



## February 2019 Newsletter No. 210e

Next Meeting – Friday 22<sup>nd</sup> February

### Mark Cachia presents

### Bradley Method of Bush Regeneration

Mark Cachia, is an Environmental Restoration professional with 17 years' experience in various Bush regeneration sites across the Eastern half of Australia from:

- Humble beginnings volunteering at Taronga Zoo in 2002;
- Organising various environmental and water quality initiatives at school and the University;
- This passion for the restoration of the Natural world continued through University while completing a Bachelor of Biodiversity and Conservation; and
- Both paid and volunteer Bush regeneration across the Sydney Basin.

Photo: Jann Houley, The Morning Bulletin

Fast forward to now and Mark has been undertaking Bush regeneration project in:

- SE and Central Queensland;
- Noxious animal and plant control in places such as Archer River in Far North Qld; and
- On top of Flinders Peak.

Through [Bringing Back the Bush](#) Mark uses his various skills and experience to assist landowners and organisations to manage their vegetation for better productivity and biodiversity.

Bush Regeneration or "Bush Regen" - what does it actually mean and why is it important?

- Mark will explain Bush Regeneration from two very different beginnings and highlight some prime examples of the practice.
- You will come away with some knowledge of the process and
- How it may be applied to your home garden, paddock or creek line to increase biodiversity and productivity of your site..



**Meeting** is at 7:00 pm. Turn up hill at the traffic lights on Frenchville Road through the car park. We hope to see you there. Bring along your labelled specimens (if you know them), some cuttings for everyone to identify and any extra native seedlings. We will be running a plant raffle so bring along your spare seedlings to raffle and a few coins.

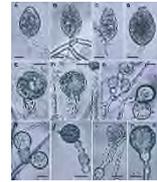
## Last Meeting – Friday 1<sup>st</sup> February (held over from January)

**Guest Speaker.** A large group welcomed Michael Elgey, Curator of Rockhampton Botanic Gardens and Kershaw Gardens. Michael has not wasted any time applying his experience with tree-killing fungi that he has observed here in suburban Rockhampton. He is a Botanical Horticulturalist, not a Plant Pathologist although he has been fortunate to work alongside Australia's leading plant Pathologist and Plant Diagnostic Unit.

He has observed two soil pathogens in Central Qld, *Phytophthora cinnamomi* and *Phellinus noxius*.

### *Phytophthora cinnamomi*

- Introduced species from Indonesia and thought to be brought to Australia in the 1880's
- First identified in Australia in the 1920's
- Now found in all states of Australia



### *Phellinus noxius*

- Native species of Australian rainforest
- Spread across south east Asia but not yet identified in Central or South Americas



Michael spoke about the life cycles, how to identify the symptoms of these fungi, their impacts and what can be done:

- Physical
  - Root barriers
  - Management lines
- Cultural
  - Improve plant health – soil conditions, aspect, watering
  - Improve fertilising conditions – Think of Goldilocks
  - Improve soil condition – Add soil conditioners – I'm a big fan of Zeolite
- Biological
  - Mulch, Mulch and Mulch
  - Trichoderma
  - Bacillus
- Chemical
  - Sterilisation of tools, boots and equipment
  - Select fungicides available for *Phytophthora cinnamomi*
  - Nothing on the market for *Phellinus noxius*.....as of yet

Additional resources:

- Biosecurity – Royal Botanic Gardens Melbourne
- Threat abatement plan for disease in natural ecosystems caused by *Phytophthora cinnamomi*
- *Tree Science – How to manage Myrtle Rust and Phellinus noxius in trees*
- *Influences of pure mulches on suppressing Phytophthora root rot pathogens*
- *Phytophthora Management Guidelines*
- *Phellinus noxius root rot – Department of Employment, Economic Development and innovation, Queensland*

**The Annual General Meeting** was also held and the following appointments were made for 2019.

<b>Chair</b>	Neil Hoy	<b>Treasurer</b>	Lenore Lindsay	<b>Refreshments</b>	Judith Akers and Marian Davies
<b>Vice Chair</b>	Bob Newby	<b>Newsletter</b>	Emma Owbridge	<b>Propagation Officer</b>	Kelvin Wykes
<b>Second Chair</b>	Ann McHugh	<b>Excursions</b>	Neil Hoy	<b>Plant Competition</b>	Shirley Hopkins
<b>Secretary</b>	Bob Newby	<b>Technical Officer</b>	Phil Esdale		

## Next Outing – Sunday 3<sup>rd</sup> March

**Kershaw Gardens.** Meet at Kershaw Gardens at 2:30 pm for a leisurely stroll through the gardens. This will be NPQ Rockhampton's first outing to Kershaw Gardens since the upgrades to the parkland areas were completed. Meeting point: Along Charles Street, across Moore Creek Bridge into Kershaw Gardens.

