Moulamine in SW NSW, on the Warkool River



Bark is beautiful!

Eucalypt bark is a real feature of many species, and not just ***Eucalyptus deglupta***, (Rainbow Gum) – the wonderfully coloured SE Asian species beloved by the internet.

E. racemosa, with *Ogmographis scribula* decoration

E. minniritchi, Centralian minniritchi mallee

E. caesia subsp caesia

E. gunnii, Tasmania's Cider Gum.

E. crucis subsp lanceolata

E. subcrenulata Alpine Yellow Gum

E. salubris, a gimlet

E major, the Grey Gum

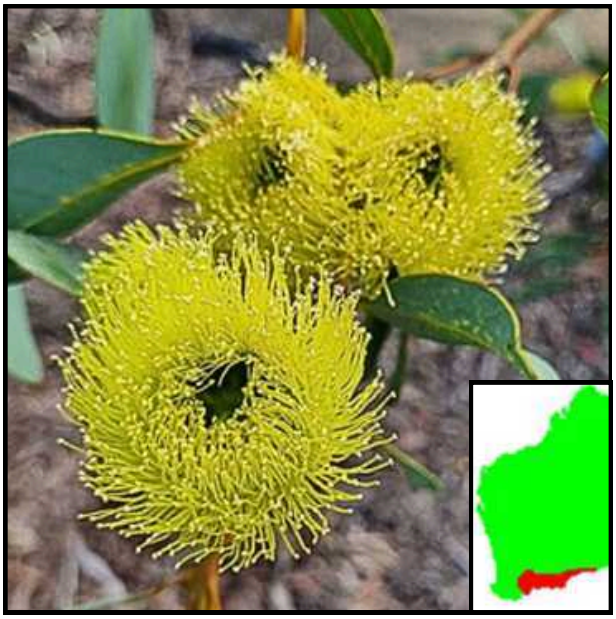
E. educta

Test your identification skills!

442mm	+SW	Neut	Sand

photo loction for all except birds

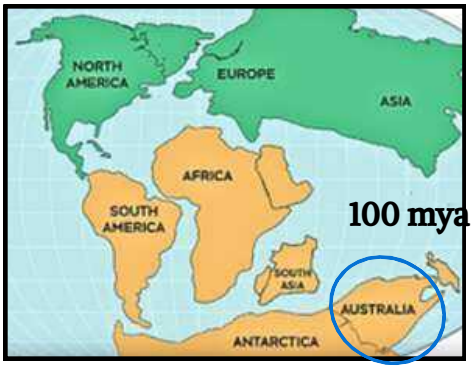
Test your skills in identifying eucalypts from their flowers, and any other cluse in the photos - such as location maps, gumnuts, leaves, or even birds! Answers on the bottom of Page 13.



Where did our Eucs come from?

In a nutshell, they came from Gondwana, but ...

Gondwana began to break up about 150mya. As the map shows, the "continents" in Gondwana are, left to right: South America, Africa, Antarctica, India and then Australia (circled) on the right of the clump. (PNG is the island out to the right.)



Fossil records of eucalypts have been found in Patagonia (from 52mya), and New Zealand (50mya). Eucalypts are no longer native to these regions, though they have been introduced from Australia. But by 100mya South America had split off completely (left). And by 50mya Australia was a separate continent too, and New Zealand was starting to form from the huge submerged continent of Zealandia. And yet our oldest record in Australia is only 21mya – see below. What is going on?

The oldest eucalypt fossil, gumnuts from Patagonia. Very recognisable!

Euc leaf fossil from New Zealand

The most likely scenario is that eucalypt forebears were already present in Gondwana before it broke up, and for some reason the genus only persisted in Australia. So we'd expect lots of euc fossils in Australia...

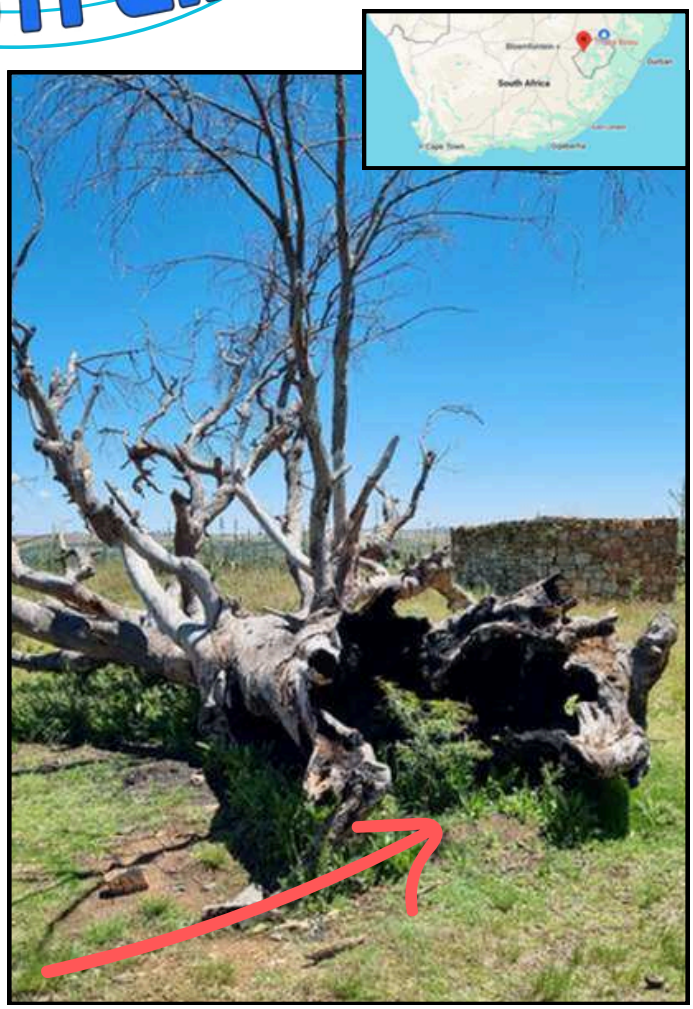
Despite the prominence of eucalyptus in modern Australia, the Australian fossil record is very scarce. This suggests that this rise to dominance is a more recent phenomenon. The oldest reliably-dated Australian macrofossil of the eucalyptus is a 21-million-year-old tree-stump encased in basalt in the upper Lachlan Valley in New South Wales. Other fossils have been found, but many are either unreliably dated or else unreliably identified. Extensive research has gone into researching the period 66–23mya in South-Eastern Australia, and has failed to uncover a single eucalyptus specimen, although a *micro*fossil of eucalypt pollen has been found, dating back to 45mya. Scientific work is continuing in many sites around the world to try and tease out the tangled path of eucalypts being our dominant species.

Although the evidence is sparse, the most common hypothesis is that around 50mya (when we had already split off from Gondwana), the continental margins of Australia only supported non-eucalypt vegetation, and that eucalypts were confined to the drier arid interior. With the progressive drying out of the continent after 25mya, eucalypts began to populate the continental margins, and much of the rainforest vegetation that was once there was eliminated. **BUT: see Prof Stephen Hopper's quite different view in our Book Review...**

The current super-dominance of eucalyptus in Australia may also be an artefact of human influence on its ecology. In more recent sediments, numerous findings of a dramatic increase in the abundance of eucalyptus pollen are associated with increased charcoal levels. Though this occurs at different rates throughout Australia, it is compelling evidence for a relationship between the artificial increase of fire frequency with the arrival of Aboriginals and increased prevalence of this exceptionally fire-tolerant genus.

I still call Australia home

In the tiny mountain kingdom of Lesotho (pron. Les-OO-too) stands an impregnable sandstone plateau (Thaba Bosiu), 1,800m above sea level. In 1824 the Basotho (pron. Ba-SOO-too) people moved onto the mountain and from there successfully fought off many African and European invaders over many years, despite the numerical odds stacked against them. The people proclaimed Moshoeshoe, the minor chief who masterminded these victories, as King of Lesotho. His descendants still rule the tiny kingdom today.



On that mountain in 1824, an Anglican missionary planted a bluegum (probably ***E. saligna***, given the timing). Think about that – before our State was settled by Europeans, a gum tree seed was taken to a remote place amid violent tribal and colonial wars, and planted in this historic spot. For nearly 200 years it provided shade for meetings of the Lesotho people.

In 2010 it fell over, and in 2020 it died, at nearly 200 years of age. In 2024, a new bluegum was planted on the site, inside the stump of the original tree. The new tree looks healthy and seems destined to also live a long life. The Basotho people must really value the bluegum to have honoured it in this way.

