

CALGAROO

A journey into nature

February 2024



Eucalyptus parramattensis - Calgaroo

Newsletter of the Parramatta and Hills District Group

Australian Plants Society NSW Ltd

Our vision: inspiring people to admire, grow and conserve native plants

WHAT'S ON IN 2024

14 February Wednesday 10am:	Propagation
24 February Saturday 2pm:	Members' meeting and AGM Gumnut Hall Speaker Jess Wait 'Research into Native Orchids' See Page 2
13 March Wednesday 10am:	Propagation
23 March Saturday:	Visit Newington Armory (to be confirmed)
10 April Wednesday 10am:	Propagation
27 April Saturday:	Bushwalk Fairfield (to be confirmed)
8 May Wednesday 10am:	Propagation
11 May Saturday:	APS NSW Quarterly Gathering Gumnut Hall Speaker Dan Clarke 'Plants of the Cumberland Plain'
5 June Wednesday 10am:	Propagation
22 June Saturday 2pm:	Members' meeting Gumnut Hall Speaker Stuart Read 'History of Garden Design using Australian Native Plants'
3 July Wednesday 10am:	Propagation
13/14 July	Weekend visit to Illawarra incl. Illawarra Grevillea Park
14 August Wednesday 10am:	Propagation
24 August Saturday	Visit to Crommelin Arboretum Pearl Beach

11 September Saturday 10am:	Propagation
28 September Saturday	Bushwalk (to be confirmed)
9 October Wednesday 10am:	Propagation
26 October Saturday	Bushwalk Lake Parramatta
6 November Wednesday 10am:	Propagation
23 November Saturday	Christmas Breakup Meeting Gumnut Hall
4 December Wednesday 10am:	Propagation

If you'd like to come to our propagation days at Bidjivong Community Nursery and haven't been before, you can get details from Lesley Waite - phone 0438 628 483

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Meeting Gumnut Hall Saturday 24 February 2024

Guest speaker at our February meeting will be Jessica Wait, and her subject will be Research into Australian Native Orchids.

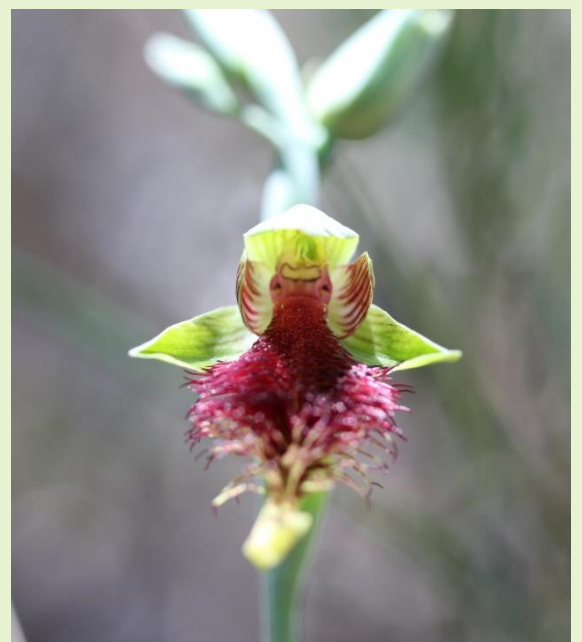
Jess is a Technical Research Officer at the Australian Botanic Gardens Mount Annan, working on the Orchid Research Project.

Australia's native orchids are over-represented on threatened species lists and face many challenges for their continued survival in the wild. A good safeguard would be to propagate seeds ex-situ so individuals can be translocated back into the wild to either boost populations or re-establish populations in more secure areas.



Orchids, however, are notoriously difficult to grow from seed due to their reliance on mycorrhizal partnerships and an overall lack of information on what horticultural requirements they need to be successfully grown into mature plants. With SOS funding in place, this project aims to propagate a number of Critically Endangered and Endangered orchids from wild seed collections. The process includes the isolation and culturing of mycorrhizal fungi from plant tissue, symbiotic and asymbiotic seed germination trials, and research into what conditions individual orchid seedlings need to grow, survive the first dormancy and ultimately be translocated back into the wild.

