



**Australian Plants Society Northern Beaches**  
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**APS Northern Beaches Group acknowledges the Traditional Owners of the land on which our activities take place.**

**We pay our respects to Elders past, present and emerging, and recognise the continuing connection to lands, waters and communities.**

### CALENDAR

**NB. Thursday April 7, 2022 APS Northern Beaches meeting at Stony Range Regional Botanic Garden. CANCELLED**

The **AGM** was to be held on 7 April. Because of maintenance work on the Corkery building, we have not been given assured access for that night. Accordingly, the Committee has decided to cancel the April meeting and to hold the AGM in conjunction with the meeting on **Thursday May 5, 2022.**

**Saturday April 23, 2022 - APS Northern Beaches plant identification walk . All details later by email from our trusty organiser Anne.**

**NB. 2022 Stony Range Spring Festival  
Saturday October 8, 2022 set-up  
Sunday October 9, 2022 Festival**

If you have any photographs, articles, links or suggestions for CaleyI please feel free to send to me Jane March [march@ozemail.com.au](mailto:march@ozemail.com.au) 0407 220 380.

### ORCHIDS OF THE NORTHERN BEACHES AND NSW

David Drage  
All photographs W. Dobson.

The return to face-to-face meetings on the 3rd of March was exciting enough, even with reduced numbers of members present, but the inclusion of a sumptuously illustrated talk by William 'Bill' Dobson on east coast orchids and their locations was a definite bonus.

Bill developed an interest in orchids many years ago and after becoming a member of the Manly Warringah Orchid Society in 1987, was soon encouraged to take on the job of Secretary. Still in harness today, Bill is Editor of the Bulletin of what is now the Warringah Group of the Australian Native Orchid Society (ANOS). You can access editions of this Bulletin on the ANOS website ([www.anoswarringah.org.au](http://www.anoswarringah.org.au)) where you will find many examples of Bill's orchid photography.

I will confine the rest of this report to six species included in Bill's presentation that are part of the Northern Beaches flora and I encourage members to look for them on our walks in local bush and forests.

#### *Caladenia catenata*. (White fingers)



This terrestrial species grows to about 30cm in sclerophyll forest and shrubland, more frequently in sandier soils, and flowers in August – October. There are many to be found around the St. Ives Showground.

***Caleana major* (Duck orchid)**



Another terrestrial species which is found in forests and swampy shrubland with sandy or gravel soils. Usually in small colonies of a few plants, it grows to about 40cm and flowers in Spring to Summer. Oxford Falls is a good place to find it.

***Calochilus campestris* (Copper beard orchid)**



This terrestrial orchid grows on slopes and ridges in moist sclerophyll forests. The flowers grow to around 60cm in September – October.

***Corybas aconitiflorus* (Spurred helmet orchid)**



This dwarf terrestrial species is a forest dweller which flowers in April - June. Mind you don't tread on it.

***Glossodia major* (Waxlip orchid)**



Inhabiting forest, woodland and coastal heath, this terrestrial species does like a bit of moisture. The plant will grow to 15 – 30cm when flowering in Spring.

***Thelymitra ixioides* (Dotted sun orchid)**



This terrestrial species is found in heath and sclerophyll forest. It likes a lot of sun so is often seen on roadsides. It grows to around 60cm and flowers in Summer. This is a very variable species (not always so dotty) and it will also readily hybridize with other *Thelymitra* species.

Note: some details I missed during the talk were gleaned from PlantNet NSW.

## THIS MARCH FAMILY TALK

David Drage

The family chosen for this month's talk was *Lamiaceae*. It was delivered by Penny Hunstead and, boy, can she pack in a huge amount of information in fifteen minutes.



*Mentha diemenica*. ANBG.

Worldwide there are 236 genera with more than 7,000 species of which 20 genera and 260 species are native to Australia. Most of our species are herbs or small/medium shrubs but there are some vines and small trees. The common name "mint bush" derives from the aromatic oils that are released when the leaves are crushed.

