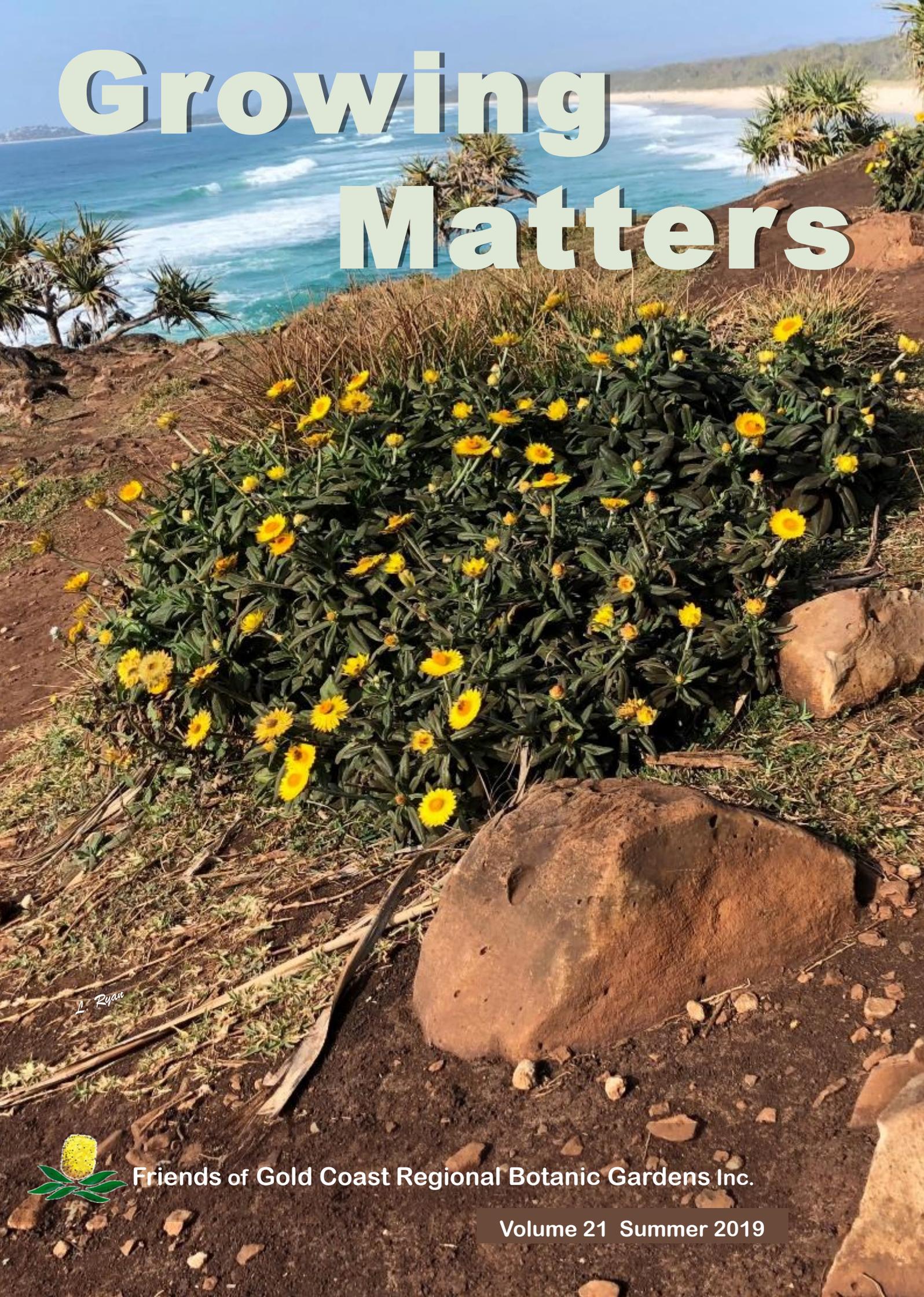


Growing Matters



L. Ryan



Friends of Gold Coast Regional Botanic Gardens Inc.

