

Banksia Bytes

Native Plants Sunshine Coast



www.npqsuncoast.org

Native Plants Queensland

Newsletter

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We need a secretary.

The duties are not onerous – mostly updating the database with new members, passing on information (such as other Branch newsletters or Region information) to the members, posting a call for articles for our newsletter (only 3 or 4 times a year) and then distributing the newsletter. Please give the position due consideration and put your hand up for the job.

From the Editor

This is the first newsletter for 2023 and what a bumper issue it is. You can read about garden planning with Joan D., the Amama Day-use area in Amamoor State Forest with Robert (which sounds well worth a visit), intriguing plant galls with Joan H., *Eremophilas* with Shelley, and watching out for those wait-a-while vines of the *Calamus* family that Spencer is enamoured by.

In our garden, the sun is shining, the birds are singing (apart from the magpie-lark who is constantly attacking his image in the window), and the plants are growing fast, as is the scrub turkey chick who has made the shrubs near the house its home for the last 2 weeks.

Enjoy the newsletter.

Wendy

Presidents Report Native Plants Sunshine Coast 2023

The last 3 years have been difficult (to say the least) for Native Plants Sunshine Coast, both to continue activities, grow/maintain membership and share the load of activities undertaken by the volunteer co-ordinating NPSC team. There was the possibility of putting our group on hold in 2022 due to loss of people from a few key roles, but we've had a few folks put up their hands to fill these roles and we're looking at a bloomingly better 2023. New member Julie Nimmo has taken on the roles of Excursion Co-ordinator and has monthly activities mapped out already. Maria Rosenfelder has taken on the role of Webmaster. Keep up to date with our calendar and check all the new plant profiles on there by Rob Price! Special thanks to our Treasurer Joan Abercrombie for taking on the role of **TEMPORARY** Secretary, if someone else can chat with Joan about freeing her up from this role asap, it would be much appreciated. Continuing forward in 2023 we have Wendy Johnston – Banksia Bytes Newsletter, Joan Dillon – Jill-of-all-trades and Spencer Shaw as President.

But before moving forward let's thank retiring, but long serving team members, Pam Watson – Excursion Co-ordinator, John Dillon - Webmaster and Karen Shaw – Secretary.

Activities planned by NPSC for 2023 are monthly gatherings and walks and the Banksia Bytes newsletter, but also keep in mind that you can also join in the activities of the NPQ Study groups such as Wallum and Coastal Heathland. There's a whole host of study groups - just visit the NPQ website for more info. Also, the ANPSA Fern Study Group is another great group to participate in, in SE QLD.

Key to 2023 is participation. Be active in keeping NPSC, and keep your local native planting going and growing. With an estimated 2600 species of native plants (Sunshine Coast Council Biodiversity Report 2020) there's plenty of plants for us to learn more about and help contribute to the preservation of them and the biodiversity that they represent. As always, enjoy growing, looking at, and appreciating our fantastic flora.

Cheers Spencer Shaw 11/02/2023



Asteromyrtus brassii



Zieria bifida



Gymnostachys anceps –
settlers flax



Buckinghamia celsissima

Not a lot productive has been happening in the Dillon garden for a few months while Nita Lester and I have been working on our gardening book for the Range and Hinterland. However, it should be going to the printer next week for publication towards the end of April. A lengthy garden job list is being compiled to make up for lost time!

In the meantime of course growth of weeds/trees/shrubs has been rampant. Pruning will be a priority.

Despite neglect, the *Buckinghamia celsissima* is flowering heavily, the Platysace is falling over due to the weight of its flowers and various *Xanthorrhoea* species continue to power ahead. Their growth rate really surprises me although, at the moment, there is no sign of trunks

developing. Beautiful blue green *X.glauca* from the Border Ranges is happily growing in my heavy basalt soil, way outside its native soil type.

Hibbertia vestita has been flowering for months - one of the very successful garden hibbertias. Another good *Hibbertia* is *Hibbertia aspera*, long flowering season, small bright yellow flowers and self-propagation via seed or suckers. It's not spectacular but is a very useful 'filler' with its dense, small leaves.