Calochillus pulchellus





At our group's meeting on 25 November 2023 Lyndal Thorburn, Leader of the Eremophila Study Group, gave us a great presentation on the Eremophila genus. It was full of wonder and fascination.

Much of the following account is from Lyndal's PowerPoint file.

Her talk had four broad headings:

1. The Genus
2. The Study Group
3. Growing Eremophila
4. How you can get involved

The Genus

There are 240 described Eremophila species, at least 60 undescribed, and up to 900 when counting varieties and hybrids. Lyndal spoke about the vast range of Eremophila flowers and foliage, and showed on the screen photos of many flower variations, fruit capsules and leaf types.



Range of leaf types

Grey leaves are often grey because of their hairs – they need to be looked at under a microscope. I later asked Lyndal why some of the Eremophilas with grey leaves in my garden turned green after becoming wet. She said it was because of the fine hairs.

81% of Eremophila species are pollinated by insects – usually the ones with purple, blue, lilac, cream and white-coloured flowers. They have restricted corolla tubes and enclosed stamens. The remaining 19% are pollinated by birds – usually with carmine, red, orange, yellow, brown or green corollas. They have a bulbous base to their tube (nectary) with exerted stamens following the upper lip of the flower.

The Study Group

The Eremophila Study Group was established in 1972, and Lyndal gave an outline of the vast amount of knowledge generated about the genus by the study group's activities and its members.

Typical Study Group activities are:

- newsletters – all downloadable from the ANPSA website – cover propagation/cultivation experiences, collecting and naming. For 35 years ESG newsletters were the only source of information for gardeners apart from academic articles (and for Eremophila, there has only been a handful).
- local groups (Qld, SA, Vic) have meetings, cutting swaps, garden visits, small plant sales, speakers, training e.g. on grafting,
- field trips - e.g. to wild locations (2017, 2023)
- censuses – records of what is grown, what is not grown, single collections
- flower shows (regional)
- propagation supplies (grafting)

Research

The study group has initiated and is involved in three scientific research projects through the University of Queensland:

- to compare seed fill in fruit from garden-grown and wild Eremophila and examine pollen viability as an explanation for low seed fill in garden specimens,
- to understand seed germination triggers using molecular biology, DNA sequencing and proteomics,
- to study the impact of ploidy (the number of chromosomes in each cell) on germination.

Growing Eremophila

Planting tips:

- Dig a hole larger than the root ball of the plant and do not cover the stock-scion join if grafted
- Fertilise – blood and bone, or native plant fertiliser (low P)
- Water in and look after until established
- Prune as necessary to prevent legginess
- If frost tender, plant in a container or near a wall
- Watch out for possums and rabbits
- Be aware of “natural life span” and be prepared to replace as necessary

Myth 1: They don't like shade

Solution: Choose species that can cope with dappled shade
Ensure good airflow regardless.

Myth 2: Eremophilas are desert plants and can't take frost

Solution: At least half the species are frost resistant, many to minus 7 degrees

See <https://plantdatabase.nativeplantscbr.com.au/>

And you can always use tubs!

Myth 3: Eremophilas don't like wet feet

Solution: Raised beds! Or grafted specimens

And many occur naturally in clay pans and can take occasional downpours.

What can you do?

- Try Eremophila in your garden
- See our website for a list of nurseries that sell them
- Join the Study Group
- Buy some of our merchandise!
- Support your local botanic garden
- Lobby your local council to plant natives and/or Eremophila (or engage in a bit of guerrilla gardening)
- Spread the word through local groups, gardening shows and government advice/pamphlets
- Go bush and hunt your own on your next holiday!

