



Australian Plants Society

South East NSW Group

Newsletter 188

October 2022

Corymbia maculata Spotted Gum and
Macrozamia communis Burrawang

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Dear Members,

This month I will try not to dwell on the weather, but it cannot be ignored. I hope the impacts on your own situations has been minimal. Many plants are very adaptable and we can be too. With that in mind we are planning our next meeting to be a collection of garden visits based in Broulee and Rosedale. Let's hope that it will be a bit calmer by then and that your gumboots are in good condition.

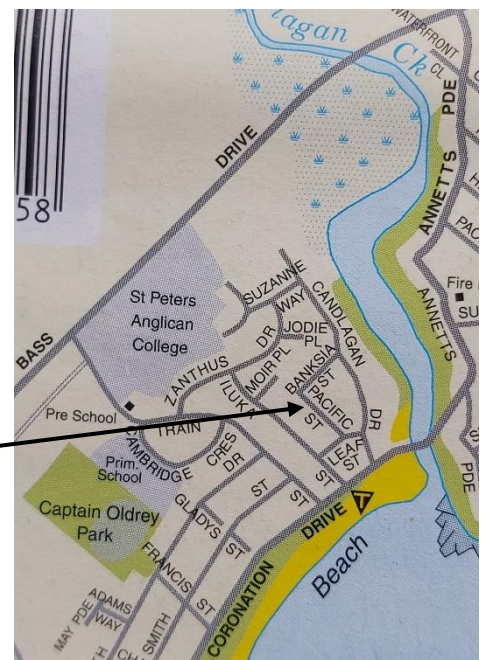
Please also note that although the Covid 19 regulations will have changed when we next meet this has not changed any of our guidelines. These being

- If you are feeling unwell, please do not attend a meeting
- Try and maintain 1.5m between yourself and others
- If we are gathering indoors and distancing is difficult consider wearing a mask
- Wash your hands regularly or use hand sanitiser
- NSW Health strongly advises people get fully vaccinated and wear a face mask where they cannot physically distance.

Please, also would members note that due to recent spam concerns, I have changed my email contact details. Should members wish to contact me, please use this email address, diClark17@mailfence.com for all future correspondence.

All the best, Di Clark

To get to the Beattie garden, take the Broulee turnoff from George Bass Drive, (Annette's Pde) and follow this to the bridge across Candlagan Creek. Take the first right after the bridge, (Candlagan Drive) first left into Leaf St and first right into Pacific St.



Next Meeting

Saturday 5th November 2022,

Members Gardens

**Firstly we will visit Don and Julie's garden, 9 Pacific Street Broulee (map p.1)
Arrive 10.00 a.m. for morning tea, meeting to commence at 10.30 a.m.**

There is also a Pacific Street in Mossy Point but please don't go there.

The Beattie's have asked that we bring our own mugs for an offered morning tea, but have advised that there is limited space for chairs. I suggest only those that need them bring one in.

We will move on from this garden to my place in Rosedale, where we can place a chair and have our show and tell and then our lunch. **(To get to Di's place from the Beattie's, return to Annette's Pde then to George Bass Dr. At the T intersection, turn right, and stay on George Bass Drive for about 6km. Look for Rosedale Pde on your right, then right into Tranquil Bay Pl, and right again in Tallwood Cres.)**

Don has kindly provided notes on the garden.

The garden is designed to suit the whole site, which is 2,700 sq metres, but the south east quarter of the property (left side frontage) is currently in the early stages of being cleared to allow a second house to be constructed. Most plantings in this area were not intended to be permanent.

The property was a dilapidated horse agistment paddock when we purchased it 25 years ago. Two large *Eucalyptus botryoides* trees and two old *Monotoca elliptica* are the only remaining substantial native plants that predate our purchase. Over time we have planted a huge number of native plants, most of which failed soon after planting due to their unsuitability for the sandy soil. More recently plants are dying due to their age. Nevertheless, there are many healthy surviving plants older than 20 years.

It is worth adding that the soil was very leached and degraded when we purchased the property, and this undoubtedly contributed to early plant failures. With repeated surface mulching and build up of leaf litter, the sand has become more fertile. As a result some plant types that originally failed to thrive have done well when retried recently. *Acacia flexifolia* is an example.

Very sandy soils such as ours also pose some particular problems for cultivation, or rather avoidance of cultivation. The main problem is that churning undecomposed or partly decomposed vegetable matter into the sand leads to fungal development that makes the soil water repellent. When new native plants are planted in such soils, their potting mixes usually also rapidly succumb to the same problem unless a wetting agent is immediately added (and replenished if necessary).