Local *Grevillea humilis* is also a success story and should be more widely grown.

As everyone will have noticed, flowering and fruiting times have been all over the place, but birds and bees have enjoyed several out of season flowerings of the long *Syzygium australe* windbreak. There's always something happening in the garden and beyond, regardless of whether I'm paying attention or not.



Xanthorrhoea glauca



Hibbertia aspera

Amama Day-use Area

by Robert Price

In Amamoor State Forest on the road between Amamoor and Cedar Grove camping area you can find the Amama day-use area. It is a picnic ground on Amamoor Creek with a walking track that has recently been upgraded due to its recognition as one of the largest remaining natural occurrences of *Macadamia integrifolia* or Bauple Nut. New signage alerts the walker to facts about this rainforest habitat and identifies several specimens on the short 540 m Macadamia walk. None were flowering or fruiting when Linda and I were there in January, but their long leathery leaves were pretty easy to identify. Other rainforest species seen included *Cryptocarya laevigata* (Glossy Laurel) and *Ficus macrophylla* (Moreton Bay Fig).



Macadamia integrifolia



Cryptocarya laevigata



Ficus macrophylla

The walk is on flat ground and if you have had enough, turn back before crossing the creek. However, if you continue on a more strenuous stroll, you will be rewarded. After a little climbing on the rocky path, you'll reach a large Bunya Pine (*Araucaria bidwillii*) towering over a small waterfall and rockpools. The area is known for its Hoop and Bunya Pines and this one is particularly significant as it bears the scars of toe holds made by Aboriginals for climbing the tree to collect Bunya nuts.

A refreshing swim here is optional but a snack and a drink are compulsory. You'll need the energy boost if you intend completing the circuit. It's not much more than a kilometre but involves about five more creek crossings and quite a climb to reach a lookout before the descent back to your beginning.



It is, however, worth going at least a little further because a short distance from the swimming hole right next to the track you will come across a mature Python Tree (*Gossia bidwillii*) with its distinctive, mottled bark and sinuous trunk. I've never been sure which one of these features gives it the common name of Python Tree, maybe both, but the answer, according to some, is neither. Rather, it's the habit of a leaf when picked of curling around the finger like a python. Now, I have tried this and nothing snake-like happened so I'm still in the dark on this one.

Such a close concurrence of two notable species of tree named after the one man, J. C. Bidwill, got me wondering: who was he?

John Carne Bidwill was born in Exeter, England in 1815 and first arrived in Australia at the age of 23. His earliest known botanising was done in New Zealand but back in Australia in 1843, he released a hybrid of *Hibiscus heterophyllus* and *H. splendens*, called *Hibiscus "Sydney"* and considered the first case of plant breeding in the country.

Meanwhile, back in 1838, Andrew Petrie, on an excursion north from Brisbane, had climbed Mt. Beerwah and somewhere north of there, recorded Bunya Pines growing. This was most likely in the Blackall Range, then called the Bon-yi Mountains, where up to 1000 Aboriginal men and women assembled every three years to feast on Bunya nuts. The species became known as *Pinus petrieana* but was never officially recognised as such. Petrie had collected seed and given some to Bidwill who was visiting Brisbane around this time. He sent them on to William Macarthur, a son of John and Elizabeth Macarthur and a horticulturist who had developed a plant nursery at Camden Park. The "pine" was listed for sale in his 1841 catalogue and subsequently, plants were exported all around the world. Although a government proclamation protecting Bunya Pines was declared in 1842, this was widely ignored and it wasn't until 1908 that the only remaining large, intact stands in the Bunya Mountains were preserved in a national park. Ironically, by then they were thriving in parks and large gardens all over Europe and the Americas. Bidwill reported the "discovery" to the British Botanical Society and on a return trip to London in 1843, took live seedlings and seed with him for Kew Gardens. The species was then formally described and named after him.

Having returned to Australia, Bidwill was appointed Commissioner of Crown Lands for the Wide Bay District. In 1851, while surveying a new road between there and Moreton Bay, he became separated from his work party in dense scrub around Gympie and was lost for eight days without food. He eventually hacked his way out but never properly recovered from the ordeal and died two years later at only 38 years of age. J. C. Bidwill was buried at Cran Street, Tinana, near Maryborough, with Bunya Pines planted to mark the grave. They were apparently still there in 1950, but the site was badly neglected for years until recently, when a reserve was declared and some restoration work undertaken.

