



APS HARBOUR GEORGES RIVER NEWSLETTER - February 2022

NEXT HARBOUR GEORGES RIVER EVENT:

Outdoor Event - Garden Visits

Saturday 5th March from 10 am

Visit two fine native gardens in the Hurstville Area

With a bushwalk in a local park

And a chance to socialise over lunch

For detailed addresses & to RSVP, please email Liz Cameron on
elsmere02@gmail.com

Hoping to see you all there, safe & well.

VISITORS ARE ALWAYS WELCOME

Welcome to the February 2022 edition of the APS Harbour Georges River (formerly East Hills) Group Newsletter. That's a long name and will soon be shortened and often abbreviated to HGR I'm sure.

This is our second newsletter under the new name and covers our very interesting first meeting, and the virtual plant table. After sadly farewelling two long term members last month, this month we're also introducing some newish members.

There are more details of our next meeting. Read on.

enjoy

Dorothy Luther, Editor

In the spirit of reconciliation, the APS Harbour Georges River group acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

<https://www.austplants.com.au/Harbour-Georges-River>

A NOTE FROM THE PRESIDENT

Dear Members,

I hope you are all well as we move through this pandemic & the changes it has brought about.

We are on target with the changes to our new name - Harbour Georges River & all that this involves. Our plan to be flexible with a variety of activities for meetings starts in March with garden visits to our garden & the Fry's. As you can imagine there has been extra weeding going on in both houses.

I have heard this summer's weather has caused some plants to die & others to thrive.

The Isopogon in our front garden suddenly looked distressed. I have given it a hard prune to help with air flow and now we wait & see if it can be saved. That's the joy of gardening, the unexpected things that occur.

These Swamp orchid cuttings are from the flower spikes & placed in potting mix on November 21. Dave Crawford said that they are one of the few plants that can be grown from flowers. Kyrill gave me my first one about 5 years ago.



1 Swamp Orchids flower cuttings. Photos by Marie O'Connor

I had trouble with mealie bugs for a while & now try not to water the leaves.

The pink Flannel flowers are this season's flowering. I get several from Lloyd Hedges each year and give him seeds when they have finished. They look delightful in a vase.



Looking forward to seeing you on the 5 March.

Warmest regards to all,
Cheers,
Marie O'Connor.
President Harbour Georges River Group APS

NSW.



NEXT MEETING

Saturday March 5th from 10 am to 12:30 pm ... or later

Visit two members' gardens in the Hurstville area – Marie and Des O'Connor in Connells Point, and Graham Fry and Liz Cameron in Hurstville Grove. See the diversity of native plants suitable for this area and different ways of landscaping.

There will be an opportunity to discuss propagation techniques, and ways to make gardens more attractive to wildlife.

Purchase some native tube stock propagated by HGR members (cash only, so bring your money with you).

Optional coffee or picnic lunch nearby afterwards.

Map: <https://www.google.com/maps/@-33.9828896,151.0885028,16z>

For detailed addresses & to RSVP, please email Liz Cameron

On: elsmere02@gmail.com

Timetable

10-11 am at the home of Marie and Des O'Connor, in Connells Point. See some of Marie's swamp orchid babies & pink flannel flowers above, and other beauties in previous newsletters.

Self-catering – we suggest you bring water and/or a thermos and snacks for morning tea.

Outdoor toilet available.

After visiting their garden, walk via Morshead Drive and a bush track through Poulton Park (sturdy footwear recommended). See wetland & many species of wading birds. Or drive.

Excerpts from the Poulton Park Facebook page:

I can recommend Poulton Park for a visit, in Hurstville Grove. Park your car on Morshead Drive, just north of the junction with Kyle Pde.

From there take the short boardwalk that goes through mangrove to the wetland.

If you come back off the boardwalk and turn right, follow Morshead Drive around the wetland. On the other side of the road is a view to the Georges River.



2 Striated Heron melee - Poulton Park
<https://www.facebook.com/groups/377890252563420/search/?q=poulton%20park>

11.30- 12.30 at the home of Graham Fry and Liz Cameron, in Hurstville Grove, with propagation & wild life discussions. See Graham's photos & notes in the Plant table.