Editor's note: I received this text from Lyndal after she and Tom had returned to their home at Queanbeyan: "We are home safe with our new plant. It was remiss of me not to open my gift before I left but find it is a lovely hand-painted mug. I am also a porcelain painter and know how much work would have gone into producing it. Please pass on my thanks and admiration to the artist."

A DAY WITH THE PROPAGATORS

Grahame Forrest

Perhaps you haven't known just what goes on with the people who join together in the service known as propagation. In the Parramatta-Hills Group of APS, the second Wednesday of most months finds a happy group of propagators gathered at the Hills Council nursery at North Rocks, north-west Sydney. The nursery, with its large car park, is entered opposite the Baulkham Hills Sports Club on Renown Road.

At 10 am people arrive, some bringing cuttings for propagation, and all start the business of the day. Some will enter the igloo, which is a curved roof shelter set up for placement of previous tube stock to check on progress. The igloo has timed sprayers set up for APS, Council and other persons' tubes. Others may ask for a direction for the day. The leader of the group often suggests that the enquirer may choose from other activities.

What are these activities?

Regularly there is a need for weeding amongst the pots that are on long shelves open to the elements. Again, there is provision for regular watering by overhead sprays. These pots and their plants have two uses. Some may be grown for sale or for prizes at our group's regular Saturday meetings mostly involving a visiting speaker. Some are stock plants. These are in

large pots grown at the nursery from which cuttings may be taken to raise other plants of the same variety.

Sometimes pots must be cleaned when needed for potting up plants raised from cuttings. The writer once spent a whole session washing pots in water to which was added detergent and bleach. Not exciting, but someone has to do it.

A further activity is the *raison d'être* for the whole group gathering. Plant pieces must be dealt with so that they may be placed as cuttings in a mixture in a small pot with numbers from about six up to ten or more. Several mixes are normally suggested by the experts that are used by those who raise cuttings. The mix normally used in our propagation consists of a mixture of soil and perlite. (Editor's note: when propagating at home, I use a mix of perlite (medium) 80% approx. and cocopeat 20% approx. You must always moisten the perlite before working with it to ensure you don't inhale its dust.) Over the time that the writer has worked in the group each cutting has been cut by a sharp knife or secateurs with the end to be rooted cut just under a leaf junction and dipped into molasses. In recent times molasses dipping has been discontinued without any apparent reduction in the strike rate.

Those pots in the igloo mentioned above where the cuttings have struck, (the evidence being the appearance of roots at the base of the pot), are potted on into tubes of square cross-section. Commercial growers sometimes sell tubed Australian plants. Of course, APS groups apply their propagation skills only on plants of Australian origin. Often there is a strong tendency to raise plants found in the area in which the APS group operates. (APS encourages groups consisting of members who are interested in a particular variety of plants of related nature. Some of these members exchange notes on propagating these plants which they may raise in tubes and swap or offer examples of their particular interest.)

Our group uses tubes as a means of growing rooted cuttings so that they may be grown to a size that can be safely potted into larger sizes which are distributed as the need arises. Seaweed solution is always added to encourage root growth. Each group of cuttings is labelled with the botanical name and the date, which is repeated when potted on.

Around 11 or 11.30 am the group enjoys a morning break over tea or coffee with ingredients provided by the Council. Usually, there is busy talk, on whatever is of interest, but not necessarily about plants. Friendships have arisen this way. Home cooking of slices or biscuits is popular but packaged goods often predominate.

Back to work usually is to continue the first job but may mean a new choice of activity. It is the writer's experience that workers come and go as they please. However, the last activity usually is the cleanup which must be done to leave the work area free and clean for others. A note is made of the number of new tubes and pots prepared and the group leaves the nursery at about 1 pm, fully satisfied with the morning's successes.

The cooperation of The Hills Shire Council is gratefully acknowledged as is the council representative who records attendants' names and is ready with any needed advice or assistance.

I have enjoyed my experiences with the group and recommend the activity to those who would like to learn and contribute.