In the 15 years between his arrival in 1838 and death in 1853, Bidwill had numerous plant species discoveries attributed to him, many found in south east Queensland. These include *Dendrobium kingianum* (Pink Rock Orchid), *Akania bidwillii* (Turnip Wood), *Brachychiton bidwillii* (Little Kurrajong) and *Nymphae gigantea* (Giant Water Lily), now locally extinct although Glenn Leiper says there still exists a small population near Gatton.

This has been a lengthy digression, but please forgive me, I must tell you the Kauri Pine story, an almost mirror image of the Bunya story. In 1842, Andrew Petrie supposedly became the first European to see the Mary River and reported the presence there of a conifer which reminded him of the New Zealand Kauri Pine, at the time called *Damarra australis*. By 1849, Bidwill had moved to the Maryborough area, found a 50 m Kauri close by, felled it to collect cones, used the timber to build his house and once more sent seed to William Macarthur who, in 1850, listed seedlings for sale at 10 shillings each, about \$100 in today's money! It was given the name *Damarra bidwillii* but after a revision, became *Agathis robusta*.

The Kauri Pine may have been the one that got away from Bidwill, but some 30 plant species worldwide now carry his name.

Back to the walk and looking at ground level, two plants in flower caught my eye: one whose showy white flowers stood out, a clump of the ground orchid *Calanthe triplicate* (Christmas Orchid), and the other, which I hadn't seen in the wild before, the appropriately named *Peperomia blanda* whose flowers are, well, bland.



Calanthe triplicate



Peperomia blanda

Also on the forest floor were various fallen fruits: in the centre, I think, *Acmena ingens*, and clockwise from the top, *Cryptocarya obovata*, *Cissus sp.*, the orange ones I don't recognise and a few *Elaeocarpus obovatus*. The wet 2022 we experienced has certainly been productive for many rainforest species.

And finally, a couple more photographs to try to capture the qualities of this small pocket of our beautiful Sunshine Coast.

Robert M. Price, February, 2023





Headwaters of Amamoor Creek



Emergent Hoop Pine Forest

Book Review

Shelley Gage

Growing Eremophila

by Russell Wait RRP \$80

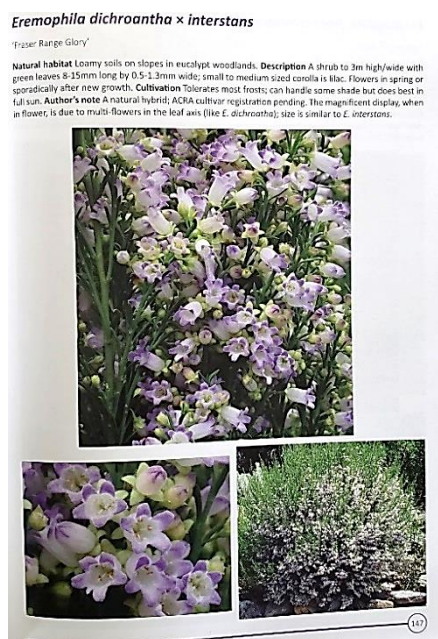
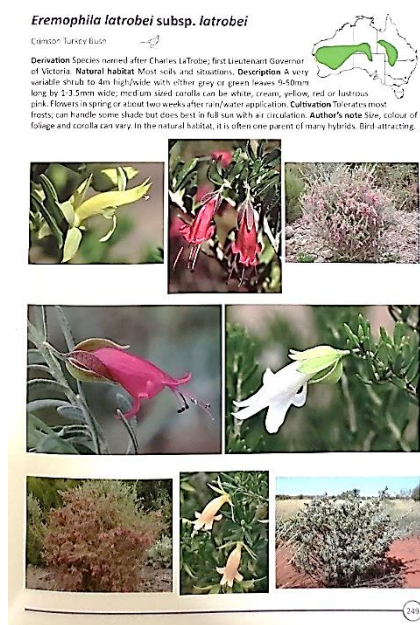
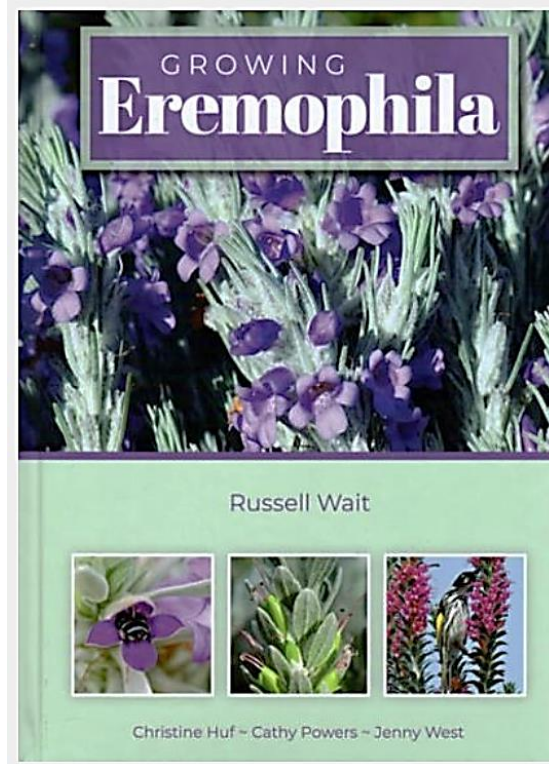
My first impression when I received this book in the mail was of a large (nearly 500 pages) volume filled with photos of almost 400 *Eremophila* listed alphabetically. However, it is much more than that.