Indoor toilet available.

For lunch – picnic in Moore Reserve or visit the local coffee shop - Gabriella's @ the Grove: <https://www.facebook.com/Gabriellas-at-the-Grove-108854158256982> check the mouth-watering goodies on their Facebook page.

Getting there by public transport:

Catch train to Hurstville Station, bus 953 in Ormonde Parade at 9.55 am, alight in Queens Road about 3 minutes after timing point D on timetable (see map at end of online timetable below); you will be on the other side of the road from Marie and Des's home.

After visiting Graham and Liz's garden in Hurstville Grove catch bus 954 in Waitara Parade at 1 pm back to Hurstville Station.

Punchbowl Bus Company timetable:

<https://www.punchbowlbus.com.au/pdf/timetables/route953-954-955timetable.pdf>

Coming by car:

Street parking is available at both houses.

We can arrange to take you back to Connells Point to collect your car if you want to walk over to Hurstville Grove.

Contingency Plan

If the weather is unpleasant, we'll post a message on our website with alternative plans. This may be a Zoom session with a pre-recorded talk on mistletoes & a virtual plant table, showcasing some of the plants we should have seen.

FEBRUARY MEETING - FLOWERS, FLORAL TRAITS AND FLORA CONNECTIONS

Flowers

Guest speaker Ruby Stephens, plant ecologist, spoke on the subject of her PhD project at Macquarie University. She is also associated with the Royal Botanic Gardens and Western Sydney University.

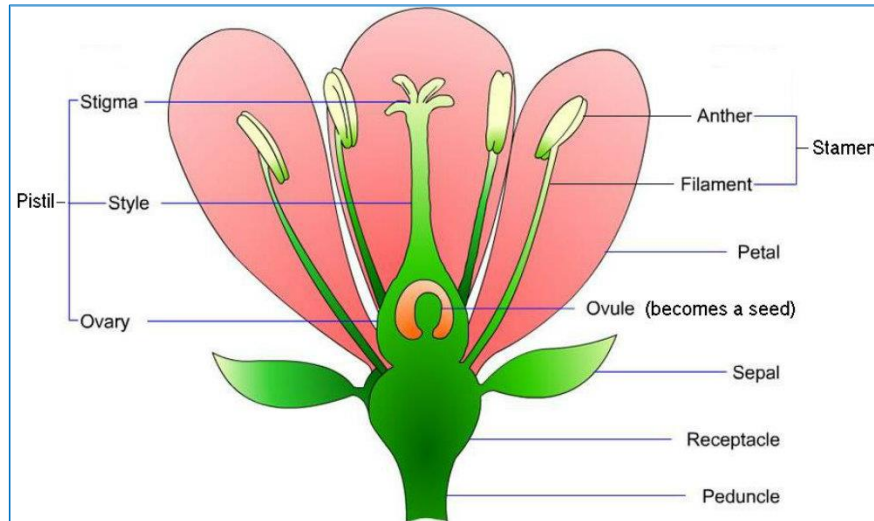
Ruby's research aims to understand some of the ways in which floral traits vary across both space and time. Flowers vary hugely in size (<0.5mm to >1m!) as well as colour, scent, shape, timing and more - features termed "**floral traits**".

Flowering plants are the most diverse group of land plants, and surround us every day in the bush. Flowering plants emerged at least 130 million years ago and have since evolved a huge diversity of forms, especially in their flowers. [The largest flower in the world is *Rafflesia arnoldii* which grows in rainforest in Indonesia - some of you may have seen it in the opening episode of David Attenborough's *The Green Planet* on Channel Nine].

The anatomy of a flower

No matter how exotic looking, every flower has 5 parts arranged in concentric circles:

1. The Sepal – the outer covering from the bud. In some natives this is more spectacular than the flower itself.
2. The petals – vary in number, shape, length & colour
3. Male parts – the stamen, composed of anther & filament
4. Female parts – the pistil, composed of stigma, style & ovary.



