

GROWING MATTERS

Volume 23 Winter 2020



Friends of Gold Coast
Regional Botanic Gardens Inc.

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2020 Management Committee

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Alex Jakimoff

Vice President

Rana Baguley

Secretary

Catherine Simpson

Treasurer

Harry Ellis

Members

Cindy Murray

Patron: Gene Rosser

Cover image



The leaves and fruit of beautiful Cape Chestnut *Calodendron capense* resemble Chestnuts but the tree, from the Citrus family, is unrelated. Its natural distribution is from South Africa to Kenya. It is highly valued as an ornamental tree and in summer it is covered in fragrant pink flowers which are spotted with purple. Seeds from the woody, knobby fruit produce Yangu oil, popular in cosmetics.

Having one growing at the Botanic Gardens is quite a thrill. It was on the wish list for the Horticulture Display Gardens for many years and finally sourced

and planted in 2013. The name derived from Greek says it all - *Kalos* means beautiful and *dendron* means tree.

Text and photo by Kate Heffernan

Education Important Note

As we wait for the easing of COVID 19 restrictions, activities with reduced numbers will proceed for June and into the July school holidays. These activities are already booked out.

17 June at 10:00am Little Nature Lovers for 3 - 5 year olds at the Rotary Education Pavilion.

30 June Flower Art and Craft for 5 - 12 year olds.

11 July Indigenous Arts and Crafts for 5 - 12 year olds for NAIDOC Week.

There are also 2 Kids in Conservation activities in July and these will be confirmed in the July 'Clippings'.

In conjunction with the Rotary Club of Gold Coast, an app to explore the Botanic Gardens is being developed and will be launched in July. More information in the July 'Clippings'



From the President - Alex Jakimoff



At this time of writing the Biodiversity Centre project in the Gardens is in the balance with Council currently formulating the budget for 2020/21. The Friends have done everything possible to highlight the tourism and economic benefits of such an exciting Centre for the Gold Coast, as well as all the environmental, educational and community spin offs.

Friends have contributed many, many hours over the last 3 years towards the concept that you endorsed unanimously at the 2017 AGM. No matter what the Council decision I can assure you that we have left no stone unturned in our quest to fulfil that vision, a vision that has fuelled and driven us to this point. I hope to soon provide some more positive news but we will just have to wait and see.

While the COVID-19 restrictions did force Friends to shut down virtually all our activities, we are finally seeing some light at the end of the tunnel. Our gardening and nursery groups are back in action and we're planning for a June re-opening of our Friends Centre. Slowly but surely we are re-activating, working with new hygiene protocols but connecting together again and with the public.

Meanwhile the public has been visiting the Gardens in droves, appreciating the peace and tranquillity at a time of much uncertainty and change. We can be proud of our part in that, providing a beautiful welcoming sanctuary for the community when they most need it.

As a community organisation we enjoy working together and supporting each other in our volunteer activities. This recent period of isolation has been difficult for many of us so I am looking forward to you all connecting again. Connecting with your family, your friends and your community. We may be touching elbows rather than shaking hands, we may be standing further apart rather than hugging, but we're still connecting and that's important.

At a time of great change in our society, we must be willing to respond and change and adapt. Adapt ourselves individually, and adapt the Friends to stay successful and relevant.

It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change Charles Darwin



Curator's Column - Paul Cockbain



First of all I hope everybody is staying safe and healthy during these very unusual times. Although the natural world of plants and animals has not greatly been impacted, and in some areas potentially benefited, the restrictions have certainly impacted our human day to day activity. Unfortunately due to these restrictions there have been a number of events and projects put on hold. This has included the Botanic Garden Day, the gardens biggest day of the year, where we were hoping to attract over 2000 visitors to come and enjoy the beautiful surrounds and be educated and inspired by over 25 stall holders and numerous workshops. This day was also timed to coincide with 250th Anniversary of the Endeavour Voyage and to acknowledge the important part this voyage played in introducing a native flora to the rest of the world. To also recognise the voyage a Coastal Headland Garden (as mentioned in the Autumn edition of Growing Matters) had been planned to be established and opened on the day. Unfortunately this project is still on hold but we are hoping to recommence in July.

On a positive note the 20 native stingless bee hives have arrived at the gardens and have been located in the maintenance compound and the Rosser garden. These hives are part of a City of Gold Coast program to distribute the hives out to the local community. As you may know native bees play a vital role in the pollination of plants, especially our native species, so it is definitely 'the more you have the better'!

I would like to thank all those people who enabled the gardens to receive the hives, including Gene Rosser in whose garden most of the hives are located, and to the people who helped them find a new home including Gareth (our volunteer native bee expert), Saraya Robinson (NAMU), Dr Tobias Smith (Toby) and Kristian from our horticultural team.

Another positive note during the restrictions is the number of new visitors we have been noticing at the gardens. Our staff have received numerous comments from visitors who have said that it is the first time they have been here and what a wonderful and beautiful place it is to come and relax and enjoy the outdoors. We have certainly seen an increase of parents with young children and its fantastic to see them out together in the fresh air and being active and healthy.

To Wendy and the horticultural staff once again I would like to thank you for the great work and commitment you have shown over this period. The work you do, along with the tireless Garden Group, continues to make the gardens look amazing!!!

So as we head towards the 'new normal' I hope everybody continues to stay safe, healthy and positive.

"In every walk with nature one receives far more than he seeks" - John Muir

Paul Cockbain
Curator
Gold Coast Regional Botanic Gardens
City of Gold Coast
55 82 9361
pcockbain@goldcoast.qld.gov.au





Your Secretary - Catherine Simpson

Once again our volunteers rose to the challenge, and what a challenge it has been and continues to be for some time yet. From out of nowhere comes a virus that wants to apparently kill us all! As the impact slowly dawned and Governments regulated activity, our Coordinators made critical decisions in the interests of their volunteers and about the activities of their groups. The Management Committee is hugely appreciative of the sound manner in which these calls were made. When one volunteers for the Botanic Gardens, one does not expect to be making decisions about a virus! It has been a truly outstanding effort.

Thank you all so much.

It is very disappointing that the Open Day and the opening of the Coastal Headland Garden had to be cancelled and we are unsure if the National Tree Day Community Planting in July will proceed. Kate has designed a wonderful set of interpretive signs for the Coastal Headland Garden which sadly has not been able to be created, while she and Alan have been locked down across the border.

The financial impact on the Friends has been significant but our reserves are healthy. The closure of the Friends Centre affected membership recruitment and plant and merchandise sales. The Nursery lost a sale day and Flowers by Friends lost Mother's Day sales.

The Management Committee's response was to meet via Zoom, which Rana thankfully was able to set up for us. (We have taken out a subscription so it is available to all volunteers who wish to meet without meeting so to speak.) It was a bit tricky to start with but it is becoming more efficient with each successive meeting. Meeting number three is on 9 June. Despite the cancellation of many events, the agenda is as full as ever. Some of the projects underway are a new membership brochure, a corporate sponsorship brochure and a device to encourage donations. We have also been lobbying for improved public transport to the Gardens following the preparation of an excellent submission. Progress on the Biodiversity Centre has been a key focus with the Council budget process for 2020-21 underway.