The author, Russell Wait has more than 50 years of experience and knowledge gained visiting and finding populations in the wild as well as propagating, cultivating and grafting *Eremophila*.





The first section of the book gives a background to original collections dating from 1801 and the subsequent classifying of the plants.

The section, Where do *Eremophila* Grow?, dispels the myth that they all grow only in arid areas. He writes, "There is an *Eremophila* to suit every garden." The incredible range of plant sizes, shapes, leaf and flower colour, aromas and growth cycles is detailed on page 9. I was most interested in the section showing how flower shape dictates whether the flower needs a bird or insect pollinator.

The book contains detailed instructions for successfully growing and propagating *Eremophila*. The section on the medicinal compounds gives the reader an insight into traditional use of the different species. These sections lead into the main body of the book where each page gives detailed information about each species, sub-species and cultivar. The species and sub-species pages include a map of occurrence, information on name origin, natural habitat, description, propagation, cultivation and special notes. The photographs of the flowers, plant shape and leaves on these pages were chosen from over 30 000 shots.



Following this visual feast is a colour coded spreadsheet summarising the attributes of each.

Species	Form					Salt tolerant	Fungal disease
<i>maitlandii</i>	lg shrub				M		
<i>malacoides</i>	sm shrub					o	
<i>margarethae</i>	sm shrub					o	
<i>metallicorum</i>	sm shrub					o	
<i>micrantha</i>	lg shrub					o	
<i>microphylla</i>	sm shrub					o	
<i>microtheca</i>	shrub					o	
<i>miniata</i>	tree			o		o	
<i>miniata</i> x <i>viscida</i>	lg shrub			o		o	
<i>mirabilis</i>	shrub			o		o	
<i>mitchellii</i>	tree						
<i>muelleriana</i>	shrub					o	
<i>neglecta</i>	lg shrub			o			
<i>neglecta</i> x <i>paisleyi</i>	shrub						
<i>nivea</i>	shrub					o	
<i>obliquiseptala</i>	sm shrub					o	
<i>oblonga</i>	sm shrub					o	
<i>obovata</i> subsp. <i>glabriuscula</i>	sm shrub				M		
<i>obovata</i> subsp. <i>obovata</i>	sm shrub				M		
<i>occidens</i>	shrub				L		
<i>oldfieldii</i> subsp. <i>angustifolia</i>	tree			o	M	o	
<i>oldfieldii</i> subsp. <i>angustifolia</i> x <i>oppositifolia</i> subsp. <i>angustifolia</i>	lg shrub			o		o	
<i>oldfieldii</i> subsp. <i>angustifolia</i> x <i>oppositifolia</i> subsp. <i>oppositifolia</i>	lg shrub			o		o	
<i>oldfieldii</i> subsp. <i>oldfieldii</i>	tree			o	M	o	
<i>oldfieldii</i> subsp. <i>papula</i>	lg shrub			o	M	o	

This book would be a valuable addition to any collection of books on Australian native plants. I am sure it will encourage more home gardeners to consider including some of the many *Eremophila* in their gardens.