Floral Traits

The chapters of Ruby's PhD thesis require another 2 years to complete. The plan is:

1. Climate shapes flowering periods across plant communities
2. The relationship between floral longevity & floral symmetry
3. Biogeography of animal versus wind pollination across Australia
4. Macro evolution of wind pollination in angiosperms (flowering plants)
5. Macro evolution & functional biogeography of floral size in eucalypts.

In this talk, Ruby presented her findings on Chapter 1 - flowering time and longevity of individual flowers. Why this enormous variety – how does it contribute to plant survival?

By analysing climate variations across Australia - mean annual temperature, precipitation & predictability - and trawling through existing plant community surveys from AusTraits flora descriptions database, <https://austraits.org/> Ruby has demonstrated that climate shapes the amount of time that flowers last:

- Predictable, low temperature, high precipitation climate = shorter flowering periods.
- Unpredictable, high temperature, low precipitation climate = longer flowering periods.

This confirms what we have perhaps observed. In desert climates, plants flower & die quickly after rain, but can flower at any time of year. In milder climates, plants flower at specific times of year only, although the individual flowers may last for quite a while, or the plant continues to produce flowers for some months.

The likely impact of climate change? Flowering will shift via local adaptations or via local extinctions & range shifts.

[AusTraits is an open-source, harmonized database of Australian plant trait data. It synthesises data on 448 traits across 28,640 taxa from field campaigns, published literature, taxonomic monographs, and individual taxon descriptions.]

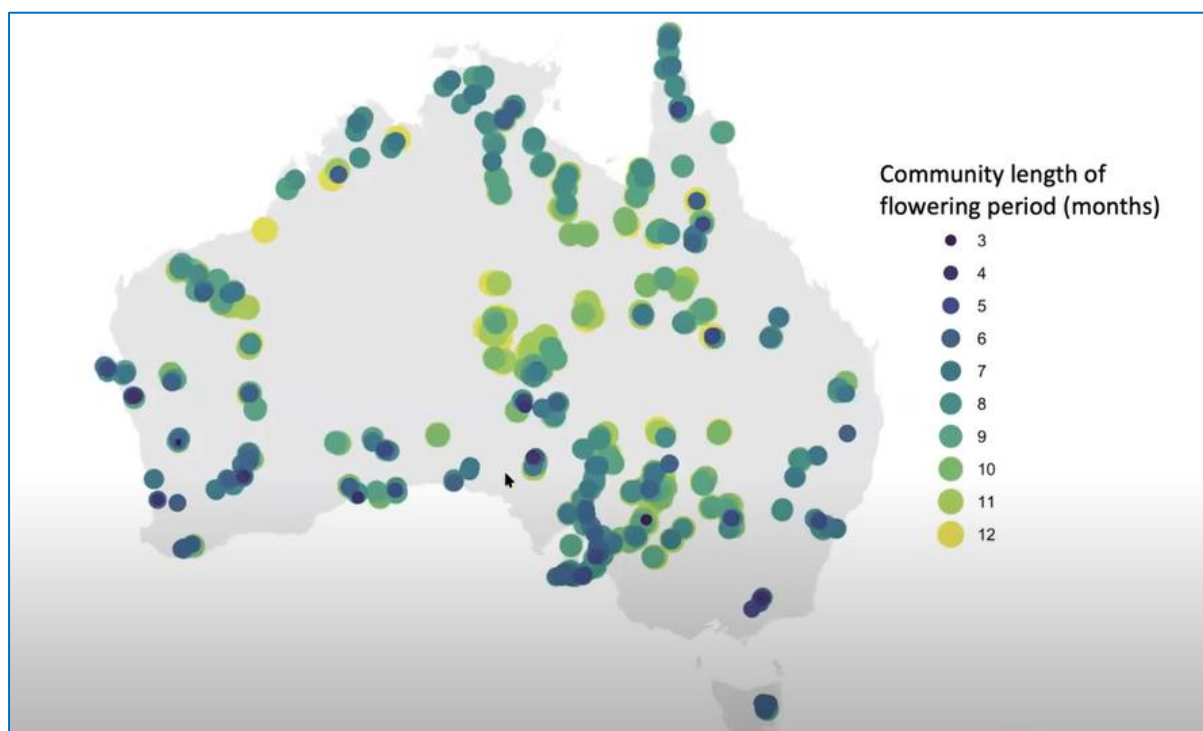


Image from Ruby's slides demonstrating the variation of flowering periods across Australia.

