

Banksia Bytes

Native Plants Sunshine Coast



www.npqsuncoast.org

Native Plants Queensland

Newsletter

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OFFICE BEARERS

Spencer Shaw
Anne Windsor
Joan Abercrombie
Marie Livingstone
Wendy Johnston
Pam Watson
John Dillon

President
Hon Secretary
Hon Treasurer
Events Coordinator
Banksia Bytes Editor
Excursions Coordinator
Webmaster

spencer.shaw@brushturkey.com.au
npscsec@gmail.com
joan.abercrombie@skymesh.com.au
npscevents@bigpond.com
news.npq.suncoast@bigpond.com
lpw3@bigpond.com
npqsuncoast.web@gmail.com

From the Editor

Our garden says spring is in the air with Hovea, Leptospermum, Grevillea, Callistemon and Bauera flowering around the house. Our excursion to Kathleen McArthur Park last week showed us the start of the wallum flowering, so make a point of visiting some of the Sunshine Coast wallum areas in the next few weeks and enjoy the spectacle. In this newsletter Spencer shows us some very attractive 'dinosaur' plants, Joan shows us some magnificent carnivorous plants, Ian describes some winter-faring moths and explains why moths are not so numerous in the cold weather, and Spencer gives us hope regarding myrtle rust. Enjoy these lovely days in the garden.

Wendy



Dates for your Diary

Saturday 7th and Sunday 8th September – Wildflower Spectacle and Plants Market at Mt Coot-tha Botanic Gardens. The theme is 'Colour your Garden with Native Plants'. We will have a small display.



Sunday 15th September – 9am to 12noon. Propagation workshop at Brush Turkey Enterprises. Cost is \$5.00 p.p. plenty of parking, all welcome. RSVP required please to: npscevents@bigpond.com or 0427 152022.

Please note this activity is on the third Sunday of the month rather than our usual second Sunday.



Sunday 17th October – 9am. A visit to a property near Maleny. It sounds wonderful, with rainforest and dry vine forest and a creek that empties into the Mary R. More details later. This outing is on the third Sunday of the month.

Sunday November 10 – 9am. A presentation by Mike Donovan, photographer and author of Snakes of the Sunshine Coast Region, on reptiles and amphibians we can expect to see in our native gardens and bushland reserves. Brush Turkey Enterprises, 468 Reesville Road, Maleny.



Sunday December 8 - 7.30am meet at carpark Russell Family Park, Montville for a talk and walk with Eric and Diana through this wonderful re-vegetated park just behind the main street. Coffee, cake/brunch at cafe afterwards for our end of year breakup.

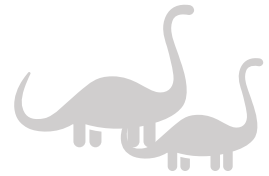


For Information about outings contact....

Pam	0447 488 673
Anne	0417 733 991
Chrissie	0408 792 227

Eupomatia laurina* & *Eupomatia bennettii

by Spencer Shaw



The two local native Bolwarras *Eupomatia laurina* and *Eupomatia bennettii* are both amazing plant dinosaurs found in our local forests. They are two of our earliest flowering plants and considered to have simple (and yet quite attractive) flowers. They are both fertilised exclusively by tiny little weevils in the genus *Elleschodes*.



The Bolwarra or Copper Laurel - *Eupomatia laurina*, is often seen as a rambling understory plant up to 2-3 metres, however they can occasionally become small trees, although very rarely in our area. They are found in wet sclerophyll forest (often dominated by Flooded Gum - *Eucalyptus grandis*) and in our various rainforest communities. These plants look great when planted in full sun and spoilt like any other garden plant. In cultivation they become a shrub 2-3 metres high by 2 metres wide, with glossy, bushy foliage that can turn a bright copper hue during winter.

The stems can become covered in cream-white flowers about 2-3 cm in diameter in November and December. The flowers also have a sweet perfume for attracting their pollinators. The fleshy fruit are thin skinned, full of seed, and contain a sweet flesh reminiscent of guava. These fruit are, of course, great for the birds.