Growing *Eremophila* in south-east Queensland

Carolle Gadd (Brewery Hill Private Garden) and Shelley Gage (Goomboorian)

Nothing is lovelier than an *Eremophila* in full flower. The range of colours of flowers, leaves and sepals and various growth habits make them a valuable addition to the garden. Some need to be treated as annuals, others as perennials and some are longer lived. Generally, they respond well to a sandy loamy mix in a well-drained position, and many will succumb if they are planted in clay, have poor drainage with high humidity and prolonged rainfall.

Below is a list of *Eremophila* which we have had experience with in our gardens.

- *E. fasciata* (shaggy dog) will flower well for a couple of years if dieback is kept cut.
- *E. macgillivrayi* - grafted plant, very attractive grey leaves and brick-red flowers.
- *E. lehmanniana* - very floriferous white flowers.
- *E. prolata* - persistent calyces, very attractive over a long period - >5 years old.
- *E. polyclada*
- *E. glabra* subsp. *carnosa*

- *E. platycalyx* subsp. *platycalyx*
- *E. maculata* subsp. *Brevifolia* - tough, widely available.
- *E. glabra* x *E. Yanna Road* - generally long-lasting plants.
- *E. glabra*- widely available
- *E. forrestii* subsp. *Forrestii* - not successful for more than 12 months.
- *E. christophori* - does well for several years with minimal attention.
- *E. bignoniiflora*
- *E. arbuscula* - grows beautifully, flowers are long lasting table decoration - tree more than 7 years old.
- *E. punicea* - stunning in flower but quite difficult to keep growing.
- *E. scaberula* - very floriferous but shortlived - 12-18months.
- *E. maculata*-grows well.
- *E. nivea* - purple flowers against grey foliage - one of my favourites.
- *E. subteretifolia* - pretty groundcover lasting up to 2 years.
- *E. maculata* subsp. *maculata* x *racemose* - 'Fairy Floss' - striking and my first *Eremophila* - lasts a couple of years before replanting necessary.
- *E. longifolia*
- *E. microtheca* - suffering with the humidity, lovely and dainty in the dry.
- *E. glabra* x *maculata* subsp. *Brevifolia* - 3 years old.
- *E. debilis* - hardy groundcover with edible fruit.



All photos taken by the authors at Brewery Hill Garden in February 2023.

Trial and error is the best way to determine what will be happy in your garden. Many nursery outlets now stock some of the hardier plants and they are certainly worth a try.

Calm Down, its Only Calamus! By Spencer Shaw

We travelled up to the Atherton Tablelands in January, on what I only realized on the flight up, was to be my first time in the tropics for more than a few hours. Previous times had only been during flight connections to the UK. For some strange reason, I'd avoided the Wet Tropics rainforests for the last few decades, after being told by so many friends and associates about how much more amazing they were than the rainforests of South-East Queensland and North-East New South Wales. Parochially focused as I am, I just couldn't acknowledge that they could be any better than our local rainforests! But the offer arose, and I'd avoided them for long enough, so we thought we'd go and have a look.



In a fun filled four-day adventure based just out of a little place called Tarzali (south of Malanda), we visited beautiful patches of rainforests such as Lake Eacham, Curtain Fig, Wongabel, Mount Hypipamee, Malanda and I'm sure a few more that I can't recall now. The floristic diversity is very impressive. Familiar faces / plants such as White Bollygum – *Neolitsea dealbata*, Milla-Milla Vine – *Elaeagnus triflora*, Pink Euodia – *Melicope elleryana* and Umbrella Tree – *Schefflera actinophylla* (native and not a weed as in SE QLD) were to be seen. Also, a whole swag of familiar genera but different species including (but not limited to) *Syzygium*, *Endiandra*, *Dysoxylum* and *Argyrodendron*. Then there's all the different genera and even families to add to the mix, but then again, it is over 1500km away.