Flora Connections

In the second part of her talk, Ruby described a **citizen science project** in which she is involved -

Western Sydney University is working with other organisations to develop Flora Connections - a program which will link community plant groups such as APS to **scientific committees that make decisions about threatened native plants across Australia**. Flora Connections will develop resources and an online data portal to help citizen scientists collect the wealth of on-ground plant knowledge about the population numbers and distribution of potentially threatened native plant species. These data can help the scientific committees assess, for example, how the 2019-20 bushfires affected rare plant species, and if particular native species or ecosystems need more protection.

Help is needed to locate all the endangered populations. The system is being trialled in the next few months with bushfire bio blitz groups. The focus first is on bushfire-affected areas including Blue Mountains & South Coast.



Conclusion & Questions

The presentation was recorded and published on the Australian Plants Society NSW YouTube channel. The full link address is: <https://youtu.be/RsN5-GnLxFs>.

The talk was followed by an enthusiastic round of questions, which are not included in the recording.

Tony Maxwell (APS NSW Board member) is keen to learn more about this project, as he is also working on a Conservation project with a focus on informing decision makers about plant communities.

Jan Douglas asked if the term 'community-flowering period' was coined by Ruby? Yes -The term 'community weighted mean flowering period' is a mouthful & she needed something like this in order to apply statistics.

Karen – what is A Bio Blitz? An organised & intensive citizen science study of a biological topic over a short period, to collect the maximum amount of data in the shortest time.

Dorothy: How can we match 'Our Patch' plan for 2022 with Flora Connections? A: Focus on one species; eg estimate population with counts in 5 x 5 m plots, eg Dan Clarke has been monitoring *Prostanthera densa*. Try to establish if patches are expanding or shrinking.

HGR wish Ruby well in her further researches & her Flora Connections project. We would like an update from her when Flora Connections is launched. And perhaps another talk at the end of her PhD.

PLANT TABLE FEBRUARY 2022

Compiled by Boyd Webster

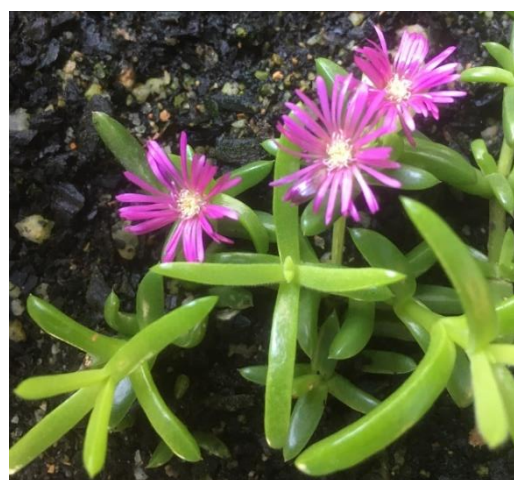
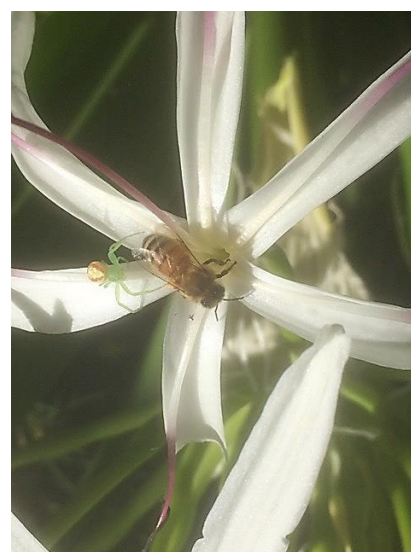
<i>Actinotus forsythii</i>	Pink Flannel Flower
<i>Araucaria bidwillii</i> (cockatoos eating fruit)	Bunya Pine
<i>Arthropodium milleflorum</i>	Pale Vanilla Lily
<i>Buckinghamia celsissima</i>	Ivory Curl
<i>Crinum pedunculatum</i>	Swamp Lily
<i>Disphyma crassifolium</i> subsp. <i>clavellatum</i>	Round Baby Pigface
<i>Eremophila mackinlayi</i>	Desert Pride
<i>Grevillea sphacelata</i>	Grey Spider Flower
<i>Hakea teretifolia</i>	Dagger Hakea
<i>Lobelia purpurascens</i> (syn. <i>Pratia purpurascens</i>)	White Root
<i>Melaleuca fulgens</i>	Scarlet Honey Myrtle
<i>Persoonia pinifolia</i>	Pine-leaved Geebung
<i>Rubus parvifolius</i>	Native Raspberry
<i>Stenocarpus sinuatus</i>	Firewheel Tree