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STARTING A NEW BUSH GARDEN

Ricki Nash

Following a bushfire in 2002-03 which came through the property, much of the understorey consisting mainly of *Banksia spinulosa*, *Darwinia* and many pea flowers was burnt and never fully recovered, so gradually I have been propagating native plants endemic to the area from seed and planting out as they mature. These have included, *Bursaria spinosa*, *Banksia serrata*, and some trees, chiefly *Eucalyptus punctata*, *E. crebra* and *Allocasuarina littoralis*. To support their growth, my family installed irrigation lines from bore water and town water taps at the back gate 200 metres down to the creek so the new plantings could be watered as needed. Plants I could not propagate from seed were either bought from our APS Parra-Hills group plant sales or from a local nursery that specialises in native plants endemic to the local area.

Just outside the back gate is an area that we decided would be suitable for regeneration using a spectrum of native plants to encourage the return of disappearing small bird populations such as the Superb Blue Wren and a variety of Honeyeaters. In the past 30 years, there has been a sad decline in these species due to the ever-increasing presence and predatory habits of the Noisy Miner and the Grey Butcherbird.

The site after initially using a whipper snipper to level the grass, followed by a low flame to trickle slowly through the larger clumps left behind.



The site is dominated by a pile of sandstone rocks from an aged dry-stone wall, and one day after this project is completed I would like to plant this out too. However, for the time being, the rocks with all their different colours and shapes make a nice backdrop and provide habitat for a myriad of insects and lizards and maybe the odd snake.

In front of the rock pile is a stand of *Syncarpia glomulifera* and *Allocasuarina littoralis*, some being the original trees that were here when we first came to live here in 1997. The other *Allocasuarinas* are fresh plantings identified by the metal guards placed there to prevent the Swamp Wallabies from devouring the tender young growth at night when they come to feed on the *Themeda australis* which grows prolifically amongst the Turpentines.

Under some of the older *Allocasuarinas* there was a 20x40m area of *Imperata cylindrica* (Blady Grass), a dominant native grass which was also a bush fire hazard. As it was very dense, knee-high, and crowded out any would-be competitors, notably the *Themeda australis*, it was reduced with a whipper snipper and then the site burnt. However, it was not possible to eliminate all the Blady Grass as we do not have grazing livestock and the Swamp Wallabies are not in great enough numbers to control the tender regrowth, so in some parts it has regenerated.

Plants selected for the new garden included *Allocasuarina littoralis*, *Zieria*, Native hibiscus (purple flower), prostrate grevilleas such as Bronze Rambler, *Prostanthera scutellarioides*, *Hardenbergia violacea* and several *Anigothansos* (Kangaroo paws) from the Bush Gems variety. Taller shrubs, such as the purple-flowered Native Hibiscus, were placed near the rock pile adjacent to a self-seeded *Grevillea robusta*, with six *Allocasuarinas* planted in a group to the left along with taller grevilleas. Prostrate plants were positioned near flat sandstone rocks and the smaller shrubs such as the *Micromyrtus ciliata* in a group near the front so that in the years to come these could be admired as one walked up or down the path when either going further into the bush or returning to the house.

About 5 months have passed since we first started the garden and all the plants have continued to flourish. Tree Guards have helped to keep the ever-hungry Swamp Wallabies at bay which instead have devoured our roses, violets, Native Strawberry and new buds on the Chinese Jasmin!

We are looking forward to the next six months to see how the plants progress through what might be another hard summer, but one thing for sure, is that it's great to enjoy the changes that a new garden brings to the bush!

View of bush garden with new plants





View across the garden with *Westringia* in the foreground, *Hardenbergia violacea* to the left against the trunk.

