

# NATURELINK

NEWSLETTER OF THE CRANBOURNE FRIENDS ROYAL BOTANIC GARDENS VICTORIA INC.

VOLUME 29 : 3 | SPRING 2022



*Acacia brownii*. Photo: Rodger Elliot.

Celebrate the *Acacia* on National Wattle Day (1 September) with Charles Young's quiz on [page 6](#).



**AGM and  
celebration  
- Page 2**

**Fauna crossing -  
the inside view  
- Page 8**

**Book reviews  
- Page 12**

**FNQ trip  
report  
- Page 14**

Cranbourne Friends Royal Botanic Gardens Victoria, Inc. 1000 Ballarto Road, Cranbourne Victoria 3977  
Inc no. A0025281B, ABN 43 551 008 609 Web address: [www.rbgfriendscranbourne.org.au](http://www.rbgfriendscranbourne.org.au)  
If print version, this magazine is printed on recycled paper

**We acknowledge the Traditional Custodians of the land on which we work and learn, the peoples of the Kulin (Koolin) Nation, and pay our respects to their Elders past, present and future.**



## Please come and join us for our first in-person AGM for three years, on Sunday 6 November.

1.30pm, Tarnuk Room, Visitors Centre, Cranbourne

The 2022 Annual General Meeting of the Friends will be combined with the long-planned joint celebration of two Cranbourne Friends Honorary Life Members. It will mark both Warren Worboys' 50 years of work at the RBGV, and the retirement of long-serving staff member and Friend Jill Burness.

Please note — the original date for Jill's retirement celebration has had to be changed.

Check the monthly Quicklink and emails from the Friends for the latest information about these events and others.

## Growing Friends Spring Plant Sale

Saturday 22 & Sunday 23 October 2022

10am to 4pm

Australian Garden - Cranbourne

Come along and select from a range of plants, many of which you will find in the Australian Garden.

Plant lists available online one week before the plant sale, on our website:

[rbgfriendscanbourne.org.au](http://rbgfriendscanbourne.org.au)



Spring Plant Sale, 2021  
Photo: Janette Wilson

## Grevilleas in colour

This spring **Geoff Sargeant** is returning to Cranbourne for a 3 day colour pencil workshop based on a *Grevillea* flower.

Geoff is a distinguished fellow of the Australian Guild of Realist Artists (AGRA) and a member of the Color Pencil Society of America (CPSA). He has exhibited widely and won numerous awards - see <https://www.facebook.com/geoffsargeantartist/>

Participants will complete a drawing of a *Grevillea* flower before the workshop so that all of the workshop time is spent on the use of colour pencil. More information and a materials list will be provided to those who enrol.

**Dates:** Monday 31st October, Wednesday 2 November and Friday 4 November.

**Time:** 10am to 3pm each day.

**Location:** Elliot Centre, Cranbourne Gardens.

**Cost:** \$175 members; \$215 non-members.

Participants supply their own materials – a list will be provided.

**Bookings:** visit Tidy HQ <http://thq.fyi/se/b36b7d9cbc59> or use the Booking form.



*Grevillea insigni*  
subspecies *insigni*  
Image: Geoff Sargeant



Well, winter has visited and brought rain, crisp but sunny days along with the vigilance required to avoid yet another COVID wave.

As I write, we have just completed the Winter Plant Sale. It was a little more subdued in numbers attending, and takings, but the camaraderie and delight in being out and about and amongst friends and fellow plant enthusiasts more than compensated. A pleasing number of attendees chose to become members — welcome to you all. Enjoy this, your first of many *Naturelink* newsletters!

Winter Events were select but wide ranging and well patronised, and presenters and participants all held their nerve, masked up and avoided COVID cancellations. We were enthralled by the inside stories on Lyrebirds, Fungi and Western Plains grasslands, just to mention a few of the fascinating subjects.

The Far North Queensland tour was a raging success on its third attempt, and it has whetted the appetite of our organisers, Mick and Gill Robertson, for further tour coordinating. Heartfelt thanks to them for providing their superb skills and calm facilitation. The Lord Howe Island tour is set for late September and is in the very capable organising hands of Rodger Elliot and Shirley Smith.

Do keep a watch out on *Quicklink* for details of the upcoming talks, workshops and Open House sessions of interest.

These events can only take place because a trusty band of volunteers make them happen. We are thrilled to have received a reassuring response when we called for volunteers to join our depleted Events committee and are in the process of inducting these new talented people. New recruits to committees are the lifeblood sustaining any volunteer organisation and we are relieved and grateful to have them on board. There's always room for more — reach out if you think you might have something to contribute — the benefits of being involved and becoming an active part of the Garden's community are very satisfying.

The Melbourne and Cranbourne Gardens will host the BGCI/BGANZ 7th Global Botanic Gardens Congress, September 25-29, and the BGANZ 17th Australasian Botanic Guides Conference, October 23-28. The Cranbourne Friends is a very willing sponsor of scholarships for RBGV Cranbourne staff to attend the Congress, providing a wonderful development opportunity. Stay tuned for an interesting report back on things learned, eyes opened and ideas stimulated from our attendees.

This leads us into the latter part of the year when we hold our AGM and seek reappointment and refreshing of our Committee of Management. We are planning on bringing everyone together to hear our *Of Friends and Gardens* author, Carolyn Landon, and to also celebrate two very long-serving staff members and Friends Honorary Life Members, who have contributed much to the Friends. It will be a chance to round out the 30 years of the Friends with a reconnection of friends. Please set aside the afternoon of Sunday November 6. It will be a pleasure to join with you in this celebration.

