

CALEYI



NORTHERN BEACHES GROUP
austplants.com.au/northern-beaches

October 2023

Australian Plants Society Northern Beaches
northernbeaches@austplants.com.au

President Dr Conny Harris 0432 643 295
Vice-President Russell Beardmore 0404 023 223
Secretary Pamela Dawes 0419 036 800
Minutes Secretary Eleanor Eakins 0413 759 819
Treasurer Lindy Monson 9953 7498
Regional Delegate Harry Loots 9953 7498
Librarian Jennifer McLean 9970 6528
Membership Officer Jan Carnes 0416 101 327
Talk Co-ordinator Penny Hunstead 0415 613 870
Walk Co-ordinator Anne Gray 0466 309 181
Catering Officer Georgine Jakobi 9981 7471
Newsletter Editor Jane March 0407 220 380

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

APS Northern Beaches meeting Thursday October 5, 2023 at Stony Range Botanic Garden, Pittwater Rd, Dee Why.

7.15 pm. Lesser plant family. Solonaceae - Penny Hunstead.

7.30 pm Presentation. Show & Tell - please remember to bring your plant specimens, photos and stories to share with the other members.

Super. Jane.

APS Northern Beaches Sunday October 15, 2023, visit to Castlereagh Forest and Lakes, Cranebrook. Long time member Pam Gratton moved away from our area and is now happy to guide us on the walk which is adjacent to her house. See more p. 4. Anne Gray will email full details including car share arrangements closer to the date.

Many thanks to Penny Hunstead, Conny Harris, Lorna Scott, Russell Beardmore and Anne Gray for their great contributions to this edition of Caley. Please email stories, photos (as attachments please) etc for Caley to march@ozemail.com.au

2023 STONY RANGE FESTIVAL

2023 saw the return of the Stony Range Festival to its traditional spot in the calendar. After Covid restrictions and calendar clashes Sunday September 10 was greeted with a sensational sunny Spring day which attracted a record number of visitors.





Coffee shop heroes Mark, Anne and Conny. Pic. CH.

A very popular exhibit from Australian Wildlife. Photo Margo Lucas.



Sale time. pic: RB.



Childrens fun time. Pic. Margo Lucas.

RUSSELL SHARES SOME INTRIGUING FINDS

Russell Beardmore

On recent walks, I have come across two little pink flowers, both unfamiliar to me and I thought worth sharing.

The first was on the Slippery Dip Track, poking out from weedy grasses beside the track. At first glance, the flower looked like a small version of *Eriostemon australasius* (five pink petals) but then a closer look at the arrangement of stamens said it was something else.



I searched Robbie to no avail, then I shared the photo with Georgia Williams, my supervisor at Council's North Curl Curl Nursery. She did manage to find it in Robbie and came up with *Centaurium spicatum*, a small herb in the family *Gentianaceae*. But then things got complicated. A search in PlantNet led to a native plant, *Schenkia australis* - a double name change! But there is also a weed, apparently still called *Centaurium tenuiflorum*, distinguished from the native plant by a basal rosette. Guess what, I didn't know to search for the base of the plant! The upshot of all this is that it could be the native *Schenkia* - fingers crossed - or it could be a weed. Any thoughts gratefully received.

Now the second of the two little flowers. We were walking the America Bay Track on 5 Sept and took the side track to the rock shelf with the aboriginal carvings. My friend Pam Davis spotted a tiny pink flower, hiding under overhanging shrubbery at the edge of the shelf.



We are fairly confident with the identification of this one - *Utricularia uniflora*. Its single fan-shaped petal is unusual. Its common names include Fairie's Apron and Purple Bladderwort. The first speaks for itself but the second is more instructive. *Utricularia* is in the family *Lentibulariaceae*, a family of carnivorous herbs. They have tiny specialised leaves, like little bladders, near the base of the plant. These little things can open up to suck in a tiny drop of water containing microorganisms that the plant consumes. Extraordinary!!

Russell Beardmore.

BRIAN ROACH'S PRESENTATION OF TWO TOPICS:

CERATOPETALUM GUMMIFERUM 'JOHANNA'S CHRISTMAS' & BESIDE THE SEASIDE

Thursday 7th September, 2023. Penny Hunstead

At our meeting on 7th September, Brian Roach gave most interesting presentations on two topics, *Ceratopetalum gummiferum* 'Johanna's Christmas' and "Beside the Seaside".

