



Friends of Maroochy Regional Bushland Botanic Gardens Inc.

NEWSLETTER

Sept 2023 Volume 27 Issue 3

From the President

Lynn Vlismas

AAFBG Conference 2024

“The Challenge of Change”:

‘Discussing Relationships, Volunteering, Climatic Changes and the use of Technology’

Friday August 23rd – Sunday 25th

..... And perhaps a further subtext which should read – what are Friends for if not to get together for a chat, to put our heads together, share our collective ranges of experiences and knowledge, and to come up with a positive way to respond to the ongoing need for change.

This will be the topic that the Friends of Botanic Gardens discuss as they come together from around Australia at the end of August 2024 for the AAFBG CONFERENCE 2024.

As we all know, we all need to continue to respond to change and adapt to differing circumstances.

These are some of the topics that will continue to affect Friends groups in their supporting roles in Gardens throughout Australia. To help get some discussion going between our Friends here at MRBBG, listed below are some potential expansions on those initial thoughts and what they might lead us to:

- How can volunteering be made more attractive to draw in and maintain an ongoing range of expertise for Friends groups to thrive?
- What relationships do we need to develop and nurture further – governing bodies, other Friends groups, the local community, and other like-minded community groups; and how best to do this?
- Unfolding climatic impacts will determine future Collections and Maintenance Policies as well as public access to various collections – where do we start?
- What sort of role is there for technology in assisting with education, information and plant material storage, plant propagation techniques and the means for finding new sources of rare/ or threatened species to add to Collections.

Friends of MRBBG Inc.

Our Mission:

‘To support the establishment and development of a unique world-class Bushland Botanic Gardens for the Sunshine Coast’.

Our Vision for the Gardens:

‘To experience the harmony between people and the living environment’.

Our Vision for the Friends:

‘To establish a vibrant and responsive Friends organization known for enthusiasm, participation and initiative’.

What's In This Issue?

From the President	1
Fern Profile	2
A successful Botanic Garden	3
Weed-spotting ‘acacia’	3
Acacia penninervis	4
Book review	5
<i>Ricinoscarpos speciosus</i>	5
What's Happening on Site	5

Our Supporters

Nambour Print & Copy

6 Price St, Nambour
5441 4622

nambourprint@bigpond.com



This Newsletter has been produced with the assistance

The Conference Working Group is currently looking for suggestions on the expansion of some of these general topics as we look to develop the Conference Programme and appoint an appropriate range of speakers. If you would like to add your ideas and thoughts on this theme please email the friendsofmrbbg@gmail.com and mark it: Attention Conference Conveners.

This is a topic with the potential to provide a large impact. So let us know your thoughts to add to the discussion for the AAFBG Conference 2024.

We will continue to keep you all up to date with our Conference program as it evolves, and we will also be asking for help from our membership with a range of “helping out” tasks from food and refreshment service over the 2 days of Conference, setting up marquees, tables and chairs, and being available for the “day at the Gardens” currently being programmed for the Monday 26th August after the Conference wraps up.

If you'd like to be involved let us know.

Fern Profile: *Nephrolepis cordifolia* Fishbone fern or sword fern
Wendy Johnson

The exact native range of this species is obscure, partly because it has often been confused with other similar species. It is thought to be native to many tropical regions of the world (i.e. pan-tropical), including some parts of northern Australia. It is a tough, robust fern and is said to be the second plant species to colonise Krakatoa after its eruption (the first plant species to arrive there after the eruption was also a fern).



Fishbone fern

In its natural environment, fishbone fern (*Nephrolepis cordifolia*) is usually found growing in rocky areas, on rainforest margins, or as an epiphyte on palm trees in the wetter parts of tropical and sub-tropical Australia. We even spotted it on the inaccessible rocky cliffs of a gorge

in the Kimberley region of WA. It is mainly a weed of parks, gardens, roadsides, fence lines, disturbed sites, waste areas, railway lines, suburban bushland, riparian areas and coastal environs in sub-tropical and warmer temperate regions.

This is a fern with upright or drooping fronds usually growing about 50 cm tall, but occasionally reaching up to 1 m in height.

It forms a network of creeping stems and usually develops some fleshy rounded tubers (about 15 mm across). The creeping stems and frond stalks are densely covered in glossy brown elongated scales. The network of creeping stems has been found to deter even the scrub turkeys!



Rounded tubers

Its upright fronds have a brownish-coloured stalk up to 15 cm long and are divided into numerous alternatively arranged narrow leaflets. These leaflets have irregularly and often finely scalloped margins and are usually hairless. Their tips are relatively broad and somewhat rounded and their bases are usually overlapping and slightly lobed on one side. Fronds tend to be dull green in shaded areas and lighter green or yellowish-green when growing in a sunny position.

