



Australian Plants Society

South East NSW Group

Newsletter 162

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Corymbia maculata Spotted Gum and
Macrozamia communis Burrawang

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A message from President Di

Dear Members,

Another month has passed and we are no closer to gathering in person. In fact the issue has become even more pressing as it is so close to home. I hope you are all well. The Committee has received advice from APS NSW regarding following NSW regulations, and as we speak we would be allowed to meet outside in a group of 20. But we are also being encouraged to limit travel to essential trips and think of others, so it was an easy decision to hold off on organizing any events. In the meantime please keep corresponding with John and passing on items for the newsletter. I am sure you have all enjoyed reading about and seeing what other people have been doing. We would love to hear from you all.

I would also like to pass on the good news that the Eurobodalla Regional Botanic Garden is now open and it is business as usual with some walks restricted. The cafe and shop are open as is the plant shop. The plants in the Nursery are growing well and everyone has been very busy. The Garden is open from Wednesday to Sunday.

Enjoy the newsletter and we look forward to a time when we can share a cuppa and gather together.

Best wishes,

Di Clark

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Local forest regeneration after bushfire

Jenny Liney

Periodically I have been walking around some spots in my local forests looking at the regenerating plant species; there is considerable variation in cover and plant species composition. For example, a spot between Surf Beach and Tomakin, just off Dunns Creek Road, just near the bridge over Dunns Creek, had almost total plant coverage of the ground surface, plants generally no more than 35cm high (apart from eucalypts), while further towards Tomakin, on the corner of Bevia Road and George Bass Drive there was more bare ground than cover and many Burrawangs.



Forest revegetation, Dunns Creek area, April 2020

I also went to a site near Depot Beach – Ryans Creek Road – that had a different appearance again; quite open with a grassy look.

A fourth site was off Glenella Road Catalina, where Forest Bindweed, *Calystegia marginata* had germinated *en masse* and had climbed up every dead stick that it could find. *C. marginata* is a very attractive, well-behaved climber; it should be available in native plant nurseries.



Bevia Road forest, *Corymbia maculata* and *Macrozamia communis* in the foreground



Racing to the top. Fast-growing *Calystegia marginata* ensuring it is the first plant into the abundant light. It will quickly flower and seed before other understory plants overtake it.

The range of species and their varied methods of post-fire recovery make an interesting topic.

Eucalypts were the first to show new growth, and of these ironbarks with their thick dark ‘skin’ were very quick off the mark. Other species followed, the tardiest being *Corymbia maculata*. It would not be expected that this species that normally has a clean trunk, would show the epicormic bud growth pattern of others, but a look up into the canopy (rather hard on the neck, as many are really tall) revealed quite a good leaf cover.

Seedlings of many eucalypt species were common. It is somewhat difficult to identify these seedlings, but I found that if I could pull up a plant with the cotyledons intact, it gave me a good start. By far the most plentiful were those of *C. maculata*, particularly in the Bevia Road site, where tens of thousands germinated in depressions and hollows in the soil that would have retained moisture after the February rain.



The bounty of nature. Literally thousands of *Corymbia maculata* seed germinated. There is not enough room for them all, so competition will be fierce to be the one eventual survivor of this cluster

Small eucalypt seedlings generally have leaves opposite on the stem, with or without a petiole; in most species, the leaves are horizontally placed – to maximise exposure to light – and as the seedling grows, they gradually twist and turn down to minimise exposure. Both sides of the seedling leaves contain photosynthetic tissue to further increase light capture and each leaf contains many thick-walled cells and fibres; they are really tough little plants.

I have not seen any Acacias regenerating from a shrub or tree trunk. Instead, for a new generation, most species of this genera rely on the seed bank in the soil, the seeds often remaining viable for many years. Seedlings of Wattle species always begin with bipinnate leaves and they nearly always look much the same. It was only possible to confidently identify *A. paradoxa*, because even though the plants showed the similar bipinnate foliage of all the other species, it still grew stem thorns from the cotyledon stage.