Corner of the Beattie garden

Di Clark

Part of the solution to this problem when putting in new plants is first of all to carefully remove the surface layer of soil that contains humus and then to put the new plant into the less biologically active sub soil. The sub soil that is dug out of the hole can be placed in the collar area of the plant to help prevent collar rot, and the humus layer returned but kept away from the collar area. To temporarily limit root competition from adjacent plants, a spade can be used to slice through such roots in a circle some distance out from the new plant, rather than attempt to dig out the roots. Sometimes a heavy root infestation needs to be tackled by actually removing the roots after taking off the humus layer, and replacing the subsoil without letting it mix with the humus layer.

Finally, all sands aren't necessarily alike. In the case of Broulee, the sandy soil is basically derived from beach sand that has been built up into sand dunes and very gradually enriched by in-blowing and animal deposited nutrients. Such sands remain deficient in many nutrients and suit only plants tolerant of these conditions. With very few exceptions, plants from sandy inland regions definitely do not like coastal sand. For a start, there is a radical difference in iron content between these two types of sandy soil. **Eremophilas**, for example, die or do very poorly in Broulee. On the other hand, there are many plants from the Western Australian coastal plain that do quite well, especially grevilleas derived from species such as *G. thelemanniana* and *G. olivacea*.

After show and tell and lunch at Dianne's home, (17 Tranquil Bay Place Rosedale)

(park in Tallwood Crescent),

we will wander down the road for a quick look at the front garden of a house in Tallwood Cres.

Our next garden is across the road.

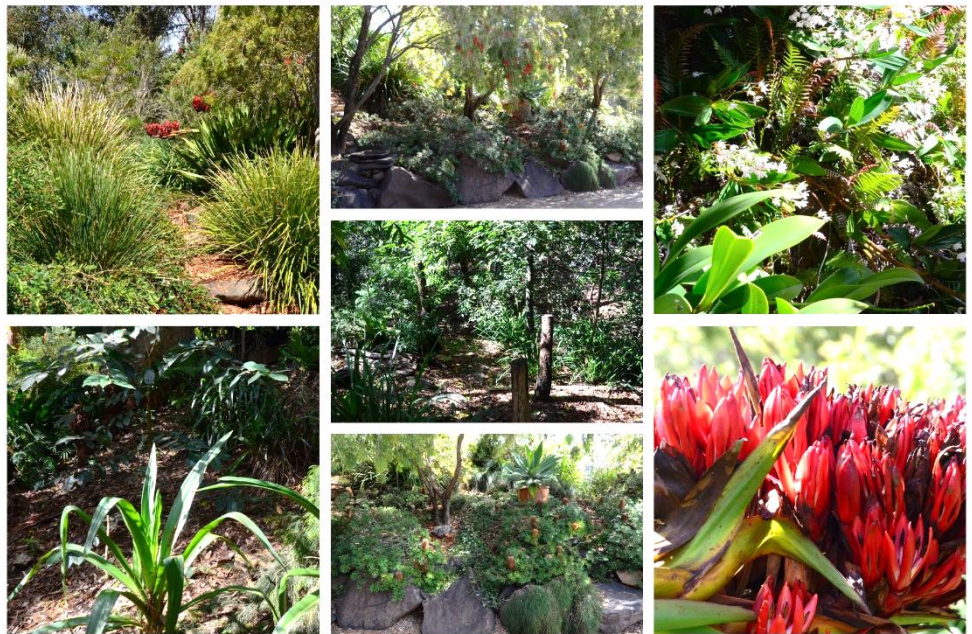
This is the garden of Colleen and Denis Callanan.

I have always admired this garden as I walked past, but a tour behind the scenes reveals so much more.

Apart from the clever use of cascading natives and mass plantings as screenings, the multipurpose garden extends down the block to encompass a natural gully.

Denis and Colleen have put in huge amount of work over the last twenty years to keep this gully as a natural haven for wildlife but have also incorporated some special plantings,

such as *Toona ciliata* (Red Cedar), *Syncarpia glomulifera* (Turpentine) *Brachychiton acerifolius* (Illawarra Flame Tree).



Collage by Di Clark

Davidsonia jerseyana (Davidson plum) and

The gully shares borders with several neighbours and in some cases there has been a collaborative arrangement to continue the natural, but maintained theme. You can wander through the paths and find yourself in the next property.



This is what we will do and head out through the **garden of Jane Enright**.