The 2019-20 budget allocated funds for Concept Design and a Funding Prospectus planned to introduce the newly elected Councillors to the project and to support the budget process. It was extremely disappointing to the Friends that Kim Baber was not selected for this work but Council has their bureaucratic processes that must be followed. Architects Guymer Bailey who designed the inspiring Mary Cairncross Rainforest Discovery Centre were selected by Council officers and we met with them briefly on 18 March. With the Council budget under pressure from the impact of coronavirus it was clear that there was a risk to the expected budget allocation for Detailed Design Development in 2020-21. The Working Group met on 13 May and began to make enquiries immediately after. Much time and effort has gone into writing to Councillors and Members of both Parliaments and in contacting the Mayor's office and our new Division Councillor Bob la Castra. We have also started a public petition, which we encourage all members to sign. As this newsletter goes to print we still do not know the outcome. The Budget date is 22 June.

Vale Sue Parkin

In April 2019 Friends Wednesday volunteer gardeners planted 9 hybrid Hibiscus bred, grown and donated by our late member Sue Parkin who passed away on April 12.

Sue volunteered in a number of key areas at the Botanic Gardens including the Nursery, as a Rose Garden volunteer and brought a wonderful display of Hibiscus to several major events held at the Botanic Gardens. At the Nursery Sue's skill as a propagator and keen eye for detailing plants is missed. In the Rose Garden her long experience added enormous value to the quality of the roses.

Sue's skill and horticultural knowledge meant she was a wonderful contributor to the Friends roles at the Botanic Gardens, but her calm, easy going and cheerful nature is what we will miss so much more. Sue shared her enormous love of plants and gardening with her life-long friend Trish, also a Friends volunteer. Sue hoped that the Hibiscus she had bred and grown would be given names by Friends and the Gardens staff, and there are now several more ready to be planted and named as they show their next flowers. - Kate Heffernan



WORLD of TREES

“In the jungle of competing values that has grown up around our dealings with trees, one proposition must stand taller than the rest; we always need trees and there may always be times when trees need us. Any creature comfort we happen to reap from particular trees is a tiny bonus added to the inestimable gifts which the collectivity of trees had never so far failed to heap on us. A world without trees would be a world chasing its own tail, falling over itself to replace the irreplaceable. For all we know the turning point between that world and the world we know pivots on the stem of a single leaf.”

Robert Lamb, *World Without Trees*, Magnum Books, 1980.

Almost every student who has sat in on one of my classes in Plant Selection or Landscape Design has heard this short but enlightening paragraph which I first read in the 1990's. I think Friends who undertook volunteer SMART Gardener training will have seen it in their texts.. It needs no explanation.

One of the most outstanding achievements of plantings at the Botanic Gardens since 2003 is the incredible trees. In many areas the growth rates have been astonishing. Visitors from cooler or drier climates remark with astonishment when they learn how few years ago some were planted. Add to the almost implausible good fortune that trees remain at the Botanic Gardens that were planted in the late 1860's by sugar cane farmer Robert Muir, and later the trees planted by John and Essie Rosser. And of course the wonderful remnant gums which experts advise are many hundreds of years old.

Since Friends were awarded funds for the first signage in the Gum Tree Corridor by Bjarne K. Dahl Trust for Eucalypts in 2013, interpretation has extended into many plant collections, often with a focus on trees. The most recent grant is once again from Friends' friends in Rotary Gold Coast who funded the fabrication of eighteen small graphic signs titled 'World of Trees'. They will soon be installed next to trees on the walks around the Feature Lake.

The signs include native and exotic trees. All with a short but special story and image to generate even greater appreciation of each tree. How privileged I feel to be creating the text and doing the 'mock ups' before they go to local graphic artist Kiel Tillman for preparation for the team at Potato Press for fabrication. Even more so to have taken part in the selection and planting of many of them into specific precincts and zones at the Botanic Gardens with the Horticulture Reference Group, Project Control Group and before that the Steering Committee.

Hopefully, together with our Botanic Gardens staff, Friends have contributed to ensuring the '*single leaf*' so poignantly described in Robert Lamb's paragraph will be prevented and generations to come will enjoy and benefit from trees.

Kate Heffernan

Frederick Polydore Nodder in 1777 and engraved by Daniel Mackenzie.
Source Australian National Maritime Museum

<http://collections.anmm.gov.au/>

Barringtonia calyptrata is Plate 127 in Banks' Florilegium.
A reproduction of a sketch by Sydney Parkinson made of a specimen Banks and Solander collected on 11-12 August 1770 on Lizard Island.



There are trees located among general plant collections throughout the Botanic Gardens as well as specific Tree collections - Regional Trees, Taxonomic Collection, Gum Tree Corridor, Friendship Force Avenue, Curators' Avenue, Australian Defence Force Grove and Closed Forest Gorge. *Barringtonia calyptrata* was planted along the Feature Lake edge in the Horticulture Display Gardens by members of the International Dendrological Society.



Pictured - The pendulous flowers of *Barringtonia calyptrata* and its spreading canopy and fruit. It has numerous common names including Cassowary Pine, Mango Pine and Corned Beefwood.
 Images by Kate Heffernan



1986 stamps 'New Holland – Cook's Voyage' from Kate's botanic stamp collection



Gardening Alex Jakimoff

Since late April the gardening team have been back at work, really keen and enjoying the return to getting our hands back in the earth and welcome to new faces Kim and Greg who have recently joined us.

We have replanted native shrubs in the Eastern Precinct (on left side after the entrance) to supplement the original plantings there. In went various colourful *Grevillea*, *Callistemon* and *Leptospermum* plants, and while there we admired the existing dwarf Banksias that were in full flower, just spectacular.

More new plants went into the Myrtaceae garden (near the bbq and first car park) with understorey plants below the gum trees. *Hovea*, *Westringia* and *Melaleuca species* will provide colour to brighten up this area.

A couple of weeds have been taking our attention too. Coral Berry *Rivina humilis* has been a focus in some areas as it spreads so fast and seeds so early, and then we have spent some time on the Cats Claw Vine too with its hard to remove underground tubers. We have found some decent size tubers too, although nothing like those reported to be up to 40 cm long.

While removing weeds in the Gondwana Forest we discovered how prickly the bunya pine mulch can be, ouch. We can't work there during the bunya nut season though, those massive cones weighing up to 10 kg can drop from 30 metres high!



Banksia close up



Bromeliad garden

Wednesday gardening photos
taken by Leanne Ware

Photos on right show work
being done by volunteers
in the Araucaria garden



Education matters ...

with Rana Baguley

After having all our educational activities suspended for most of Autumn, with June comes opportunities to resume activities with restricted numbers and conditions in place.

School holidays begin the last week in June and continue through to 12 July. We have Kids in Conservation activities and Botanica Arts and Crafts scheduled for these weeks with limited numbers. NAIDOC Week is celebrated from 5 to 12 July so this year our planned activities focus on indigenous perspectives. These will include arts and crafts, Kialgumm Games and identifying indigenous use plants in the Botanic Gardens. Presently all the arts and crafts are booked out but there are vacancies in the Kids in Conservation program. Bookings are essential for Kids in Conservation activities. To find more information and to book go to Friends Facebook Events page www.facebook.com/friendsgcrbg/events and follow the links.

Little Nature Lovers for 3 - 5 year olds will also resume on 17 June after having been suspended for March, April and May. Great news is that Naturally GC will continue to sponsor these monthly activities through to June 2021.