## Last Outing – Sunday 3<sup>rd</sup> February

Despite overcast weather a group of seven members met at Emu Park to examine three sites including two revegetation sites near the fore-dunes. The late afternoon trip concentrated on areas of current or proposed restoration of coastal vine scrub communities by the Emu Park Bushcare Group. Vine scrub extending from Emu Park Lions Park to the Caravan Park was the first site examined. Discussion on bringing exposed areas seawards into a planting extension subject to a successful funding application by Livingstone Council. These higher dune areas readily shed water and the Group has requested access to a mains water supply as essential to initiate effective restoration planting of vine scrub species.

Haven Road beach walkway to Ritamada Beach was the second site visited. John McCabe pointed out the damage to trees from Cyclone Marcia and recalled early actions (late 90s) assisted by Coastcare and Surfriders to remove lantana, and guinea grass and plant with vine scrub species the open area created by construction of the walkway. Initial plantings on a zero budget included *Acacia disparrima*, a number of which were now dying and being consumed by fungus. There had been natural recruitment of vine scrub species on the site but much of this was destroyed by regular mowing between the well-established trees. In fill planting is planned if a wet season eventuates.

At Marine Parade, Fisherman's Beach, Bushcare Convenor Julianne Weekers let the group on a walk explaining the various stages of a vine scrub restoration project. She and other volunteers from Rem Veg and Emu Park Bushcare have been undertaking these projects over the last 20 years. This project was initially inspired when stormwater drainage works caused destabilisation of flows to the beach. A difficult site subject to increased flooding from residential areas, and storm surges from the most exposed section of Fishermans beach. The planting have effectively stabilised this site, but [Coral Creeper](#) (*Balaria repens*) invasion from nearby gardens is a new threat. This prolific seeding species is becoming widespread along the Capricorn Coast beaches, even in remote areas such as Sandy Point on Farnborough Beach. Julianne continued the walk along the remainder of the 300 metre Bushcare restoration site and also pointed out how the official walkways to the beach could be improved by installing bends which trap sandblows in dune vegetation and avoid the need for annual deep access cuts made by council machinery.



Coral creeper (*Barleria repens*).

While there were no significant new species to add to our extensive list, it was a good opportunity to re-familiarise ourselves with some of the common beach scrub species, several of which were in flower (*Vitex*, *Jasminum*, *Terminalia*). It was interesting to see the use of a dense planting of *Dodonea viscosa* so close to the fore-dune. It was heavily wind-shear pruned. Thanks to John McCabe for leading the afternoon. Contributed by Bob Newby and John McCabe.

**Our Brisbane-based members Milton and Aileen Moorhead** – pictured with Lawrie Smith at Gladstone's Ecofest:

Now settled in Brisbane overlook some bush, Aileen came up to stay with Ann last month and brought a selection of Milton's wonderful photos to share. Here is a sample from one of their Western Australia trips:



They are all beautifully labelled, thanks Milton!