The Small Bolwarra – *Eupomatia bennettii*, as the name suggests, is the small cousin, and the plant often consists of a single stem often no more than 30cm high. They are also found in the edge of wet sclerophyll and in rainforest, although they can tolerate heavier levels of shade than their larger cousin. The single colorful flower only appears for a day or two, but is a spectacular little flower well worth keeping an eye out for.



Carnivorous plants

RBG Sydney

By Joan Dillon



Whenever we visit Sydney, we always find time to visit the Royal Botanic Gardens, established early in Australia's colonial history. The major drawcard these days is the Calyx Centre, on which I reported in an earlier issue of Banksia Bytes.

The display most recently seen is all about carnivorous plants and they can be pretty spectacular, especially the pitcher plants. Many of course come from other countries, mostly to our tropical north but coincidentally, the Summer 2018/19 issue of the Australian Plants journal is devoted to our own carnivorous plants. I'm familiar with the Sundews, Australia's largest carnivorous group, but there are others of which I was completely unaware.



A Bladderwort, *Utricularia* sp. turned up opportunistically in a large water pot two or three years ago and formed a dense mat over the surface. If it produces its tiny yellow flowers again, I shall attempt a photo. The bladder traps are tiny so I would not have noticed them anyway. The carnivorous plants are a fascinating group, using a range of mechanisms to trap their prey.



Look out for them next time you are wandering in the Wallum. They are best suited to warm, moist environments but are apparently well distributed from the alpine regions to Uluru. Who would have thought?

For those with an artistic bent, see the photo of the blown glass version in a misty pool.



BUTTERFLY RANCH

By Deb Mooney

We have a 2 year old Australia finger lime in our backyard. Intermittently, there have been caterpillars on it but their appearance has been brief, having probably been eaten by our bird visitors. Curious about the type of caterpillar, we researched it online and discovered that they were Orchard Swallowtail butterfly larvae. The adult is black with red, white and blue spots. They are considered a pest to citrus growers and later on we discovered why.

We wanted to see if we could save them so using a Heinz pasta sauce bottle (the capsicum one is particularly delicious) with holes punched into the metal lid, we installed the 2 hangers on with their respective branches taking care not to disturb them

and put

them on

a table inside. They were voracious feeders, stripping the leaves and the bark from the twigs that were replaced twice daily.

They grew rapidly and after a few days transformed into something like this.



About 10 days after we adopted them, I came home from some errands to find a butterfly in the jar moving its wings rhythmically! Not knowing their lifespan, I liberated it immediately and she knew exactly what to do. She flew straight up, quite high and made a beeline for the park across the road. Her mate remained in the jar in a suspended state until a few days later when there was evidence of a struggle in the cocoon. After a day of this, we thought that the poor thing was exhausted and attempted to free it. I wish there was a happy ending but like the movie Alien, it appears that this poor thing had been parasitised and the cocoon contents were virtually liquid. Still, I am motivated to keep up the practise as it requires little effort for a satisfying pay-off.

A Decade of Myrtle Rust

By Spencer Shaw

Next year will be the 10th anniversary of Myrtle Rust being brought into Australia. Note that I say “brought into” Australia, as the terminology usually used is “arrived” or “was first detected”. The latter could be taken as inferring that Myrtle Rust arrived in Australia all by itself. This is clearly not the case; Myrtle Rust was brought into the country as result of the global trade and travel networks of human activity. We brought it here and we also need to be the ones responsible for preserving the amazing species diversity of Myrtaceae that has evolved in this land and is now threatened by Myrtle Rust.

So just how are we going to preserve the diversity of Myrtaceae in Australia? I can only speak of our personal experiences in observing the life cycles and propagation of our local Myrtaceae in SE QLD, but I think we are onto something. And that is, that preserving species that are threatened by Myrtle Rust, can be tackled at a grass roots level (or at least at a tree and shrub level – pardon the pun), through the work of nurseries propagating Myrtle Rust resistant plants.