Brian told us that the dwarf form of *C. gummiferum* first came into his possession in the early 1980s, when a friend gave him one of two potted specimens. Over the next fifteen years, Brian propagated some plants from this specimen, planting several in his garden and giving several away.



Johanna's Christmas, pic. B. Roach.

In about 2000 when he told two APS experts about the dwarf plants they claimed that no such dwarf form existed. However, he was advised to register his cultivar with the Australian Cultivar Registration Authority. Curious as to the status of the plant which was one of the two original plants, he contacted his friend. Apparently he had bought the plants from a now closed down nursery and the friend's plant had died. Brian then registered his cultivar in the memory of his daughter who had died, aged 14.

In 2006, when Brian told Angus Stewart about his dwarf plant and the difficulty in propagating it in numbers, Angus suggested tissue culture. A year on, there wasn't evidence of much success with propagation by tissue culture.

At the end of 2007, a member of the Bateau Bay Garden Club, (Don Blaxcell), who was visiting Brian's garden, told him that he had seen this dwarf *C. gummiferum* growing on the NSW north coast. As second-in-charge at the Sydney Botanic Gardens, he had been one of a group, visiting this Evans Head location, because of the dwarf nature of many plants growing there. The dominant plant in the area was the dwarf form of *C. gummiferum*. When Don later sent members of the Garden's staff to collect cuttings, the whole area had been cleared as a part of a rutile mining operation.

Between 2012- 2016, Angus Stewart grew 54,500 plants from the 6 plants he received from Brian. In the middle of 2022, Brian visited the site of the dwarf plants, at Evans Head. To his amazement, the area had regenerated after the rutile mining had ceased and the *C. gummiferum* dwarf form had grown from the seed bank there. He then took 60 more cuttings from those plants.

Now, Johanna's Christmas can be bought from Brian's property at Westleigh and from Harvest Seeds at Terrey Hills and Bunnings (supplied by Parklands Nursery). It grows in sandy and loamy soils, to 1.5 metres high with even better flowering and red colour of the sepals, than the species.

Then, we had a short talk on three species that thrive in beside the seaside conditions.

Austromyrtus dulcis – Although it is indigenous to coastal land between Valla and Fraser Island., it is easy to grow in many other areas in sandy soils, in full sun to shade and takes sea-front conditions. A small shrub, to 1 metre, in height and width, with small white flowers. It is easy to propagate from cuttings and has sweet edible fruit.

Homoranthus prolixus – Although it is indigenous to soils on granite in areas near Inverell and Bendemeer, this species can be grown in full sun and sandy soil, in coastal areas. Growing to 30 cms high and one metre wide, it has yellow flowers and greygreen aromatic foliage. Very easy to propagate from cuttings.



H. prolixus, Pic: JM

Banksia vincentia – Indigenous to a small area near Vincentia at Jervis Bay and a critically endangered species, this *Banksia* is reported to be Australia's rarest. Growing in coastal scrubland on sandy-clay soils over sandstone, it grows to 1 metre tall by 2 metres wide. With orange flowers and small narrow leaves, similar to *B. spinulosa*, this species could be grown easily in Sydney gardens, when available from the propagating nurseries.

Brian was a most animated and engaging speaker and after the presentations, he brought out a tray of plants in tubes, suitable for seaside gardens and a tray of *C. gummiferum* 'Johanna's Christmas', for sale.

SEPTEMBER GALLERY

I could not resist including more of the wonderful shots taken by Russell Beardmore on the America Bay Track in September.

Isopogon anemonifolius. pic: RB.



Actinotus helianthi. pic: RB.



Boronia pinnata. pic: RB.



Hibbertia bracteata. pic: RB.



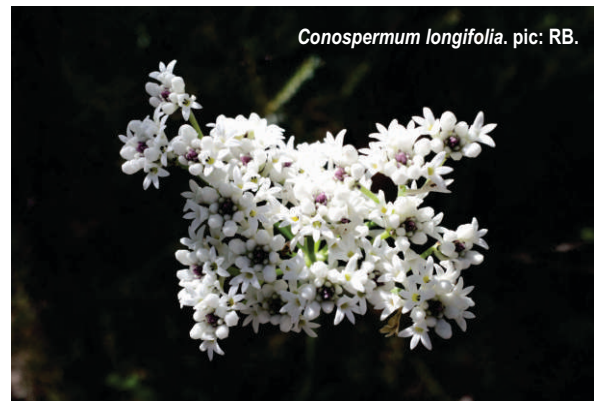
Boronia serrulea. pic: RB.