VERTICORDIA KALBAEI NAT PARK



VERTICORDIA STIRLING RANGES



SMOKE BUSH & LACHNOSTACHYS LAKE GRACE



VERTICORDIA GRANDIS JURIEB RD



BANKSIA COCCINEA FNP



CALADENIA FLAVA STIRLING RANGES

## Upcoming Events

<p><b>Sat 22-23 Feb</b></p>	<p><b>Weed Wackers at North Keppel Island Environmental Education Centre – cyclone permitting!</b></p>
<p><b>Sat 2<sup>nd</sup> and Sun 3<sup>rd</sup> March 2019</b></p>	<p><b>National Palm and Cycad Show.</b> SE Queensland only had one quarter of the normal rainfall over the last three months. Show goers will get a list of 20 palms that are drought tolerant. Once established, cycads are drought tolerant too. Just twelve palm varieties are commonly grown in SE Queensland, most of them very tall. There will also be a list of 40 other palms which grow well here. Many are small and medium in height so go well in a suburban garden. Similar story with the range of cycads too. Help your members make their garden look different.</p> <p>The show will be open on Saturday from 9am to 4pm, and Sunday from 9am to 3pm. The cost is just \$3 per adult, concession cards \$2. Lots of free parking.</p> <p>As well as an impressive display of native and exotic palms &amp; cycads, there will be books and magazines to view/buy. Visitors will be able to ask the experts about the suitability of palms and cycads for their garden. They'll also see many unusual plants such as palms with distinctive red leaves and cycads with blue leaves. There will be a massive low-cost plant sale for indoors/outdoors, full sun/shade, feature/screening, fan/tall, rare/common. So a great place to indulge their gardening passion. For more information head to their <a href="#">website</a>.</p>
<p><b>Sun 3<sup>rd</sup> March 2019</b></p> <p><b>8:00 – 9:30am</b></p>	<p><b>Clean Up Australia Day.</b> Join a clean-up site near you!</p> <ul style="list-style-type: none"> <li>• Brian Bulman Park</li> <li>• Kershaw Gardens</li> <li>• Northside Boat Ramp</li> <li>• Southside Boat Ramp</li> </ul> <p>Check out the flyer on page 9 of this newsletter.</p>
<p><b>Sun 3<sup>rd</sup> March 2019</b></p>	<p><b>Native Plants Capricornia</b> – outing to Kershaw Gardens – details above.</p>
<p><b>16<sup>th</sup> – 20<sup>th</sup> Sept 2019</b></p>	<p><b>16<sup>th</sup> Australasian Botanic Guides Conference</b> is to be held at the King Park Botanic Gardens in Perth, Western Australia, preceding the ANSPA Biennial Conference. More than 150 guides from botanic gardens around Australia and New Zealand are expected in Perth next year for the conference. The Kings Park Volunteer Guides will host the biennial conference, which was last held in Perth in 2003. The last conference was in Canberra in 2017. The conference, with the theme <i>Beauty, Rich and Rare</i>, will run over four days with events focussed on Kings Park and the Western Australian Botanic Garden.</p>
<p><b>29<sup>th</sup> Sept – 4<sup>th</sup> Oct 2019</b></p>	<p><b>Australian Native Plants Society Australia Biennial Conference and Seminar</b> is to be held in Albany, Western Australia from 29<sup>th</sup> September to 4<sup>th</sup> October 2019, hosted by the members of the Wildflower Society of Western Australia. The Conference themed <i>Blooming Biodiversity</i> is still in the planning stages, but will include a series of tours to and from Albany, the host town, and a variety of day excursions during the conference, taking in native flora in bushland settings as well as gardens and landscaped areas. Since the south-west of Western Australia is known for its pristine bushland, there will be an emphasis of native flora in its natural setting. Further information will be published as planning proceeds.</p>

## This month's curiosity plant

Among my eclectic collection of plants is a four year old potted specimen of the silk handkerchief tree, *Maniltoa lenticellata* (Family: Caesalpineaceae). This species is a small tree growing to 20 metres and has a restricted natural distribution between Cooktown and Iron Range in the semi-deciduous rainforest of Cape York Peninsula. Horticulture has extended its range south through the tropics and I am hoping it is fairly hardy.

In late summer these plants develop bud-like structures which when they 'open' reveal NOT a flower but a cluster of 15-20 pale pink/orange leaves. For a short period the cluster of new leaves resemble a handkerchief hanging from the tree (hence the common name). Over a period of weeks the leaves develop chlorophyll and take on the appearance of normal leaves. There is an excellent photograph in John Beasley's little book *Plants of Cape York* and I will endeavour to bring a specimen to our next meeting. Contributed by Bob Newby. Photo: WWW



## Melbourne's Urban Forest

In April 2017, the City of Melbourne introduced the Nature in the City Strategy and underlying Urban Forest Strategy which aims to create and maintain healthy ecosystems and thriving biodiversity within the city. It is the product of a collaborative process, developed with information, ideas, and advice provided by a large number of stakeholders including local academics, interest groups including Traditional Owners and Friends groups, and the broader Melbourne community. By considering the city as a wider ecosystem, there is the opportunity to actively foster connections amongst people, plants, animals and the landscape.