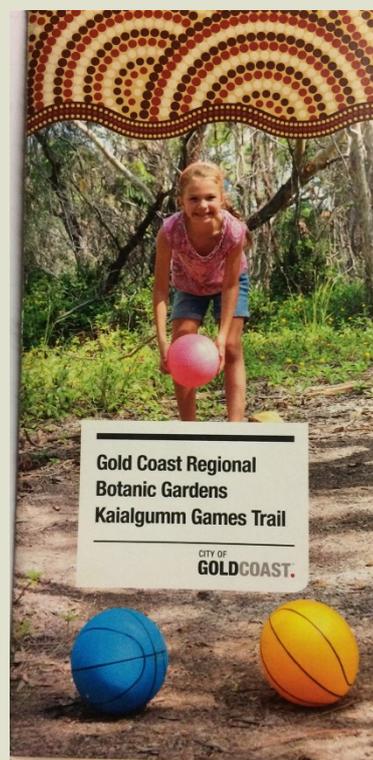
Our very popular 'Woody Hollows' display in the Friends Centre was cut short in March.

It received very positive comments especially having the hollows used as homes supplied by Habitec. With restrictions in place to minimise people touching surfaces, there will not be a display in the Friends Centre until restrictions further ease.

City of Gold Coast Council has produced a number of free booklets to promote biodiversity in your backyard. Topics include Hollows as Homes; Native Bees; Frogs and another one being printed is about Butterflies. All these free booklets will be available at the Friends Centre when it reopens. Finally the Rotary Club of Gold Coast, one of our very supportive community partners, has applied for a grant to develop an App to explore the Botanic Gardens. When available, it will take visitors around the Gardens, looking for clues and posing questions many of which focus on the interpretive signs. Individual, friends and family groups will be able to access it on their smart phone but will need a map and code which will be available from the Friends Centre to begin the exploration.

Friends website www.friendsgcrbg.org.au or Facebook page www.facebook.com/friendsgcrbg

To book these activities, please go to <https://www.trybooking.com/eventlist/gardensevents>



Most unusual as multiple flowers never sighted before by Alan and Kate on a banksia.

This is *Banksia integrifolia* which grows naturally in salt laden winds so it's doubtful that the wind would have caused this anomaly – four smaller than normal inflorescences from one terminal point.

It may have resulted from pruning but we've pruned lots of banksia in the past without this effect which is more typical on bottlebrush.

Text and image courtesy of Alan and Kate



Fingal Head then and now by Lyn Reilly

- written for Australian plants Gold Coast.

In May the Australian Plants group's scheduled visit to Fingal Headland was postponed due to Coronavirus restrictions. We had been looking forward to investigating the local flora and geology. The topic has brought a flood of memories to Peter and me - reinforced by Kate and Alan's recent visit.

The scene:

Fingal Head has long, white sandy beaches bordered by dunes covered with pandanus, banksias, spinifex and other plants. Behind the dunes are littoral rainforests, coastal woodlands, wetlands and heathland. These vegetation communities, which were destroyed by sand mining in the 1950s and 1960s, have been re-established and maintained for over 28 years by Fingal Head Coastcare with the support of the local community. This group was a pioneer dune care group in NSW.

Peter remembers:

When I was a boy, Fingal was about the 'end of the world' as far as our family day-outings went. Dad was a keen fisherman and liked the long stretch of road along the Tweed River. The picnic area at the Headland end of the road was a favourite.

In those days, sand mining had stopped but before there was any thought of re-vegetation it was a long run across open sand to get to the rocky headland. I say 'run' because the sand was always very hot on our bare feet. But it was always worth it to sit above the columnar basalt cliff and look down into the sea waves.

In 2002 we visited Fingal Headland during the Australian Plants State conference, and were treated to a talk about their revegetation by Lee Scarlett and shown over their nursery. Plants are propagated in this nursery from seeds collected locally to ensure correct provenance.

** see pics next page

The sand mining:

Australian beaches and coastal dune systems have been mined for several reasons. The earliest sand miners in the 1860s extracted gold from the deposits of black sands that were found from the south coast of NSW to the beaches of central Queensland. Later sand mining focussed on the heavy minerals - rutile, zircon, ilmenite, and monazite. The mineral deposits of the Tweed and Byron coast were amongst the richest in the world and Australia once supplied 90% of the world's requirements.

Mining of sand for extraction of heavy minerals only removes about 1% of the bulk of the sand, the rest being returned to the dunes in some form or other. Modern sand miners are required to reshape and revegetate the dune systems and leave them as close as possible to their original state. However, that wasn't the case in the past (the peak of the mining industry in the 1950s and early 1960s) and the dune systems on very large stretches of the coastline have been seriously degraded by this industry.

[A necessary first step in the sand mining process is the complete removal of vegetation from the area to be mined. In the early days of mineral sand mining, this vegetation was piled up and burnt. Vegetation was replaced with the quick-growing but now terrible-weed Bitou Bush. These days are more enlightened. As a result of our daughter's research during her Honours (Botany) year, the sand mining company on North Stradbroke Island changed this practice and used the newly scraped

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vegetation to put over the just-mined area, thus using the still-viable seed bank.]

The photos below show the highly disturbed peninsula of 1962 and its progression by 1995.



1962



1995

The geology:

Fingal Headland was made from a lava flow from the now extinct Tweed Volcano. The formation has commonly been called the 'Giants Causeway', named after the famous Giants Causeway between Northern Ireland and Western Scotland. It is known as Pooningbah, or 'place of the echidna', by the local Aboriginal community.



2002 Lyn with Lee Scarlett



Revegetation 2002



2020

Kate & Alan:

Alan and I spent about an hour here recently, simply enjoying the solitude and raw beauty. When the time is right for members, we can still enjoy the natural landscape qualities of this beautiful location.

The littoral rainforest on the walk out to the headland was replanted by a local Landcare group. The old quarry behind the headland is being re-planted as well and there are remnant species growing there. The 4.6 hectare Cook Island is 600 metres off shore and is surrounded by a 78 hectare aquatic reserve. The island has 25 native plant species, 28 bird species - including 2 endangered and 5 vulnerable - as well as 2 lizards. Cook Island is listed on the Register of the National Estate for its biological and heritage values, in particular to the Bundjalung Aboriginal people.

Alan's mother's family, the Dorrroughs, were farming pioneers at Bilambil from the late 19th c. Two of his uncles were celebrated as heroes when they took provisions out to fishermen stranded on Cook Island during a massive storm. One brother became an honorary ranger on the island and a commemorative cairn was erected on the island after his death in 1963. A memorial plaque located at Fingal Beach celebrates another brother for his contribution to the Tweed community.



Flowers by Friends - Claudia Knapman

Celebrating the botanical treasures of Banks and Solander

The Endeavour moored in a large natural bay on the NSW coast on 28th April 1770. Joseph Banks and Dr Daniel Solander spent seven days making an extraordinary collection of 132 plant species, prompting Lieutenant James Cook to call the place Botany Bay. Departing on May 6th, the Endeavour sailed North and a number of landings were made in what are now Qld waters. The longest time spent ashore was seven weeks at the Endeavour River, now Cooktown, where the outstanding botanical collection was further expanded.