Save the date and start planning NOW!

Amazing Arid Australia

ANPSA Biennial Conference

Mparntwe Alice Springs
24-28 August 2026

AmazingAridAustralia: Over five days we will explore the plants that sustain life across vast expanses and diverse landscapes of arid Australia.

Conference: Three days of keynote talks, themed breakouts and two afternoon excursions.

Excursions: Two days of field trips into the MacDonnell Ranges, to botanic gardens and special places around the town and beyond.

Pre and post conference tours: Should pre and post tours be organised they will be announced early 2026.

Hosted by

Australian Plants Society South Australia Region Inc.

In collaboration with

Australian Plants Society Alice Springs Inc.

Venue: Alice Springs Convention Centre

Register your interest

To register your interest and receive information as it becomes available, visit the conference website:

www.anpsaconference.com

Details on pricing coming out soon!

One option for SA conference-goers would be to slowly travel to Alice Springs in convoy. We would need one person with familiarity with arid plants to plan the trip, and those in the convoy would travel the route together, looking at the plants. The trip might take a week, depending on the route chosen.

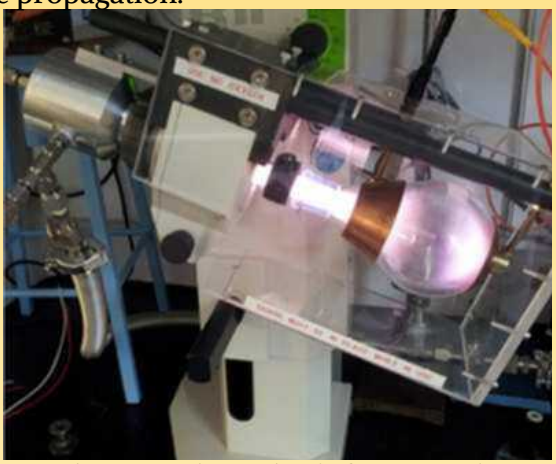
Let Tim Wood, Conference Chair, know if you are interested in either planning/leading the group, or in coming along for the adventure! Remember, we cannot proceed without a leader...

APSSA supporting propagation research

By APSSA Vice-President, Hans Griesser

The Society is proud to be a partner in a research project that has just been awarded funding by the Federal Government. The project team comprises researchers at Adelaide University, supported by several partners in the native plants and biodiversity conservation space, including APSSA. The grant application, titled "***Plasma Seed Enhancement to Accelerate Australia's Restoration Economy***", proposes to perform a detailed investigation into a novel method for the germination of seeds of species that currently cannot be germinated in a viable, controlled manner, nor are amenable to effective propagation from cuttings. As a result they are very rarely – if ever – available in nurseries. The team expects that the project will generate knowledge for efficient, controlled germination of seeds of ecologically significant plant species and thereby will assist the propagation of plants for biodiversity restoration.

Advancing knowledge of Australian native plants is a key objective of our Society, including advances in knowledge and methods for propagation of plants. A main challenge remains that there are many native plant species that are very difficult to propagate; a local example is ***Exocarpos cupressiformis***. Even specialist and Landcare nurseries very rarely stock such species due to the low yields and time-consuming work involved in propagating them. Yet, their role in ecosystems requires that we search for solutions to achieve effective propagation.

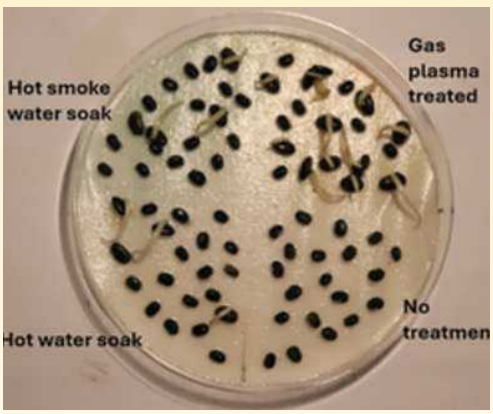


The research project will focus on investigating and upscaling the use of gas plasma to stimulate the germination process of "difficult" seeds. A gas plasma is a partially ionised gas, created by applying an electric field across a container filled with a specific gas; the electric field breaks electrons out of some gas molecules, some of which then break apart into atom and molecule radicals. An everyday example is a fluorescent tube: its plasma emits light. The new project will build on these results and investigate a range of native plants seeds, using the plasma expertise of Dr Bryan Coad of Adelaide University and Hans Griesser, combined with the excellent horticultural research facilities at the Waite Campus.

The University of Adelaide has unique plasma equipment for studying this novel method for stimulating germination of seeds. We expect that this research will lead to experimental knowledge for activation of seeds of a range of "difficult" SA species, which members of our Society can then raise and bring into horticulture and biodiversity restoration. We hope that members will also volunteer to raise plants from seeds to help the team collect statistically significant data sets.

So you can think of this project as putting seeds inside a fluorescent light tube, but the difference is that it's not the light that matters here but the mix of free electrons, ionised molecules, and radicals, which is a potent way of performing chemical reactions not possible in other ways. Gas plasma is used extensively in the semiconductor industry to remove, with fine control, the very thin insulating layers of plastics in fabrication of electronic chips. Analogously, it can remove layers of water-repellent waxes from seeds, and soften the outermost hard layer of seed coats, which then allows water to soak into the seed and activate germination.

The key benefit of gas plasma activation is that unlike hot water or smoke water treatments, the seeds stay dry during this activation process and can then be stored dry until they are sown; the gas plasma treated seeds remain dormant until they are brought in contact with water. The softened seed shell does not affect storage yet after sowing allows them to start imbibing water and trigger germination. The large-scale revegetation industry is interested because this would allow sowing of dry, germination-ready seeds on a large scale, for example for mine site rehabilitation.



Hans first studied plasma activation of native plants seeds in 2005 and obtained promising results but didn't have funding to perform a more thorough study. More recently a preliminary feasibility study done collaboratively by Bryan and Hans has shown excellent results for a pea flower species, Swainsona galegifolia, used as a proof of principle due to availability of a large number of seeds. While seeds of this pea flower species are readily activated by hot water treatment, the preliminary study has shown that gas plasma treatment also produced very efficient germination, with equally high yields and even slightly faster germination times. Plants from gas plasma-treated seeds grew as well as "control" plants from hot water treated seeds, and there was no difference in their appearance and growth rate.

APSSA supporting research projects on native flora and ecosystems

by Hans Griesser

One of the aims of our Society is to contribute to enhancing understanding of native plants and ecosystems. In addition to the efforts undertaken by our members on trialing new methods and practices for raising and cultivating plants, conserving and restoring their ecosystems, and other advances, the Society is also keen to fund research at universities and the Herbarium. This can include collaboration between researchers and APS SA members where advantageous

APS SA Council decided last year to invest funds from the **Bert and Aileen Kollosche Bequest** into sponsoring two research projects. We received a number of well-prepared proposals for important research projects focusing on SA's native plants, and selected two for funding.

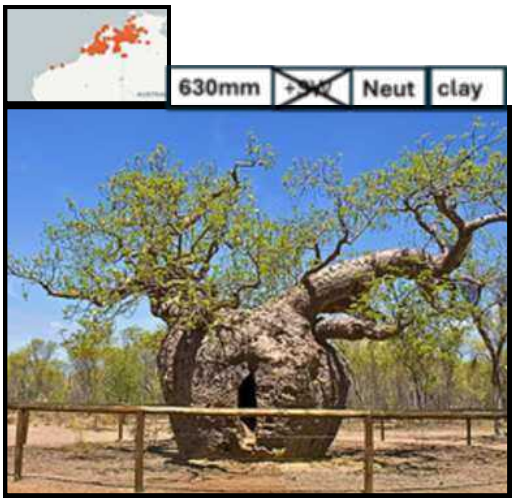
One project will be led by Dr Ilaine Silveira Matos, Lecturer at Adelaide University, entitled **"Growing old and tolerant: How does drought tolerance vary across life stages in Eucalyptus and Acacia trees?"** Drought stress is increasing in many parts of the world. Trait-based models are a powerful tool to predict vegetation resilience to drought, but they are currently limited by the lack of information about developmental changes in plant traits. Most of the traits used to describe plants' responses to drought are sampled in a single life stage – either in mature trees growing in the field or in juvenile trees (seedling/saplings) growing in glasshouses. Those single-stage traits are then used interchangeably to model trees' responses to drought. However, saplings are not simply a miniature of mature trees. Instead, juveniles, adults, and even resprouting trees of the same species can greatly differ in their tolerance to drought, with juveniles/resprouting being usually, but not always, more susceptible to water stress. Therefore, extrapolating results from one life stage to another is problematic and can either overestimate resilience in restoration projects if models are based on mature traits; or under-estimate resilience, if based on saplings. Here, we will use Acacia and Eucalyptus – two of the most abundant genera of Australian trees – as a model system to investigate developmental variation in tree tolerance to drought. Acacia and Eucalyptus provide a good model system to investigate developmental variation in drought tolerance for Australian trees. Many species in these genera are ecologically and culturally important, are often long-living trees (>100 years), and display varying degrees of heteroblasty, i.e. distinct juvenile and adult leaf morphology.