## Changed events

In the last issue of *Naturelink* we advertised a talk on Garden History (Sunday 13 November) which has now been cancelled. Secondly, as noted above and on page 2, the proposed Friends celebration of Warren Worboys and Jill Burness is now on **Sunday 6 November** (rather than 27 November).



Eco-tourism improvements

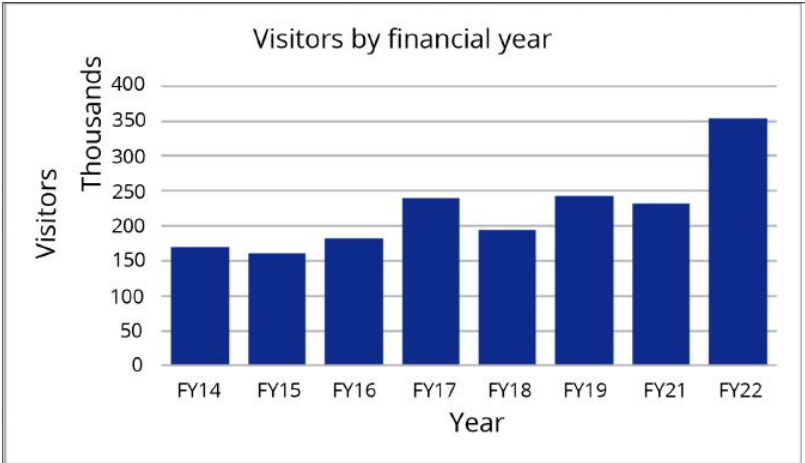
Who would have thought asphaltting a carpark could make such a difference? Perhaps we had simply grown accustomed to the rustic nature of the dusty and occasionally pot-hole-y previous version. Curiously, I find myself sighting along the repeating white lines marking out each of the parking bays with a sense of pride and admiration. They are thermally treated lines that will last decades - not just regular painted lines that will wear off after a couple of years. Really high quality lines! Maybe the sense of pride I feel is that projects such as the sealing of the carpark can be seen as a maturing of the Gardens – a sort of coming-of-age initiative as Royal Botanic Gardens Cranbourne continues to cement its place as a world-class destination.

Our suite of eco-tourism infrastructure projects continues to roll out following a period of design and planning. The refurbishment of the Rockpool Pavilion is nearing completion with its beautiful new roof. Next will be the replacement of the now-unreliable lift within the Visitor Centre. The new lift will be fully enclosed and a little larger to accommodate mobility scooters. An important improvement, I'm sure you will agree. And I hope you have had the opportunity to enjoy the new décor within the refurbished Boon Wurrung Café and Gardens Shop.

In the Australian Garden, the Arid Garden refurbishment is underway which will improve the existing design intent with larger, mounded garden beds providing improved growing conditions for the new planting design. The Dry Riverbed is also in transition with the bulk of existing planting removed, predominantly due to *Armillaria* (Honey Fungus) infection, with similar reforming to larger beds and a revised (more herbaceous) plant palette resistant to reinfection. We are pleased to be working once again with original designers TCL and Paul Thompson on these landscape initiatives.

Growing...

The important investment by the Victorian Government to achieve these improvements is very much warranted when looking at the site's increased popularity. As we emerged from lock downs into the 'COVID-normal' state, Cranbourne Gardens experienced a massive 52% increase in visitor numbers in Financial Year 21-22 (FY22) compared with the year before. Anecdotally, the 352,000 visitors last financial year included many return visitors who discovered us during the COVID-restricted period (residents living within 5km), supported by a targeted marketing campaign.



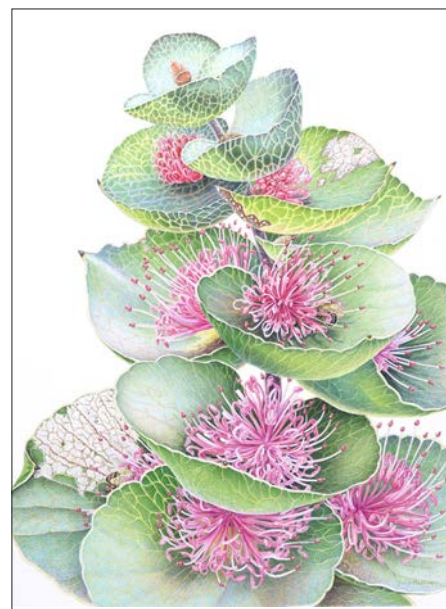


## 7th Global Botanic Gardens Congress – 25-29 September 2022, hosted by RBGV in Melbourne

The Congress was postponed twice due to the impacts of COVID-19, but I am very pleased to report that the global appetite for travel is returning and we have well over 400 delegates planning to attend. This includes a strong and diverse international cohort, complemented by many from Australian Botanic Gardens making the most of the opportunity to mix with colleagues from around the world. Field trips are filling fast, including Cranbourne, Melbourne, Geelong, Ballarat and Dandenong Ranges Botanic Gardens along with other natural attractions. It is great to be showcasing our amazing gardens and flora during the peak of spring, as well as incorporating First Peoples culture into the program.

We are also thrilled to be incorporating artworks from the 16th biennial ***The Art of Botanical Illustration (TABI)*** exhibition, which will run from 16 September to 2 October at Domain House, adjacent to Melbourne Gardens. Artists from six of the European Botanic Gardens being represented at the congress will have their artworks digitally displayed during the program, facilitated by the support of the Vienna School of Botanical Illustration. Credit to the Friends of RBG Melbourne and the TABI committee for such an innovative initiative.