We saw Mabi / Mapi (Lumholtz's Tree Kangaroo) *Dendrolagus lumholtzii* every day. (We did actively go looking for them). Mabi / Mapi is the name given by the Ngadjon-jii and Yidgin-ji, traditional owners of some of the country we visited. The rainforests of this area are referred to as Mabi Forest after these marvellous arboreal macropods. I was also lucky enough to bump into and have a quick chat with a Hypsi / Musky Rat-Kangaroo - *Hypsiprymnodon moschatus*, at Lake Eacham. What cute little fellas they are! I was amazed at the quantity of Bunya – *Araucaria bidwillii* planted in the rural landscape, but the southern end of the Tablelands, at Cannabullen Falls and Mount Lewis, is the only place besides SE QLD where they occur naturally.



Calamus caryotoides - foliage

But at last, getting back to the title of this piece, what really enthused me, was the presence, form, and diversity of the genus *Calamus*, the Lawyer Cane's. This excitement was greeted with, I'll politely say, surprise, from most of the folk I met up there, even though many of them were ecologists either professionally, or enthusiastic amateurs. Seven species are described in Australian Tropical Rainforest Plants, *Calamus aruensis*, *Calamus australis*, *Calamus vitiensis*, *Calamus warburgii*, *Calamus caryotoides*, *Calamus moti* and *Calamus radicalis*. The latter three I noted in the various forests we visited. *Calamus caryotoides* was the

most similar, that I saw, to our sole local member of the genus *Calamus muelleri* – Jini / Lawyer Cane (Jini is the name given by the Jinibara, traditional owners of the Blackall Range). Similar in stem diameter and leaf size, but with blunt leaf tips like a Fishtail Palm – *Caryota spp.* (a species name that makes sense). The very impressive *Calamus moti* and *Calamus radicalis* are a whole new level of Lawyer Cane though, you can quite clearly see that they are palms, with *Calamus radicalis* leaves up to three metres, *Calamus moti* leaves a slightly more sedate, one metre. Their solid rattan like stems can be up to three centimetres in diameter, and younger stems are covered in spines. Their long stems can climb all the way to the top of trees and emerge looking for all the world like a palm emergent, which I guess they are, just on a vine stem instead of a trunk. The tendrils with recurved hooks that they use to climb and protect themselves from browsing fauna, are incredibly long - measured one I saw at six metres!



Calamus caryotoides - fruit



Calamus radicalis - foliage

With the tree climbing, spines and hooks I think I can see why some locals see them as a problem or nuisance as they can swamp rainforest recovering from damage such as cyclones and prevent access into regrowth or edges of rainforests. But I tend to think these are the thoughts of newcomers to this country. Reduced access to these rainforests by us is a good thing I'd suggest and as for the prevention of regrowth of rainforest after damage, I'm sure that's something that works out in the end. Let's not forget *Calamus* species have been a part of these rainforests for millions of years. The real threat to these rainforests is fragmentation and a century or more of clearing.

In closing, ok, I must admit that the Rainforests of the Wet Tropics are impressive - *Calamus* diversity particularly so. *Calamus* certainly grabbed my attention, and shirt, and hat, and pants! But as I write this in my home office surrounded by our 16-year-old plantings, I'm reminded that it was just as lovely to get home to the beautiful rainforests of the Blackall Range.

Plant Galls by Joan Heavey

Last year, I found some interesting, unusual 'growths' on the stems of a young *Eucalyptus tereticornis* sapling. I had no idea what they were, so I took photos and collected a couple to see if I could have them identified. The Qld. Museum was unable to help, but suggested I contact a person at UQ, who they were sure would be able to identify them for me and sure enough, after sending photos, I had a response soon afterwards.

They are galls, induced by the female of a scale-insect, *Apiomorpha pedunculata*. The gall houses the female insect while she grows to maturity and eventually her developing offspring as well. She grows to between 2-45 mm, is wingless and has very small eyes or none at all, and her legs are short and stubby.