Apart from Banksias (discussed in the Autumn edition of Growing Matters), Flowers by Friends has used other flora collected and scientifically described 250 years ago. Here are some examples. The first three were collected at Botany Bay.



Actinotus helianthi, the Sydney Flannel Flower, was sketched by the brilliant botanical illustrator, Sydney Parkinson, in early May. For colouring purposes later, he noted :

'The radius [bracts] white the tips a little green the disk pale green somewhat grey anthera brownish yellow the buds greenish the upper sides of the leaves grey green cover'd wt white down the whole stalks and buds are also downy.'¹

Actinotus is a genus with 17 species, 16 in Australia and one in NZ. It has been much favoured by artists such as Margaret Olley and Cressida Campbell, and is now farmed and exported.

Xylomelum pyriforme was named for the woody fruits and the common name is Woody Pear.

The genus has six species, two of which are found in southern WA and four in NSW and Qld. They have cream coloured flowers, but it is the fruit that is the main feature used fresh and dried in floral work.



Blandfordia nobilis is better known as Christmas Bells or Gadigalbudiyari, the Dharug and Eora word of the indigenous peoples of the area where it was collected. In the northern region of its range it hybridizes with *Blandfordia grandiflora*, which is the species found in south-east Qld. The stunning flowers appear near Christmas and its natural distribution ranges from as far north as Fraser Island. They once grew wild in many areas of SE Qld's wallum (heathland).

There are four species in the genus, all native to eastern Australia.

Xerochrysum bracteatum, the Strawflower, Paper or Everlasting Daisy, was collected on the Qld coast and sketched by Parkinson at Bustard Bay, later known as Round Hill. Interestingly, the name was changed to Seventeen Seventy (1770) to commemorate the 200th anniversary of Cook's landing the Endeavor in the area. This popular flower comes in many forms and different colours, and is beautiful fresh and dried



Dendrobium discolor, the Golden Orchid, was collected at Endeavour River, near today's Cooktown. Of approximately 1500 epiphytic species, 71 are Australian. This orchid is not usually seen in, or available for, floral designs.

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Nursery Shade House Alan Donaldson

Since the Autumn Growing Matters, nursery volunteers were pleased to have their much awaited shade house installed in the week prior to the Covid-19 movement restrictions came into force.

Despite some holdups due to wet weather, and delays getting his material from Sydney, our contractor Michael from "Sundowner Fern and Orchid Houses" did a great job.

We then had just enough time to install overhead automatic watering lines, re-levelled the floor area with 2 cubic metres of blue metal gravel and then moved in many trays of seedlings and young plants that were temporarily stored in the general nursery area. I'm sure all who have seen the completed work are very pleased with the job, as are the nursery volunteers.

The expanded initial growing area now fulfills our aim to give us protection from the damage caused by possums and birds, installation of improved overhead watering lines, and importantly, improved growing area for seedlings and cuttings under shade or part sun. In addition, the mesh shelving included with the installation provides us with much more well organised work room.

A big thanks must go to Dick and David from the gardening group for their work with the installation of the clear roofing over the area set aside for seedling growing. Another very professional job! Some minor irrigation modifications in the shade house are still required to put the finishing touches on the project in the coming week. Meanwhile some outdoor bench rearrangements have been completed with further work still to be done shortly. This will give us improved bench space for hardening off plants prior to sales as well as a better point of sales table.

It was a great effort by all involved with site preparation work and modifications to the nursery footprint prior to the installation.

Nursery News

Stop press - Another successful monthly plant sale on June 5th.

Because of the Covid 19 restrictions, nursery volunteer hours have been considerably reduced over the past few months. Normal Friday sales were suspended for April but were resumed for May using strict social distancing rules. Nevertheless the day proved to be very successful, and along with increased private sales to schools etc, excellent returns were still achieved during the month. As a result, some stock such as the popular ground covers have been greatly depleted. We are fortunate however to have good stocks of late winter flowering plants such as Hovea, Oxylobium's and various Acacia species that will be ready for sale.

Following the installation of the shade house, rearrangements have been undertaken in areas such as seed germination, cuttings and growing-on. The increased work area has allowed us to easily practice social distancing, whereas in the old work area we were very cramped.

There has been lots of new cuttings propagated since the work area re-organisation and the propagation misting unit is now full. A special emphasis has been put on the propagation of ground covers.

Meanwhile there has also been extra home propagation activity from Kerrii, Jenny and myself with cuttings and seed propagation. Hopefully these will be available for spring sales.

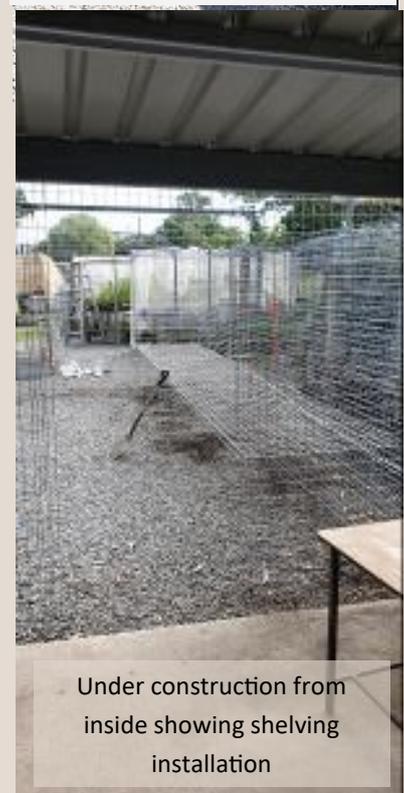
Nursery watering is being monitored regularly by Treasurer Harry and this has in turn allowed Kerrii to reduce the system output following the recent cool and wet autumn season.

With the easing of some social distancing rules we look forward to a more normal volunteer activity, however during the coming month experienced propagator Jenny will be undertaking surgery as a follow up from her accident last year. We wish her a speedy recovery and hope that she is soon back with us at the nursery.

The Covid 19 restrictions have not given our volunteers time to express our sadness at losing one of our valued volunteers Sue Parkin. Sue will be greatly missed.



Completed work from outside



Under construction from inside showing shelving installation



- Banks, Banksias and Beethoven

1770 was a great year and in 2020 we are in the middle of two 250 year anniversaries.

In 1770 Joseph Banks, sailing with James Cook, began his work of bringing Australian botanical treasures to a wider audience. Some of his timeline:

March 31 - Endeavour departed New Zealand, bound for Van Dieman's Land.

May 03 - in Stingray Bay (later called Botany Bay), collection very large, included *Banksia serrata*.

May 17 - off Moreton Bay / Point Danger / Stradbroke Island.

May 19 - north end of Fraser Island.

June 10/11 - struck Endeavour Reef in north Queensland.

June 12 - ship freed after 'fothering' (sail passed under keel, sealing hole)

June 17 - ship moored within 20 feet of shore at entrance to Endeavour River.

June 22 - beached ship and began temporary repairs, after taking four days to offload provisions, guns, stores, anchors etc.

June 26 - he discovered that his plant collections stored in the Bread Room were now under water in the beached hull. Saved many, others ruined.

July 03 - ship floated off beach. Found that ship had sprung a plank due to being beached with stern in water. Re-beached ship.