Buckinghamia celsissima, commonly known as **Ivory Curl**, is a species in



the Proteaceae family. It is endemic to the wet tropics rainforest areas of north-eastern Queensland. The tree photographed was planted in December 2014 and is now 5m tall and 3m in diameter. It is growing in a dry sunny spot, nothing like the rainforest habitat where it originated, and is thriving. It began flowering two years after planting and has continued to put on a display every year in mid-summer. (Notes and photo – Graham Fry)

***Crinum pedunculatum* (Swamp Lily)**. This bulbous plant is now 1.5 m high and flowered for the first time two years after being shifted from a shady area into a bed with full sun. It is one of seven *Crinum* species native to Australia. Naturally found along rivers and damp areas of Coastal Queensland and NSW, my plant is growing well in sandy soil. A chance close-up photo of a pollinating bee showed that it was disturbing the resident spider. (Notes and photo – Boyd Webster)



Disphyma crassifolium* subsp. *clavellatum, often referred to as baby round-leaved pigface. The succulent leaves are circular in cross section, this being a distinguishing feature from the leaves of Pigface (*Carpobrotus glaucescens*) that show a triangular surface when cut. Both are members of the Aizoaceae family found in South Africa, Australia and New Zealand. The prostrate plant is found on coastal cliffs and at the edge of salt marshes. Purple or pink flowers appear in spring and summer. (Notes - Boyd Webster, Photo - David Crawford)

Eremophila mackinlayi, commonly known as **Desert Pride**, is a flowering plant in the Scrophulariaceae family, and is endemic to Western Australia. It is a shrub with its branches and leaves covered with a thick layer of yellow to grey hairs, mostly egg-shaped leaves and deep lilac-coloured to purple flowers. The plant photographed was planted in March 2018 and is now 3m high, well in excess of that predicted in botanical data. The main flowering period is spring but it has some flowers all year round. The shrub tolerates severe pruning and cuttings are easy to propagate. (Notes and photo – Graham Fry)



Melaleuca fulgens, commonly known as the **Scarlet Honey Myrtle**, is a plant in the Myrtaceae, and is endemic to Western Australia, South Australia and the Northern Territory. It is notable for its showy orange, red or purple flowers, unusual foliage and fruit, and is a popular garden plant. I have planted out 25 over the past seven years. All were propagated at a local nursery. I found them to be fast growing; the purple flowered form seemed to be more vigorous, flowering more frequently over summer. Like many WA plants they are not long-lived, being susceptible to fungal diseases which are common in Sydney's humid summers. None of my plants has lasted longer than five years. (Notes and photo – Graham Fry)



GROUP NEWS

New Members



After sadly farewelling two long term members last month, this month we're introducing some newish members.

Karen Fong

Hi everyone. This is a recent picture beside a *Banksia oblongifolia*. [photos supplied by Karen Fong]

I have loved our Australian plants for as long as I can remember and have always enjoyed bush walking around Sydney and further afield admiring them.