Volume 21 Summer 2019

Contents

- 3 President's Report
- 4 Introducing the new curator—Paul Cockbain
- 5 Your Secretary
- 6 Gardening/Linking you locally
- 7 Climate Watch
- 8 Education Matters
- 9 Australian Plants
- 10 Botanic Endeavour 250
- 11 Photos re article p10
- 12 *Xerochrysum bracteatum* headland form
Paper Daisy
- 13 Flowers by Friends
- 14 Volunteer Garden Guides
- 15 Birds of the Gardens
- 16 Friends Centre News
- 17 Friends Centre merchandise News
- 16 Herbarium News
- 19 Dick's Challenge #17
- 20 The Back Page Items

2020 Management Committee

President

Alex Jakimoff

Vice President

Rana Baguley

Secretary

Catherine Simpson

Treasurer

Harry Ellis

Members

Cindy Murray

Susan Bahr

Patron: Gene Rosser

Cover Page



Xerochrysum bracteatum
Coastal Headland Paper Daisy.
See Pp 10–12 for more detail

We wish all our readers
the Compliments of the
Season

Is this YOU?

Friends are seeking an enthusiastic volunteer to learn about an interactive software program called Intuiface and to trial it on a dedicated touchscreen computer. The program has the capability via the touchscreen for visitors to swipe and drill down through layers of information to follow their interest in a particular subject.

A volunteer with either existing communications or IT skills, or someone who loves to learn, would be ideal to take on this exciting new task on behalf of the Friends.

Contact:

communications@friendsgcrbg.org.au



From the President -

Alex Jakimoff



A new Curator has been appointed by the City of Gold Coast and I'm looking forward to continuing working with Paul Cockbain. Paul had been in the position of Acting Curator for some months and is already developing an excellent working relationship with Friends, congratulations and welcome!

As we draw towards the end of another year you will receive the Friends Annual Report. It looks somewhat different this year as we have produced a more business-like document, with important statistical information displayed in an easily digested format.

The Friends' Management Committee hope you value the Annual Report and that you can easily see what we have achieved over the last 12 months. Just as an example we have contributed 13,376 volunteer hours in direct services to the gardens such as Visitor Information Services, Guided Walks, Nursery, Herbarium, Gardening, Education and so on.

Put it another way, that is the equivalent of 7.9 full-time employees which would equate to over \$550,000 of value per year! Putting together this Annual Report has been a huge undertaking and largely carried out by our amazing secretary Catherine Simpson, my deep thanks for this effort and also for the enormous contribution throughout the whole year.

The Friends' Management Committee and all the Friends' Coordinators have done exceptionally well organising activities and administration and my sincere appreciation is further extended to all our members whether they be active volunteers or as supportive members.

Our progress towards a Biodiversity Centre continues to move forward with a position on City of Gold Coast Council's Steering Committee and Project Manager. The exciting concept plan that we have endorsed is in our sights, and no doubt we are all looking forward to seeing the first sod being turned in its construction.

At the recent Council Environmental Awards celebration it was very satisfying to see our Friend Sally-Anne Simankowicz receive an award - congratulations Sally-Anne for the well-deserved recognition of your enthusiasm and positive energy.

A new project prepared in partnership with the Council is the supply of native bee-hives to local residents. Announced earlier this year the initiative builds on the current interest in stingless native bees and melds with Friends conservation and biodiversity goals.

Following December's AGM and the election of office bearers will be the end of year Christmas party on 15 December.

I hope to see many members attending to celebrate another year of our wonderful organisation.

I wish all the Friends a healthy and happy Christmas and New Year and look forward to the year ahead.

Annual General Meeting Report—Alex Jakimoff

The AGM was held on 1st December with 26 attending and the election resulting in 6 Friends' Management Committee members. The annual reports were available in addition to already being distributed by email (extra copies are also available from the Friends Centre).