This garden has been designed to enhance the local bush and also to keep a low maintenance, low fire risk garden around the house.

Jane has eliminated all the lawn and used gravel and clever landscaping to fill the block. At the time of writing her orchids are looking beautiful.

a section of Jane's garden

Di Clark

Leaving Jane's garden we end up in Tranquil Bay Place and move 2 doors up back to my place. The last two gardens are on sloping land but the tracks through the gully are not too steep. It is possible to retrace your steps and leave back onto Tallwood Cres to avoid the gully and you may even drive a car down the hill to get there.

Last Meeting

Attempted visit to Mt Bushwalker - Little Forest Plateau

Di Clark

We tried, but the weather was against us.

But not to be outdone, 5 of us headed up to Milton anyway to honour the big fig.

We then decided to make the most of the clearing weather and head to the South Pacific Heath Reserve. This reserve has such plant diversity that you see something different every time you visit. This time the flannel flowers were mostly open and looking glorious. There were a few waratah hidden in the woodland and the usual array of pea plants and other small heathland plants were flowering in abundance.



***Ficus obliqua*, Small-leaved Fig, at Milton**

Di Clark

For a more detailed discussion about this reserve see the **October Newsletter from 2020, Number 165**.

If you are also interested in the Little Forest Plateau area there is also an article by John Knight in the **November 2020 edition, number 166**. The article is about a different walk than the one we were planning but many of the plants are the same and it may whet your appetite for visiting the area in better weather.

For your interest all these newsletters are available online on our website. Anyone can access them and the previous years can be found in the archive back to 2019. Thank you to Mark Noake and APS NSW for making this possible.

<https://austplants.com.au/SE-Newsletter-Archive>

While we are discussing seeking information, I would like to mention that Nick de Jong, the author of Heathlands - Walks and Wildflowers of the Ulladulla Headlands has recently completed a new book that is a revised version of the Heathland book and encompasses a larger area surrounding Ulladulla. The Little Forest Plateau is included in the new edition. A few of us will be purchasing a copy of the new book and it will be able to show you at a future meeting, with details regarding how to purchase.

ERBG Bioblitz - Sunday 2nd October

Sunday at the Eurobodalla Regional Botanic Garden was a beautiful sunny day. Many families turned out to wander around the garden and see what was happening.

ERBG has reported that so far 61 observations have been logged for the day by 7 observers of 47 species - some great photos but all are interesting!

- https://inaturalist.ala.org.au/observations?on=2022-10-02&order_by=observed_on&photos&place_id=177901&project_id=life-in-the-erbg&verifiable=any

This is an ongoing project to document all natural life found at the ERBG so please add any of your own photographs of plants or other organisms to iNat. The above link takes you directly to the project page.



An attractive display of Native flowers drew appreciative comments from visitors

APS South East NSW Group set up a display as part of the Bioblitz. Jenny John was on hand to assist visitors with plant identification, and attract publicity about our group activities.

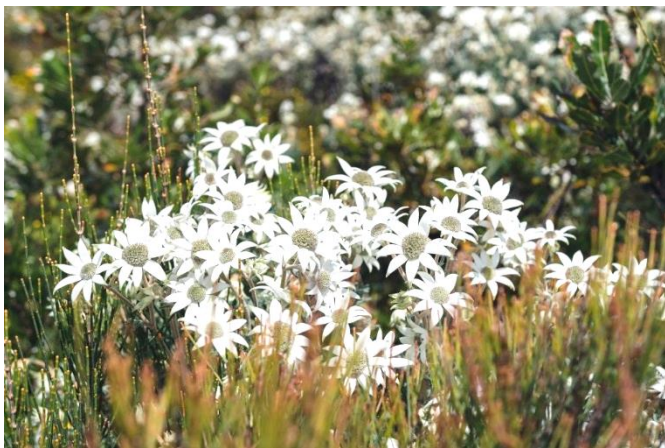


Show and Tell, South Pacific Heathland



A picture shows an image, but doesn't always tell the truth. Whilst it appears the sky is clear, and shadows do indicate that the sun is shining, behind the group ominous black storm clouds gathered quickly.

This photo by Di shows Dylan, Leonie and Barry immersed in the floral wonder that is *Actinotus helianthi* (Flannel Flowers)



Young member Daniel Bateman supplied the *Actinotus helianthi* and *Telopea speciosissima* photos



APS Conference, Kiama:

The Fascinating World of Lichen

Report by Lynne McInnes

Reading the information about Professor Martin Bačkor, in the Australian Flora Conference program for Tuesday 13 September, enticed me to attend his short Chatroom session. Based in Slovakia, “his work contributes to the study of the ecology, physiology and biochemistry of lichens and symbiotic partners involved in the construction of the vegetative body of lichens”, so it was obvious I was going to learn a lot as I know nothing about lichen.