The major genera of the family in Australia are: *Ajuga*, *Faradaya*, *Hemiandra*, *Mentha*, *Prostanthera*, *Scutellaria* and *Westringia*.

Most of us will have grown some of these in our gardens but, Penny pointed out, the indigenous peoples of Australia used some for important medicinal purposes e.g.

- Ajuga australis*; a decoction for wound treatment
- Plectranthus congestus*; crushed leaves for internal complaints
- Plectranthus parviflorus*; a poultice for treating sores
- Mentha australis*; a tea for treating coughs and colds
- Prostanthera striatiflora*; in a steam bath for headaches

Early colonisers did use the oil from *Mentha satureioides* as an insect repellent.

Penny also included basic structural details of *Lamiaceae* so it was quite a botanical lesson for the members present. Thank you, Penny Hunstead.

## GIANT OF THE AUSTRALIAN BUSH TAKES TOP SPOT IN EUCALYPT OF THE YEAR COMPETITION

*theguardian.com* March 23, 2022 Donna Lu

*Eucalyptus regnans*, commonly known as the mountain ash in Victoria, the swamp gum in Tasmania, and the stringy gum, has won a public vote to be named the 2022 Eucalypt of the Year.

*Eucalyptus regnans* is the tallest of all eucalypt species and the tallest flowering tree in the world, said Linda Baird, the chief executive of Eucalypt Australia, a charitable trust that runs the poll.

"The tallest ones are usually younger than the oldest ones," Baird said. "They grow super tall to get their canopy into the light and then they have a habit of dying out at the top – the top 10 to 15 metres."

The tallest regnans lives in Tasmania's Huon Valley. Named Centurion, it towers at 100.5 metres high. Another notable tree, named Gandalf's Staff, could be 500 years old and is found in the Styx Valley.

Victoria's tallest mountain ash is along the Black Spur road – an 86-



The winner of the 2022 Eucalypt of the Year, *Eucalyptus regnans*, is the tallest of all eucalypts and the tallest flowering tree in the world. Photograph: Cathy Cavallo,

metre-high tree that grew after the area was burnt during a bushfire in 1939, Baird said.

*Eucalyptus regnans* is one of an estimated 80 species of eucalypt that are killed by fire, and can only regenerate from seed. Other eucalypt species have epicormic buds beneath the bark, which lie dormant until the tree is damaged by fire. The buds then sprout, resulting in fluffy-looking regrowth.

*Eucalyptus regnans* trees "don't normally recover from fire well", Baird said. The species takes around 20 years to grow to maturity, flower and seed – making the increasing severity and frequency of bushfires with climate change an existential threat. "If you have fires within seven-year gaps like what we've been having, those trees can't get fertile," Baird said.

The trees can be found in higher rainfall areas of Victoria's eastern highlands, south of the Great Dividing Range, as well as on Mt Macedon and in the Otway Ranges. In Tasmania, the species is found in the Huon and Derwent Valleys, as well as inland across the north of the state.

The mountain ash faced stiff competition in the public vote from the red flowering gum, *Corymbia ficifolia*, which is endemic to south-west Western Australia. A 40-year-old *Eucalyptus regnans* tree was also named the best eucalypt in show at the 2022 Victorian Native Bonsai Club's exhibition, Baird said.



Linda Baird of Eucalypt Australia hands Quentin Valentine the best eucalypt in show award for his 40-year-old mountain ash bonsai. Photograph: Eucalypt Australia

The terms eucalypt, *Eucalyptus* and gum tree are often used interchangeably, but have distinct meanings. *Eucalyptus* is a type – a genus – of eucalypt (plants belonging to the tribe *Eucalypteae*). Plants belonging to the *Eucalyptus*, *Angophora* and *Corymbia* genera are known as gum trees in Australia, named for the sticky substance that many produce.