July 06 - Endeavour River exploration: overnight camp. *At night we took our lodging close to the banks of the river and made a fire, but the mosquitoes, whose peaceful dominions it seems we had invaded, spared no pains to molest us as much as was in their power. They followed us into the very smoke, nay almost into the fire, which hot as the climate was, we could better bear than the heat of their intolerable stings.*

July 10, 11, 12 - first direct encounters with natives on beach near ship. (Friendly encounters).

July 19 - evening, ship hauled off beach.

The legacy of Joseph Banks - 'Father of Australia'

His legacy survives not only in his collections, notably his magnificent Herbarium and Florilegium (in London's natural History Museum), but also in the record of his botanizing in the South Seas, his pivotal role in the founding of Australia, first as a convict settlement and its development as a British colony.

He was instrumental in establishing Kew Gardens as the greatest botanical centre in the world; he used his influence and friendship with King George the Third and in society, to further the careers of many navigators, explorers and naturalists including William Bligh and Matthew Flinders.

He warmly supported the settlement of New South Wale and corresponded with all the governors from Phillip to Macquarie.

He remained aloof from politics except when it was necessary to bring those in office 'into the happy disposition of appreciating the worth of scientific investigation'.

The genus *Banksia* was named after Banks by Linnaeus' son Carolus, hence the abbreviation L.f. after the name.

Banksia woodland once occupied much of the coastal sand plain of the Gold Coast. It occurred on the higher areas of old sand dunes and was flanked on either side by wet swamps or paper bark forests. The sole surviving area of this vegetation type on the Gold Coast is in Pine Ridge Conservation Park, Runaway Bay. The signature plant of the area is the wallum banksia *Banksia aemula*, floral emblem of our city and our Gardens. My favourite banksia however is *B. robur*.



Banks' collections



As *Endeavour* sailed north along the Australian east coast, Banks went ashore at every opportunity, exploring and adding to his collection - the following are some we have in our Gardens here. In the Botany Bay area he collected Drumsticks (*Isopogon anemonifolius*) and *Darwinia fascicularis*; at Bustard Bay near the current town of 1770 he named *Helichrysum bracteatum* (now *Xerochrysum bracteatum*); Narrow-leaved Ironbark (*Eucalyptus crebra*) at Thirsty Sound; *Clerodendron floribundum* at Palm Island; Rattlepods (*Crotalaria calycina*), *Dillenia alata*, *Grevillea glauca* and *Acacia complanata* at Endeavour River.

Ludwig van Beethoven

In 2020 we are in the middle of another 250th year anniversary. 1770 was also the year Ludwig van Beethoven was born.

The 1770s were extraordinary times - enlightenment and revolution were sweeping through Europe. Catherine the Great reigned in Russia.

Beethoven shook the classical structure of the current music (of Mozart and Haydn for example) to its foundations. His music resounds through the years - Churchill's V for Victory campaign against the Nazis opened with the first notes of Beethoven's 5th *Symphony* (dah dah dah DUM) and Berliners celebrated the downfall of the Wall with Beethoven's *Ode to Joy*

Beethoven's influence on generations of listeners can be compared to Banks' influence on generations of botanists who love the Australian plants he collected and described.

(Continued from page 12)

If you have a garden or space for pot plants, why not try growing some of these plants? Although they require different conditions, Flannel Flowers, Christmas Bells and Paper Daisies are all regional plants. It can be difficult at times for Flowers by Friends to secure some of this flora, but always we use a wide range of beautiful and interesting plants, many of which are often not available elsewhere.

We look forward to having sale days at the Friends Centre as soon as we are able.

Contact us on 0449561674 or at info@friendsgcrbg.org.au

Reference:

Parkinson's description is quoted in David Mabberley's commentary on Plate 77 in Gooding, M., Mabberley, D. and Studholme, J. *Joseph Banks' Florilegium Botanical Treasures from Cook's First Voyage* (2019). Thames & Hudson, London, p.166.

This work provided the main details of collection place and date for each of the plants discussed above.

For beautiful Australian flowers,
phone us on 0429412968 or 0407580899,
email flowersbyfriends@friendsgcrbg.org.au
or contact us through the Friends' Centre.



Birds of the Gardens #22

with JENNY ROSEWELL

Laughing Kookaburra (*Dacelo novaeguineae*)

Of all the birds found at the Gold Coast Regional Botanic Gardens, the ever-popular kookaburra remains a favourite. The laughing kookaburra is equally recognised by its noisy, laughing call as by its familiar looks. It is not unusual to see overseas visitors trying to capture a treasured photo of our iconic bird, or overcome with excitement on hearing its call. Also known as the Jackass, the kookaburra is the world's largest kingfisher.

With decreasing numbers it is pleasing to see the gardens providing a safe habitat for their survival. Few of our birds have been so immortalised in aboriginal legends, folklore, songs, poems and illustrations.

Laughing kookaburras have a stout, squat body with a large head and long, strong beak. It has a conspicuous dark, brown eye stripe across its face. The upper parts are mostly dark brown with a mottled light blue patch on the wing coverts. The underparts are generally off-white and the tail is barred rufous, brown and black.

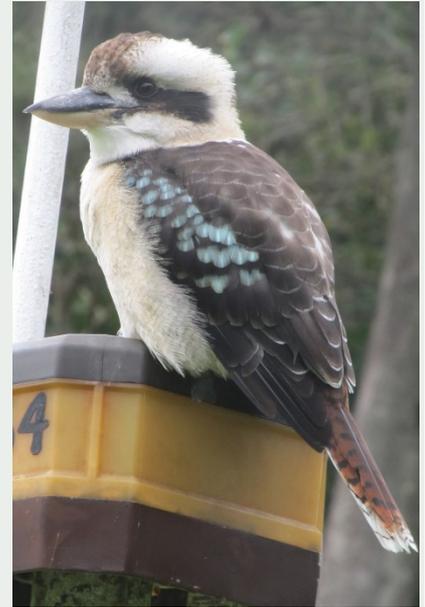
Kookaburras are found in eucalypt forests and woodland areas throughout Eastern Australia (being introduced into Tasmania and southern Western Australia). They inhabit most areas where there are suitable trees. Here in the Botanic Gardens they can often be spotted in the tall gum trees, perched on an overhanging branch or flying through an open corridor, often being chased by noisy miners. They are frequently seen and heard by the nursery volunteers, perching in trees above the nursery and around the Rosser garden area.

Ever alert, they can be seen sitting in a tree or on a fence or power lines looking over bushland. Kookaburras use a wait and swoop technique to catch prey, keeping a look out from a suitable perch, swooping down and pouncing on their prey. Being carnivorous they feed mostly on lizards, small snakes, frogs and rodents as well as young birds. They seize prey and famously carry it to a nearby perch where they batter it against a branch to kill and soften it before swallowing. They also forage in leaf litter for worms and insects.

Extremely territorial birds, they call to mark their territory, warning other birds to stay away. The kookaburra's spontaneous, raucous laughter can be heard in chorus at dawn and again at dusk giving rise to the name Bushman's clock. Their distinctive laugh being one of the special sounds of the Australian bush.

Kookaburras are believed to pair for life. A clutch of 2 to 4 white, rounded eggs are laid in a nest, a bare chamber in a tree hollow or sometimes an excavation hollowed into an arboreal termite nest. The large gum tree on the hill above the Friends Centre has been a nesting site for several generations of kookaburra nestlings. Both sexes share the incubation duties and care for the young with help from previous offspring.