It was a fabulous talk, supported by the good old-fashioned bits of paper stuck up on the wall. Who needs technology when you have a passionate speaker, clear, focussed illustrations and a small group of enthusiastic listeners?

Martin gave an overview of the importance of lichen, which can be predominant in some ecosystems such as in Antarctica and in the Arctic, and are a pioneer organism, found on stone and even glass (an example

given was the windows of a relatively new cathedral in France). Incredibly slow growing, they can live at least 1,000 years.

Consisting of a fungus and algae and/or cyanobacteria, the two types of organisms are referred to as a mycobiont which needs organic compounds to survive, and a photobiont, which photosynthesises producing sugar, but needs a home that can provide water, salts and minerals.

Research on lichens is varied and wide-reaching. It includes:

- the symbiosis between the two constituents,
- the fact that there are many species of fungus (upwards of 18,000)
- the nature of shared symbioses as there can be more than one alga or cyanobacteria with a specific fungus
- over 1,000 unique substances produced by lichen and not found anywhere else
- lichen as a food source for many organisms from butterflies to caribou
- sensitivity to, and accumulation of, pollutants and so help scientists map distribution
- production of antioxidants
- allelopathy – producing compounds that affect the growth of other plants, and this may have an application in nurseries or agriculture
- antibacterial properties- used by ancient Egyptians in the mummification process (as lichen can absorb 300% of its mass as water, and also used in perfumes)
- UV protection properties
- properties that can limit cell division of cancerous tumours
- applications in the clean-up of metal contaminants
- use as a spice
- use as a dye, and finally
- whilst the lichen may not damage its tree host, the insects that it attracts might.

Lichen is evident in my garden on my White Cedar (*Melia azedarach*), featured in the photograph, and Feijoa (*Acca sellowiana*) and next door's liquidambar (*Liquidambar formosana*) which is trying to muscle in on my space.

Whilst contemplating them on the trees did not spark new knowledge, a quick search on the internet led me to the following site where I easily managed to lose two hours reading about some recent research:

<https://phys.org/tags/lichen/>.

The first article refers to the fact that the chemical composition of the lichen depends on the substrate on which they grow, and another refers to the influence of climate on their chemical composition. Other articles discuss evolution, including the discovery of a fossil insect mimicking a lichen, and of course some refer to the challenge of climate change; one would hope with their obvious adaptability to their environment that they will be survivors – but as with our coral reefs, it will all depend on the algae – and lichen have such slow growth rate!



In My Garden

The following articles missed last newsletter, for which I apologise.

Bandicoots are back ! Lyndal Thorburn

I am very happy to report we have a bandicoot at our place at Surf Beach. He is digging little holes everywhere in the mown area of the easement at the north of the block.

We caught him on the wildlife camera during August, and noticed the diggings for the first time in autumn - we didn't have any sign of bandicoots prior to the fire (i.e. since 2008) even though that area was mown all that time. He isn't easy to see on the pics but we have short videos that are taken at the same time and you can see his long little nose quite clearly!



Evidence has been loaded onto iNaturalist and I note the next nearest sightings are Malua Bay to the south and Cullendulla Creek to the north.

Dead, Rampant, Leaning or Squished

by Leigh Murray

Our garden at Tuross Head has been through some trials and tribulations in the past year or so. The result is that most of our plants are either dead, rampant, leaning or squished.

Long – very long – absences (COVID lockdowns, hospital etc) weren't the main culprit. Our plants generally coped surprisingly well, and even tiny plants mostly survived. But the garden really suffered from the lack of an active gardener, to prune and to control weeds – and perhaps just to show a bit of interest in its welfare!

An unusually prolonged period of heavy rains caused much of the damage.

There were quite a lot of deaths, ranging from a large tree to tiny plants that had just flowered their little hearts out. The worst affected were **Eucalypts**, **Syzygiums (Acmenas)** and **Grevilleas**. We've lost plants before after big downpours, and there were plenty of these heavy rains earlier this year. A *Eucalyptus sideroxylon rosea* (with wonderfully thick bark) died, and another smaller one is still ailing. Also, 2 small *E. caesia* died; one had presented us with 2 gorgeous flowers.