Apart from the beautiful sights and experiences available to delegates, important discussions are to be had about how Botanic Gardens can increase their influence and action in relation to the pressing needs to respond to climate change, population growth and accelerated loss of biodiversity across the globe.



Artworks from the Melbourne Friends' upcoming The Art of Botanical Illustration (TABI) exhibition 2022.

Above: Janet Matthews - *Hakea cucullata*

Left: Angela Lober - *Doryanthes palmeri*

Bottom: Lioudmila Volodina - *Grevillea rosmarinifolia*



## The 16th Exhibition of the Art of Botanical Illustration

### A [Melbourne Friends](#) event

Saturday 17 September – Sunday 2 October, 2022

The Art of Botanical Illustration (TABI) is one of Australia's leading botanical illustration exhibitions. This year it will be presented as a hybrid exhibition, with a physical exhibition held at Domain House, Dallas Brooks Drive, next to the Royal Botanic Gardens, Melbourne, and as an online virtual exhibition.

All artworks are for sale.

## Membership report | Alexandra Stalder

Our new membership cards are in circulation and will continue to be sent out over the next year, as renewals become due. Thank you again to Sharon Start for her fantastic picture of a Silvereye in the Gondwana Garden that is featured on the card. The bulk of members have a renewal date of July 1 each year, however now that we have moved to a rolling system, newer members will have renewal dates spaced throughout the year.

Also, a reminder, we have a few unallocated transactions, where a membership payment has been transferred or deposited in the Friends account, without any identifying information or a renewal form received. If you think you have renewed your membership, but haven't received an acknowledgement by email, or your card in the mail, please get in touch so we can sort it out:

Email: [membership@rbgfriendscranbourne.org.au](mailto:membership@rbgfriendscranbourne.org.au)

Phone: 0431 025 733

Finally, welcome to our recent new members, 30 of whom joined at the recent Growing Friends Plant Sale. We hope you enjoy your membership and look forward to seeing you soon!



The 2022 membership card

## Friend Quiz 9 | Charles Young

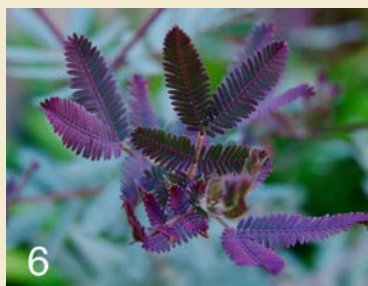
What better way to celebrate National Wattle Day (Sept 1) than with a quiz on our iconic Acacias. With close to 1000 species, Wattles are a major component of Australia's flora; they are also popular and attractive garden plants. Enjoy the quiz, and Wattle Day! (see <http://www.wattleday.asn.au>)



1. Australian Acacias are commonly called Wattles and sometimes Sallies (singular Sally). Where do these names come from?
2. This is the foliage typical of many Acacias. What are the names given to structures (a) and (b), and which appears first and disappears with time, only to be replaced by the other?
3. Wattle flowers are generally yellow(ish) but their inflorescences vary. This Western Australian wattle exhibits stunning finger-like flower spikes and sandpaper-like leaves. What are two names of this plant?
4. The delicate flowers and soft, silvery foliage of Mt Morgan wattle, *Acacia podalyriifolia*, make it one of my favourite wattles. What does *podalyriifolia* tell us about this plant?



## Friend Quiz 9 *continued*



5. In 2021, Australia Post issued three stamps featuring unusually coloured wattles; this one displayed a wattle with delightful mauve flowers. What is this plant and where is it found?

6. Wattles come in all sizes. Order these species from tallest to shortest: *Acacia baileyana* (Cootamundra Wattle, 'purpurea' foliage pictured), *A. aculeatissima* (Snake wattle), *A. melanoxylon* (Blackwood), *A. bakeri* (White Marblewood) and *A. cognata* 'Mini Cog' (compact cultivar).

7. These are the seeds of the western coastal wattle, *Acacia cyclops* (*cyclops* = Gk 'circle-eyed'). What is the red tissue around the seed and what is its common ecological function?

8. The Golden Wattle was proclaimed Australia's national floral emblem in 1988. What is the scientific name of this wattle and what feature inspired the specific epithet?

Photos by Charles Young except: 1, Atulya Bingham, The Mud Home (<https://www.themudhome.com>); 5, Australia Post (edited), image Roger Fryer; 7, Richard Clark, Geographe Community Landcare Nursery (<https://gcln.org.au>) (cropped).

Check your answers on [page 16](#)

## Olive Pink Opera | Georgina Binns

The Olive Pink Botanic Garden in Alice Springs will come alive with flowers and music in October this year, when a world premiere of the "Olive Pink Opera" composed by Emeritus Professor Anne Boyd will be performed as part of the Desert Song Festival. The Central Australian Aboriginal Women's Choir will be joined by Master Musicians and other classical musicians on two nights 7-8 October 2022.

For more details: <https://www.desertsong.com.au/the-olive-pink-opera/>

Who was Olive Pink (1884-1975)? Olive was a botanical illustrator, gardener, anthropologist, and aboriginal rights advocate. She established the Australian Arid Zones Regions Flora Reserve by the Todd River in Alice Springs in 1955, now called the Olive Pink Botanic Garden.