Kookaburras often become quite tame around humans, readily accepting food and have been known to steal meat from the BBQ. Their biggest threats are the removal of trees, reducing their breeding sites and the use of pesticides, resulting in poisoning from contaminated food.





Volunteer Garden Guides

with Shelly Kelly

With Australia under stay-at-home suggestions to help flatten the curve and stop the spread of the current coronavirus, "social distancing" is a term that we are well and truly familiar with.

Now that the restrictions are gradually being relaxed, our guiding group is waiting for the time when social distancing finally ends, and Covid-19 no longer threatens our lives.

As we are unable to conduct any guided walks or hold meetings, we have participated in a few virtual meetings using the Zoom app. Many of our guides have been walking regularly in the gardens getting inspirations for guided walks for that time when the walks resume. Call into the Friends' Centre where brochures and self-guided walks on Endangered Plants and Woody Hollows are only available in a rack on the verandah until the Friends' Centre hopefully reopens mid-June.

SIGHTED AND PASSED POINT DANGER ON THE
MORNING OF 17TH MAY 1770

EXTRACT OF JOURNAL Wed. 16th May 1770
".....AT DAY LIGHT WE WERE SURPRISED TO
FIND OUR SELVES FARTHER TO THE SOUTHWARD
THAN WE WERE IN THE EVENING AND YET IT HAD
BLOWN STRONG SOUTHERLY ALL NIGHT. WE NOW
SAW THE BREAKERS AGAIN WITHIN US WHICH WE
PAST AT THE DISTANCE OF ABOUT 1 LEAGUE THEY
LAY IN THE LATITUDE OF 38° 8' AND STRETCH OFF
EAST 2 LEAGUES FROM A POINT UNDER WHICH IS
A SMALL ISLAND THERE SITUATION MAY ALWAYS
BE FOUND BY THE PEAKED MOUNTAIN BEFORE
MENTIONED WHICH BEARS S.W. BY W. FROM THEM
AND ON THIS ACCOUNT I HAVE NAMED (IT) MOUNT
WARNING. IT LIES 7 OR 8 LEAGUES INLAND IN THE
LATITUDE OF 28° 22'S. THE LAND IS HIGH AND HILLY
ABOUT IT BUT IT IS CONSPICUOUS ENOUGH TO BE
DISTINGUISHED FROM EVERYTHING ELSE. THE POINT
OFF WHICH THESE SHOALS LAY I HAVE NAMED POINT
DANGER. TO THE NORTHWARD OF IT THE LAND WHICH
IS LOW TRENDS N.W. BY N. BUT WE SOON FOUND THAT
IT DID NOT KEEP THAT DIRECTION LONG BEFORE IT
TURND AGAIN MORE TO THE NORTHWARD

On 17 May 1770, 250 years ago, the crew of the HMS Endeavour, captained by Lt James Cook, journeyed past our Gold Coast area. As they travelled past northern NSW and entered our waters a reef was observed. They named the headland Point Danger as a warning to other mariners. This is an excerpt from Cook's diary covering 16/17 May 1770.

The Master Planner for our gardens, Lawrie Smith, planted a seed into the minds of many of those present at the BGANZ conference hosted by the Gold Coast Regional Botanic Gardens in 2008. This seed, nurtured by Kate Heffernan, Alan Donaldson and members of the Horticultural Reference Group has resulted in a Coastal Headland Garden beside Lake Rosser.

Our Botanic Gardens Day planned for 17 May 2020 was to be a commemoration of the HMS Endeavour's passing and the flora of the coastal headland of Point Danger and was to be when the new garden was to be officially opened.

Our planned guided walks to celebrate Banks' and Solander's botanical discoveries along the eastern coast will now have to wait.

We are making a call for volunteers to join our guiding team. This is an expression of interest as the commencement date for the course has not yet been settled. If you are interested, please send an email to info@friendsgcrbg.org.au and we will add your name to the list to contact when the details have been confirmed.

If you have any enquiries or wish to book a group walk,
please ring 0449 561 674 or email info@friendsgcrbg.org.au



ROSE GARDEN WORD FIND

by Sally-Anne Simankowicz

HOW WELL DO YOU KNOW YOUR ROSES?

Find all the rose names listed below. All roses are growing in the Rose Garden.

B	I	C	F	H	J	X	Y	N	N	U	B	D	L	O	G
O	A	H	E	L	M	U	T	S	C	H	M	I	D	T	U
L	T	R	L	A	E	T	S	I	L	I	B	A	T	U	M
D	H	E	B	L	A	C	K	C	A	V	I	A	R	B	M
S	G	M	A	R	T	E	T	L	O	R	D	Y	E	W	Y
E	I	E	T	R	A	I	B	A	X	I	T	C	G	E	E
D	L	C	L	A	G	S	I	N	V	S	A	P	Y	R	L
U	E	U	E	E	F	L	T	A	Y	E	G	E	Z	I	A
C	D	E	R	B	I	N	D	R	P	N	O	A	K	S	D
T	E	S	U	T	E	P	I	O	E	J	H	C	I	E	N
I	L	D	O	N	M	R	G	A	T	I	C	E	N	D	E
O	B	R	S	A	B	I	G	S	A	O	S	O	D	K	P
N	U	Q	C	B	H	M	U	F	L	U	E	A	S	R	P
B	O	N	I	C	A	J	Z	Z	A	B	C	E	N	A	I
U	D	L	Y	N	N	A	N	D	E	R	S	O	N	D	H
M	E	R	S	T	E	P	I	R	T	S	Y	D	N	A	C



Fragrance King - Leanne Ware



Fearless - Sally-Anne Simankowicz



Iceberg - Leanne Ware

Please note: Not all roses in the quiz are represented in the images.

We will try to keep an up to date reference for future use.

Editor



NAMES		INTERESTING INFORMATION	COLOURS
BARBRA STREISAND	HT	Named after FAMOUS SINGER	LGE LAVENDER
BLACK CAVIAR	HT	Named after FAMOUS RACE HORSE	BURGUNDY RED
BOLD SEDUCTION	HT	1988 Meilland International Release	CREAM CERISE PINK
BONICA	HT	1981 Marie-Louise Meilland, France	MED DBL SOFT PINK
CAMP DAVID	HT	1984 Mathais Tantau, Germany	DBL DARK RED
CANDY STRIPE	HT	1962 Edward Mc Cummings	DBL PINK & WHITE STRIPES
CHICAGO PEACE	HT	1962 A Sport of "Peace" in Chicago	CREAM PINK EDGES
CHIPPENDALE	HT	2005 Hans Jurgen Evers, Germany	DBL APRICOT ORANGE
DARK DESIRE	HT	2017 Kordes & Sons, Germany	DBL BURGUNDY
DOUBLE DELIGHT	HT	1977 Swim & Ellis, USA	CREAM RED EDGES
FEARLESS	FL	Modern shrub. Hot humid weather	DBL FIERY ORANGE
FIRESTAR	FL	Official rose of CFS Foundation	DBL ORANGE PINK
GOLD BUNNY	FL	1978 Meilland, France	DBL LEMON
HELMUT SCHMIDT	HT	1979 Reimer Kordes Belfast G medal	LGE DBL YELLOW
ICEBERG	FL	1958 Kordes, Germany	WHITE, PINK, YELLOW or BURGUNDY
JUST JOEY	HT	Roger Pawsey. Named for wife Joey	LGE APRICOT ORANGE
LYNN ANDERSON	HT	Named for USA Country Singer	CREAM EDGES WITH PINK
MUTABILIS	FL	Rosa Chinensis. Origin: China	SIMPLE YELLOW PINK THEN WATERMELON
PEACE	HT	1935-1939 Francis Meilland, France	DBL YELLOW
ROTILIA	FL	1992 Wilhelm Kordes 3rd	SEMI DBL CRIMSON RED
TIGER	HT	Modern Shrubs	RED & WHITE, RED PINK & WHITE



Firestar - Leanne Ware



Raspberry Tiger - Leanne Ware



Mutabilis - Leanne Ware



Chippendale - Liz Caddick





Friends Centre

.... Paula Wu Friends Centre Coordinator

We are open from 10am to 2pm

Check in Clippings or call the info number for re-opening date.