She also produces a white waxy powder which provides a protective layer on her body and the gall, to prevent pathogenic bacteria contamination by honeydew excreta. Males of this species are only about 1 mm in length, have four eyes, no mouth, are weak flyers and only live for about a day.

Since that find, I am much more observant of any strange lumps and bumps on stems, leaves and flowers of plants and found there are many out there. Some are induced by scale insects, others by flies, wasps, thrips, aphids, nematode worms, mites, fungi, viruses, bacteria and mistletoe, although those caused by mistletoes are known as a 'haustorium.'

Only about 50 of Australia's vascular plant genera are reported to support native gall-inducing insect species. Plants in the Myrtaceae family are the most susceptible with more than 50% occurring on *Eucalyptus*, *Corymbia* and *Angophora* species. Acacias and Figs account for about another 18%, with no other genera supporting more than three percent of the total gall-inducing insect fauna. Most gall-inducing species are highly host specific and galls are usually characteristic of the insect species that caused it.

The concentration of galling in only a few plant groups occurs in other countries as well, although plant groups differ.

It is not the gall-inducing agent that builds the gall however, it is formed by the plant in response to the presence of a gall-inducing agent. In insect induced galls, the continuing presence of the insect is required for the gall to remain alive and grow.

Photo at right is another scale insect-induced gall, this time by the female of *Cylindrococcus spiniferus*, and this one I found on a branch of *Allocasuarina littoralis*. I have also found them on *Allocasuarina emuina* on Emu Mountain. The male galls of this species are much smaller, cylindrical and on the tips of branchlets.





Female gall of
Beesonina ferrugineus

This scale insect-induced gall (left), I found on *Melaleuca quinquenervia*. The insect responsible is *Beesonina ferrugineus* with only one known species in Australia. Galls can range from a dull green to this pinkish-red colour in the photo, or through to brownish.

Another scale insect, *Cystococcus pomiformis*, induces galls known as the Bush Coconut or Bloodwood Apple, found on several species of *Corymbia*, including *Corymbia intermedia*. Bush coconuts have a hard, lumpy exterior shell, an inner layer and a further white inner layer surrounding the cavity which contains the adult female and her offspring. The inner, white flesh which has a similar appearance and flavour to coconut, and the adult females are eaten as bush tucker food.

Many psyllid bugs induce galls, mostly on leaves and usually in the form of pits, leaf-rolls or raised globular sacs. Several Eucalypt species are susceptible, as is *Corymbia citriodora*, *Syncarpia hillii*, *Syzygium* and *Acmena* species Figs, Banksias, *Lophostemon*, *Commersonia* sp. Many free-living psyllid species occur on Acacias.

Lerps are formed when some psyllid nymphs suck the plant sap and excrete honeydew onto the leaf surface. The sugar and amino acids in the honeydew crystallise to form the lerps which protect the nymph that lives and feeds underneath.

Many wasps induce galls on the leaves, stems or seeds of *Eucalyptus* and *Corymbia* species. Others utilise the flower buds of *Acacia* and *Hakea* species and the developing florets of figs. Some are known to cause leaf or stem galls on *Banksia* species.

The Citrus Gall Wasp, *Bruchophagus fellsis*, is responsible for inducing woody stem galls on the young growth of lemon, lime and grapefruit trees and also its native host, finger-lime.

Only a few species of beetles induce galls, usually on the stems or roots of She-oaks, *Pultenaea* and *Dillwynia* species. Another lives in stem galls of various plants, including Native Yams.

Not many Australian moths are gall-inducers. One species forms stem galls on Chenopod plants. Another induces large elliptical galls on the stems of *Canthium* species.

A tiny night-flying moth, *Phyllocnistis citrella*, commonly known as the Citrus Leaf Minor, lays their eggs in new leaves of various citrus trees with the larvae tunnelling their way through the leaves leaving a squiggly, silvery trail in their path. The moths attack native citrus as well as citrus in the home garden.