Olive donated her collection of drawings and correspondence to the University of Tasmania. A listing and digital images are available to study: <https://sparc.utas.edu.au/index.php/olive-pink-collection> and a finding aid: <https://sparc.utas.edu.au/downloads/olive-pink-collection.pdf>



## Friends in the Garden | Christine Kenyon and Sue Spicer

FIGs members' get togethers in the Gardens have been so enjoyable, that during 2022 we have been meeting twice a month; on the 1st and now also on the 3rd Tuesday of the month.

Our tasks have included helping Mathieu Lascostes clean up after the pruning of the Kangaroo Paws around the Red Sand Garden, and general weeding and mulching. The addition of fresh mulch had the area looking very crisp and loved. The paths and prunings were raked and removed from the *Syzigium* hedges separating the Display Gardens, and Marie had us weeding next to her new garden bed edges on Howson Hill after its wonderful new make-over. Scott Levy asked for help with the stone mulch in the Arbor Garden; laborious work, but the end result was very rewarding. The research beds were weeded of nasty *Euphorbia* and mulched.

While Matthieu has been away in France, we have been supervised by a different member of the Horticulture team each Tuesday.

On a beautiful sunny Tuesday in July, seven FIGs helped Caitlin Gray clean up the *Scaevolas* opposite the Melaleuca Spits, the *Banksia* groundcovers along the eastern path and the paths in the Cultivar Garden. There is always lots of chatter and a free flow of information between staff and volunteers. Of particular interest, Marie Velthoven told us about the new Living Collection web page that the staff created during lockdown. This was a fantastic effort with each Horticulture staff member putting together information about the garden for which they are responsible, including information about the key plants to be found there. You will find the site at: [www.rbv.gov.au/cranbourne-gardens/discover-cranbourne-gardens/cranbourne-living-collections/](http://www.rbv.gov.au/cranbourne-gardens/discover-cranbourne-gardens/cranbourne-living-collections/)

This year, a few new members have joined us but we also lost a few others. There are generally up to 7 of us at each get together. Friends in the Gardens meet on the 1st and 3rd Tuesday morning of each month. Christine Kenyon co-ordinates the 1st Tuesday group and Sue Spicer co-ordinates the 3rd Tuesday group. All are welcome to attend on either, or both Tuesdays each month. We meet at 9.15 am outside the Visitor Centre for a 9.30 am start with one of the Horticulture team. We take a short break for morning tea and finish at about 12.30 pm, when we retire to the café for lunch and a chat. If you are on the waiting list for any of the other Friends groups, try FIGs in the meantime; we will welcome you with open arms.

For more information contact Christine Kenyon for the 1st Tuesday. Mobile: 0438 345 589 And Sue Spicer for the 3rd Tuesday.

Email: [figs@rbgfriendscranbourne.org.au](mailto:figs@rbgfriendscranbourne.org.au)



FIGs group near the Ambassadors shed, on a perfect winter's day.

---

## Seventh Global Botanic Gardens Congress



The Seventh Global Botanic Gardens Congress will be held in Melbourne 25-29 September.

More information is available online at: [7gbgc.org](http://7gbgc.org).

The Friends, along with the Melbourne Friends and Australian Garden History Society, are sponsoring a number of RBGV staff to attend the conference.



# How did the Bandicoot cross the road?

## A promising road ecology solution

| Tricia Stewart, Natural Areas Team Leader

Have you ever driven along an Australian road and witnessed the heartbreaking sight of lifeless animals strewn over the gravel shoulder? Perhaps you've stopped to check pouches for orphaned joeys. Or worse, been the unwitting driver who's accidentally collided with wildlife while driving across our great countryside.

Enveloped by 340ha of remnant bushland habitat, Cranbourne Gardens is no stranger to the carnage felt at the interface between wild landscapes and human development. Since 2004, staff at Cranbourne have been recording incidents of 'roadkill' occurring on roads around the gardens. Starting with *ad hoc* sightings scribbled down in an old exercise book, this project evolved with time to a more dedicated way of recording all wildlife fatalities and with greater location accuracy. By 2019, iNaturalist project 'Australia's Untold Road Toll - Recording Roadkill and Road Trauma' took a key role in capturing GPS data, as trends of increasing tourist visitation correlating to increasing wildlife death became clearer. Royal Botanic Gardens staff, as custodians of the remarkable remnant ecosystem, made the decision that a solution must be found to curb the rising death toll. Already we had speed humps, wildlife signs and low speed limits. But still the numbers continued to climb.

Sadly, Australia still trails other countries in implementing designs for roads that will lessen their negative impacts on wildlife in an ecologically friendly way. The RBGV team instead had to look abroad for road ecology concepts, and then put heads together to adapt and engineer them to suit our Aussie-unique wildlife. As potential solutions began to develop, the value of 15 years of captured roadkill data rose to the surface. It allowed us to scrutinize records and understand how to tailor our solutions. Which were the key species we needed to target? Where were the mortality 'hot spots'? All the pieces of the puzzle began to fall together. What emerged was a combination solution which, not without needing some tweaks, has shown huge reduction in road mortality incidents.

### So, what was the solution?

In a nutshell; fences and culverts. It's that simple. Along a 750m section of the main entry driveway we installed one-way, recycled plastic fencing on either side of the road to prevent animals crossing. The fenced stretch encompassed two of the major 'hot spot' roadkill areas, caused by the presence of wetland formations which have been dissected by the road, thus creating an intersection effect of wildlife trails between water resources and of course, human roads into the tourist destination. These known hotspots were also prime locations to install wildlife specific culverts to allow wildlife to pass beneath the road surface.