***Acacia paradoxa* seedling, showing the bipinnate foliage which is common to all Wattles, and the already mature phyllodes of an adult plant. Commonly known as Kangaroo Thorn, all parts of the plant are protected by sharp thorns which deter browsing animals from feeding on the young foliage.**

Browsing of the plant encourages the thorns to grow longer and tougher. This same reaction has been observed on plants which had been subjected to pruning.



Many plant species regenerated from rootstock that remained unburnt in the soil, or from lignotubers that contain cortical buds at the base of a tree trunk, rather than from the soil seed bank.

Marsdenia suaveolens, pictured to the left, for example, even though it is generally seen as a small climber, grew upright from thick roots, flowering (smelling sweetly) and fruiting within a couple of months.



Another species that I had not seen before is *Opercularia diphylla*, not to be confused with its larger cousin *O. aspera* that locally rejoices in the common name ‘dog’s vomit’ (a la JK). Growing flat to the ground, when I saw it, *O. diphylla* is easily overshadowed by other plants and mostly goes unnoticed.

Pseuderanthemum variable, the lovely Pastel Flower shown here, in all the locations I visited produced very many flowering stems.

A member of the same family, *Acanthaceae*, *Brunoniella pumilio* was flowering even in early February, much more commonly than it would without the stimulus provided by fire.

Burrawangs (*Macrozamia communis*) turned out to be great survivors. The trunks and outer fronds of large plants were blackened, but the inner foliage remained intact, with new fronds emerging from the centre very early. Middle sized plants, while remaining green, grew new fronds that were strangely distorted and twisted. Small seedlings that may have pre-dated the fire were only singed; I did not see any plants that were completely burnt and dead.



The lack of rain since the fires has made it very tough for all this vegetation to flourish. Let’s hope that it all gets a good drink soon.

Acacia mabellae
regenerating from roots.

A few local species have adapted to this form of regeneration, but also produce plenty of seed



Regenerating bounty. *Breynia oblongifolia*, Coffee Bush seedlings, with plenty of friends for company

Getting to the root of the problem

Di Clark

Potted Plants - To root prune or not to root prune.

As Nursery Supervisor at the ERBG, I am constantly assessing the health of our plants. Since the fires swept through in January we have been trying to look after and rejuvenate many of our potted plants that survived. I am also interested in how best to prepare a plant for planting.

The question is to root prune or not to root prune?

I often hear people say that you should not interfere with the roots of native plants, but I don't agree with this statement. If a plant has seriously out grown its pot, and the roots problems are not dealt with, the plant may never perform well. Either in the pot, or planted out in the ground. You also cannot assume that a smaller plant will not have root problems.

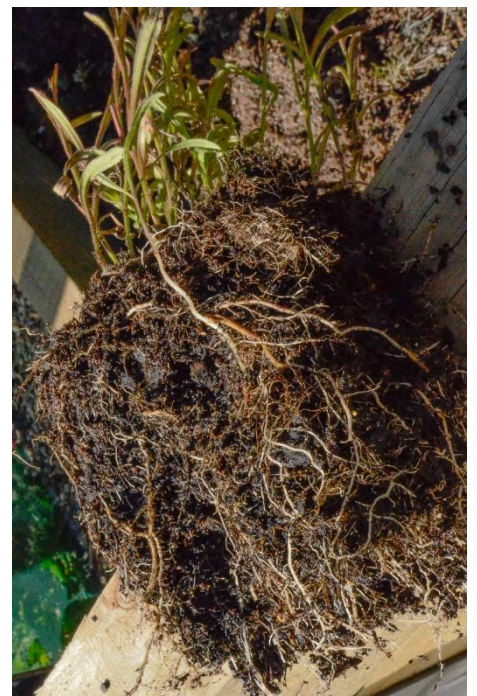
The first inspection I do on a potted plant, usually a tube or small pot, is to squeeze the sides of the pot. If there is plenty of give in the pot, the plant is not ready and the roots need to grow. If the pot feels firm and the top of the plant has grown nicely, then it is possible to physically inspect the roots. This can be done by holding the pot in your hand and supporting the soil and stem of the plant between your fingers. Tip the pot upside down and tap the edge of the pot on something firm. The whole root ball should pop out easily. The roots should be visible throughout the mix and they would generally look white and healthy. The plant is ready to be potted on or planted. If this is the case you may not need to tease out the roots or just give them a tickle.