Back in 2011, when Myrtle Rust arrived in SE QLD, you could have been forgiven for thinking that nurseries were the only source of Myrtle Rust and that going near a nursery was potentially dangerous to your own health! Sure, nurseries could potentially speed the spread of Myrtle Rust due to interstate plant transport, but once established in NSW it was only a matter of time before trillions of microscopic spores blew across the landscape and spread rapidly to colonise whole new areas. To try and stem the tide, Biosecurity then quarantined a few nurseries, but the horse had well and truly bolted. Overnight the Myrtle name was tarnished, as the fear of Myrtle Rust spread. Some production nurseries disposed of all their Myrtaceae stock rather than try to manage the disease, as the potential damage to their business from growing Myrtaceae outweighed the cost of throwing them all away. For those who persisted with growing Myrtaceae, fungicide regimes became compulsory – although I’d argue that they mask the problem rather than treating it. What I’m trying to get to, in an albeit circuitous way, is that nurseries were perceived as the problem, when in fact I believe that nurseries and horticulturalists (native ones in particular) have the tools to help assist in preserving the Myrtaceae species that are under threat.

Luckily in Australia, Myrtle Rust has yet to have a significant impact on the dominant tree and shrubs of our woodlands e.g. *Eucalypts*, *Corymbia*, *Angophora*, *Lophostemon*, *Melaleuca*, *Leptospermum* (although locally on the Sunshine Coast we have observed some impacts on *Melaleuca quinquenervia*). However, many of our rainforest Myrtaceae have been significantly affected. These include *Gossia* spp, *Lenwebbia* spp, *Rhodamnia* spp, *Backhousia* spp, *Rhodomyrtus psidioides*, *Uromyrtus lamingtonensis*, *Decaspermum humile*, *Archirhodomyrtus beckleri* and *Acmena smithii*. These species have been affected to varying degrees, with populations and individuals within species showing variable degrees of susceptibility. Species such as *Rhodomyrtus psidioides* are bordering on functionally extinct, with the majority of individuals struggling to maintain foliage, let alone produce flowers or fruit. At the other end of the spectrum, species such as *Austromyrtus dulcis* and *Acmena smithii* (which have only shown susceptibility over the last few years) only appear to be affected under irrigation in nurseries and not affected (at least as much) when planted.

Personally, given nearly 10 years of observations of Myrtle Rust and its impacts on our flora, I believe the only real hope for assisting in the preservation of Myrtaceae species that have demonstrated that they are vulnerable, is to assist those individuals and populations within a species that are demonstrating resistance and resilience. We (nurseries, horticulturalists, nature lovers in general) can assist these species by actively searching for, identifying, and then propagating and cultivating those individuals. This cultivation, whether

it be in gardens, farms, or revegetation projects will then assist their resistant and resilient genes to spread through their populations. Resistance to Myrtle Rust does appear to varying degrees within the species listed above. For example, in *Acmena smithii* vulnerability appears to be the exception, but *Archirhodomyrtus beckleri* is about 50/50 in our area. Our cultivated *Rhodamnia dumicola* and *Gossia acmenoides* can keep good leaf cover but are yet to produce viable fruit. *Rhodomyrtus psidioides*, which as mentioned before, appears to have very limited resistance across the majority of its population, is really struggling.

Species that we have personally had success with so far include *Decaspermum humile* and *Lenwebbia* sp. Blackall Range, both of which we have selected and propagated from resistant individuals. We're also working on a few *Rhodamnia* spp. - so fingers crossed there too! Another observation we've made is that if plants that have been affected by Myrtle Rust and can be nurtured to produce flower, fruit, and then seed, then the resulting seedlings appear to be more resistant than their known parent. We don't use systemic fungicides as part of our selection work; as discussed earlier it would only mask the problem. Selection of resistant individuals is the key to producing Myrtle Rust resistant / disease free stock. We do, however, have to use systemic fungicides to comply with our Biosecurity requirements with regards to movement of Myrtle Rust infected stock. These are the only systemic pesticides we use in our nursery and on our property, to be honest we would much rather not (but have to, to meet compliance requirements). They have no benefit other than to kill potentially present Myrtle Rust on stock that will then be sent out into an environment where Myrtle Rust is present. Any beneficial fungi present (which could be a key player in controlling Myrtle Rust) will also be killed.