Another of our conservation projects – *Grevillea guthrieana*

At our group's propagation day on 6th December 2023 Phil Baird delivered a precious bundle of cuttings to us collected from his property at The Branch, near the Karuah River, north of Newcastle. They were of *Grevillea guthrieana*, which grows naturally on his land. It's listed as endangered under both the NSW and Commonwealth Threatened Species legislation, and is named after Christine Guthrie, secretary and treasurer of the Grevillea Study Group, and editor of its newsletter. It occurs in a very few scattered locations in the Northern Tablelands and Mid-North Coast of NSW.

Phil would like us to propagate as many of this species as possible, so he can plant more into the wilds of his property and help conserve this very rare grevillea.

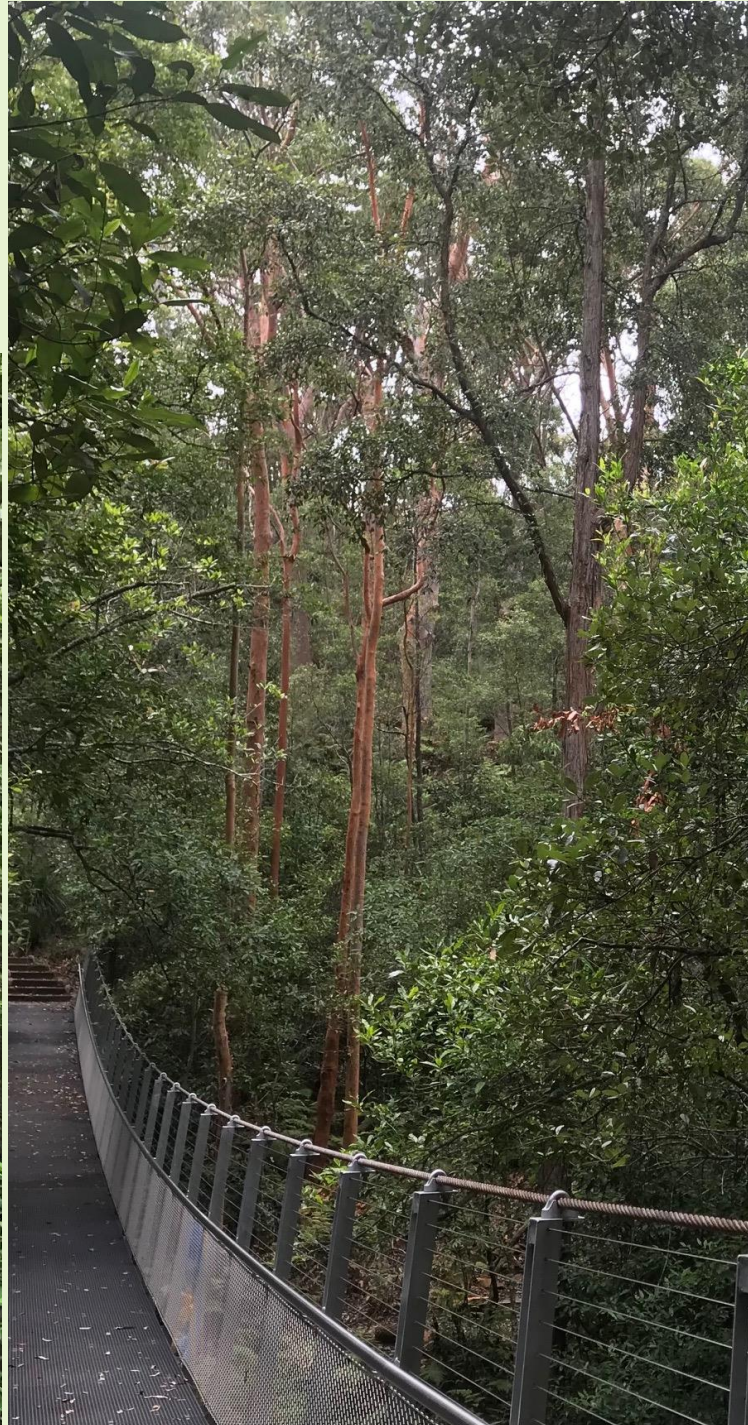
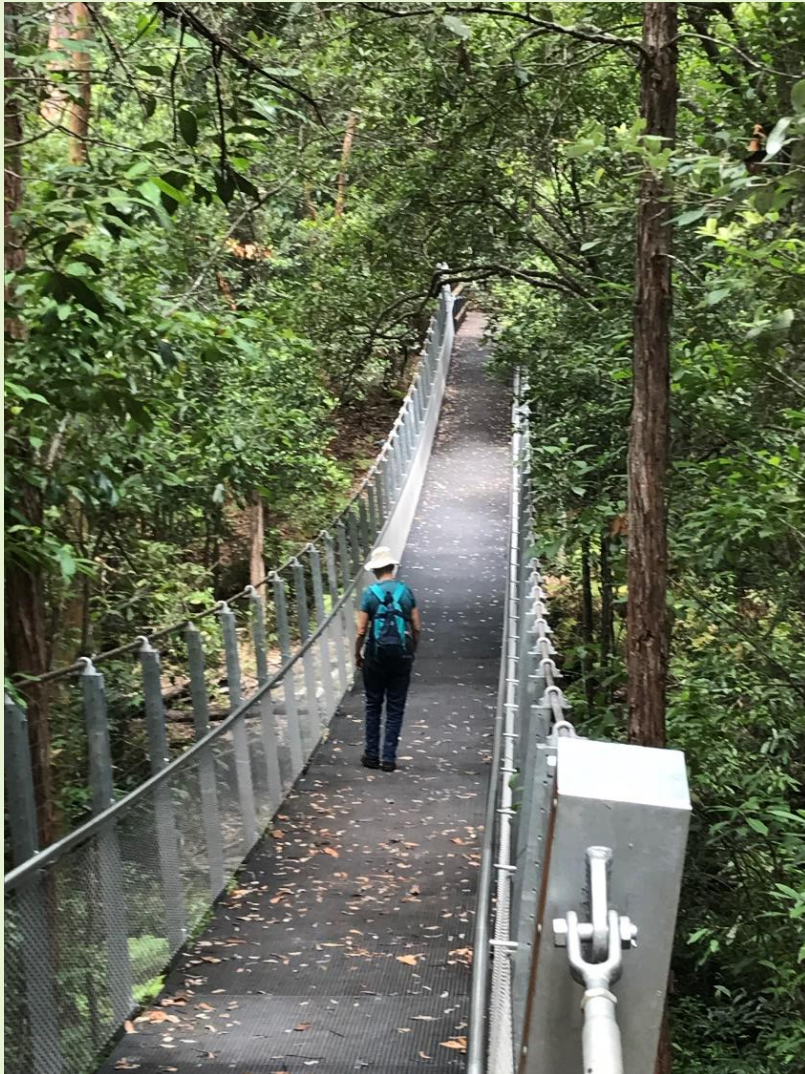
Pyes Creek Cherrybrook - elevated swing bridge walkway