This species reproduces by spores and vegetatively via underground stems and often also by fleshy underground tubers. Spores are most commonly spread by wind and water, while the rhizomes, tubers and spores are most often dispersed to new areas in dumped garden waste.

Fishbone fern (*Nephrolepis cordifolia*) is regarded as an environmental weed in New South Wales and Queensland. Despite this, it can be an attractive ground cover in areas that are difficult to maintain or where little else can grow. I wonder if it will be the one plant that will find a niche in our future urban suburbs where dwellings are so densely built.

What are the elements that make a successful Botanic Garden?

Lynn Vlismas

Along with everything else happening at the Gardens, the lead up to the AAFBG Conference 2024 should provide a reflective time for all of us to look critically at how well MRBBG is going in establishing the major components required for the creation of a well-rounded and authentic Botanic Garden. It will also give us some time to think about what we would like the focus of our Botanic Garden to be for the future.

What are the elements that will make MRBBG a Botanic Garden and not just a bushland park? And how do we make it the sort of place that is successful on many levels. This is the question that our Committee has been grappling with for some time.

According to the BGCI – Botanic Gardens Conservation International – it is “securing plant diversity for the wellbeing of people and the planet” and their vision is of a world in which plant diversity is valued, secure and supporting all life.

Usually, Botanic Gardens in Australia have officially been defined as a - “scientific and educational institution for the purpose of advancement and dissemination of knowledge and appreciation of plants” but is that really all a Botanic Garden can be seen as nowadays?

We can all see how much our own Garden has been changing since it opened just over 20 years ago with various public programmes increasing visitation numbers.

Social, cultural, wellbeing, and educational aspects can all be part of what a modern Botanic Garden provides to the community, as well as for its ongoing conservation and research purposes.

Even though we have come a long way and have many visitors there are still many things that need to change. Some thoughts include:

- More everyday **engagement by the whole of the Council** with the Gardens acting as a potential “beacon”, or light-house for the community by illustrating firsthand some of the major principles of the SCC Environment, Liveability and Sustainability Policy and by showcasing all aspects of our new Biosphere status.
- Most importantly, there is a need for the **appointment of a curator** with a wide local plant knowledge to focus the Plant Collection Policy on the most important and representative SC plant species and also with an imaginative approach to presenting these

plants within the various display gardens to encourage local gardeners to become even more inspired by our local biodiversity.

- More Council staff to implement the overall aspects of a well- researched Plant Collection Policy, monitoring ongoing plant performance, keeping the plant database updated, expanding the sourcing of rare, vulnerable and threatened species and their seed collection for propagation, monitoring ongoing plant and soil health, as well as monitoring water supply systems for optimum plant growth.

- Adequate ongoing Council funding for both operational and capital works programmes to be fully implemented.

It's another huge topic and after 27 years we all need to feel confident that we are heading in the right direction with establishing a lasting Botanic Garden.

As we seek to support and grow our local Botanic Gardens as Friends, we need to be both active and informed in all aspects of local flora, fauna and fungi. We are perfectly placed to help our Biosphere become as biodiverse in our suburbs as it is in our bushland.

Weed-spotting ‘acacia’: New invaders double as a lesson on name changes.

Malcolm Cox

One of the bulletins we receive regularly is from the Weed Spotters Network Queensland, a service based in the Qld Herbarium [BRI].

<https://www.qld.gov.au/environment/plants-animals/plants/herbarium/weeds>

Among the weeds that the Network is keen to locate and control in the South-East there are three new ‘ex-Acacia’ species:

Acaciella glauca ; redwood: shrub from tropical America and the Caribbean; white flowers, red branchlets; originally Linnaeus named it *Mimosa glauca* ; later known as *Acacia glauca*.



Vachellia karroo; karroo thorn: long white thorns, yellow flowers; tree from southern Africa.



Vachellia xanthophloea; yellow wood: tree from eastern and southern Africa; yellow-green powder on bark.



Acacia VS Vachellia: Australian species are still *Acacia* because they are the largest cohort and renaming them (which protocol might have required) would have been messy; *Vachellia* is the new name given to some 160 species from the Americas, Africa, Asia and Madagascar, even though the original 'type' *Acacia* was from Africa. For those who want more history on this, try ... <https://anpsa.org.au/APOL29/mar03-2.html>.

So, if you see any *Vachellia* growing wild, you can call them 'acacia' but you can't **name** them *Acacia* - and please don't leave them there and not report them to the Network!

All photos: Weed Spotters Network

***Acacia penninervis* - the new 'type'**

Malcolm Cox

When *Acacia nilotica* became *Vachellia nilotica*, a new 'type' for ***Acacia*** had to be chosen, and in 2011 *Acacia penninervis*, mountain hickory wattle, was given that honor.