On a *E. lansdowneana*, pictured at right, almost all of the leaves on two big branches were obviously dead, but there was one small clump of green leaves amongst the dead. This isolated green clump stayed like that for months –until, seemingly suddenly, both of those branches began to burst back to life.

Syzygium (Acmena) smithii small plants died (2 of 4 close together), and all but one of five *Grevillea* 'Splendour' died (it had previously been a good performer over many years).

Many of the plants that became rampant are weeds, and the rest are a bit of a nuisance too – blocking tracks, overhanging fences etc. The wood of many of the taller stems was so green from all the rain that the pole-pruner



had trouble cutting them. Overhanging weedy grasses and exotic violets made walking along tracks rather tricky, becoming trip hazards for unwary feet or cover for snakes.

Strong winds around the time of some of the heavy rain resulted in quite a lot of leaning plants. Those on the east are now leaning westwards. Strong winds also busted branches off one of our two Norfolk Island Pines, blocking a pathway and squishing some of the plants underneath. A few plants had lucky escapes from the heavy branches, but a *Grevillea* 'Honey Gem' and a *G.* 'Winpara Gem' copped a ton, and both are still looking decidedly battered. (I'm a cautious pruner, so they'll have to make slow and awkward recoveries – but the birds don't care about looks, which is the main thing.)

One strange effect of an unusual year is that we seem to have had a change of frog personnel. For over 20 years at Tuross, we've had a chorus of what I call Tock Frogs – **Striped Marsh Frogs** (their mating call is a remarkably monotonous repeated 'toc').

These frogs have never occurred at our place in Queanbeyan; there we've been blessed with enthusiastic groups of Eastern Froglets and occasional Spotted Marsh/Grass Frogs. Recently, I was stunned to hear one of the Froglets at Tuross, and the group has become larger over the past month or so, calling from the golf course.

Meanwhile, there hasn't been a 'Tock' for what I think might now be months. (Leigh, I am sure he has migrated to Catalina, and calls all night!)

A single Peron's Tree Frog still resides at each place, where they're men of few words (but loud when they speak).

For our garden at Tuross, it has been a year of great change; it will continue to evolve as I gradually get it into some sort of shape.



Striped Marsh Frog, *Limnodynastes peroni*.
Photo Frogid website

Anigozanthos Bush Gems Celebrations bred by Kings Park Western Australia

is a new generation of Kangaroo Paw, containing several showstopping new varieties with never before seen colour combinations. These notes are from **Ramm Botanicals**, commercial propagators of the Bush Gems Celebrations series which present profuse flowering of vibrant colours and a compact and bushy habit.

Best suited for pot display or as cut flowers in a vase, these Kangaroo Paws will radiate in the full sun and stand out in any garden setting.

Pests & Diseases Snails and slugs are most common. Kangaroo paw can be affected by rust or ink spot disease. Remove any badly affected leaves

Position Full sun



Anigozanthos "Aussie Spirit" has the foliage and green floral tubes of *A. viridis*, with a touch of yellow, hence the Aussie moniker.

I picked up a plant at the big green shed whilst in Victoria. All had been reduced to half price, as the plants were struggling in humid conditions and exhibited signs of ink disease. Definitely one for full sun and plenty of free air movement.



During our sojourn south, I managed to find time visit **Shepparton Botanic Gardens**, which is a volunteer run enterprise with some delightful garden beds. Although affected by flooding, and rampant grassy weeds, the higher gardens were mostly massed with flowers. Here a drift of *Thomasia purpurea* is a standout. We should all be growing more of these very adaptable plants.



Boronias also are often neglected due to their habit of dying overnight. Surely those who have travelled to W.A. will have noted that *Boronia crenulata* is a lovely rounded sub-shrub with small aniseed perfumed foliage, and rarely more than 50cm high.

The form of *Boronia crenulata* from limestone outcrops near Shark Bay north of Geraldton has been in cultivation for many years and has proved readily adaptable. Flowering from late autumn to summer, the plant needs well drained soil in a sunny to semi-shaded position, and once established requires little maintenance. In its natural habitat, it suffers winds from all directions, which causes it to grow slowly, and develop stout woody stems to combat the conditions, and it is wise not to allow it to grow too quickly. So, little fertiliser, and regular light pruning.

I haven't noted this plant being available locally, but managed to find one in a small nursery in Victoria. Before planting, a number of cuttings have been taken, just in case!

You will notice that much of the content of this newsletter comes from President Di, and I thank her for filling in whilst Sue and I were "on duty" down south.

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