A plant which has outgrown its pot.

This series of photos show a plant which needs some remedial attention. Coiling roots at the base of the pot are completely removed, and the main roots straightened before the plant is potted on to a larger container.

If you try the above method and the plant is difficult to remove from the pot, the roots may be over developed or pot bound. A very firm tap several times might help or you may need to cut the pot as a last resort. It helps if you have watered the plant first.

A pot bound plant will have roots that visibly grow around the pot. In some cases, these roots may end up strangling the remaining roots and the plant will eventually die. At the very least it will not be well supported in the ground and may be more prone to wind damage. A plant with overdeveloped roots will need to have some roots removed to give the new roots space to grow. Once this happens in a pot you may notice that the potting mix is always looking dry. The roots are not taking in the water even though you keep watering.



So what do you do with a plant with too many roots. This is what I call giving the plant ‘the treatment’. I will examine the roots and select my tools of choice. Sometimes my secateurs, sometimes a saw or sometimes just my fingers. My aim is to reduce the root ball back to good healthy roots. The treatment always includes a prune of the top of the plant as well.



You may have heard people say to slash down the sides of the root ball. I would do this but I may also remove part of the base of the ‘ball’. If need be I will trim it all around reducing the ball by a third to a half. This all depends on the state of the roots.

Although not totally rootbound, you can see the main root in the top photo is quite woody and growing sideways. This needs to be rectified, or the plant may end up girdling its roots. At this point it is quite safe to tease the large root out, and prune, or at least point it in the right direction, down !

Each plant may need slightly different treatment. The aim is to have a root ball with clean cut roots, so use sharp, clean tools.

Once the plant is repotted or planted a seaweed treatment will help to stimulate root growth.

Pruning of the top of the plant may be a simple matter of tip pruning, but if the plant has become a bit woody, you may want to tip prune the lanky stems, then wait for growth to develop below. Then you would prune again to shape the plant.

Patience and vigilance is called for but well worth the effort. I have restored many ‘unsaleable’ plants in my lifetime.

I haven’t mentioned plants in the Proteaceae family in this note. That will be a discussion for another time.



These few flower pictures from Di were taken at the ERBG nursery in July.

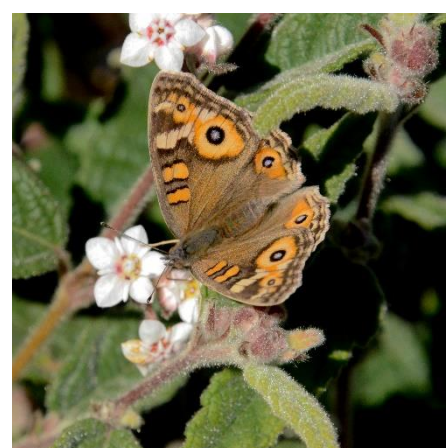
A white flowered *Tetratheca thymifolia* is making an early claim on the upcoming spring season.



Correa reflexa, coastal form, often holds its flowers horizontally rather than hanging bell-like. Maybe this helps keep the nectar at the top of the tubular flower, ensuring pollination as the birds need to reach well into the flower, and must touch the pollen-laden stamens.