On 5th January 2024 Lesley Waite and I tried out the new elevated swing bridge and the walk along Pyes Creek at Cherrybrook. We started at Fallon Drive, followed the track along the creek, and returned to the car via a fire trail.

The walk was magical. We were immersed in nature. So peaceful. As the track dropped down near the creek it was rainforest and ferns – with wonderful reflections on the water. Lots of *Callicoma serratifolia*, *Ceratopetalum apetalum* (Coachwood), *Syncarpia glomulifera* (Turpentine), tall and majestic *Angophora costata*, *Xanthorrhoeas* and Lomandras.

If you like to feel as one with nature amongst towering trees, this walk could be for you. The only negative was that I was attacked by two leeches. So - watch out for leeches!

Here are some of our photos:







Here are links to interesting articles:-

Thousands of our native plants have no public photographs available. Here's why that matters – from [The Conversation](#)

We need a single list of all life on Earth – and most taxonomists now agree on how to start – from [The Conversation](#)

Myrtle rust is devastating Australian forests. A new high-tech spray holds out hope for native trees – from [The Conversation](#)

The mystery and magic of our mistletoes – from [The Conversation](#)

'Rights of nature' are being recognised overseas. In Australia, local leadership gives cause for optimism – from [The Conversation](#)

Wild success for regent honeyeater breeding program – from [Environment NSW](#)

Remember the Wild Annual Report – from [Remember the Wild](#)

Native violet recorded in Tasmania for the first time after bushwalker makes chance discovery – from [The ABC](#)

Banksias are iconic Australian plants, but their ancestors actually came from North Africa – from [The Conversation](#)

Our Facebook Page

At our committee meeting in January, Linda Pine volunteered to have a look at our group's Facebook page, to see if she could get a bit of momentum going to revitalise the page.

She will be putting up regular updates and posts and also advertising our monthly get-togethers, whether it be a meeting at Gumnut Hall, an outing, or bushwalk, to help keep everyone updated on what is coming up.

Currently our Facebook Page has 1,311 followers, with info showing a breakdown of 65% women and 35% men, with the majority of people aged 35 plus. It also shows 86% of our followers are in Australia, with 21% from Sydney and NSW. These figures are as at 28th January 2024.

Here is the link to our Facebook page if you would like to join us there - <https://www.facebook.com/APSPARRAHILLS>.

Our January meeting

Jennifer Farrer

This year's program commenced with a members' meeting on Saturday 27 January. We started with lunch at Gumnut Hall. This was not as well attended as last year probably because it was raining intermittently. However, the large undercover area kept us all dry.

We started the meeting with an identification activity devised by Dorothy Luther of the Harbour Georges River Group. Dorothy came on Saturday to lead the activity. The game is designed to improve member's identification skills. It consists of separate cards with a photo of the plants, the botanical name, the common name and a description of the plant. Participants work as a team to match the four separate cards for each plant. We were divided into two teams, and the team to complete the task first was the winner. You could do this with more teams of course. Those of us who took on the challenge had a lot of fun. It

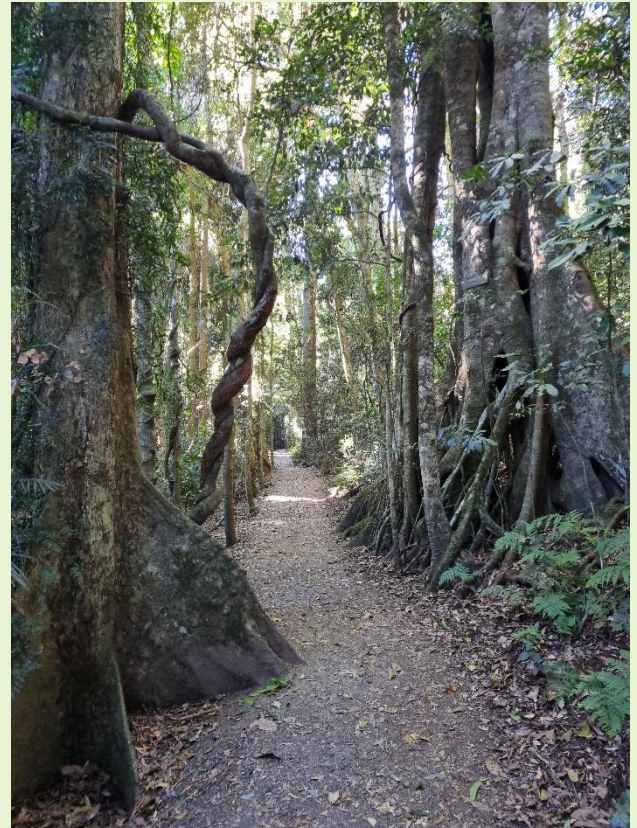


was also a good way for people to mix. More pictures of members in action can be seen on our Group's [Facebook page](#).