Our culverts are poly-crete tunnels designed specifically with wildlife in mind. They feature slotted light wells along their roof (which sits flush with the road surface) allowing daylight and air flow to penetrate the length of the tunnel. Well-lit wildlife tunnels have proven more appealing to wildlife, particularly prey animals, as they have more confidence to enter the tunnel when they can see there are no predators lurking within waiting to pounce.

The key to success is not only preventing wildlife from getting killed on the road, but also ensuring we don't inadvertently cause further fragmentation of the landscape by adding more impenetrable infrastructure such as fences. Habitat fragmentation is a silent killer of urban biodiversity, isolating wildlife populations into smaller and smaller groups. Lastly, to ensure safety of wildlife who



Scan the QR code with your phone to see live video of bandicoots and other animals using the fauna tunnels. See static examples below:



inadvertently find themselves on the wrong side of the fence, we retrofitted ‘emergency exit’ flaps. Made from clear Perspex, the contrast with the black plastic fence gives trapped wildlife a clear visual cue to an escape passage. And designed to only open one-way meant animals can only exit, and not enter at this point.

Wildlife showed immediate uptake of the under-road crossing culverts, and a dramatic drop in roadkill has been observed within the fenced project area. This undeniable success has prompted the extension of the project to now capture the full 1.5kms of winding bushland driveway, with construction scheduled to be completed by spring.

This project has proved a win not only for wildlife at Cranbourne Gardens, but also serves as a positive case study for land managers around Australia tackling the road ecology conundrum.

*Editors note: The Friends connection to this story is that we applied successfully for a grant of \$20,000 through the Federal Government’s Communities Environment Program to help the RBGV start work on this important project. RBGV have since received direct Government funding to bring the project to completion.*

## Friends in Focus | Judith Cooke

Attendances at our monthly meetings have averaged 4-6. Now that we are once again able to visit the Gardens in person, we have enjoyed each other’s company and the many opportunities for learning from each other. At the same time, we have rediscovered that the weather is capable of providing challenges for photographers at any time of the year.

Our outings have continued to provide delightful encounters with wildlife in the Gardens and Bushland, including Bandicoots, Wallabies and a variety of birds as we continue to record the seasonal variations and development of the Gardens. Members also recorded recent landmark events such as Botanic Gardens Day and the Launch of the book ‘Of Friends and Gardens’ by Carolyn Landon.

Recent new plantings in the Alpine and Gondwana Gardens have introduced us to different species to learn about and photograph. We took advantage of the excellent fungi season this year. Some members attended the Fungi Foray with Dr Tom May and at our meeting later that month we tried out some of the photography tips while photographing fungi in the Bushland.

Friends who would like to develop their photographic skills in a relaxed and supportive environment are welcome to join us.

## SPECIAL INTEREST GROUPS

### Friends in Focus

**2nd Saturday of the month, Elliot Centre**

Times:  
2.00pm  
April to September

9.30 am October to March  
(Daylight saving time)



Above: New England Honeyeater in *Grevillea Peaches and Cream*.  
Left: Lichen, Arid Garden.  
Far left, Friends in Focus at work in the garden: (from L) Peter Williamson, Alex Smart, Laurie Living, Prue Wright, Amy Akers.  
All photos, Judith Cooke





# Botanical Illustrators

As was reported in *Naturelink* late last year, the Cranbourne Friends Botanical Illustrators group have been busy working towards a botanical art exhibition at Kawarra, Australian Native Botanic Garden, Kalorama, in conjunction with the 14th FJC Rogers Seminar, to be held in October 2022.

Focusing on the Fabulous Faboideae (Fabulous Peas) the FJC Rogers Seminar is presented by the Australian Plant Society and features a number of speakers. The BI group is supporting the associated exhibition with botanical artworks around the theme of the seminar. Here you can see some of the beautiful imagery of the Australian pea flowers that they have created.



Jan Maslen  
*Kennedia  
rubicunda*, Dusky  
Coral-pea.  
Watercolour.

Kerryn Robinson  
*Gompholobium huegelli*,  
Common Wedge-pea.  
Coloured pencil.



See these and other beautiful artworks by the Botanic Illustrators displayed at the gallery at [Karwarra \(Kalorama\)](#) from 8th to 16th October, and in the *Friends 2022 Annual Report*.

## Growing Friends | Marjanne Rook

On this cold wintry day, spring is a season to look forward to and as always, we work towards the next plant sale.

The **Winter Plant Sale**, on 23 and 24 July, was quieter with fewer customers than usual on Saturday. The sun cheered us all on Sunday and many a customer was happy to linger and then pop over to the kiosk for a coffee. Over the weekend we took appr. \$16,000. Thank you to our loyal long-standing members who turn up regularly and newly signed-up members.

The **Spring Plant Sale** —our next plant sale — will be on the weekend of 22 and 23 October 2022. We are working towards having an extensive range of plants for sale. As at all our sales, Plant and Garden Advisors with their extensive plant knowledge and gardening experience will be present to assist you with your selection.

Among the range of plants for sale will be some *Prostanthera* species such as the *Prostanthera mellissifolia* with its profusion of mauve-pink to purple flowers and the beautiful *Prostanthera magnifica* with purplish-red and mauve flowers.

### Nursery Open

Our nursery is open to members every Thursday from 10 am to 2 pm, except for the Thursday before the Plant Sale. If you cannot make it on a Thursday or in that timeslot, email [growing.friends@rbgfriendscranbourne.org.au](mailto:growing.friends@rbgfriendscranbourne.org.au) as it may be possible to organise for a different day or time.

### Special Orders

Any wishes? Perhaps a plant you have seen in the Gardens or multiple plants for a large area then please contact the Growing Friends with your request and we shall endeavour to grow them or may even have them in stock. Contact details are on this page.