# NEW STUDY FINDS WATTLE USED FOR OVER 50,000 YEARS IN WESTERN DESERT

NITV News 17 March, 2022 Rachael Knowles



The archaeological site on Martu Country is one of the oldest in the nation, dated 50,000-years. (Chae Byrne, The University of Western Australia)

While the plant has been an iconic symbol for decades, it was crucial to the survival of Aboriginal people for much longer.

New research has found that Australia's national flower has a cultural history that spans across 50,000-years.

Findings from the oldest archaeological site on Martu Country in the Western Desert detail how wattle, and other Acacias, were used as food, medicine and tools by Aboriginal people for over 50,000-years.

The first-of-its-kind study within the region was led by archaeobotany expert and PhD candidate Chae Byrne from the University of Western Australia alongside Martu Traditional Owners. It examined charcoal from ancient campfires in rock shelters in Karnatukul (Serpents Glen) in Katjarra (the Carnarvon Ranges).



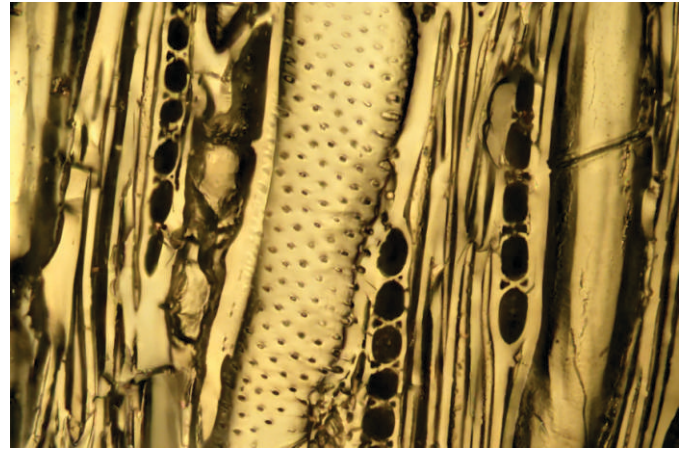
The iconic yellow-flower has been used across across the nation for over 50,000-years. Source: Flickr/ Ian Sutton (CC BY-NC-SA 2.0)

“Wattle was critical to the lives of the Martu and essential to the habitability of the arid landscape of the sandplains and rocky ridges of the Western Desert – and it still is,” said Ms Byrne.

“Then and now, wattle has been used as firewood, to make tools, as food and as medicine.”

Using archaeobotany, researchers were able to examine the remains of wattle in charcoal pieces – estimating what time of year wattle was used, what it was used for and how it was stored.

“Wattle was used continuously in this area throughout 50,000 years. This place was so significant because wattle seed can be picked and stored for a long time,” said Ms Byrne. “During periods where it was arid, this was a place people could come and know there would be wattle, there would be access to food and things they needed.”

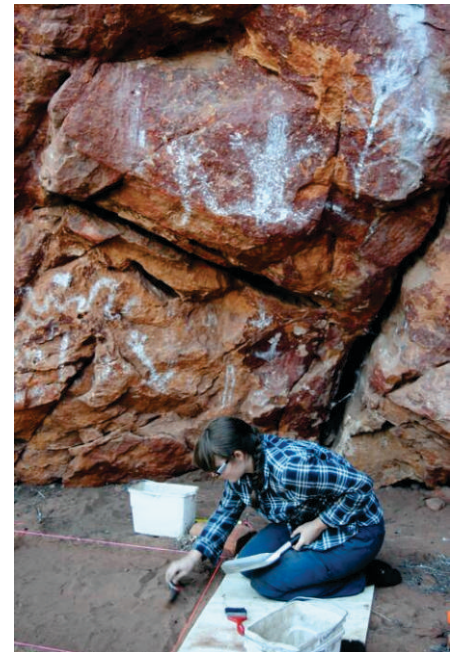


Researchers analysed ancient charcoal from slender mulga wattle using reflected light microscope images. (Supplied: Chae Byrne)

The research weaves together cultural knowledge of Martu Traditional Owners and science provided by researchers on-site.