Ricinocarpus pinifolius. pic: RB.



Conospermum longifolia. pic: RB.



Bossiaea ensata. pic: RB.





David M Watson

HOW WE BROUGHT MISTLETOES BACK TO THE TREES OF MELBOURNE – WHILE WARDING OFF HUNGRY POSSUMS

The Conversation September 12, 2023 David M Watson Professor in Ecology, Charles Sturt University, Rodney van der Ree, National Technical Executive in Ecology at WSP Australia Pty Ltd. Adjunct Associate Professor, School of BioSciences, The University of Melbourne

Until recently, mistletoes were regarded as problematic pests across Australia. They were seen as having been introduced from elsewhere, exploiting helpless trees and driving their premature demise.

Around the world, arborists and plantation managers used to be trained to remove mistletoes as part of routine maintenance. They went to extraordinary lengths to rid trees of these dense parasitic clumps, using flamethrowers, high-powered rifles, even herbicide-spritzing drones.

But just as we now know that hollows are essential for wildlife, including many threatened species, awareness of the positive side of parasitic plants is growing. Mistletoes have been shown to boost biodiversity and increase resilience of wildlife populations to drought, habitat loss and predators.

However, unlike other plants that can be grown as seedlings and planted out, mistletoes rely on animals to plant their seeds on the branches of host trees. This means they aren't included in revegetation efforts, and it was unclear whether it would even be possible.

We set out on a world-first trial to attempt to reintroduce mistletoe to the trees of Melbourne. As our recently published research shows, we succeeded. Some of the mistletoes are now even bearing fruit.

The only factor that stood in the way of success was the bane of many gardeners' lives – hungry brushtail possums.

Productive parasites

Mistletoes provide many benefits for local biodiversity. Their flowers provide reliable nectar that encourages pollinators to linger longer. They then boost the populations of other plant species they visit. The nutrients in mistletoe leaves boost soil health and dramatically increase insect numbers when they fall to the forest floor.

The ripples of these interactions spread right through woodland food webs. One study demonstrated the most significant impacts on ground-feeding insect-eating birds, whose numbers have declined across eastern Australia. Many birds nest in mistletoes. Their dense evergreen foliage provides cover from predators.

All of Australia's mistletoes are native species. Most hail from ancient lineages dating all the way back to Gondwanaland.

The knowledge we have gained about mistletoes has led to an about-face in natural resource management. Managers are rethinking



Mistletoebirds spread the mistletoe seeds. Ps.Jeremy/Flickr, CC BY

mistletoe removal and embracing these native plants as ecological keystones.

In some areas where mistletoes no longer occur, restoration practitioners have suggested reintroducing them. It had been unclear if this was feasible.

Making Melbourne even more marvellous

Working closely with City of Melbourne staff, research scientists from the Gulbali Institute undertook a world-first trial of the reintroduction of a native mistletoe to street trees. Rather than eucalypts or other native trees, we decided to use plane trees, a European species that is a feature of city streets the world over. In Australia, very few things interact with plane trees — nothing eats them, which is one reason they're popular street trees.

Rather than replace these established trees with more fitting local species and waiting a few decades for them to grow, we tried something a little different. We added a native mistletoe to their canopies to boost the resources available to urban wildlife.

We chose creeping mistletoe (*Muellerina eucalyptoides*), which is now scarce in Melbourne, but is just as happy growing on exotic deciduous trees as the evergreen eucalypts this species depends on as hosts in the bush.

Our research paper summarises the outcomes of the trial. Almost 900 seeds were carefully wiped on the branches of 28 plane trees. We were replicating the efforts of mistletoebirds, which usually spread these sticky seeds.

Five years after inoculation, we found mistletoes had established on five trees. Even better, two of these plants were full of fruit. There is now a ready-made seed source in the heart of Melbourne for further expansion of these beneficial native plants.

The problems with possums

Rather than establishment depending on the size of the branch, the age of the tree or which direction it faced, the only factor that emerged as a significant determinant of success was whether or not the tree was fitted with a possum collar. These acrylic or metal sheets wrapped around the trunk are too slippery for possums to climb. The city's tree management team routinely uses these collars to grant a reprieve to trees whose canopies have been badly damaged by these marsupials.