The Friends Centre is the information hub and should be your first port of call. Come and see our Friends Centre Volunteers to help you find your way.

Information you will find at the Friends Centre:

- Map of the Gardens
- Brochures on Friends Guided walks, climate watch projects, NaturePlay passport quest,
- Kaialgumm Games and other children's activities
- Flyers on upcoming events and activities
- Fact sheets on the plants and wildlife in our gardens
- Friends information brochure and membership forms
- Changing displays



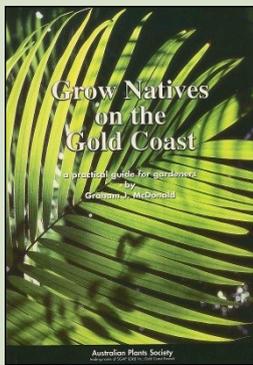
Myall Park china mug \$18.00

Friends Centre activities:

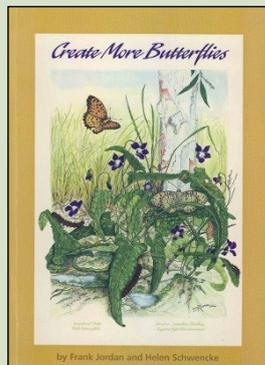
- A regular meeting place for all Friends Activity Groups
- A base for events and activities in the Gardens
- Avenue for small workshops

Books and other articles for sale.

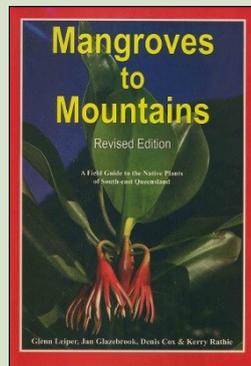
Note: RRP is shown with Friends discount following where appropriate.



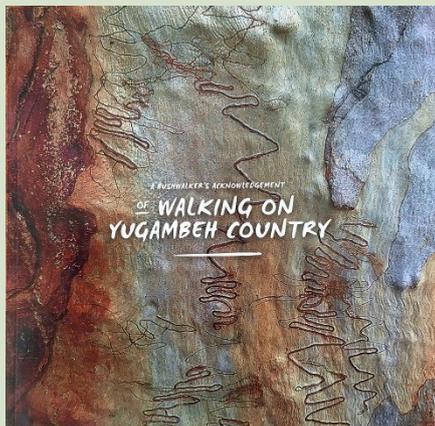
RRP \$10.00 Friends \$8.00



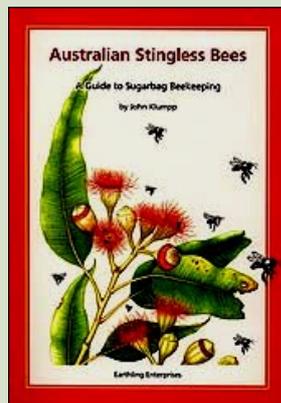
RRP \$32.00 Friends \$28.00



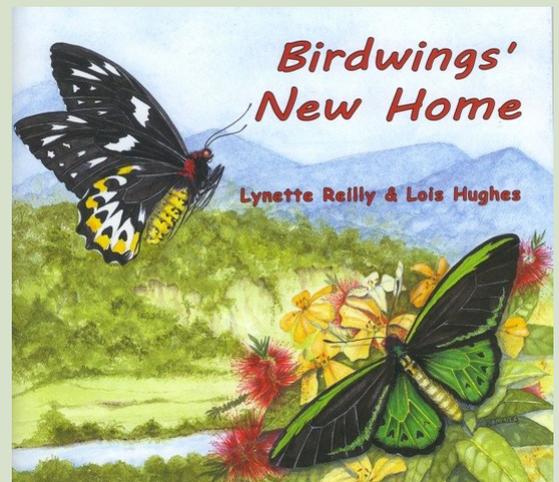
RRP \$55.00 Friends \$50.00



RRP \$30.00 Friends \$25.00



RRP \$33.00 Friends \$29.50



\$10.00



A COVID-19 Safe Friends Centre

As COVID-19 restrictions are gradually being relaxed, Friends have been working to ensure the Friends Centre is ready for the social distancing and exemplary hygiene measures that will be an important part of the transition to reopening and operating our Friends Centre.

Recognising that the COVID-19 pandemic is a public health emergency, and that all actions in respect of COVID-19 should be founded in expert health advice, Friends of the Gold Coast Regional Botanic Gardens have been guided by the principles set out by Safework Australia to maintain a safe Friends Centre.

Friends recognise that all our volunteer workers, have the right to a healthy and safe working environment, and, that the Friends Centre should be a safe place to visit for all of our clients and visitors.

Friends will be working to manage identified risks, including as follows,

- ensure the Friends Centre operates effectively while requiring physical distancing
- use only contactless payments
- limit the number of people in the Friends Centre and on the veranda at any given time
- provide hand sanitiser
- clean throughout the day
- provide disposable cups and cutlery for Friends use
- keep the bathroom and common areas clean and have ample hand wash, paper towels
- encourage handwashing.

When you come to the Friends Centre you should take reasonable care for your own health and safety. Also, you are asked to take reasonable care for the health and safety of others. You are asked to comply with Friends' guidelines about social distancing, and hygiene.

Importantly, you are asked not to come to the Friends Centre when you are unwell.

To prevent the spread of COVID-19 it is important that we all:

- ♥ act safely and observe any new requirements for physical distancing (even if it means doing things in a different way to what you are used to)
- ♥ follow instructions (e.g. about physical distancing and hygiene)

Mary Woods

Coordinator

Friends Centre Operations



Leaf cutter - Leanne Ware



Pied butcherbird with worm
- Leanne Ware



Merchandise: what's for sale at the Friends Centre?

Katrina McIntosh

- ◇ Bell Art Designs: Floral Emblems Gift tag wallet, Aroma BLOQ infusers, Botanic coasters
- ◇ Beeswax candles & Local Honey
- ◇ Books: bees, birds, bushwalks, butterflies, frogs, plants local species and identification
- ◇ Botanical bookmarks and paintings
- ◇ Enviro vegie bags & craft items by Margaret Morley
- ◇ Fine china mugs, Grevillea by Myall Park Botanic Garden
 - (Catalogue available to order extended range)
- ◇ Gift cards including photos taken by our members in the Gardens
- ◇ Native spices & seasonings, jams & flower extracts & organic teas
- ◇ Plants: variety of pot sizes, from the Friends Nursery volunteers
- ◇ Pottery based on leaves of plants in our Gardens by Helen Parer



The new products from Bell Art are a selection of beautiful notebooks.