It was first formally described in 1825; in comparison, *A. pycnantha* (named officially in 1988 as Australia's Floral Emblem) was not described until 1842.



[*Acacia penninervis* Image: M Cox]

A. penninervis naturally occurs from Queensland to Victoria as a shrub or small tree to 8m, though it is not in the MRBBG Collections as yet. Like most Australian species, it has phyllodes (modified leaf stalks) rather than true leaves, and is distinguished by: a. the secondary 'nerve' leading from the base of each phyllode to a gland that looks like a notch on the upper edge, and b. less obvious nerves branching from the main one, giving a feather-like effect - hence the epithet 'penni + nervis' (pinnately-nerved).

For those seeking some irony: From the Greek 'acis', *Acacia* means 'pointed' or 'thorny'. This suited the original African species very well but doesn't work for most Australian species - with the possible exception of some that do have sharp phyllodes. That's taxonomy for you.

CORRECTION:

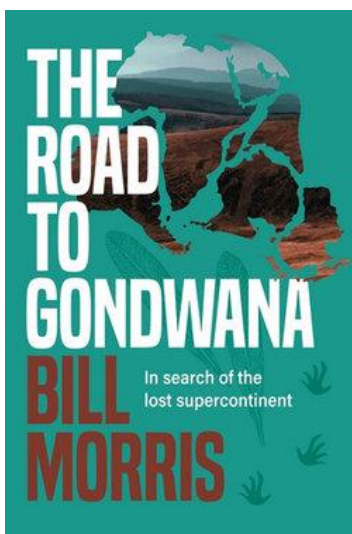
The article ***A Brief History of Macadamias*** in the June 2023 Newsletter was actually authored by Elaine Davidson B.Sc. Apologies to Elaine for the error - we want her to do more like this as well as sharing her meticulous research through her entertaining guided walks. ED.

Book Review

Paul Horne

"The Road to Gondwana" Bill Morris
Exisle Publishing, 2022

The Road to Gondwana traces the steps science took to find Gondwana, and the journey of Gondwana itself, through a billion years of Earth's history. The road to Gondwana took science many hundreds of years to travel, and was a journey with many dead ends and wasted miles. When it was finally glimpsed, Gondwana remained fuzzy, hard to picture. It is still that way. Gondwana is a place that no longer exists, and yet which connects half the world, because the 3 billion people who live in Africa, South America, India, Australia, Papua New Guinea, New Zealand and Arabia spend their lives walking around on what's left of it. Had Gondwana never existed, the planet would be a very different place. The trees of our forests would be different. The animals we live amongst would not be the same. Had Gondwana not existed, maybe we wouldn't either.



A copy of this book is available to be borrowed from the Friends reading room in the A&E.

Ricinocarpus speciosus

Paul Horne

Ricinocarpus is a genus of plants that is endemic only to Australia. *Ricinocarpus speciosus* is a 3 m high shrub found along the coast in SE Queensland and NE NSW. It is found in a range of habitats from creek banks and old floodplains to rocky hillsides.

Ricinocarpus speciosus has hairy branches and alternate lanceolate leaves, 2–8 cm long and 5–12 mm wide. The leaves are hairy when young but become smooth and glossy green as they age.

Plants in this genus are **monoecious** shrubs, i.e. male and female flowers occur separately on the same plant. Monoecy is thought to help prevent self-pollination within an individual flower but cannot prevent self-pollination between male and female flowers on the same plant. This species has flowers in clusters of about 5 male to 1 female. Both male and female flowers have white petals of about 1 cm length that are fused at the base.



Ricinocarpus speciosus. Family: Euphorbiaceae.
Vulnerable shrub to 3 mtrs in wet eucalypt forest at Springbrook and Mt Mee.
Separate white male and female flowers to 15 mm in spring.
Maroochy Regional Bushland Botanic Gardens, Tanawha. (4, AP13) 29/08/2023

Male flowers have their stamens fused at the base to form a central column, while the female flowers have styles fused at the base with deeply branched tips.

The fruit produced is a capsule of many seeds with an attached fleshy structure called an **elaiosome**. The elaiosome is rich in fats and proteins which may attract ants, or other insects, to take the seeds to their nest and feed the elaiosomes to their larvae. After feeding their larvae, the ants take the seeds to their waste disposal area where the seed germinate. This type of **sympiotic relationship** between plant and animal shows one of the many interactions between the two and how one is so dependent on the other.

Reference: Wikipedia and PlantNET NSW
Photo Greg Miller

What's Happening on Site

Ray Dale – MRBBG Site Volunteer Co-Ordinator

The gardens at present are very dry and we can't wait for that aroma of wet soil. A sign of the times with these prolonged dry spells. However, our gardeners continue to pull those weeds which for some unknown reason seem to never stop growing regardless of the weather pattern.