The other project will be led by Dr Kate Delaporte, Curator of the Waite Arboretum at Adelaide University; it is entitled **"Walking together with First Nations people to progress impactful research on South Australian plants for healthy living: knowledge sharing, optimising propagation, and germplasm resource collection"**. Australian plants have been utilised for thousands of years by First Nations people on Country. First Nations knowledge of plants for food, health, ceremony and living, is deep and widespread, built on experiential learnings. There are thousands of plants across Australia with a role in supporting a happier, healthier and resilient future; however, critical research into sustainable production and health/nutrition is poorly documented in published literature.

This project has two main aspects – knowledge gathering and sharing on plants used by First Nations people for food and health, and a deeper dive into 4 key species to optimise plant propagation and development with SA based First Nations businesses. The Project would contribute considerably to current knowledge around these four plants in conservation, first nations knowledge and cultural understanding, and lead to future large funding proposals in this area; the utilisation of ancient wisdom for new science is critically important to the future resilience of the planetary biological community in the unknows of anthropogenic climate change.

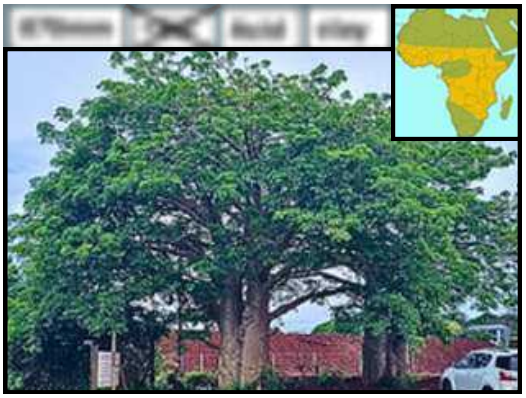
We look forward to hearing about the progress these research projects will make. Both teams will present their work, initial results, and insights at the upcoming ANPSA National Conference, Alice Springs, August 24 to 28, 2026.

A riddle wrapped in a mystery inside an enigma: how did boabs get here?



Many APSSA members will have seen the magnificent boab trees in the Kimberley, ***Adansonia gregorii***, like this one in Derby (left).

This is the only *Adansonia* species in Australia, with six other species being from Madagascar (where the genus is thought to have originated,) and one from mainland Africa, ***A. digitata*** (below).

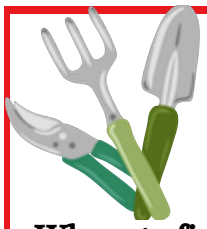


My initial thought was that this was a Gondwana example, but this is not the case.

Scientists are baffled as to our boab tree got here, as the 8 species are too closely related to have separated millions of years ago with the breakup of Gondwana (150m – 40m years ago). The oldest split within *Adansonia* is likely no older than 15 million years – and the Australian split may only be 70,000 ago!

One explanation is that the Australian species came here by a long-distance oceanic seed trip from Africa. The seed pod is very hard (like a coconut) and may have withstood water for long enough... Another possibility is that people brought them from Africa, which is quite possible if the shorter arrival time is right. Boab trees have over 300 different traditional uses, making them a possible candidate for being brought along on the journey.

The African baobab boasts the oldest known angiosperm (flowering) tree in the world: a 2,400 year old specimen which died in 2011. Since 2005, 9 of the 13 *oldest* African baobab specimens and 5 of the 6 *largest* trees have died or suffered the collapse and death of their largest or oldest stems, a statistically unlikely phenomenon that scientists suggested may have been caused by the effects of climate change.



Farewell, good and faithful servant…

David Lindley writes:

So sad! My secateurs pouch, repaired many times, is no longer. Where to find another? A few cheapies, expensive Felco holsters – nope, not what I'm looking for.

Then I stumble across Trade Time Tool Bags on the Internet (https://tradetimetoolbags.com.au/). They're in Peake, on the way to Lameroo. I give them a call. Ross answers, suggests an added pocket on top of his standard pouch. He's done it before, for a nursery.

Sounds like what I'm after. $40 and delivered by post a few days later. Good result!

Eucalypt flower quiz answers, from page 8. Left to right, top to bottom:

Eucalyptus youngiana | *E. caesia "Silver Princess"* | *Angophora costata*

E. preissiana | *E. macrocarpa* | *E. tetraptera*

E. rhodantha | New Holland honeyeater in *E. microcarpa*, Glenthorn NP, photo: Alan Burns

WEEDS: SPACE INVADERS. PART I

South African Weeds in Australia

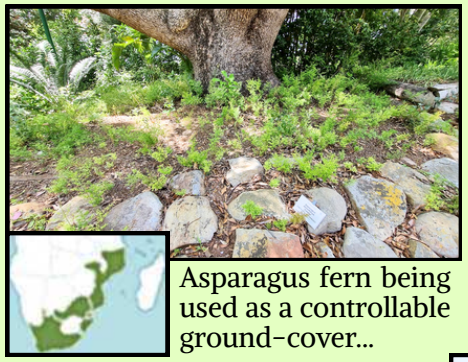
The wonderful Kirstenbosch Botanic Gardens in Cape Town has an interesting section called "Weeds South Africa gave the World", explaining that South Africans are often unaware that "many of our own plants have become terrible weeds in other countries". (The same could be said of our own Australian plants, but I am not aware of a botanic garden here spotlighting the problem.) ***"Today, invasion by alien plants and animals is second only to habitat loss as a cause of species endangerment and extinction."*** **(Global Invasive Species Program)**

Plants in their natural environment are kept in check by the plants and animals around them, but in foreign climes those plants and animals do not exist to check their spread. It was fascinating to see so many plants we regard as weeds growing contentedly with their neighbours in their homeland, and actually looking like nice plants!

The arum lily (***Zantedeschia aethiopica***) is growing here in moderation in a dampcourse, letting other plants flourish.

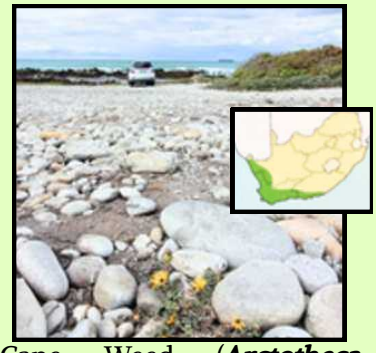
Gazanias (***G. rignens***) described as living on "coastal dunes and rocky outcrops along beaches" – but not smothering river banks, verges and paddocks with thousands of babies!

These pink watsonias (***W. lepida***) and orange (***W. pillansii***), high on mountains at 2,100m are beautiful, just a small part of the landscape.



Asparagus fern being used as a controllable ground-cover...

(L-R) Dietes (***D. grandiflora***), Asparagus fern (***A. scandens***), Agapanthus (***A. praecox***), and cliveas (***C. miniata***) in their natural environment. Apparently Cliveas were named after Lady Charlotte Clive, grand-daughter of "Clive of India", not the man himself. Incredibly, cliveas are listed as Vulnerable in South Africa, due to mass illegal harvesting for horticultural and for medicinal use - fevers, coughs, skin issues, snakebites, inducing childbirth and as a general tonic, but it contains toxic alkaloids, necessitating caution.



Cape Weed (***Arctotheca calendula***) at the Cape of Good Hope! This one is yellower than ours. They call it Cape Weed too!

Fifty-three South African plants are considered invasive in Australia, and over one third of our Weeds of National Significance are from southern Africa – 12 out of 32. And half of those (6) are asparagus!