Ms Byrne said working on Country with Martu People was something that drew her to this type of research. “There’s still such a strong culture that’s living still and is so connected to land and landscape,” she said. “Hearing the importance of acacia and wattle, and all the different uses for all the different species – whether leaves were used for soap or seeds in food.”

## Martu Country



Excavations at archaeological site on Martu Country. Source: Chae Byrne, The University of Western Australia

Ms Byrne described the wattle as an “ancient grocer and pharmacy which has provided and prospered for tens of thousands of years.” “It was amazing to work with Martu People, to get their views and bring it together with the science. It’s that human component that makes this worthwhile and gives this significance.”

Whilst wattle is often used in displays of patriotism, Ms Byrne said the research can contribute to a deeper understanding of the plant’s true history.

“We think of the Olympic uniforms or the Coat of Arms, with the wattle and it brings us a sense of pride. To have this research affirm that it is 50,000-years old, it’s so much more than a national emblem,” she said.



Shutterstock

## EXTINCTION CRISIS: NATIVE MAMMALS ARE DISAPPEARING IN NORTHERN AUSTRALIA, BUT FEW PEOPLE ARE WATCHING

theconversation.com: March 7, 2022 Noel D Preece, James Cook University, James Fitzsimons, Deakin University

At the time Australia was colonised by Europeans, an estimated 180 mammal species lived in the continent's northern savannas. The landscape teemed with animals, from microbats to rock-wallabies and northern quolls. Many of these mammals were found nowhere else on Earth.

An unidentified account from the Normanton district of Northwest Queensland, dating back to 1897, told of the abundance:

*"There were thousands of millions of those rats (Rattus villosissimus), and as most Gulf identities may remember, after them came a plague of native cats (the Northern Quoll)."*

*These extended from 18 miles west of the Flinders (River) to within 40 miles of Normanton, and they cleaned up all our tucker."*

But tragically, in the years since, many of these mammals have disappeared. Four species have become extinct and nine face the same fate in the next two decades.

And we know relatively little about this homegrown crisis. Monitoring of these species has been lacking for many decades – and as mammal numbers have declined, the knowledge gaps have become worse.



Northern Australia's savanna regions once teemed with mammal life. Shutterstock

### A precipitous decline

Northern Australia savanna comprises the top half of Queensland and the Northern Territory and the top quarter of Western Australia. It covers 1.9 million square kilometres, or 26% of the Australian landmass.

### Species already extinct in Northern Australia are:

burrowing bettong  
Victoria River district nabarlek (possibly extinct)  
Capricornian rabbit-rat  
Bramble Cay melomys.



Black-footed tree rat, at risk of extinction. [www.martinwillisphotographs.com](http://www.martinwillisphotographs.com)

### The Northern Australia species identified at risk of becoming extinct within 20 years are:

northern hopping-mouse  
Carpentarian rock-rat  
black-footed tree rat (Kimberley and Top End)  
Top End nabarlek  
Kimberley brush-tailed phascogale  
brush-tailed rabbit-rat (Kimberley and Top End)  
northern brush-tailed phascogale  
Tiwi Islands brush-tail rabbit-rat  
northern bettong.

Many other mammal species have been added to the endangered list in recent years, including koalas, the northern spotted-tailed quoll and spectacled flying foxes.

So what's driving the decline? For some animals, we don't know the exact reasons. But for others they include global warming, pest species, changed fire regimes, grazing by introduced herbivores and diseases.

### Monitoring is crucial

There's no doubt some mammal species in Northern Australia are heading towards extinction. But information is limited because monitoring of these populations and their ecosystems is severely lacking.