Psyllid-induced galls on *Syncarpia hillii*



Wasp induced galls on *Acacia leiocalyx*



Citrus Leaf Minor damage

Many rust fungi induce gall formation. The genus *Uromyladium* is native to Australia, but invasive in other countries, including New Zealand. Here in Australia, it has as been reported on over 100 species of *Acacia* and other closely related plant species.

More galls are initiated on these genera by rust fungi than insects. The galls are usually on branches, stems, phyllodes and inflorescences, and can be up to 5 cm in diameter.



Meloidogyne species of nematodes, (root-knot nematodes) are microscopic worms that live in the soil and cause galls on the roots of susceptible plants.

In some hosts, the galls are small and beadlike, while in others, the galls can be more than 25 mm in diameter.

Root-knot galls originate from an infection at the centre of the root and have firm tissue that contain female root-knot nematodes.



So, next time you are outdoors, take have a brouse and see what you find, you will be amazed as just how many different galls you may come across. Below are a few more I have come across recently.



Joan Heavey, February, 2023

The **2022 ANPSA (National) Conference** was held in Kiama NSW from Sat 10th September to Friday 16th September. A wonderful job was done by the organising committee, with conference presentations and site visits both diverse and interesting. Special interest groups such as the Garden Design Study Group provided information on their subjects and in some cases, for example, the Grevillea group hosted a site visit to 'Silky Oaks'. Well worth a visit if you get a chance. Site visits provide a wonderful opportunity to see plants 'in action' not just the picture on the label or the study sheets.



December, 2022 meeting at Fairhill Nursery

NPSC were fortunate to have a presentation from the Fairhill team at their November monthly meeting. Stephen from Fairhill told us about the many wonderful ideas and partnerships they are developing. These exciting activities include the upgrade to the restaurant, the excellent propagation work by Byron and the team and the development of the Fairhill Gin. Initially the Gin had an extreme colour and taste, but the refined new product has just arrived and is available at the restaurant. The team at Fairhill is finding that working with people in partnership is a wonderful opportunity to bring



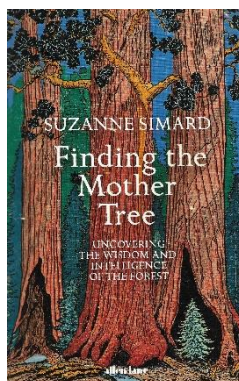
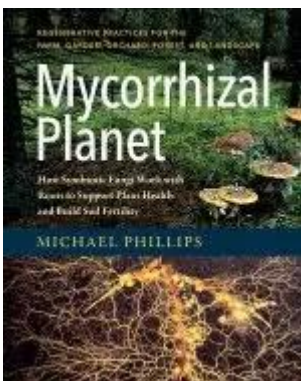
in a new crowd to Fairhill. The younger customers are really passionate about getting natives back into their backyards and Stephen said "nothing excites me more when you have a young family coming in saying they've just bought a property and it's full of roses and all those kinds of things and they want to rip them out to establish a native garden". Stephen also said, "some of you may have seen on our Instagram that we were lucky enough to meet an artist called Kathy Gray. Kathy is an artist from Adelaide, working on a project focused on 758 endangered native Australian plants". Other partnerships include the wonderful volunteers who are weeding and working their way along the driveway towards the main central garden bed. Plans are in train as well to get the playground going again - ideally for something like nature play for children and parents. Following the presentation by Stephen, Lee took us on a tour of the Fairhill Grounds.



Report on Fungi Presentation Feb 23

Wayne Boatwright, President of the Queensland Mycological Society, gave a very informative talk on fungi. He showed us all the wonderful colours, shapes and sizes of fungi and went on to explain their roles in the ecosystem. He also talked about their potential in the world of useful chemicals. Did you know that the colourful fruiting body we see is just “the tip of the iceberg” with the real action taking place underground and occupying a massive area? And that is just for the fungi we can see. There are fungi that live their entire lives underground and still manage to fruit and disperse.

Wayne recommended 2 books for further reading :



Thanks to Spencer Shaw, Robert Price, Julie Nimmo, Joan Heavey, Joan Dillon and Shelley Gage for their contributions to this newsletter.



End of Banksia Bytes 30