The 2020 committee elected is unchanged from the previous year consisting of Alex Jakimoff (President), Rana Baguley (Vice-President), Catherine Simpson (Secretary), Harry Ellis (Treasurer), Susan Bahr and Cindy Murray.

The Public Fund (Gift Fund) committee is comprised of Nick Bloor, Roger Behrendorff, Peter Reilly and Harry Ellis.

Various motions were passed including the change of the Special Interest Group "Australian Plants Gold Coast" to become another activity group of Friends co-ordinated by Kate Heffernan.

The full list of all Motions passed will be contained in the Draft Minutes of the AGM distributed to members when they are finalised.

The President presented long serving members with their lapel pins recognizing their 10, 15 and 20 year memberships representing their joining Friends in the years 2009, 2004 and 1999.





Curator's Column

Paul Cockbain

Hi,

My name is Paul and I am the new Curator at the Gold Coast Regional Botanic Gardens. I am assuming, and hoping, that since you are reading this article in the wonderful 'Growing Matters' newsletter, published by the wonderful volunteers at the gardens, that you are interested in all things green and growing and encourage you to visit our beautiful Botanic Gardens.

Firstly, a little bit of information about myself. I have lived on the Gold Coast for over fifty years. One of my fondest earlier memories was attending the Southport State Primary school which was conveniently located close to the milk factory and the Pacific Hotel where, because a fellow student's father managed the hotel, we were able to go down after school and slide along the timber floor in our socks!!!

I now live in the beautiful Currumbin Valley on a small Macadamia hobby farm which takes up most of my spare time!

I enjoy being outdoors and regularly hike, camp, paddle, trail run, and most importantly, rest whilst being surrounded by the natural environment.

I have been involved in the horticultural/conservation industry for my entire career. From the Gold Coast Ladies Bowling Club, through the exciting opening years of the Sanctuary Cove Golf Resort, to my current employment at the City of Gold Coast where I have held several positions in Parks and Landscape Services and Natural Areas Management Unit where, prior to becoming Curator at the gardens, I was Team Leader of the Ecological Restoration section.

I am very excited and looking forward to the opportunity to continue and expand the fantastic work that has been undertaken over the last twenty years at the Botanic Gardens. I am also looking forward to working closely with 'The Friends' and garden staff to ensure that we continue to present the gardens at their best and to ensure that all visitors, whether, local, national or international, have an enjoyable and educational experience.

Finally, I would like to acknowledge and thank the previous Curator, Liz Caddick. Liz was crucial in the further development of the gardens, including infrastructure assets such as an additional toilet block and pathways, and the 'Living Collections' which so many of the gardens visitors enjoy.

Thank you for allowing me to introduce myself and once again I encourage you to visit our beautiful gardens, enjoy a coffee and a cake at 'The Friends Centre', and to take a stroll around to admire the great work undertaken by the staff and volunteers.

Paul

Curator

Gold Coast Regional Botanic Gardens

Curator Paul Cockbain (left in photo) with David Cuschieri planting Critically Endangered *Brachychiton* sp Ormeau in the Curators' Avenue (avenue originally planted by Botanic Gardens Curators from Australia and New Zealand in 2008).

David, who is actively involved in koala rescue and planting koala food trees donated the Ormeau Bottle Tree through Friends.

Photo courtesy Kate Heffernan



Your Secretary - Catherine Simpson



Now that the Annual General Meeting is over and the end of the calendar year is near I am amazed at how the year has flown by. I do get a bit jaded by this time but my work is nearly over for the year with one more Friends' Management Committee meeting on 9 December.

It has been such a busy year and as you will see in the Annual Report, volunteers made a huge contribution in 2019 and achieved much. In order to ensure this contribution is fully understood by Council and others, we use a measure called Full Time Equivalent (FTE). It is the number of hours in a year that an employee works in Queensland. Council employees average 7.6 hours per day which includes an hour of breaks. The recorded working hours of volunteers do not include time for breaks, so one FTE is 6.6 hours per day or 1650 hours per year. Volunteers contributed 13,376 hours through the year which equates to 7.9 FTE. Using a recognised value of volunteer labour of \$41.72 per hour, this equates to a contribution to Council and the community of \$558,036. A further 2.2 FTE are dedicated to administration of the association and to services to members.