Four different Australian floral designs are the cover images and a gorgeous Eucalypt, "GUNGARRU" tray which is food safe and dishwasher proof.

Please Note:

Bell Art stock and Wild Hibiscus stock - a good supply.

Fingerlime Marmalade in plentiful supply and a wildly popular item.

Prices on the Bell Art notebooks are RRP \$7.95.

Eucalyptus food and dishwasher safe tray has a RRP of \$39.95 with a members price of \$34.95.

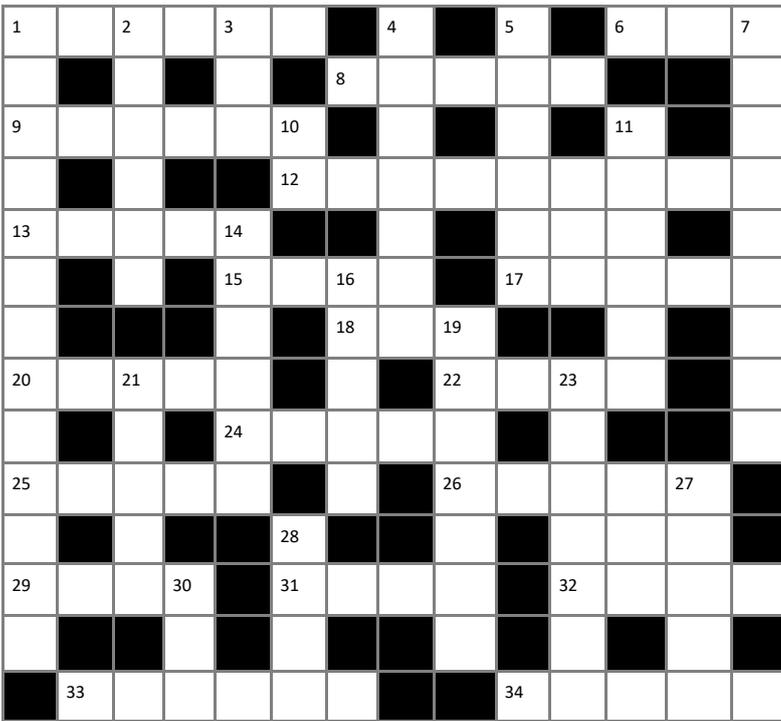
Bell Art Coasters and Aroma Bloqs have been replenished with more designs and scents available.

Coasters RRP \$11.95 Member Price \$10.45

Aroma Bloqs RRP \$13.95 Member Price \$11.55.



Dick's Challenge #18



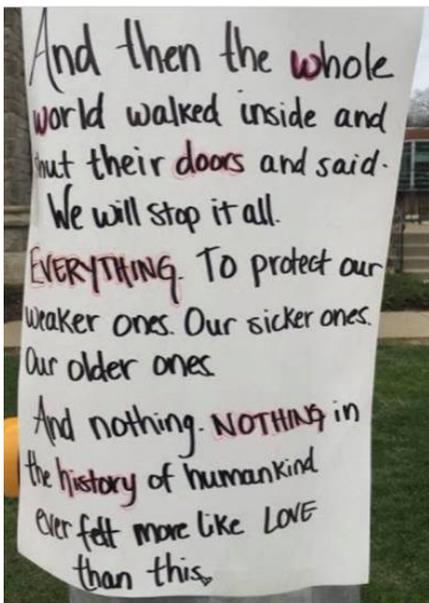
ACROSS:

1. Endangered Bottle Tree
6. Nth QLD sugar town
8. Notorious penal settlement in Macquarie Harbour Tas. _____ Island
9. A destructive insect sometimes called a "spitfire"
12. A shoreside walkway
13. An era or age
15. A desire or motivation
17. Mountain bluffs of Tasmania
18. A vessel or container
20. Adjust
22. Australia's highest mountain ranges
24. You will find these gardens in Rivendell and Lothlorien
25. Edible flower bud
26. Nth African mountain range
29. Mt _____ National Park north of Rockhampton noted for its caves
31. A cliff or rock face
32. Brisbane's longest serving Lord Mayor (Christian name)
33. Japanese name for the Pleiades star cluster
34. Unreactive

DOWN:

1. Red billed shellfish eating shorebird
2. Australian scientist and Antarctic explorer
3. Hand tool used for marking and boring
4. English explorer, scientist and navigator landed in WA 1699
5. Common volcanic rock of the Scenic Rim
7. Qld's highest town
10. Old English "you"
11. Estuarine Flats and low tide feeding shorebirds
14. NSW wine growing region
16. Pink fruited exotic tree loved by fruit bats
19. D'Aguiar Hwy town near Tarong Power Station
21. A tree which shares its name with a US ski resort
23. Large long beaked waterbird
27. Doryanthes _____ lily
28. Maple genus
30. Australian 4WD accessories

Solution back page



A topical verse from Chelsie Diane sent in by Shelly Kelly.



Alan's imaginary view from the crow's nest of HMS Endeavour on May 16, 1770



Archives



The Friends archives constitute a collection of materials in all forms to preserve a record of our Association and its vital contribution to the City of Gold Coast. Our archivist, Helena Kelso, and several Friends members also belong to the Garden History Society and understand the importance of well documented and stored garden records. Helena asks if all members could contribute any news clippings, photos (digital or otherwise), video clips, pod casts or any other material that should be archived. This material is being kept safely in anticipation of a permanent home at the Biodiversity Centre in years to come and is also supplied to the John Oxley Libraries historical records.

Helena Kelso, archivist

Please keep this archive collection growing.....

information contact: info@friendsgcrbg.org.au

Dick's Challenge #18

Solution

Across 1 Ormeau 6. Ayr 8. Sarah 9. Sawfly
12 Esplanade 13 Epoch 15 Urge 17 Tiers
18. Urn 20 Adapt 22 Alps 24 Elven 25 Caper
26 Atlas 29 Etna 31 Crag 32 Clem 33 Subaru
34 Inert

Down

1 Oystercatcher 2 Mason 3 Awl 4 Dampier
5 Basalt 7 Ravenshoe 10 Ye 11 Wader
14 Hunter 16 Guava 19 Nanango 21 Aspen
23 Pelican 27 Spear 28 Acer 30 Arb

Links

We will affix to this box any links sent in that are of general interest to our readers.

Copy the address into your browser or press on the hyperlink.

[EucalyptNo54May2020.pdf](#)

<https://www.instagram.com/goldcoastbotanicgardens/>



Banksia oblongifolia lignotuber Peter Reilly 2018

Another banksia strangeness. Almost half of all known *Banksia* species can regenerate from rootstock using a *lignotuber*, or can resprout from buds located under the bark. Regeneration after fire damage is important to survival of the species.

Coffee at the Gardens

REFRESHMENTS, ICECREAMS, HIGH TEAS

Visit Jason and Samantha at Coffee at the Gardens to partake of their delightful cuisine.

Open from 9.00am on the verandah of the Friends Centre.

Bookings for groups can be made or just pop by for an enjoyable break.



Our thanks to Gold Coast City Council for their continued assistance with this Newsletter.