In between looking after two daughters and teaching English to adults, I completed a Certificate II in Conservation and Land Management. I was motivated to do this as I had been

volunteering with Marrickville Landcare near the Cooks River and wanted to learn more about native plants and weeds.

Last year I took 'ownership' of a small patch of land near the railway corridor at Ashfield. It has some Banksias, Lomandras and Bottlebrushes. I report dumped rubbish to the Inner West Council, weed the area and pick up any rubbish. Hopefully the many locals who go past every day appreciate the improved patch.

When not gardening, bush walking with my husband Colin or looking after our grandsons, you'll find me at the Bush Music Club at the Addison Road Community Centre in Marrickville playing waltzes and airs on my English concertina.

I have been a 'silent' member of the Australian Plants Society NSW for many years but last year decided to join my local group. The Harbour Georges River Group (formerly East Hills) have made me feel very welcome and I look forward to future activities with them.



Andrew Sinclair

My name is Andrew Sinclair, I live in Botany in Sydney's south-east. I've loved flowers from an early age and can recall crawling around my parents' garden sticking my nose into jonquils (delighted by the smell) and big floppy tulips (wondering why there was no smell).



3 amongst some Australian plants at the Cambridge University Botanic Garden

I've recently returned home after living in London for two years, where I worked at the Royal Society, the UK's national science academy. In London I grew a pollinator and herb garden in containers during lockdown. Returning to Sydney has given me a renewed zest for our native floral diversity and I've spent recent weeks stuffing my parents' garden with local natives while I reluctantly look for jobs.

I've joined the society to hopefully pick-up tips and tricks and to learn more about the less common or harder to source species. I'd also like to learn more about propagation and maybe how to finally get my flannel flowers to grow! I hope to be able to attend some society events in the near future to meet everyone.

[photo supplied by Andrew]

3rd Australian Native Bee Conference

I received this notice via the APS Office.

Integrating beekeeping, crop pollination, hive products and research

The Australian Native Bee Association Inc invites beekeepers, farmers, educators, industry leaders and researchers to share knowledge at the 3rd Australian Native Bee Conference. We will discuss issues required to increase understanding and unlock the potential of our native bees, a valuable but underutilized natural resource.

To register, apply to speak, contact us, or find out about the program, social events, sponsorship, trade show and competitions, go to: anba.org.au/anba-conference/.

Where: Rosehill Gardens Racecourse, Sydney

When: Sat 11th – Sun 12th June 2022

Royal Society of NSW Clarke Memorial Lecture

We invite you to join us as [Distinguished Professor Michelle Leishman](#), recipient of the [Royal Society of NSW Clarke Medal](#) delivers the Clarke Memorial Lecture. Hosted by Macquarie University, the lecture topic this year:

From bulldozers, pests and pathogens to climate change and urban futures: the tough life of plants

The life of plants on our planet today is tougher than ever before. The UN FAO estimates that 1 million hectares of forest globally were cut down each year over the last decade. There are over 20,000 plant species that are considered to be threatened with extinction, and the actual numbers are likely to be far higher.

In NSW alone there are 111 ecological communities and 672 plant species considered to be endangered, and yet our knowledge of their biology and ecology is surprisingly limited. Key threats to these plant species are loss of habitat, invasive species and climate change.

In this talk, [Distinguished Professor Leishman](#) explores these threats and asks why some plant species 'jump the garden fence' to become serious environmental weeds and considers how climate change may be giving them some extra help. [Distinguished Professor Leishman](#) will discuss the benefits provided by the plants in our urban green spaces, the challenges they face with increasing urbanisation and extreme climate, and ways forward to improve the resilience of our urban forests into the future. **To register and attend:**

https://event.mq.edu.au/clarke-memorial-lecture/registration/Site/Register?utm_source=eventsair&utm_medium=email-invitation&utm_campaign=clarke-memorial-lecture-22



Thursday 17 March 2022, 5.30pm – 7pm AEDT

CORRESPONDENCE RECEIVED

Newsletters Received – February

The full text of these newsletters is available from the Members area of the APS website, on the District Group pages.