It seems in every edition of the newsletter we talk about the lack of volunteer numbers not only in our community but throughout the nation. We can only encourage members to participate in what is a rewarding

occupation. Volunteering doesn't mean you have to be physically involved as there are many levels available such as simply manning an exhibition.

There is at present a lot happening within the gardens so we thought it timely to bring you up to date. The Council are presently undertaking two major projects.

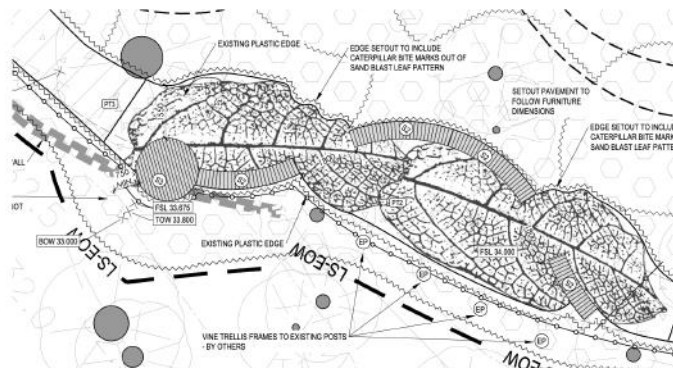
1. The installation of an electricity supply to the Friends Shelter, the Kurrajong Shelter and across the Open Lawn area.
2. The Council have also begun work on the Richmond Birdwing Garden and the area which covers 1700 m² is now paved and had soil bought in to form the mounds. A massive job involving over 30 trucks with just the soil.



Pathways in new Birdwing Butterfly arbour

The Birdwing project already funded to the tune of \$125,000.00 in the Arbour construction and artwork will require further funding by the Friends as it has many elements such as;

- Irrigation at an estimated cost of up to \$20,000.00
- Furniture such as Egg seats to Node A, Caterpillar seating to Node B and Sun Lounges to Node C all at a cost of around \$50,000.00



Design for seating of node B

- Interpretation signage explaining the life cycle and importance of protecting butterfly species.

The Birdwing project when completed will become a centre piece for the eastern side of the gardens. Still a way to go but hopefully an opening in March 2024.



Some Friends are working on Birdwing pathway

The Council have many other projects within their capital expenditure such as the Arrivals Area and the Whipbird Sensory Trail refurbishment. The Friends will assist by way of volunteer numbers and financial funding in order to keep the gardens at 'world's best' but they cannot do it without the support of local councillors. The gardens belong to all the Sunshine Coast and not just one councillor's division and we encourage each one to be involved.



**Friends volunteers repurposing blackbutt tree branch's.
Maroochy Regional Bushland Botanic Gardens, Tanawha. 29/08/2023**

As members we welcome your input so if you would like clarification on any of the projects please feel free to drop us a line at friendsofmrbbg@gmail.com and we will do our best to answer.

The Friends meanwhile have completed the 2.7 km Western Tall Gums and have now moved to the planning stage of the Eastern Tall Gums. The Eastern Tall Gums is another 3 year project with assistance from the SCC Environmental Operations.

Council staff have been kept busy aerating and fertilizing the open lawns in preparation for cooler times and our gardeners have been equally busy weeding, watering and fertilizing the beds.



Brian keeping up watering

The maintenance work within the gardens has been stepped up with oiling of the furniture and pressure cleaning the paths.

Guides were also learning more about the Gardens with a very interesting walk on country led by Kabi Kabi traditional custodian Aunty Bev Hand. This walk was organised by Council.



Aunty Bev Hand, Kabi Kabi Traditional Custodian, sharing a Walk on Country. Maroochy Regional Bushland Botanic Gardens, Tanawha. 29/08/2023

Photos: Greg Miller

Friends' Events

Open Management Meetings

2nd Thu, 1pm @ Friends Shed

Sep 14

Oct 12

Nov 09

Bushcare

2nd Sat, 7am (subject to weather)

Sep 09

Oct 14

Nov 11

Fauna Watch Survey

2nd Wed, 8am

Sep 13

Oct 11

Nov 08

Welcome to our new Friends: Jennifer Campbell, Lena Silkova, and Alex Moore

Information

Mail

Friends of MRBBG Inc.

PO Box 445, BUDERIM, Qld 4556

Web

www.friendsofmaroochybotanicgardens.org.au/

Facebook

Friends Maroochy BG

(fb.com/groups/600452596770097/)

Email

friendsofMRBBG@gmail.com

Secretary

Bob Ducrou

07 5456 2743

Membership:

A form is available on our Website, or use this link to download - [Membership Application Form](#)

A member of