Monitoring is crucial to species conservation. It enables scientists to protect an animal's habitat, and understand the rate of decline and what processes are driving it. Our research found most of Northern Australia lacks monitoring of species or ecosystems.

Monitoring mostly comprises long-term projects in three national parks in the Northern Territory. The trends for mammals across the region must be estimated from these few sites. More recent monitoring sites have been established in Western Australia's Kimberley. Very few fauna monitoring programs exist in Queensland savannas.

The lack of monitoring hampers conservation efforts. For example, researchers don't know the status of the Queensland subspecies of black-footed tree-rat because the species is not monitored at all. Research and monitoring efforts have declined significantly over the past couple of decades. Reasons for this include, but are not limited to:

*a massive reduction in federal environment funding since 2013 and substantial reductions in some state and territory environment funding*

*reduced capacity of government-unded institutions devoted to ecosystem and species research*

*the existence of only two universities in northern Australia with an ecological research focus*

a reliance on remote sensing and vegetation condition monitoring, which does not detect animal trends.



Monitoring helps conservationists better protect a threatened animal. AUSTRALIAN WILDLIFE CONSERVANCY

### The lesson of the Bramble Cay Melomys

An avalanche of research shows increasing rates of decline in animal populations and extinctions. Australia has the worst mammal extinction rate of any country. Yet governments in Australia have largely sat on their heels as the biodiversity crisis worsens.

A Senate committee was in 2018 charged with investigating Australia’s faunal extinctions. It has not yet produced its final report.

In September last year, the federal environment department announced 100 “priority species” would be selected to help focus recovery actions. But more than 1,800 species are listed as threatened in Australia. Prioritising just 100 is unlikely to help the rest.

The lack of threatened species monitoring in Australia creates a policy blindfold that prevents actions vital to preventing extinctions. Nowhere is this more true than in the case of the Bramble Cay Melomys. The nocturnal rodent was confirmed extinct in 2016 due to flooding of its island home in the Torres Strait, caused by global warming.

The species had previously been acknowledged as one of the rarest mammals on Earth – yet a plan to recover its numbers was never properly implemented.



The Bramble Cay Melomys was declared extinct in 2016. Queensland Government

### A crisis on our watch

Conservation scientists and recovery teams are working across

Northern Australia to help species and ecosystems recover. But they need resources, policies and long-term commitment from governments.

Indigenous custodians who work on the land can provide significant skills and resources to save species. If Traditional Owners could combine forces with non-Indigenous researchers and conservation managers – and with adequate support and incentives – we could make substantial ground.

Indigenous Protected Areas, national parks and private conservation areas provide some protection, but this network needs expansion.

We propose establishing a network of monitoring sites by prioritising particular bioregions – large, geographically distinct areas of land with common characteristics.

Building a network of monitoring sites would not just help prevent extinctions, it would also support livelihoods in remote Northern Australia.

Policies determining research and monitoring investment need to be reset, and new approaches implemented urgently. Crucially, funding must be adequate for the task.

Without these measures, more species will become extinct on our watch.

### VISIT TO RBG



Wonderful visit to the Royal Botanic Gardens Sydney despite the occasional shower. Our group was dwarfed by our subjects.

Jan Carnes’ full report will be published in the May edition of Caley. Ed.

## SUMMER SOAKING BRINGS SUPERB RESULTS FOR ENDANGERED ORCHID

www.nationaltribune.com.au March 23, 2022 .

The endangered superb midge orchid has continued its streak of record-breaking seasons, with a high number of plants found across the Southern Tablelands this summer.



Superb midge orchid (*Genoplesium superbum*). www.environment.nsw.gov.au

Saving our Species ecologist Erika Roper said recent summer rains have prompted an explosion of these miniature raspberry-scented orchids in the bush near Nerriga and Braidwood.

'Before the fires there were only a handful of known plants and historical records, but since 2020 we have discovered more than 300 plants spread over 3 sites,' Ms Roper said. 'The number alone is impressive but even more so when you consider just how hard it is to find this plant.'