We then had a time of sharing activities and plants.

First up was Tony Maxwell, who gave us an amusing account of his trip up Mt Wellington during his stay in Hobart as part of a cruise on the Majestic Princess. The bus transporting the tourists up Mt Wellington was not up to the task, and finally came to a halt at a roadside stop called The Chalet. Tony and his fellow passengers cooled their heels (literally they were 1000m above sea level) for 45 minutes until a replacement bus arrived. Tony was the only passenger who used his time at The Chalet productively. Whilst there he took photos of interesting plants, and back on board the ship he used a Plant Identikit Booklet "The Flowers of Mt Wellington" to identify what he had seen. To his surprise the Identikit booklet actually used plants at The Chalet location as an example of how to identify plants in the bush. He found that he had photos of two of them - *Cyathodes parvifolia* (now called *Leptecophylla parvifolia*) The Pink Mountain Berry, an endemic Tasmanian species which only grows above 1000m, and *Bauera rubioides*, the Native Dog-rose which also grows here in Sydney on damp hillsides.

It was my turn then to show some photos of our visit to Binna Burra in Lamington National Park last July. Binna Burra was damaged by bushfires in September 2019. It has now been rebuilt, and there was very little evidence of fire damage in the areas I visited. There was more damage evident on local roads from the rains of 2021 and 2022. Some were still closed because of landslides. There is a marvellous network of well-maintained walking tracks in Lamington National Park. I spent three days exploring several of the tracks which provided a variety of vegetation. The predominant vegetation is rainforest trees with an understorey of vines, ferns and mosses (photos below), but at times the rainforest gave way to Eucalypt or Tea Tree in more open country, which gave beautiful views across to distant valleys. One of the thrills of the Scenic Rim is to see Antarctic Beech (*Nothofagus moorei*) growing in the higher areas, giving a glimpse of the lost world of Gondwanaland.



Sam Mamone and his wife Marilyn are two of our newer members. They have a 3,000 sq m block at Glenhaven which is densely planted with natives and exotics. Sam shared photos of the garden showing many mature trees, with some plants still flowering at this time of the year.

Greg Potter from Harbour Georges River Group, who accompanied Dorothy to help with the Identification game, brought along a seedling White Beech *Gmelina leichardtii*, which he had propagated. This was a new plant to most of us. Greg told us it is not a common plant but it can be found growing in Sydney and in rainforest areas in Eastern NSW. It is also found in the Numinbah Valley below Binna Burra where Germain Greer has restored a farming property back to rainforest. She tells the story of this restoration in her book "White Beech". Greg also brought a seedling *Homalanthus populifolius* (Bleeding Heart), an attractive local native that grows in wet eucalypt forest and on the edges of rainforest. Its heart-shaped leaves turn red as they get old, leaving red hearts among the younger greener leaves. There are photos of Greg's two plants on our [Facebook page](#).

Narelle Smith brought along a very large Tassel Fern (*Huperzia squarossa*) growing in a hanging basket. Not only is this fern very large it is also very old, having been in her family for many years. It is good that someone with her skills will be able to care for it so that it continues to flourish so well. There's a photo of Narelle's Tassel Fern on our [Facebook page](#).

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New Holland Honeyeater on *Banksia serrata*. Harry Loots

Share your stories . . .

Your contributions to *Calgaroo* are always welcome.

If you have interesting observations of plants in the garden or the bush, photos, or any other news, please send them to me at itcox@bigpond.com for the next edition.

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In the spirit of reconciliation, we acknowledge the Traditional Custodians of our Country, the people of the Dharug Nation, whose cultures and customs have nurtured, and continue to nurture, this land since time immemorial. We honour and celebrate the spiritual, cultural and customary connections of Traditional Owners to Country and the biodiversity that forms part of that Country.

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Parramatta and Hills District Group

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