Previous work has found possums love to eat mistletoe foliage. This is likely due to their high concentration of nutrients and lack of chemical defences that eucalypts have.

Our study is the first to provide direct evidence of the effect of common brushtail possums on mistletoe recruitment. Its findings reinforce reports from New Zealand, where introduced brushtail possums have devastated three mistletoe species and been implicated in the extinction of a fourth, the only mistletoe known to have gone extinct worldwide.

Beautiful butterflies are returning

Time will tell how the addition of these plants to the urban forest will affect Melbourne wildlife. Already, gorgeous imperial jezebel butterflies have been spotted emerging from creeping mistletoes in Princes Park.



The imperial jezebel lays its eggs only on mistletoes. David Cook/Flickr, CC BY-NC

Even better, our work has inspired three other urban mistletoe reintroductions elsewhere in Melbourne. In New South Wales, Birdlife Australia and Mindaribba Local Aboriginal Land Council are working together to restore mistletoe to woodlands on Wonnarua Country. The mistletoe will supply missing nectar resources for the critically endangered regent honeyeater.

Collectively, this work is helping to shift the public perception of these native plants – from pernicious parasites to ecological keystones.

APS NORTHERN BEACHES CALENDAR NOTES

Thursday October 5, 2023 APS Northern Beaches meeting.

7.15 pm Lesser plant family - Solanaceae - Penny

7.30 pm Show & Tell. Always a fun and informative session. Please remember to bring your specimens, photos and stories to share with other members.

8.30 pm Committee Meeting.

10.30 am Sunday October 15, 2023 APS Northern Beaches visit Castlereagh Forest and Lakes, Cranebrook.

Anne has arranged the October outing with long time member Pam Gratton. Pam is happy to guide us on the walk and she has also generously offered to provide lunch with the help of her daughter.

The track starts just behind her house and is mostly concrete. The circular track around the lake takes about 20 minutes but at the far end there is another track which goes through the forest and if this is chosen it takes about 30-40 minutes to complete the whole circuit. Of course we will probably take longer as we study the plants.

Anne will provide more details including meeting point, car share arrangements etc in an email closer to the date. As ever it's essential that you register for this event with Anne annepsgray@optushome.com.au.

Thursday November 2, 2023 APS Northern Beaches meeting at Stony Range Botanic Garden, Dee Why.

7.15 pm Lesser plant family - Santalaceae - Pam.

7.30 pm Presentation "Creating a frog-friendly garden". Gracie Liu. PhD Candidate, UNSW Sydney & Australian Museum, Research Assistant and FrogID Validator

Gracie states that she is 'Now undertaking my PhD, my research is aimed at understanding how species respond to human habitat modification. Conversion of land from natural to modified is one of the greatest threats to global biodiversity, and as urban and agricultural areas (and supporting industries) expand at increasing rates, understanding how species respond to habitat modification is vital for effective conservation. However, this information is lacking for some of the most threatened animal groups, particularly frogs.'

Wednesday November 15, 2023, 10.30 am APS Northern Beaches Guided walk of Macquarie University Arboretum with Sam Newton.

Weekend 17-19 November, 2023 APSNSW Goulburn.



ANPSA BIENNIAL CONFERENCE 'GARDENS FOR LIFE' VICTORIA

30 September - 4 October 2024

Melbourne Convention and Exhibition Centre

The next ANPSA conference will be hosted by APS Victoria.

During the conference we will hear about all types of gardens and their impact on our life and the life of our world. We will visit spectacular gardens during the in-conference excursions including the world renowned Australian Garden at Cranbourne. Pre and post conference tours to Gippsland, the South West and the Grampians will be offered.

If you are interested in the conference, please go to the website (apsvic.org.au) and register your interest.

TOURS

The tours will visit some of Victoria's best scenic areas and spectacular displays of wildflowers. We are offering each tour pre and post conference. Conference attendees will have the opportunity to choose up to two out of the three tours. Each tour will visit areas of wildflowers in natural bushland, public and private gardens.



The pre conference tours are from Monday 23 September to Saturday 28 September 2024 and post conference from Saturday 5 October to Thursday 10 October 2024. Each tour covers 6 days.