Nearly 10 years on, there is still talk about addressing Myrtle Rust on a national level and mainly just that – talk. Cynical as I am with regards the slow wheels and lack of focus nationally, I don't rule out how much we could be doing including: stopping the next “myrtle rust” type disease from being brought into the country; co-ordinating the work done by nurseries and horticulturalists to select and breed myrtle rust resistant stock (e.g. funding research); and perhaps, given the potential resources available federally, we could do the research that can help understand resistant genetics and maybe genetically engineer resistance into species that we would otherwise lose.

For the time being, however, the real action is taking place out in the bush as evolutionary processes select those individuals that are resistant to Myrtle Rust to survive and reproduce. The best that we can do for now is get behind nurseries and horticulturalists who are passionate about our native flora. They are the front line in preserving our vulnerable Myrtaceae species. For 10 years we've seen major impacts to our rainforest ecosystems through the damage to Myrtaceae species and the loss of flowering and fruiting abundance they provided for our fauna. Let's hope we can improve that situation somewhat over the next 10 years...



Rhodamnia dumicola

Do Moths fly in Winter?

by Ian McMaster

Several people have asked me why the moths that seem plentiful in summer and autumn tend to disappear from our car headlights in winter. There isn't one simple answer to this question, as moth life cycles vary greatly in length, and the adult "moth" phase is usually only a small portion of the animal's overall life cycle.

However, it is generally true that there are fewer moths flying in cooler, dryer conditions than in warm, wet ones. Many moths have an annual life cycle, in which the adults breed rapidly over the warmer wet part of the year, then go into a long larval phase over winter. Despite this general rule, there is still a number of moths to be seen at this time of the year, particularly if the weather conditions are right. You are most likely to see them before or after rain, and least likely to see them on cold, crisp, moonlit nights, particularly if it is windy.

I thought I would share with you some of the moths I have seen in the last couple of weeks, to illustrate what is still flying at this time.

A lot of the winter flying moths are quite tiny. This species, *Anarsia epiula*, belongs to the Gelechiidae family, and is only about 1cm in length. The family is a large one, with at least 800 species recorded in Australia, and probably several hundred more as yet unrecorded.



On the other hand, this colourful moth, seen on the same night, is quite large. It is *Agape chloropyga*, and belongs to the family Aganaiidae. Their larvae feed on native figs. They are found largely in tropical Asia, but extend down the Queensland coast as far as about Lismore in NSW.

Also from the Aganaiidae family is this less spectacular moth, *Digamma marmorea*. Its larvae feed on *Carissa ovata* and, along with its host plant, it has a wide distribution in northern Australia, being particularly plentiful in arid areas as far south as Alice Springs.



This species is one of the *Ericeia* genus, probably *E. plaesioides*. The genus belongs to the family Erebidae, and is found in all states, however *E. plaesioides* has only been recorded from SE Qld and northern NSW. The final example below is *Cosmodes elegans*. This is a fairly common moth in this area, is found throughout the year, and is one of the very few moths that is more commonly sighted in winter than in other seasons. Its larvae feed on wahlenbergia, lobelia and verberna species.



CONGRATULATIONS ERIC

(Extracted from a U3A newsletter)

Congratulations to one of our U3A members, Eric Anderson, who was appointed as a Member of the Order of Australia in the Queen's Birthday Honours. Eric was a Rangeland ecologist, and received this appointment as recognition of his significant service to conservation and the environment.

Eric was an employee of the Queensland Department of Primary Industries for many years, and ended up being Manager of Landscape Management, Brisbane from 2000-2004

He has been a member of the Society for Growing Australian Plants, Queensland (now Native Plants, Queensland) since 1977. He was a foundation member of the Mackay Branch, in 1978, and after moving to Rockhampton he served from 1980-2000 as a committee member in a range of roles such as Chair and Newsletter Editor. Meanwhile he was the author of the CSIRO book 'Plants of Central Queensland: identification and uses of native and introduced species', - first edition in 2016. He was a major contributor to the collection of Central Qld plants held by the Queensland Herbarium, at Mount Cootha Rd, Toowong, - the centre for research and information on Queensland ecosystems, plants and fungi.