It is recognised that the city's tree population contributes enormously to the liveability of the city; defining features in parks, gardens, green spaces and tree-lined streets. However, Melbourne also faces significant challenges including climate change, population growth and urban heating, placing pressure on the built fabric of the city. In addition to their aesthetic values, the council recognises the intrinsic environmental and human health benefits of trees in the streetscape, including providing ecosystem services such as water and air filtration, shade, habitat for fauna, oxygen, carbon sequestration and nutrient recycling. Trees also reduce the impact of flooding and the urban heat island effect in an ever-expanding concrete environment.



To deal with these emerging issues, the City of Melbourne plants over 3000 trees per year to help achieve canopy cover and species diversity targets outlined in the strategy. The planting season runs during the cooler months when young trees are more likely to establish well in their new environment, typically from April until September each year. Each new tree is placed on a two year monitoring and maintenance program to make sure it establishes in the landscape. When a tree has to be removed and replanting is possible in the same location, the plot is added to our list of future plantings. Trees are also cared for by professional arborists, qualified to assess and maintain a healthy urban forest.

[Urban Forest Precinct Plans](#) for 10 areas within the city have been developed outlining planting priorities, constraints, natural and open space context, canopy cover and biodiversity outcomes, longer-term planting strategies and planting lists. An online mapping portal has also been created of Melbourne's street trees which can be viewed on the [City of Melbourne Website](#). Users can explore Melbourne's current street trees on a map, see future plantings, learn about the issues facing tree management in the city and find out how to get involved.



Members of the community can also become Citizen Foresters, volunteering with plantings and also collecting data about the ecology of trees in their local area. Find out more about activities for Citizen Foresters [here](#).



### Hunting Heliconias in Panama – A podcast

*Conversations* is a daily segment aired on ABC Radio National which draws you deeper into the life story of someone you may, or may not, have heard about. Late last year, a segment aired about Horticulturalist Bruce Duncan's quest to see rare species of the tropical flowering plant, *Heliconia*. Bruce makes regular plant-hunting expeditions to remote regions of countries including Ecuador, Peru, Colombia, Brazil, Costa Rica and Malaysia. His journeys sometimes involve dangerous border crossings, big cat sightings, river voyages, and intense trekking through dense jungle. At home in Brisbane, Bruce runs a thriving nursery business, as well as cultivating hundreds of air plants, which cling to the exterior walls of his house. Click here to listen to the [podcast](#) or visit the Bromeliad Society of Queensland website for more information.

### New Book for Sale – Tropical Fungi Pocket Guide

The Tropical Fungi Pocket Guide: Australian Tropical Mushrooms & Other Fungi pre-publication sales are now underway. The Tropical Fungi Pocket Guides are in the final stage of production and will be launched in March 2019 in FNQ, with the Major Event in Innisfail on Friday 15th at 6.30pm. These are a First for Tropical Australia. Right now, I will declare my bias! I am a co-author, but have contributed only a small section of the fungal diversity that is included in these guides. I am very excited by the number of species that are being illustrated for the first time in Australia – boletes, polypores and gilled fungi! This is a product for tourists with an eye for colourful fungi, and students of mycology alike. They are packed with information to enjoy and learn from. The Guides will retail for \$10 each. We have ordered 20 copies so please let us know how many copies you would like.

## Australian Tropical Mushrooms & other Fungi



## The next exciting chapter in the study of Australian Tropical Fungi is about to unfold!

The following is an article from the Queensland Mycological Society reproduced in the NPQ Rockhampton Newsletter.

QMS is organising another trip to Far North Queensland, with workshops and Forays during the Wet Season (i.e. Fungi Season!) in March 2019.