WEEDS: SPACE INVADERS.PART II

Australian Weeds in South Africa

It is very easy for us to observe, on a daily basis, the invasive species from South Africa which are crowding out our own native plants and changing the look of our natural environment. But the same can be said of Australian plants invading South Africa. Indeed, it might be said that the visual transformation in South Africa has been even greater, given that our weedy plants now form a major part of their tree landscape, whereas for the most part South African weeds here are smaller and not necessarily as noticeable from afar.

The Southern African Plant Invaders Atlas (SAPIA) lists 500 naturalised alien species. The Top 200 comprise 65% trees/shrubs and are 90% perennial. These features of the invaders mean their visual impact on the landscape is very significant. There are 31 Australian species in the Top 200, subject to varying control legislation. Half of the Australian species are in the unique and threatened fynbos[1] area of the Western Cape – the worst being ***Acacia mearnsii***. This makes them particularly threatening, in such a globally important region of biodiversity.

It is virtually impossible to look anywhere in eastern and southern South Africa and not see eucalypts. The most widespread species include ***E. camaldulensis*** (allocated the highest *negative* score by scientists), as well as those allocated the highest economic and intrinsic *benefit* scores: ***E. cladocalyx, E. diversicolor*** and ***E. grandis***. Eucalypts form part of every vista, often being the most conspicuous and numerous trees in the landscape. (The only exception I noticed was in the game parks, where weed eradication seems to have been fairly successful in this respect.)

Eucs grow in all the same places they do here: in parks, along roads and fences, on river banks, on floodplains and around dams, in mountain areas, and bushland, on golf courses, in paddocks for stock protection, and so on. Bluegum (***E grandis***) plantations cover about 500,000 ha – 40% of commercial forestry land, and are almost a monoculture in some areas.

Eucs grow from the coast to the treeline, and range in height from very mature specimens to young saplings. Any hope of the South African authorities to arrest the spread of our trees has long passed, and they now form a permanent part of the South African landscape. In mainland Australia the treeline is around 1,700m, and only a few species of eucalyptus survive at that height – eg. the Snow gum, ***E. pauciflora***. We saw many "ordinary" eucs growing happily at 2,300m in southern Africa, easily surviving snowy winters. The way in which our plants have adapted to grow in more extreme climates exacerbates the weed problem, crowding out even more native species that might be expected.

Wattles are the other main Australian invasive family, with Black wattles (***Acacia mearnsii***) being particularly prominent on all areas of disturbed ground, particularly along road edges after roadworks are completed. Whereas gum trees appear to be accepted – and even welcomed – by South Africans, black wattles are seemingly despised. These wattles on disturbed ground (left) are growing at 2,300m above sea level.

1. "fynbos" is an Afrikaans word meaning "fine bush". It is an area of SE South Africa which has incredible plant diversity and is internationally famous for this reason.

So how did our plants get to South Africa?

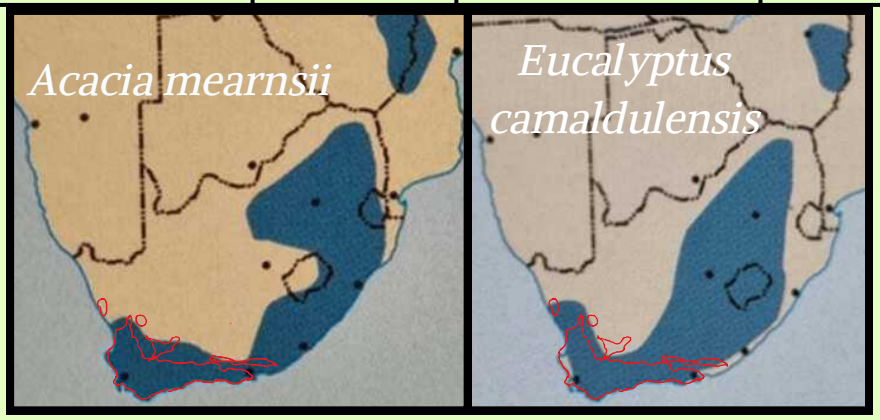
Prevailing winds blow in the opposite direction, so wind dispersal is unlikely to be part of the answer. Water, birds and animals also seem unlikely culprits, given the distance. Instead, people brought them – usually intentionally – for a variety of seemingly helpful reasons:

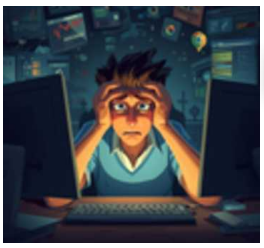
- drifts and stabilisation (***Acacia saligna*** and ***A. cyclops***, ***Casuarina cunninghamiana*** and ***C. equisetifolia***),
- tannin and wood chips (***A. mearnsii***, still widely cultivated commercially for these purposes),
- timber (***Eucalyptus grandis***, ***E. saligna***),
- hedging and screens (***Hakea sericea***),
- ornament (***Grevillea robusta***, ***Syzygium paniculatum***, ***Callistemon rigidus***, ***Melaleuca hypericifolia*** and ***Schefflera actinophylla***, the Australian umbrella tree),
- shade and shelter (***A. baileyana*** and ***A. podalyriifolia***).

This table gives a sense of the size of the problem, and some strategies being adopted to manage it.

	Acacia	Eucalyptus	Hakea	Casuarina	Other
Category 1 declared weeds (must be controlled or preferably eradicated)	***dealbata implexa longifolia paradoxa pycnantha***	***conferruminata lehmannii***	***drupacea gibbosa sericea***		***Leptospermum laevigatum Paraserianthes lophantha Pittosporum undulatum***
Category 2 declared weeds (prohibited within 30m of the 1:50 year floodline)	***cyclops decurrens mearnsii melanoxylon saligna***	***camaldulensis, cladocalyx, diversifolia, grandis, paniculata, sideroxylon***		***cunninghamiana equisetifolia*** **(The species is also native to SE Asia and the Pacific, so may have been introduced from those places.)**	***Atriplex nummularia***
Category 3 declared weeds (no further planting, existing plants must be prevented from spreading)	***baileyana elata podalyriifolia***				***Atriplex lindleyi subsp. inflata Grevillea robusta Myoporum tenuifolium var. montanum*** **(also called *M. acuminatum*)**

These two maps illustrate the extent of the problem with two of the most widespread weed species. the red line indicates the "fynbos" area of international botanical significance – and as we see, now infested with our species.





Finding Plant Information Online

Searching the web to find information about native plants? At the back of this newsletter, in the Credits section, are the websites I use most often to source plant information and photos for the newsletter.

One of the best is the ANPSA site – our national body: https://anpsa.org.au/native-plant-profiles There are detailed profiles for nearly 1,000 plants from all over Australia, with maps, cultivation notes and photos. But there is more, much much more...

Using all the resources of nearly 70 years of national journals and hundreds of Study Group newsletters, information on virtually any plant you are interested in – however obscure – can be found though the Search function. Take the tropical ***Hakea plurivervia***, The ANPSA website does not have a detailed profile of it, but it was mentioned in two old *Australian Plants* journals – in 1967 1nd 1970 – and in ***17*** Hakea SG newsletters – which are all available as PDFs at the click of a button!

Port Julia Campground makeover

By Bruce Dowell

Port Julia: 350mm | Alk. | Sand over clay

My wife Jenny and I are caretakers of Port Julia Campground in South Australia and in the first 6 months of our tenure we have been busy developing native garden beds.

Plants in the family fabaceae are the dominant species group in our plantings, with as many local and threatened species as I have been able to source, either in seed or seedlings.

I have also created a garden bed entitled 'Peas of Australia' which has been developed in the shape of our fine country and species planted in their relevant states.

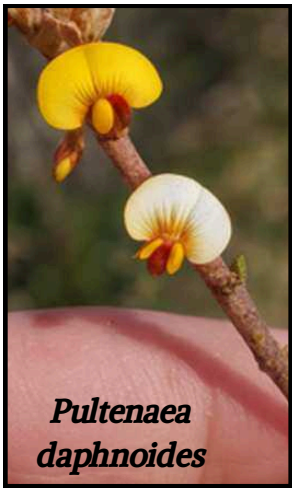
I shall need to develop another patch for Tasmania, oh well, challenge accepted! I have also recently needed to surround plants in wire cages to protect them from rabbits, sadly.

Swainsona formosa

Domes covering sown seed

If you'd like to write a short interesting article like this, let me know!