'Like many orchids, midge orchids spend much of the year below ground as a tuber, before putting up a single narrow stem that develops a flower spike. 'The stem looks exactly like a chive, the kind you grow in the veggie garden, so even when you know exactly what you are looking for, it's still tricky surveying for this tiny plant.'

'Fortunately, orchid-spotting is my superpower and I've found some emerging stems that are only around 1 centimetre high.'

'We're into our third summer of soaking rains and we think that is why we are seeing such a response from this and other threatened and common midge orchid species in the area. 'The fires also reduced many of the threats to this species, such as grazing by herbivores, allowing the orchids to live up to their name and put on a superb show.'

'Coloured varying shades of dark pink and purple with fringed 'petals', they are one of the prettiest orchids around, but most people have never seen or even heard of it.'

'Last month's surveys also found new plants growing in unburnt areas, including along wombat tracks and roadsides, and we have installed temporary cages to protect these individuals from damage. 'It's just amazing to see these extremely rare and pretty unusual looking plants bouncing back.'

'It really reconfirms the extraordinary and resilient biodiversity that can be found in this part of the world,' Ms Roper said.

The Saving Our Species program is investing almost \$100,000 into orchid conservation in the Illawarra and surrounding regions. This funding supports ecologists like Erika to commit resources towards threat control, surveying and monitoring, all of which help secure species like the superb midge orchid into the future.

## APS NSW GATHERINGS

**Saturday 21 May – APS NSW Quarterly gathering and AGM** hosted by Parramatta and Hills Group at Gumnut Hall, Gumnut Place, Cherrybrook.

**10 am Boongala Gardens** in Kenthurst.

**12-1 PM** Bring your own lunch to enjoy at either the Boongala Gardens or the Gumnut Community Centre, where plants will also be for sale.

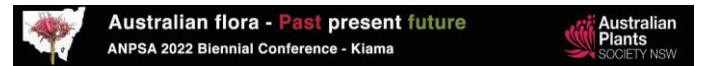
**1-1.30 pm AGM**

**1.40-2.30 pm Presentation by Peter Olde, OAM - "Grevilleas suitable for pots and patios".**

Peter is a recognised world authority on grevilleas, a life member of APS NSW, a recipient of the ANPSA Australian Plants award, and co-author of a number of books on the genus.

**2.35 pm Afternoon tea**, pls bring your own cup

Kindly provided by the Parramatta Hills district group, the hosts of the meeting.



**The ANPSA 2022 Biennial Conference dates are Saturday 10 September to Friday 16 September 2022 at the Kiama Pavilion.**

## Biennial Conference Registrations now open!

The theme is Australian flora, past present and future.

We will explore the flora of thousands of years ago to the present day and the world of the future!

We are hosting tours pre- and/or post-conference to beautiful places in NSW, like the South Coast, Blue Mountains, Lord Howe Island, Warrumbungles/Pilliga and Sydney.

### Schedule of activities

We kick off the conference on the Saturday 10 September, with:

A complimentary tour of the Kiama region, which is part of the package for people attending the whole conference. This includes lunch at Shoalhaven Heads winery lunch with visits to Berry School nursery and Bombo Headland

A market fair - a combined farmers market and native plant sale - on the Sunday

A cocktail event to welcome people on the Sunday night

Conference sessions and excursions from Monday to Friday - conference days are Monday, Tuesday and Thursday, and excursions on Wednesday and Friday.

### Focus on solutions - future proofing

We hope at the end of the week, you'll:

Be amazed at the beautiful Illawarra plants and environment

Renew old friendships and make new ones

Be inspired by new ideas, new partnerships and new learning

Experience practical hands-on tips and techniques to grow native plants

Together, we can make a difference to the world of today and the one we hand to our children and grandchildren.

**BOOKINGS OPEN :** [Book conference](#)