As well, following on from our very successful project in 2018, we have gathered enough material to produce a Pocket Field Guide specifically for the Tropical Monsoon region of Australia – “**Australian Tropical Mushrooms & Other Fungi**”. This resource is long overdue in a biodiversity hotspot across the tropics. The pocket guide will illustrate 118 species with an introduction to the Fungal Kingdom and its different morphogroups, plus information on substrate, trophic role, size, spore print colour, and toxicity for each species. The species chosen are ones that occur commonly in Tropical Australia, and also some that are new finds or new distributions in Australia. Drs Sapphire McMullan-Fisher, Matthew Barrett and Frances Guard have combined their knowledge and skills to produce these informative handy brochures.

The **Official Launch** of the guides will take place in **Innisfail** (at Terrain, NRM, 2 Stitt St., Innisfail) on **Friday 15th March at 6.30pm**, hosted by the Johnstone Ecological Society. Guest speaker, who will launch the Guides, is Adjunct Professor Peter Valentine from JCU, School of Engineering and Science. This will be a celebration! Please come along and let us know for catering purposes if you will be there.

Other guests will include Dr Roy Halling, Boletes expert and Curator of Mycology at New York Botanic Gardens, Dr Barbara Thiers, Expert in liverworts and Director of New York Botanic Gardens Herbarium, and Dr Teresa Lebel, mycologist, expert in Australian truffles from National Herbarium, Melbourne.

As well, the Johnstone Ecological Society will host an **Introductory Fungi Workshop** on Friday 15th March at 1.30pm, and a **Fungi Walk with the Experts** on Saturday 16th at 9am. Participants are welcome, but must book in.

Further **Workshops** will be held at **TREAT, Lake Eacham** on Friday 22nd March at 11.30am, **Kuranda Envirocare** Sunday 24th March at 9.30am, and **Cairns Botanic Gardens** Monday 25th March at 9.00am. Again, participants are welcome, but must book in.

For all enquiries, please contact Fran Guard on [memsec\[at\]qldfungi.org.au](mailto:memsec[at]qldfungi.org.au).

*Photos: Fran Guard*



## The Bradley Method of Bush Regeneration.

In the 1960s and 1970s Joan and Eileen Bradley developed a series of weed control and native vegetation recovery techniques through trial and error. Their work was the beginning of bush regeneration in New South Wales. The ‘Bradley method’ involved methodically clearing small areas in and around healthy native vegetation so that the each area was re-colonised by the regeneration of native plants, replacing the weeds.

The method places great emphasis on rigorous and timely weed control follow up during the recovery phase (a tenet still adhered to in modern bush regeneration). The process showed that, once native vegetation was re-established, continuing weed control was needed infrequently, mainly in vulnerable spots such as creek banks, roadsides and clearings.

The Bradley method follows three main principles,

1. secure the best areas first. They are the easiest to work with the best results. They are the core areas that can then be expanded.
2. minimise disturbance to the natural conditions (e.g. minimise soil disturbance and off-target damage).
3. don't over-clear – let the regeneration of the bush set the pace of clearance.

The essence of these principles guides modern bush regeneration, taking into account modern techniques and the need for appropriate ecological disturbance to trigger regeneration



Return Address: Native Plants  
Capricornia, 401 Frenchville Rd,  
Frenchville QLD 4701

**Sunday 3rd March 2019**

# Clean Up Day

**JOIN A CLEAN-UP SITE NEAR YOU!**

- **Brian Bulman Park 8-9.30am**  
(Opposite Bunnings Carpark)
- **Kershaw Gardens 8-9.30am**  
(Bruce Highway)
- **Northside Boat Ramp 8-9.30am**  
(Robert Clark Drive)
- **Southside Boat Ramp 8-9.30am**  
(Littler Cum Ingham Park)
- Or join a registered community site.

**FREE SAUSAGE SIZZLE**  
for registered clean-up site  
participants at Kershaw  
Gardens from 9am to 10.30am!

- Join in citizen science litter audit and data collection,
- Be part of a litter debris sculpture creation, and
- Learn more about reducing waste and recycling right.

**Rockhampton Regional Council**

**Change starts with you. Sign up at [www.cleanupaustaliaday.org.au](http://www.cleanupaustaliaday.org.au).**

This community BBQ event is proudly hosted by Rockhampton Regional Waste & Recycling, supported by Fitzroy Basin Association Inc. and Capricornia Catchments.