## SPECIAL INTEREST GROUPS

### Growing Friends

**Contact:**  
Marjanne Rook

[growing.friends@  
rbgfriendscranbourne.  
org.au](mailto:growing.friends@rbgfriendscranbourne.org.au)

Phone: **9769 7881**  
(Landline)

# *The Age of Seeds*, by Fiona McMillan-Webster

## Book review by Amy Akers

This newly published book, by Fiona McMillan-Webster, covers everything that you could want to know about the fascinating world of seeds and how important they are. She covers in detail what a seed is composed of, different types of seeds in terms of germination, and how and why they behave differently, including why some last a long time whilst others are very short-lived.

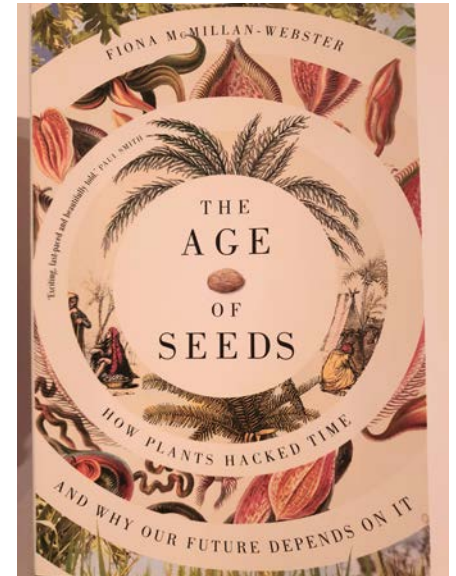
Other topics include how seeds have evolved over time and how they continue to evolve, the genetic make-up of seeds and how newer, more resistant forms are created or discovered. She extensively covers the importance of seed banks, including how many there are around the world, the associated research that is related to these seed banks, their contribution to food security, and how they try to, but don't always succeed, in surviving natural disasters or war. Not only does she provide information about large well-known seed banks such as the Svalbard Global Seed Vault in Norway and the Millennium Seed Bank at Kew Botanic Gardens in the UK, but she also covers many lesser-known ones and why they are vital. In the final section, she discusses how seeds are intertwined with culture and human history, including its importance to Indigenous people and refugees from around the world.

The author is a science communicator and so does not shy away from using scientific terms, but she uses them in a way that anyone can understand by including detailed explanations throughout. She is also a great storyteller. This makes it an easy and enjoyable book to read.

There are plenty of examples of research undertaken relating to seeds, both historical and recent, from around the world. As the author is Australian, there are also some local examples given: including the germination of pink flannel flowers (*Actinotus forsythia*) following the 2019 bushfires in the Blue Mountains; the role of the Australian Plant Bank at the Australian Botanic Gardens at Mount Annan; and the cultural connection between the monsoon vine thickets of the Dampier Peninsula and the local Indigenous people.

Apart from an illustration at the start of each section of the book, there are no images to refer to. Therefore this is not the kind of book to read if you prefer it to be full of images, rather than text. However, scientific names of the plants being referred to are included throughout, so it is easy to look up photos and images online if you wish.

This book would be enjoyed by anyone who would like to know more about seeds, including those who already know a great deal. Even if you think you know everything about seeds, you are still in for a treat as it includes plenty of recent research to get you up to speed.



*The Age of Seeds*, by Fiona MacMillan-Webster. Thames and Hudson, 2022

This book is available at all good bookshops and from [Thames and Hudson](https://www.thamesandhudson.com/).



# ***Evergreen, the botanical life of a plant punk*, by Tim Entwisle**

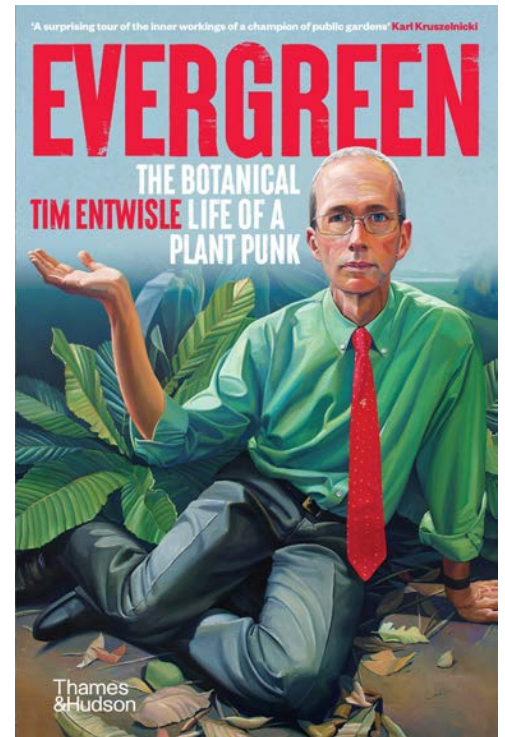
## **Book review by Erin Cosgriff**

This memoir takes us deep into the ever-curious mind of Tim Entwisle, Director of our RBGV.

Journey with Tim as he reflects on the influences, education, good fortune and development of wide-ranging interests that have inexorably led him to being an advocate and activist for the place of botanic research and recreation in the natural and cultural life of our cities. His is a mind ever in search of new areas of interest, new ways of communicating these interests and building a career whose threads create a synergy and richness.