Native Plants for NSW – January/ February 2022

The monthly e-newsletter of the Australian Plants Society NSW, available at

<https://resources.austplants.com.au/newsletters-journals/monthly-enewsletter/>

The format has been updated with links to each topic.

Features District Group highlights of 2021; the article on Kyrill Taylor is longer than the one in our newsletter.

Australian Plants Society, Newcastle NSW Group - Newsletter February/ March 2022

Bushwalk at Warrah Trig in Brisbane Water National Park, on the Central Coast

When: Sunday the 13th of March 2022. Meet at 10:00 am. Further details on the web site.

They have a thriving propagating & plant sale operation.

A new segment of the newsletter - a Plant Profile - a member tells the rest of us about a plant that they have had some experience with growing. [any volunteers for HGR?]

A Little Landcare Project [Karen take note – you are not alone]

Australian Plants Society, Sutherland NSW Group - Newsletter February 2022

From the November 2021 meeting - Native Mistletoes with Peter Vaughn; expecting to convert their CD-Rom “Coastal Plants of Royal National Park” to an app.

Australian Plants Society, Hunter Valley NSW Group - Newsletter February 2022

Some plant notes - lilies & rainforest ones I don't know; Soil pH and nutrient availability; dividing Pterostylis - blow by blow

Australian Plants Society, Northern Beaches NSW Group - Newsletter March 2022

Visit to Australian Museum Palaeontology Department 16 February - the story of the evolution of Australia's unique flora; At the peak of the last ice age, around 12,000 years ago, sea levels were around 120 meters lower than they are today. Some of the plant families that we recognise today started to appear before the Gondwana breakup - Proteaceae, Casuarinaceae, Myrtaceae, Mimosaceae and over the past 40m years or so have developed into our familiar Australian flora.

‘Time is their secret weapon’: the hidden grey army quietly advancing species discovery in Australia [theconversation.com February 8, 2022 Rachel Fowler, The University of Melbourne](https://theconversation.com/February-8,-2022-Rachel-Fowler,-The-University-of-Melbourne).

Each year, many new species of Australian plants, animals and fungi are discovered and described. It's detailed, time-consuming work, and much of it could not be done without the contribution of older Australians. This on the ground experience is invaluable for my work, and impossible to gain from published literature alone.

COMING EVENTS

For details of coming events, please see the APS NSW e-newsletter (which members should be receiving by email at the end of each month).

You can find more district group events on the APS NSW website at

<http://austplants.com.au/calendar>

Saturday 5 th March from 10 am	Harbour Georges River Group meeting, outdoors at Hurstville Garden visits, propagation discussion, a short bushwalk
Saturday 12 Mar	APS NSW Quarterly Gathering at Menai. Chris Gambian from the Nature Conservation Council will talk about how we can influence the conservation of native plants.
Wed, 16 March, 2022	Sutherland group meeting. History and ecology of the Illawarra's Five Islands Group [check website as it may be a Zoom] Gymea Community Centre, 39 Gymea Bay Rd, Gymea
Thursday 17 March 5.30pm – 7pm AEDT	Royal Society of NSW Clarke Memorial Lecture - From bulldozers, pests and pathogens to climate change and urban futures: the tough life of plants
Sat, 19 Mar, 8 am to 1	Special Open Day at Sutherland Council Community Nursery Good range of local natives at reasonable prices
April 1 to 4	APS NSW - Central West Trip to Burrendong, Wellington, Dubbo, Narromine, Parkes [check for vacancies on web site]
Saturday 21 May	Quarterly gathering and AGM hosted by Parramatta and Hills Group at Cherrybrook
Sat 11th – Sun 12th June 2022	Third Australian Native Bee Conference, Rosehill Gardens Racecourse, Sydney
Sep 11-16	ANPSA Biennial Conference, Kiama , with field trips during, before & after https://www.austplants.com.au/ANPSA-Biennial-Conference-2022

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<https://www.austplants.com.au/Harbour-Georges-River>