Swainsona cadellii growing well, with inset of the pink flowers



Pultenaea daphnoides

Chorizema cordatum

Daviesia ulicifolia

Dean Nicolle Eucalypt Walk opens in Blyth

(Adapted from an article by Declan Durrant, of ABC North and West)

Nearly two decades ago, artist Ian Roberts set out to paint every known eucalypt. His project is finally nearing completion with about 770 watercolours created to represent the species' 900-ish varieties. But the art project has had another, unexpected outcome — the creation of a forest.

Dean Nicolle and Ian Robert on the walk

Thanks to a unique partnership with one of the world's leading eucalyptus scientists, Dean Nicolle, Mr Roberts planted hundreds of trees along a former rail corridor in the small South Australian town of Blyth. Last month, Mr Roberts honoured that partnership by naming the forest track after Dr Nicolle and opening it to the public. The 4.4-kilometre sign-posted botanical trail features more than 2,000 Australian plant species, including 300 varieties of rare eucalypts, many of them almost unheard of in South Australia. The trail stands as testament to a unique deal between a botanist and a painter — and the forest and friendship it spawned.

Though the inspiration for the forest rail trail could be traced back to the men's respective childhoods when both discovered a passion for eucalypts, it was in 1995 when they first met. Mr Roberts began purchasing eucalypt seeds from Dr Nicolle, whom he had met through the arboreal community. As Mr Roberts put it, they "were both gum nuts".

Members of APS Brinkworth and NYP Groups, enjoying the Walk, with Ian Roberts. Photo: Karen Vajda

He purchased seeds from the botanist for the next decade, growing them to create the trees in his paintings. Then in 2006, Mr Roberts asked Dr Nicolle for a better price. The scientist offered the painter a deal — he would gift Mr Roberts 12 seeds to grow into seedlings, but only if he got back eight of the sprouts, and Mr Roberts could keep the difference. "Of course I said I was happy with that," Mr Roberts said. "I love growing things." Dr Nicolle gave Mr Roberts access to his entire collection, which consisted of 3,000 vials of seed. For the next four years, Mr Roberts grew them at a property near Clare, with his share either becoming models for his painting or being sold to other enthusiasts.

Meanwhile, Dr Nicolle planted his seedlings at Currency Creek, in south east SA, on a 30-hectare arboretum. His collection is considered the largest eucalypt arboretum in the world, containing almost every known variant of the species. "That's how the collaboration's worked, and we've been going hammer and tongs ever since," he said.

Mr Roberts eventually was confronted with a singular problem — he ran out of places to plant. A former rail corridor in his hometown of Blyth beckoned. From 2010 to 2019, beside the raised dirt of a disused rail line, Mr Roberts planted hundreds of rare trees with the assistance of other locals on community tree planting days. The Dean Nicolle Eucalypt Walk is the wonderful result.

Study Groups

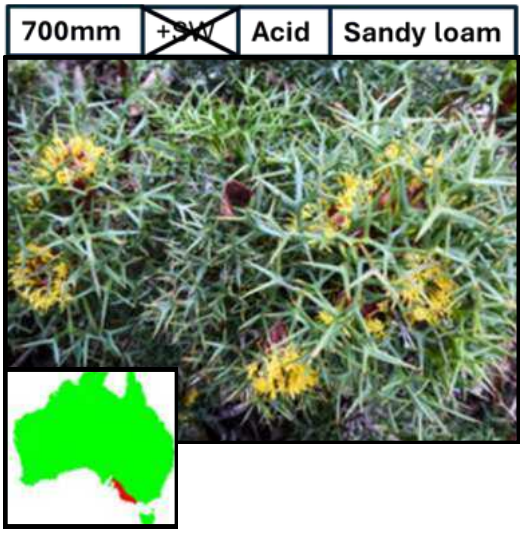
ANPSA, the national body representing the native plant associations from each state, supports a number of study groups which all members across Australia are eligible to join. Study groups (SGs) vary in their activities, from publishing major books on their particular topic of study, to field trips, sharing knowledge, and get-togethers. All publish interesting newsletters.

A large number of SG newsletters have arrived in the lead-up to Chirstmas. I will hold some over to the next edition.

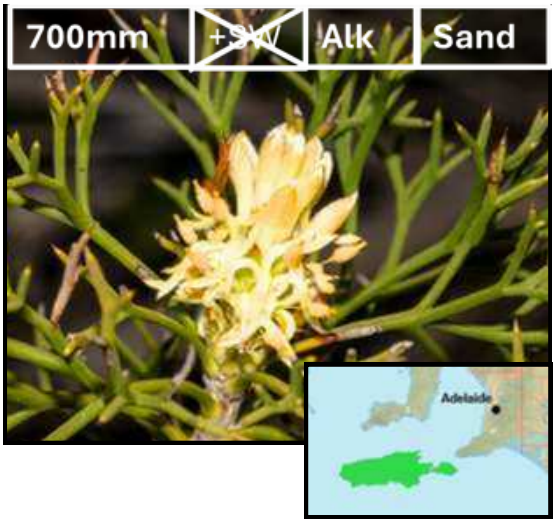
Isopogon & Petrophile Study Group

To join, email isopetstudygroup@gmail.com Free

This SG newsletter is different to most others I have seen, in that the majority of the newsletter is given over to queries and triumphs of GS members about particular species of "isopets" – their propagation from seed, treatment of cones, grafting techniques, materials, moving individual plants, climatic preferences, dealing with weather extremes such as cold, heat, heavy rain, drought and even problems of growing these plants in the Netherlands! The editors answer and encourage each contributor, correct or amplify advice given on previous occasions, pass on advice from other contributors and so on. It seems a very collaborative community.



A detailed article on the prevalence of **isopets on various offshore islands** includes quite a bit of detail on Kangaroo Island. KI is home to ***Isopogon ceratophyllus*** (left) which also occurs on the SA mainland. In addition, KI hosts the only SA-based petrophile, ***P. multisecta*** (KI Conesticks), which is endemic to KI (right).



All four isopets occurring on islands have a lignotuber to facilitate quick regeneration after fire, and are fire tolerant, slow growing and relatively low – understandable for windy, fire-prone locations. The downside is that regeneration from lignotubers means that new plants are a linked community, making them very susceptible to pytophthora cinnamon root fungus. The new lignotuber plants also apparently make new plants from seeds unlikely to appear...

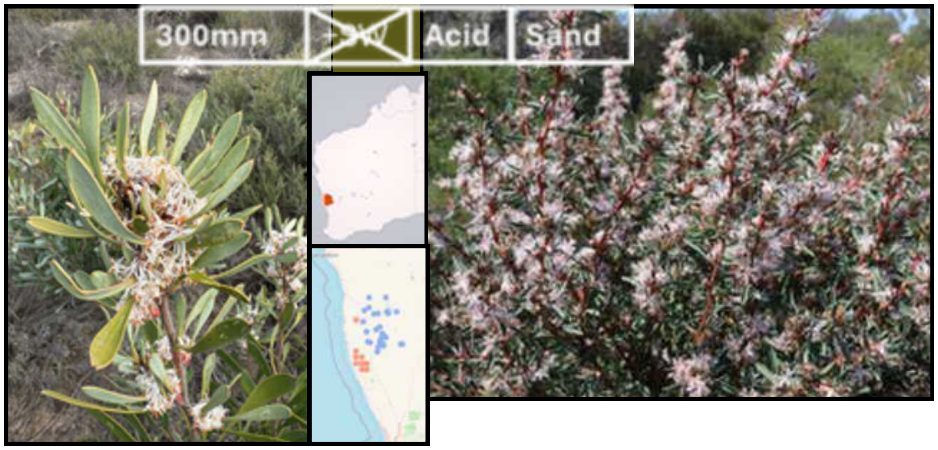
There is also an interesting article on **wind dispersal of seeds and fruits**. Most isopets use hair-clump structures around their seeds, allowing for a parachute-type action. The slightest gust of wind catches the crown of hairs, propelling the seed along like a parachute until caught by a tree or falling to the ground as the wind drops.