Birdlife is also one of his specialties. He has been a member and volunteer of Birdlife Southern Queensland since 1977 and has been a committee member, a convener, a member and chair of

various sub-committees, as well as a member and delegate of the Glossy Black Cockatoo

Conservancy, since then. He received a distinguished service award from this society in 2015. He was a contributor to the 'Birds of the Fernberg Estate' publication, Office of the Governor, Brisbane in 2016. Besides specializing in these areas, Eric has been an active member of the Montville Village Association, and the Barung Land Care group in Maleny, who awarded him Life Membership in 2017.



Reports for Outings and Events

Ewen Maddock Dam

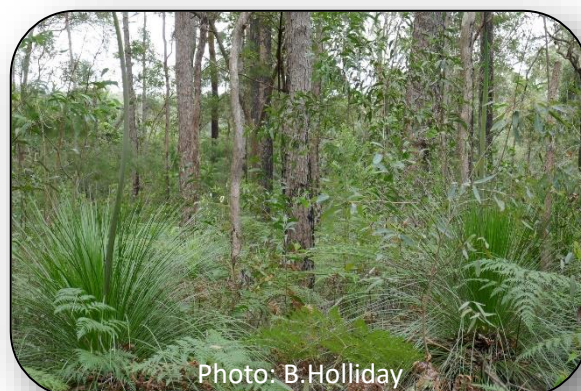
Sunday, 12th May (Mother's Day). Under grey skies, seventeen walkers arrived at our Ewen Maddock Park meeting point, including our guide Kenneth McClymont from Sunshine Coast Council, Catchment Project Officer, Community Conservation Partnerships. We slowly made our way along the track, stopping often to look and listen and ask

questions. We had three experts with us, guide Kenneth as well as our president Spencer Shaw and all-round

knowledgeable member and photographer, Eric Anderson. The *Billardiera scandens* were flowering profusely and a group of beautiful ground orchids was found, discussed and photographed (*Dipodium variegatum*). After all the rain we have had recently, the area was looking very green with a lush and ferny understorey (both soft and hard bracken). There was an interesting discussion about how to easily tell the difference between the local Piccabeen palm (*Archontophoenix cunninghamiana*) and the Alexandra palm (*Archontophoenix alexandrae*) from further north. There were both varieties in the reserve. At the finish of the walk no-one was in a hurry to leave and we all kept chatting – a good indication of a morning well-spent!



Comparing the backs of the leaves of the Alexandra (l) and Piccabeen palms (r)



June 2019: The scheduled walk in the Forestry Rd area was cancelled on Saturday night as the tracks were too wet.

6 enthusiastic types decided to meet at Pioneer Park, Landsborough and hope for the best.

Sunday morning was picture perfect with the plants glistening with moisture in the warm sunshine. The constructed boardwalk at Ewen Maddock park on Steve Irwin way meant dry feet for the walkers as we ambled along spotting a variety of plants.

The coffee truck proved a hit and we sipped our coffee in the picnic area enjoying the beautiful morning and a stimulating conversation.



Paperbarks



Acacia hubbardiana



The Investigators

Queensland Garden Expo 2019.

Our theme for 2019 is Plants to Move with You and the vertical garden bed constructed by John Dillon was a great hit. Joan's vibrant plants showed just what can be done in a very tight space. Along with our new hanging basket stand, our display hit the spot for those with balconies and small gardens.

Colourful flowers attract even the youngest visitors – despite stern warnings from Mum, a determined gardener made a bee line for the bright colours.

Our new gazebo was worth every cent as no one asked "Who are you?".

Many thanks to all those who contributed in ways both small and large.



World Environment Day, Cotton Tree, Maroochydore June 2

Native Plants Sunshine Coast and Birdlife Sunshine Coast shared a gazebo. Many people remarked that they thought it was a great idea for the groups to share a space.