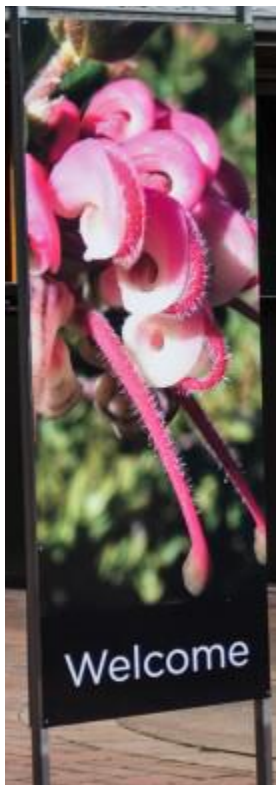


It's never too early for Meadow Argus Butterfly to begin its journey. Here in July it enjoys the nectar of *Commersonia dasyphylla*





The new sign at the highway entrance has received many favourable comments. Made of CORTEN steel, the sign already shows the trademark oxidation that makes this steel a favourite product.



The Welcome sign at the Visitor Centre features a close-up of *Grevillea baueri* ssp *asperula*

“WELCOME BACK” was the clear message as Eurobodalla Regional Botanic Gardens Friends and volunteers arrived for a celebration barbecue prior to the Garden reopening to the public for the July school holidays.

Having been greeted by our Garden Manager Michael Anlezark, we were invited to walk across the new bridge for the first time. The tantalising aroma of barbecued sausages and onions drew people to form a long line before moving aside to mingle in small groups.

There was a buzz of excitement as many of those present looked around the area for the first time since the fires. So much that was familiar is no more, and the sense of destruction of the beautiful grounds was very strong.

However, as people moved into the new buildings which survived, there was a real sense of excitement! Conversations not only reflected on ‘what was’ or ‘what is’, but on ‘what’s to come.’

The herculean efforts of Michael, our Garden staff and countless volunteers, is clearly visible wherever one cares to look. In just six months and despite the additional issues caused by Covid19, we are again open to the public!! Fantastic!

To say that there is still a long way to go is an understatement; but for the second time since its inception the Garden is rising out of the ashes. With the dedication and perseverance of all involved, ‘what was’ is going to be eclipsed by a bigger and brighter ‘what’s to come’; and from what we saw, we are already on that road.

Ken Foster

Hibiscus richardsonii

Jackie Miles

An interesting outcome from some post-fire monitoring done for Eurobodalla Shire Council in May this year was the discovery of a population of the rare native *Hibiscus richardsonii* at a couple of spots on Pretty Point, Malua Bay.

This species was only described in 2011, after the *Hibiscus trionum* complex was split. *Hibiscus trionum* (Bladder Ketmia) is an exotic from Europe and Africa, and is available in the horticulture trade,

and the plant on Pretty Point had a look of the garden escapee about it, so imagine my relief when on digging into the subject on the web (my old paper copy of the Flora of NSW didn't mention the new species at all) I found that my plant was not only a native, but also quite a rare species.

H. trionum has a large purple spot in the centre of the flower, while *H. richardsonii* has slight purple streaking on the petals and a slight purple stain at the very base of each petal, which makes the two readily distinguishable.

I was lucky enough to find the full text of the paper describing several new **Hibiscus** species on the web (Craven *et al.*, 2011).

Their information about the distribution and ecology of *Hibiscus richardsonii* is as follows:

“In Australia, confined to New South Wales in coastal and subcoastal country from the Clarence River district southwards to the Bermagui district.

In New Zealand *H. richardsonii* is confined to the North Island where it has an easterly distribution from Te Pahi to Hicks Bay, including the Cavalli, Great Barrier (Aotea) and Mayor (Tuhua) islands (see de Lange et al. 2010).

Habitat:

In Australia, recorded mainly in open sclerophyll forest of *Corymbia maculata*, *E. tereticornis*, *Banksia integrifolia* or *Melaleuca quinquenervia*, or open woodland of *Eucalyptus* and *Acacia*; recorded substrates include sandy loam on sandstone or alluvials; recorded growing on slopes, in cleared or disturbed areas, or fringing saline mud-flats.

In New Zealand, *H. richardsonii* is known from indigenous shrubland and sparsely vegetated slip scars associated with coastal rocky headlands, sand tombolo and boulder beaches.

The only departure from this pattern is Kamo, Whangarei, where plants appeared following the removal of a house and the associated disturbance of an urban garden, and on Mayor Island (Tuhua) where plants have been found growing within a former pa site.”