Far left, ***Isopogon latifolius***
Left, ***Isopogon dawsonii***
Right, ***Petrophile serruriae***
Far right, **Petrophile phylicoides**

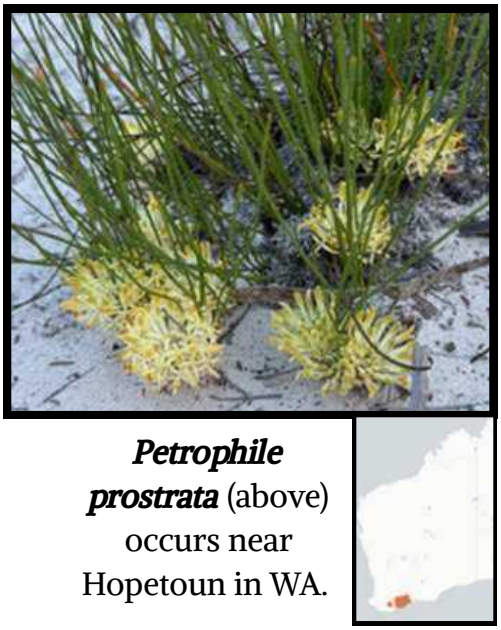
Some petrophiles instead use papery extensions around each fruit, acting as wings to catch the breeze. The flattened shape of petrophile fruits is more suited to wing structures than isopogon fruits. They glide or spin depending on wing shape.

Winged fruits from left, ***Petrophile heterophylla, P. squamata, P. diversifolia, P. carduacea***.

Two isopet species are featured in detail in the newsletter.



Isopogon panduratus (above left) occurs half-way between Geraldton and Perth. It has two quite different subspecies – the main subspecies shown in blue dots, and ***I. panduratus ssp palustris*** above centre), red dots, on much wetter soil.

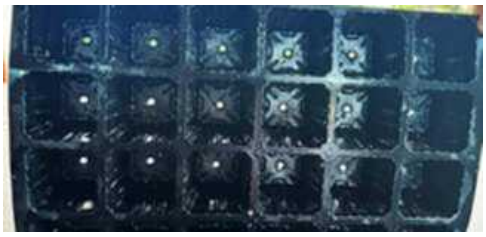


Petrophile prostrata (above) occurs near Hopetoun in WA.

Neither are seen very much in cultivation, and both have been successfully grafted.

Isopogon ceratophyllus (mentioned on the previous page) is being propagated by SG members from seed, using a wide variety of methods and both fresh and older (6–18 months) seed. Result: all methods are successful! The conclusion is that no special treatment is needed.

In another experiment in grafting ***I. buxifolius*** and ***I. spathulatus***, two different types of seedling trays were inadvertently used, with different drainage hole patterns. All other aspects of propagation were identical.



The tray on the left with many large holes had 100% success, whereas the small single hole trays on the right had 100% failure. Perhaps this also applies to other plant types, especially those very sensitive to drainage problems?

The newsletter finishes with some new and spectacular grafted specimens from the Editors' garden. Have APSSA members had success with isopets in South Australia? Let me know, with pictures!

SA SG member Anne Campbell of Mt Barker shared this lovely pot (right) from the **Adelaide Botanic Gardens** with the SG. She commends the ABG for moving on from pansies in these pots!

Here is an example of the national breadth and **benefits of Study Groups**. An SG member from Sydney grew these containers (right) of healthy ***Eremophila "Pinery Fire Gem"*** cuttings. The original propagation material was mailed to him by Ken Warnes in SA immediately after the Pinery bush fires in SA 10 years ago, from a seedling which had experienced smoke but no direct fire. That seedling has since died in the wild. Ken surmises – very eruditely – about the possible parentage of this plant in the SG newsletter. What a wonderful story of collaboration, skill and generosity yielding great results. (See page 2 for more about Ken.)

An SG member near Canberra submitted this photo of two ***Boronia denticulata*** growing beautifully in large sheltered pots, on the north side with protection from east and west. She says she had even more flowers last year! They are 4 years old. ***Grevillea "Tucker Time Fruit Box"*** grows in between.

Have SA members had any success growing boronias, either in the ground or in pots? Let me know the species and situation, so others can save money by trying to put the wrong species in the wrong place!

The SG leaders live in Canberra, and bemoan the recent **extremely severe winter** and the loss of many plants both in containers and in the ground. Their modest understatement amused me:

"***Corymbia 'Summer Red'*** was planted March 2024 in a pot (left) and moved to the garden May 2025 (right).

"This was quite an advanced specimen and our decision to move it to the garden this frosty year is regrettable." We all have failures...

Another failure was ***Hakea platysperma*** (right) – Cricket Ball Hakea – listed as hardy in Canberra, planted in a pot February 2025, discarded in August 2025. [Editor: I first saw this interesting plant in Brisbane a few years ago. I had no luck with seed. Have any SA members had success in growing it here? Let me know your tips for success.]

Most of us occasionally wish to have a feature plant where there is no soil handy – eg at the front door – and using a container is a good option. This SG covers all sorts of species in different regions, and is free to subscribe.

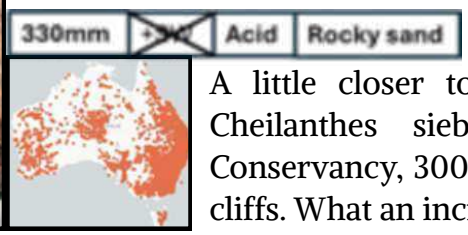
Fern Study Group

Email ANPSAferns@bigpond.com Joining fee $5

In our South Australian climate ferns can be tricky to sustain in open garden situations. The Fern SG is based in southern Qld, with active Chapters there and in Sydney. A number of ferny excursions in those places are described in detail and with much enthusiasm. Perhaps Adelaide Hills members with a passion for ferns might consider forming a local chapter?

Caption: "Fernies in the thick of it".

The SG reports that consideration is being given to creating a **"mossarium"** at the Royal Sydney Botanic Gardens. What an interesting idea!

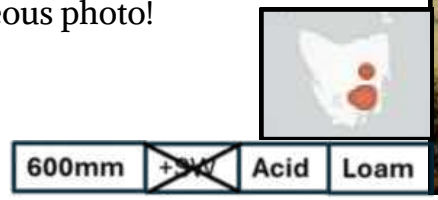


A little closer to home, two SG members described a fern, Cheilanthes sieberi (left), growing at Newhaven Wildlife Conservancy, 300km NW of Alice Springs, at the base of quartzite cliffs. What an incredible adaptation for a fern, as the map shows...

Eucalyptus Study Group

Email warwick@alliedtrees.com.au Free

This newsletter features ***Eucalyptus risdonii,*** a rare, smallish Tasmanian species in the peppermints. It is expected to ***increase*** its range with climate change, as it prefers hot dry conditions (all relative of course...). The tree retains it immature blue leaves and has white flowers. What a gorgeous photo!



"**Tree foam"** is also explored in this newsletter. The most usual form of tree foam is created by exactly the same sorts of chemicals used to make soap: oil, water and lye. During heavy rain, accumulated oils, acids, tannins and salts on leaves and bark are carried down the tree's fissures with the rainwater, and then deposited at the base of the tree. Warmer temperatures assist the process, drawing further oils from the phloem to the surface of the bark. "Stem flow mixing" occurs on the way down, aerating the solution and creating a foamy mixture at the base. Bacteria, funghi and pollutants add to the eclectic mix, along with saponins (natural soap-like compounds) created by the tree to deter predators and pathogens. These saponins are close in chemical composition to commercial soil wetters! The tree foam causes no damage to the tree, and may even assist with water penetration into the soil.

A very concerning item related to the discovery of **myrtle rus**t in central Canberra, reported by a member of the public. The infected species were two Geraldton waxes, which were quickly destroyed. The infection occurred in winter, which surprised scientists. The rust is an airborne disease, and is also spread by honeybees. The SG reported that 16 rainforest eucalypts are likely to become extinct to myrtle rust without emergency intervention. **I'd like to do an article on Myrtle Rust and how SA is dealing with the threat. Does anyone have a relevant PIRSA contact?** Click here

Chinese researchers have found chemical compounds in ***Corymbia citriodora*** which point to its potential as a non-toxic therapeutic option against liver cancer, and perhaps Alzheimer's and Parkinson's diseases. The compounds reduce cell death caused by copper accumulation, a key issue with these diseases.

Yahoo News appparently reported that "an unusual **gum tree featuring eight limbs** sprouting from its trunk has stunned thousands of Aussies." Notwithstanding the internet hype, the tree is very unusual indeed. The tree appears to have been planted as a fence post, and the tree has grown out along the wire trying to seal off the holes, without success.