This memoir takes the structure and form of applying different lenses to elements of Tim's interests and leads us to their intersections. This is leavened with a droll and self-deprecating wit that made me laugh out loud. Not a staid academic approach, rather an eclectic take from one who is attracted to pushing his boundaries and revelling in deep dives into all his areas of obsession and endeavour. Who knew that this *Algae* expert revelled in divergent musical tastes, is a philosophy junkie, science nerd, and Joycean devotee amongst other passions beyond the botanical?

This journal will take you on fascinating travels here and abroad, intellectual byways, and share with you the charm of family connections. There are highs and a few lows, the thrill of defying political interference and wins for progressive, out-of-the-box thinking. You may learn more than you ever wanted to know about algae, orchids and indeed taxonomy, but you will be entertained and marvel at a life and career that has been blessed with relationships, opportunities and experiences that seem to have largely been due to always seeing the way forward and saying yes! An entertaining, engaging and educative read that is generous in its insight into a rich life of the mind and spirit.



*Evergreen*, a memoir by Tim Entwisle.  
Thames and Hudson, 2022

This book is available at all good bookshops and from [Thames and Hudson](https://www.thamesandhudson.com/).

## ***VicFlora* relaunched**

*VicFlora* is a free online database created by Royal Botanic Gardens Victoria to assist researchers, scientists and the public, in the identification of Victorian flora. It was first launched in 2016 but has now been re-launched with improved features and functionality, including updated distribution maps, 'exemplars' for *Eucalyptus* and *Acacia* which are high-res images of perfect reference specimens including close ups of key diagnostic characters needed for identification, updated 'threat status' fields, a glossary, added definitions and more.

The new, open-source core allows Gardens' botanists to easily add new usability and accessibility features to continually improve the user experience. To access the database, go to:  
<https://vicflora.rbg.vic.gov.au/>



# Far North Queensland Tour - June 2022

| by Mick and Gill Robertson

Group tours in the time of COVID are a fraught concept. Initially planned by Alex Smart for 2020 and again in 2021, the FNQ tour was finally executed in June 2022. Much of the pre-trip planning was coloured by uncertainty and in trying to get COVID protocols correct. In the end 34 intrepid plant people set out with a minimum of 3 vaccine doses, travel insurance and masks after some pre-trip quarantining — keen to put 2.5 years of inertia behind them.



We met for our opening dinner at a Port Douglas resort, in a blissfully warm and relaxed semi-outdoor setting not very conducive to the spread of COVID. Hallelujah!

Stuart Worboys, Warren's much younger brother and Wet Tropics authority, contextualised the plant communities from an evolutionary, global and Australian context with a Powerpoint presentation.

From here on, it was out in the wild with the ancient plants, little changed from the origins of plant life — bryophytes, ferns, lianes, cycads, palms, conifers and the original flowering plants —through to newer and recent arrivals (weeds?).



We ran into Alex and Wendy Smart, who had been unable to join the full tour, for the first time on the Daintree River Cruise, amongst the mangroves and crocodiles on a tour brilliantly led by a multi-generational Chinese, Friends of the Earth leader, Tooey. We then swapped boat for bus and drove down to where the rainforest meets the reef at Cape Tribulation, stopping

along the way to do a very slow, short jaunt along the Marrdja Boardwalk botanising.

Cooktown was our next destination. En route we walked through the complex rainforests surrounding the Mossman Gorge, a stunningly beautiful setting where clear waters cascade through granite boulders. This lush humid environment contrasted sharply with the other stop, Palmer River, an old gold mining town on the western side of the Great Dividing Range where Eucalypt savanna cloaked the dry ranges.

That night we had COVID for dinner. One of our members tested positive. Would mask wearing in the bus etc prevent the spread or would plans be thrown into disarray? How do we accommodate an isolating patient in an isolated tiny town? As it turned out, it was the best place for it to happen, as the Rivers of Gold Motel team took on the quarantine job superbly and protocols served the team well. Our anxiety slowly subsided over the next few days and this was to be our only case.



Photos, from top:

*Dicranopteris linearis* - Babinda Boulders. Photo: John Thompson

Mick Robertson leads group on Marrdja Boardwalk. Photo: Chris Clarke

Olive-backed Sunbird (*Cinnyris jugularis*) (male) at Cooktown.

Photo: John Thompson

## FEATURE



The group on tour  
Photo: Chris Clarke



Guide Stuart Worboys.  
Photo: Chris Clarke



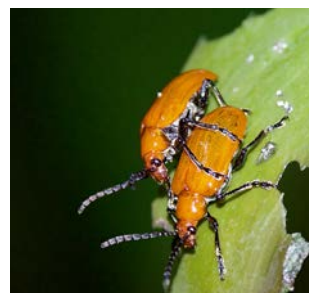
Elkhorn *Platyserium bifurcatum*  
Marrdja Boardwalk.

Photo: John Thompson



*Heliconia*.

Photo: Chris Clarke



Beetles - Marrdja Boardwalk.  
Photo: John Thompson



Meanwhile the group toured the fabulous Cooktown Botanic Gardens, curated by Peter Symes, recently ex RBGV, Melbourne, who is developing big plans for the job ahead. Cooktown is a place dominated by the enforced, extended and incident-packed stop that Lieutenant Cook made in 1770 and where Banks and Solander made significant botanical collections.



Amongst those incidents was contact with the First People and we too, were to make contact with one of the local mobs in Quinkan Country led by Johnny Murison. He and his family gave us an unvarnished account of his people's post contact history, showed us some of the globally significant local Rock Art and culturally significant plants, and provided hope for a better, more inclusive Australia.