The rain-free morning brought the crowds and they were an interested and interesting group. The vibe was very positive. The other displays were varied and informative. Marie's only complaint was – not enough coffee outlets to cope with the crowd! The rain arrived as forecast and we got a bit damp around the edges and a few drips landed on our heads. Because we had set our tent up to let people come in – we gathered quite a crowd while the skies opened up.

Thanks to Anne and Jim, John and Stephanie Birbeck, and Robyn Combes from Birdlife.

All agreed this is a worthwhile event and we should attend in 2020.



Conservation Forum 2019

Several members of our own group, who are also members of various conservation groups supported by Council, attended this year's forum to learn more about bats, fungi, shorebird conservation and many other topics of interest. With 3 presentation streams, it was not possible to cover everything!

John found the presentation "Lady Elliot Island – rebuilding a terrestrial ecosystem" very well targeted, as the revegetation efforts contributing to the recovery of this remote coral cay's terrestrial ecosystem were described. The island's vegetation was devastated in the late 1800's by guano mining and the introduction of goats and weeds.

Brendan Stephen, local bush regenerator whom some of our members probably know, described his parameters for successful bush regeneration and how to achieve them. I'm sure Gretchen can update us on the intelligent mycelia of fungi, and Eric on any topics related to birds.

I was fascinated by the breadth and scope of the Atlas of Living Australia. I often use it to check the known distribution of a particular species but there is so much more to explore. There are global initiatives, the development of standards for citizen science, sharing data between platforms, and the list goes on. Ian McMaster uses it more than I do, and can no doubt elaborate on its potential use for a group such as ours.

The forum is also a great opportunity to catch up with old friends, develop new contacts, talk to council staff, and of course, increase one's knowledge. Altogether, a good day and always worth attending.

Looking at sedges in Kathleen McArthur Park August 2019

On a cold, sunny, and windy morning a large group of us walked a track in the park looking at sedges with Rowena Thomas. Both Rowena and Anne have an interest in these plants so we were well informed. Rowena reminded us of the rhyme

Sedges have edges, rushes are round, grasses have knees that bend to the ground. The 'knees' of grasses *are* joint-like nodes found along round, hollow stems. The stems of *sedges* and rushes *are* solid; in cross-section the stems of rushes *are* round, while those of *sedges* *are* triangular and so *have edges*.

Our track was protected from the wind and there were plenty of sedges – albeit not in prime condition perhaps due to the dry and cold conditions.

We could be excused from not concentrating totally on the sedges with the spring wildflowers starting to appear.



Caustis recurvata



Leptocarpus tenax: female flower



Leptocarpus tenax: male flower



Phyllota phylloides



Allocasuarina littoralis

Other local activities that may be of Interest

Mary Cairncross guided walks, Mary Cairncross Scenic Reserve, Maleny

Have you ever seen a golden trapdoor spider's burrow? Passionate and knowledgeable guides at Mary Cairncross Scenic Reserve will share the secrets of the forest with visitors through a series of public guided walks. These walks will highlight some of the plants and animals that make the reserve special.

Group size is limited so please book via email to cclp@sunshinecoast.qld.gov.au, ph: 5494 3023, or enquire at the Rainforest Discovery Centre front desk. Walkers are encouraged to make a \$2 donation, which includes entry to the Rainforest Discovery Centre.

Guided walk dates and times:

- 1 September, 10 – 11:30am
- 6 October, 2:30 – 4pm
- 3 November, 9:30 – 11am

Interesting Workshops at the Maroochy Botanic Gardens

Booking: events.sunshinecoast.qld.gov.au

Cost per workshop is \$15

- Native Stingless Bee Workshop with Rob Raabe, 15 September, 9 – 12noon
- Native Plant Food Foraging Workshop, with Veronica Cougan, 20 October, 9 – 11am
- Kokedama with native plants, with Karen Shaw, 17 November
- Culturally Significant Plant Walk with Lyndon Davis, 15 December, 9-11am
- Making Useful Items with Native Plants with Brianna Hanson, 19 January 2020, 9-11am