And finally, there is discussion of **whether eucalypts can grow indoors**. For Adelaide-based members who recall the enormous glasshouse that was built at Burnside Village Shopping Centre to accommodate a mature gum tree inside a shopping centre, my answer would be "No". But... this website gives a qualified "Yes" answer. https://farmonaut.com/blogs/can-a-eucalyptus-tree-grow-indoors-7-key-insights
It recommends using dwarf varieties like ***Eucalyptus gunnii*** (Cider Gum) and ***E. citriodora*** dwarf forms, a very large pot (60L), root and branch pruning, 40-60% humidity (not easily achieved in SA), additional light from high-output full-spectrum LED grow lights, good airflow (oscillating fans) and quite a few other pointers. I'd be interested to know if anyone has a gum tree as a house plant, and how they achieved it.

Habitat Restoration on Hindmarsh Island

Words and photos by Karen Lane

In December 1937 Harry Hornsby Newell was interviewed by the *Murray Pioneer*[1] about his life as part of an early pioneering family growing up on Hindmarsh Island[2]. The article paints an interesting picture about early settlement on the Island but the paragraph that really caught my attention and truly inspired me was the following:

Wallaby grassland - ***Rytidosperma caesipitosum*** - spreading on Tloperi

Tloperi: 442mm | Alk | Clay/Sand/saline

"...the beauties of the island in the spring of the year has always appealed to him. The wildflowers bloomed and the spear grass waved in the spring when the air grew soft and warm. Orchids blossom, native tulips appear[3] and everlastings cover the soil under a rainfall of 20 inches [400mm]. "It is one of the little know beauty spots of our state", he said. But he added that "very little is now left of a beautiful virgin land. Cultivation hast naturally destroyed much of the natural beauty of the Island. I remember the lagoons and swamps surrounded by tall grass. The wild ducks were so tame then but now they fly at the approach of man."

Could the wildflowers that Harry spoke of be re-established on a large scale, say 40 of our 80 acres? And do they still even occur on the island? I am not aware of many of these plants ever being propagated, and set out to grow as many as I could.

We purchased our property in 2010 and named it Tloperi after the ibis that visit us and fly overhead regularly. It was a big empty paddock then, full of nearly every agricultural weed I can think of. The soil was awful after 150 years of dairy farming and cropping.

---

[1] Trove, *The Murray Pioneer*, 16th December 1937

[2] Our property Tloperi was part of the first land grant the Hornsbys bought in 1856, and is part of the much larger farm that the Hornsby Newell family owned on the Island.

[3] Probably ***Calostemma pupureum*** which still occurs on some roadsides

Senecio odoratus

Picris squarrosa

Carpobrotus rossii and ***Pelargonium australe***

Fifteen years on and we have planted over 82,000 plants planted of nearly 160 species. Most of these have been collected and grown by me from tiny remnants on the Island. And we now have large ever-expanding patches of wildflowers and large areas of native grasslands. And yes, the butterflies, lizards, birds etc have returned. In fact, the native grasslands have been a spectacular outcome with about 20 acres of wallaby grass which right now looks stunning with the golden heads waving in the breeze in the back paddocks.

I often stand in the middle of these grassland patches and imagine that many areas of the state would have looked like this: there is too much tree planting in my opinion. If you read Trove history references and early explorers' and settlers' accounts, large areas of country were either open grasslands or open grassy woodlands.

Our grasslands are being managed by mowing. They are not planted but are naturally expanding from tiny original remnants, often individual plants, by clearing weeds ahead of the native grass patches and letting them naturally recruit. This is a relatively slow process but one which doesn't require any input except to strategically mow from time to time and occasional spot spraying with glyphosate.

There are also large areas of speargrass and carpets of wildflowers on the sand dunes. Persistent weeding is the key and strategic integrated weed management is essential. Natural recruitment is now overtaking our planting efforts. This is how it should be, it is too labour intensive and expensive to just keep on planting.

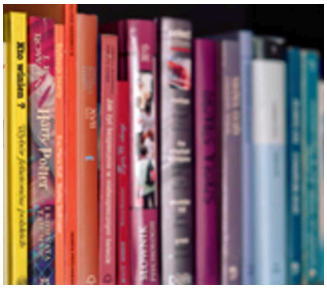
Self-sustaining gardens and plantings are what we should be trying to achieve. Our efforts have been somewhat hampered over the last few years by having to clear out over-enthusiastically planted, very dense early Landcare plantings, which created large areas of dead and spindly plants needing removal to allow understorey establishment and lower the fire hazard. We recently bought a flail mower so can now put all that we clear as mulch back on the paths and planting sites.

Over the last fifteen years we have had a number of grants to help with this work. The last three years have been through Landscape South Australia Hills and Fleurieu, using local community nurseries for plant supply. Cittaslow Goolwa, a large, local community group based on all things about sustainable living, have been a massive support: over the last three years on our annual planting day over 20 members have turned up to help us plant.

We have also had many Butterfly Conservation Society and Bring Back the Butterflies members help us, and local friends and other community members have come as well showing a real enthusiasm and community spirit for helping us achieve restoration of this property and thus creating habitat for local fauna and flora.

Lotus australis with a grass dart

Book review



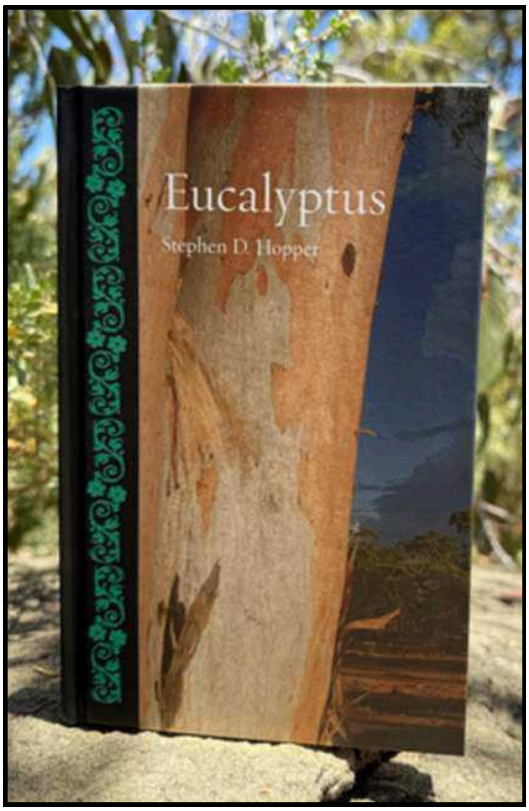
Hot off the press, Prof Stephen Hopper's **"Eucalyptus"** (Reaktion Books, late 2025) offers a ground-breaking exploration of Australia's iconic eucalypt trees, combining Aboriginal knowledge with Western scientific understanding. It seeks to integrate Aboriginal ethnobotanical knowledge with contemporary molecular and evolutionary research.

The work examines approximately 900 species across genera *Eucalyptus, Corymbia,* and *Angophora*, analyzing their taxonomic relationships through the framework of 13 main evolutionary lineages established by modern research.

"Eucalyptus" advances Hopper's OCBIL theory (Old, Climatically-Buffered, Infertile Landscapes), as applied to eucalypt evolution. (Hopper considers that OCBIL landscapes – like those found in the SW of Western Australia – produce great plant diversity, but within very small pockets.)

Rather than viewing eucalypts as Gondwanan rainforest relicts, Hopper proposes the genus evolved on ancient OCBILs and subsequently radiated across Australia. This interpretation leverages molecular DNA/RNA data demonstrating eucalypt ancestors emerged from OCBILs 100m–66mya, already preadapted with distinctive traits including lignotubers, epicormic resprouting, and leathery leaves adapted to dryness and heat.

The text examines diversification patterns within the eucalypt genus, particularly within subgenus *Symphyomyrtus*, the largest subgenus with around 470 species. It also contains most commercially important plantation species: such as ***E. globulus, E. camaldulensis, E. salinga,*** and ***E. regnans***. Molecular analyses of this subgenus reveals contrasting evolutionary dynamics between landscape types: populations on ancient OCBILs exhibit reduced hybridization rates and greater genetic distinctiveness compared to those on YODFELs (geologically Younger, Disturbed Fertile Landscapes). For example, species like ***E. caesia*** demonstrate exceptional genetic divergence between populations separated by only 7 kilometres on granite OCBILs.



Hopper, Professor of Biodiversity at the University of Western Australia and former Director of Kew's Royal Botanic Gardens, provides readers with insights into sustainable coexistence with eucalypts. The work is richly illustrated with photographs from his extensive fieldwork and offers practical perspectives on conservation alongside fascinating historical and cultural contexts. It is essential reading for anyone interested in Australian botany, indigenous knowledge systems, or environmental science.