Cairns was our next day's destination with breakfast at the Lion's Den below the intriguing Black Mountain and a lunch break near Mt Molloy. On arrival we took in the extraordinary stained glass windows at St Monica's Cathedral. Here we had a tour led by our own resident stained glass experts and artists John Thompson and Amanda Loudon. The next day we toured the Cairns Botanic Gardens led by our new local guide Tony Roberts and met with the Friends of the Cairns Botanic Gardens. Like Cooktown these gardens punch well above their weight in that they are critically important assets in relatively small towns.

Finally the tour ascended to the Atherton Tablelands where we took in the most complex of the rainforests. It was cooler, wetter and darker. Species diversity is at its highest here on these elevated, rich volcanic soils. There are lakes, rivers and lots of waterfalls shrouded by a cloak of tangled profusion best exemplified by the iconic Curtin Fig (*Ficus virens*). We visited Bruce Gray's notable private collection of orchids, and the Sankowsky's significant 40 year old rainforest regeneration project, now dwarfed by towering rain forest trees visited by numerous butterflies, birds and possums.



Our final dinner was at the waterfront Dundee's in Cairns, an appropriately fabulous and accommodating venue. It felt like a great celebration. There were lots of fine words spoken; thanks for the most perfect coach captain Ron Keeling, the energetic, knowledgeable and fun guide Tony Roberts and most of all for the entire group that looked after each other impeccably. COVID might have tested us but in the end it simply made us into a tight knit and cohesive team.

Photos, from top:  
Indigenous Rock Art, Quinkan country.  
Curtain fig (*Ficus virens*).  
Photos: Chris Clarke

Frog with potential dinner -  
Mareeba.  
Photo: John Thompson



*Licuala ramsayi* - Madja Botanical Boardwalk.  
Photo: John Thompson



Cathedral glass, St Monica's.  
Photo: Chris Clarke



Jill Burness with Friends, FNQ.  
Photo: Alex Stalder



*Hoya macgillivrayi* - Bruce Gray's Glass house.  
Photo: John Thompson



*Hoya* - Bruce Gray's Glass house.  
Photo: Chris Clarke



# Answers to Friend Quiz 9 on pages 6-7

Thank you Charles Young for testing our plant and language knowledge again.

**A1.** Wattling is a building technique that uses interwoven branches or wooden strips (wattles) to create structures; these are often finished with an earthen daub (wattle and daub construction, see photo). Acacias were used as wattles by early Australian settlers – hence the name. Sally is applied to wattles with leaves and flowers that resemble those of willows (*Salix* or *Sallows*), e.g., the willow or sally wattle, *Acacia salicina*.

**A2.** These are the (a) bipinnate leaves and (b) phyllode of the plant. The leaves appear first and the phyllodes form later due to the flattening of the petioles into leaf-like structures. Over time, in most wattles, the bipinnate leaves are replaced by the long-lived, leaf-like phyllodes.

**A3.** This is the sandpaper wattle or *Acacia denticulosa* (from *L. denticulus* meaning little tooth, in reference to the toothed or denticulate margins on the phyllodes).

**A4.** The specific epithet *podalyriifolia* tells us that the leaves (*L. folius*) resemble those of *Podalyria* species. African satin bush or *P. sericea* is a popular garden plant with soft, rounded, silvery leaves – just like Mt Morgan wattle.

**A5.** This is the purple-flowered wattle or Cupid's wattle, *Acacia purpureopetala*. It is confined to the Herberton district of NE Queensland. The stamp issue also featured *Acacia leprosa* 'Scarlet Blaze' (Quiz 5) and *Acacia biglandulosa* (white flowers).

**A6.** The order is: *Acacia bakeri* (50 m, SE Queensland); *A. melanoxydon* (30 m, SA and eastern states); *A. baileyana* (8 m, Cootamundra region); *A. cognata* 'Mini Cog' (1 m, a cultivar with the typical form in the wild in NSW/Vic); *A. aculeatissima* (0.5 m, SE Australia).

**A7.** The red tissue is an aril, a specialized outgrowth that partly or completely covers a seed. Edible arils are consumed by animals that facilitate the transport and fertilization of the seed, thereby assisting dispersal and recruitment.

**A8.** The scientific name is *Acacia pycnantha*. The specific epithet is derived from Gk *pyknós* meaning dense or closely packed and *anthos* meaning flower, for the dense flower heads containing over 70 individual flowers (see photo).

## Cranbourne Friends Committee

**President:** Erin Cosgriff 0419 518 621  
**Secretary:** Jennifer Potten 0409 436 181  
**Vice President:** Rosemary Miller 0422 893 745  
**Treasurer:** Richard Clarke 0418 148 792  
**Membership Secretary:** Alexandra Stalder 0431 025 733  
membership@rbgfriendscranbourne.org.au  
**RBGV Representative:** Chris Russell 5990 2200  
**General Committee:**  
Helen Kennedy 0419 125 800  
Alexandra Stalder 0431 025 733  
Janette Wilson 0477 711 569

The General Committee meets on the second Thursday of the month (except January).

**Booking Officer:**  
Ros Shepherd 5932 5611  
bookings@rbgfriendscranbourne.org.au  
**Events Subcommittee:**  
Rodger Elliot Ian Chisholm  
Mick Robertson Ros Shepherd  
Helen Morrow Tim Morrow  
**Naturelink Editor:**  
Rosemary Miller 0422 893 745  
editor@rbgfriendscranbourne.org.au  
**Quicklink Editor:**  
Janette Wilson 0477 711 569  
**Social Media Convenor:**  
Tanya Johnson  
socialm@rbgfriendscranbourne.org.au