The habitat on Pretty Point is more similar to that described for New Zealand than for NSW, although most of the NSW records are also very coastal. Australia's Virtual Herbarium shows only four south coast records, from Turlinjah (by Jenny Liney), Blackfellow's Point east of Bodalla, Wallaga Lake and Tathra.

With respect to conservation status Craven *et al.* say:

“Conservation:

In Australia the category ‘Vulnerable’ seems appropriate for *H. richardsonii* because, although its overall range is large, nowhere is it common and in New South Wales it appears that none of the populations occurs within areas protected by dedicated conservation legislation.

In New Zealand *H. richardsonii* is listed as ‘Threatened/Nationally Critical’ qualified EF (Extreme Fluctuations).”

The mention of extreme fluctuations suggests that this species is a post-disturbance coloniser. It is certainly behaving as one on Pretty Point. It would be worth checking other burnt headlands on the south



Flower with pinkish flush on the petals and small purple spot at the petal base.



Deeply 5 lobed leaves with toothed margins.

coast to see if there are any other occurrences. Although the plant has probably finished flowering by now, the seed capsules and leaves are quite distinctive, so unless it is only an annual and has completely died off it may still be detectable.

The record of my sighting can be viewed on Budawang's Coast Nature Map:

<https://budawangcoast.naturemapr.org/Sightings/4259770>

I would encourage anyone finding interesting post-fire records to put them up on this website (if north of Moruya) or the Atlas of Life website (<https://atlasoflife.naturemapr.org/>) if south of Moruya.

Reference:

LA Craven , PJ de Lange , TR Lally , BG Murray & SB Johnson (2011) A taxonomic re-evaluation of *Hibiscustrionum* (Malvaceae) in Australasia, New Zealand Journal of Botany, 49:1, 27-40,

DOI: 10.1080/0028825X.2010.542762



Hairy, papery fruits with small black seeds

In My Garden

Marjorie Apthorpe

In our Currowan garden – immigrants and locals in July.

Three West Australian **Myrtaceae** plants that have adapted well to our clayey gravel are flowering at present. One is the graceful shrub *Chamelaucium uncinatum*, Geraldton Wax, of which we have two different cultivars in shades of pink, both as upright and drooping sprays of flower. This lasts well as a cut flower in a vase.

A small rockery shrub, *Rinzia communis*, at present developing buds

and clusters of small pink flowers. Not spectacular,

but a tough and pretty little addition to the rock pile.



Rinzia communis is low spreading, only about 30cm high, flowering during winter and spring. It grows naturally in rocky areas of south west W.A.

Thryptomene denticulata is found on sandy soils from north of the main highway as far north as Shark Bay, but has proved a reliable, long lived small shrub, and is now covered with pink to purple sprays of flowers.



Thryptomenes are hardy garden plants, and most are long flowering. They must be tough to thrive in our garden. Note the crowbar which is required equipment for preparing holes for planting.

Among Eastern States plants, *Crowea* 'Coopers Hybrid' is putting on a spectacular show of cerise flowers on red stems.

Also putting on a show of sorts is our Satin Bower Bird, who has constructed a bower in a flowerbed beyond the back lawn. The bower is tastefully decorated with blue plastic, and a scattering of yellow *Eremophila maculata* flowers. Perhaps a Swedish influence?



Committee News

Let's hear your stories. Send a contribution for the next newsletter, so everyone can see what you have been up to. Meanwhile, maybe you could contribute an article, no matter how small, or detailed, about your garden, or a special plant, or any other topic which would be of interest to members. Don't feel that you lack the knowledge or experience to tell your story. Also if you come across an item of interest, why not let others know.

To help the editor, it is best to provide your article as an email attachment in word, not PDF format, and pictures as separate jpg.

Your committee would welcome any suggestions about future activities. If you have any ideas on what excursions the group could undertake, or ideas about meeting topics, please contact any, the details of which are listed below.

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