Many APSSA members may wish to purchase this interesting book. Our Librarian has secured wholesale copies for purchase by APSSA members. RRP for this book commercially seems to range from $34.99 to $49.99, pus postage if ordered online. The first print run has run out, and we are awaiting copies from the second print run.

We are pleased to offer this book to members for $30, including postage! Contact our Librarian to order your copy. David will get your book to you as soon as possible.

REGIONAL GROUPS

When travelling around SA, drop in on a regional activity and share your passion for our flora

Northern Yorke Peninsula Region,
55 South Tce, Kadina

12 Feb, AGM. 7.30pm

12 March, Tim Wood is speaking on Conservation in FNQ, 7.30pm

9th May, Plant sale at the clubrooms, 10am - 3pm. Sausage sizzle, drinks and advice!

https://www.facebook.com/events/1360022918597082/?checkpoint_src=any_

Brinkworth Group
Brinkworth Hall, Main St, Brinkworth.

25 Feb, AGM, 7.30pm. Member "Show & Tell"

25 Mar, 7.30pm, Joe & Karen Vajda presenting their trip to Tasmania

April - to be advised

Phone 0437 114 540 for details

Gawler and Barossa Group
Lyndoch Institute Town Hall, centre of Lyndoch

18 Feb, 7.30, topic tba

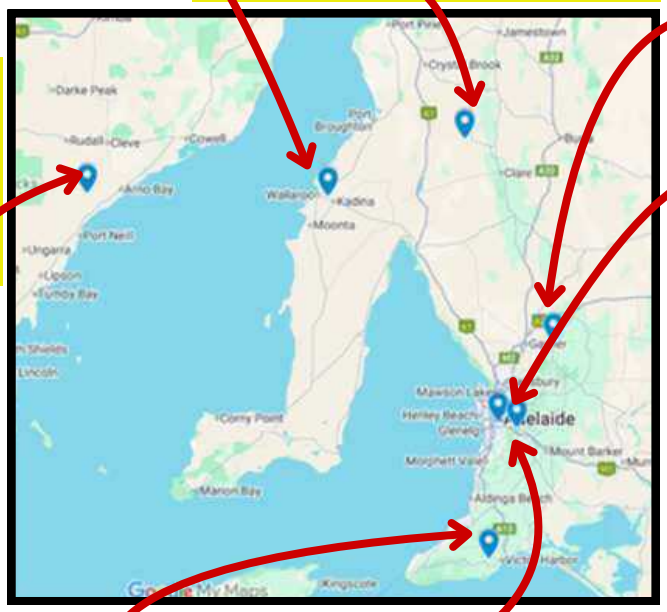
18 Mar, 7.30pm topic tba

16 Apr, 7..30pm, topic Tba

Phone 0400 962 082 for more information. Zoom links available.

Eastern Eyre Peninsular Group
In recess.

Phone 08 8688 2289 for more information



Adelaide Group
21A Richards Tce, Goodwood

26 Feb - monthly meeting, 7.30pm. A "hands-on' activity!

26 Mar, monthly meeting, 7.30pm at Unley Community Centre. Jake Robinson will speak on "The Nature of Pandemics".

23 April, monthly meeting 7.30pm

Phone 0447 995 777 for more information

Fleurieu Group
25 Feb - meet at Leonore Swanson's home. "The cellular structure of plants" is the topic. 2pm.

Sunday 26th April, Fleurieu Group's plant sale at Nangawooka, 9am-1pm.

Check our Facebook page for March and April topics and locations.

Contact swansonleonore@gmail.com for more information about meetings.

COOTS Group
21A Richards Tce, Goodwood

1 Feb, 10am, AGM - think about becoming a leader!

Propagation workshops (all 12 noon):

- 7 Feb - cuttings
- 14 Feb - Identification of species using iNaturalist, native orchids
- 21 Feb - all day field trip, Glenthorne Farm
- 28 Feb - check on our successes!

Contact: cootsgroup@gmail.com

Enthusiastic new native plant growers at a COOTS propagation workshop led by Jeff Reid.

At the Fleurieu Group's AGM, Hans Griesser gave an interesting presentation on *Plants and Landscapes of Northern SA*. He described aspects of his trip along to Oodnadatta Track and north to Mt Dare. This included finding many Eremophilas including ***E.macdonellii***, ***E. freeligii***, ***E duttonii*** and ***E. longifolia*** but not the elusive rare ***E. pentaptera*** which he searched for in many rocky gullys.

Contributions are welcome - and essential!

Member contributions are the lifeblood of a membership newsletter. Large and small items are welcome – we are aiming for an informal and chatty document that will help connect members to each other and the wonderful natural world around us.

Experienced and beginners alike will, we hope, feel comfortable in making a contribution.

Some of the things you may like to share are:

- **photos, anecdotes, scientific information, propagation** and any other interesting aspect of Australian native plants.
- **photos of social events** such as plant sales, speakers and their presentations, meeting activities, nursery work, conservation projects, workshops, award nights, Christmas parties etc.
- **diary dates for APSSA and regional activities**, and any other organisation with similar aims which is holding an event you think others may be interested in. Remember that the Newsletter will be quarterly, so take that into account when considering which events to send in.
- successful **grant applications**, with followup photos once the grant is completed.
- **suggestions for newsletter ideas**
- **corrections and complaints!** We can all learn from each other, so if a plant is wrongly labelled or information is wrong or incomplete, tell us so we can pass it on. Try to be polite!

When sending photos of plants, please include (**if at all possible**):

- your name and suburb/town
- full name of plant if known
- a paragraph short note on why it is noteworthy
- general location of where photo was taken, and month
- if growing in cultivation:
  - the annual rainfall, and whether supplementary watering has been applied to the plant.
  - soil ph – eg acid/neutral/alkaline,
  - soil type – eg clay/loam/sand. (This info will help others know if it will grow for them.)
  - age of plant, if known

I**f you don't know some or all of this information, send in whatever you have!**

Species vs cultivars

Of course we are all very interested in naturally-occurring species of native plants, but we cannot ignore the fact that breeders are constantly introducing new cultivars and grafted plants which have useful characteristics in many settings. In other situations only natural species are appropriate. The broad Constitutional aims of APSSA have room for both species and cultivars. The newsletter welcomes photos of cultivars and grafted plants, with appropriate identification.

Letters to the Editor welcome!

Editor's email address: newsletter@australianplantssa.asn.au

Australian Plants Society – South Australian Region Inc

PO Box 304
Unley SA 5061

Since October 2025, APSSA has had a new bank account. If you are transferring money to us for any reason, please use these details, and put your name in the description box.

BSB: 015-208
Account No: 8003-10445

Please remove the old details from your bank payment list. That account is now closed.

Contact email for our administration officer, Rae Dunning: **office@australianplantssa.asn.au**

Contact details for our officebearers

Role	Email address - these are live links and clicking on them will enable direct emails to the person	Person the email goes to:
Council	council@australianplantssa.asn.au	All Councillors
President	president@australianplantssa.asn.au	Tim Wood
Vice President	vicepresident@australianplantssa.asn.au	Hans Griesser
Secretary	secretary@australianplantssa.asn.au	Rae Dunning
Treasurer	treasurer@australianplantssa.asn.au	Alice McCleary
Membership	membership@australianplantssa.asn.au	Rae Dunning
Newsletter editor	newsletter@australianplantssa.asn.au	Alice McCleary
Librarian	librarian@australianplantssa.asn.au	David Lindley
Seedbank	seedbank@australianplantssa.asn.au	Hans Griesser
Conservation	conservation@australianplantssa.asn.au	David Lindley
Administration	office@australianplantssa.asn.au	Rae Dunning
Website	website@australianplantssa.asn.au	John Fleming

Photo credits, websites and location map credits include:

- Australian Native Plants Society (Australia)
- Florabase, the Western Australian flora
- APSSA
- Australian Native Plants NSW
- Atlas of Living Australia
- Lucid Central
- Australian National Herbarium
- "*Field Guid to Trees of Southern Africa*", Braam and Piet van Wyk, Struik Nature Books
- ResearchGate
- Australasian Virtual Herbarium
- ANPSA Study Group newsletter contributors
- SA Seed Conservation Centre
- Declan Durrant, of ABC North and West
- *"Botanists of the eucalypts"* by Norman Hall, APSSA library
- "*Field Guide to Wild flowers of South Africa*", John Manning, Struik Nature Books
- "*Australian Native Plants*", Wrigley & Fagg, 2024
- Alice McCleary