We have a very high level of engagement with 98 active volunteers which is 59% of the membership. Many are contributing through more than one way.

Achievements for the year

- The Friends Centre volunteers welcomed 9% more visitors
- The Garden Guides hosted 38% more participants on walks
- Over 550 children attended an Education activity
- Herbies audited 420 plants in the Gardens and added 113 to the preserved collection, as well as finishing the Melaleuca and Grevillea display folders
- The Nursery increased sales by 92% and expanded their capacity to grow and sell plants and installed irrigation
- Flowers by Friends increased sales by 61% and created 249 arrangements
- The Friends arranged fabrication and installation of 6 Header signs and 95 individual plant signs with a value of \$17,152 funded mostly from donations;
- Volunteers from all groups increased participation in outreach events such as the Rotary Botanical Bazaar Gardening and Sustainability Festival and the Main Beach Spring Flower Festival, as well as making more presentations.
- The Community Planting Day attracted 71 participants, considerably more than in 2018;
- Gardening volunteers increased their annual contribution from 0.66 FTE to 0.94 FTE in maintaining the collections, as well as making improvements in Nursery and Herbarium facilities;
- The Communications group volunteers launched Instagram and a monthly eNewsletter

I am also pleased to report that progress was made with the Regional Biodiversity Centre, when Council allocated \$102,500 for concept design and planning in their 2019-20 budget. A Prospectus is being developed by Council which will assist in raising funds from Federal and State Governments.

All Friends can be proud of this contribution. This year the Annual Report has been designed to demonstrate the Friends' role and contribution to a wider audience than the members. The Friends' Management Committee felt this necessary in order to support the proposed campaign to attract philanthropic and corporate funding to the Biodiversity Centre.

I wish all members a happy and safe Christmas and New Year.



Gardening - Alex Jakimoff

The continuing drought has had several effects with our gardening team. Usually we have significant weeding tasks at this time of year but the extremely

dry conditions have had one positive outcome - we have less weeding because they are not germinating or growing much ! So we have more time for mulching, removing unthrifty plants and other tasks.

Where there is no automatic irrigation Council staff are doing their best to keep water up to struggling gardens - water trucks and manual hosing has been constant and we also assist with that.

We have restricted our pruning work as stressed plants don't usually respond well after being cut back. And then not many plants have been growing strongly enough to require pruning anyway. Light pruning only has been our strategy.

Thanks to Steve, Dick and Hans we constructed a timber pergola with overhead shade cloth next to the Herbarium. This workspace for the "Herbies" provides an alternative comfortable area for their regular work sessions.

The Eastern Precinct near the Gardens entrance took a few days to clean out the unthrifty plants and other maintenance work, and then some more days work on the Buffer area opposite the Sensory Gardens. Environmental woody weeds needed removing and the native kangaroo vines had been overly enthusiastic and were climbing all over the trees.

Thank you gardeners for a hard working and enjoyable year, and especially those wonderful morning teas !



Photos of Gardening group diligently working and discussing. Images courtesy Leanne Ware

Linking You Locally

event hosted by Broadbeach Library on Saturday 26 October



Broadbeach Library

The 'Linking You Locally' event is held in various libraries across the Gold Coast on the same day. It is designed to encourage residents to connect with local community groups and each other to foster greater social connectedness and wellbeing. It is also a fantastic opportunity for community groups and services to showcase their activities and attract new members.

In the spirit of Cicero who very wisely said: "If you have a garden and a library, you have everything you need", Friends Susan Bahr and Harry Ellis used the occasion to chat with people about the Friends and the Gardens in the foyer area of the Broadbeach Library for a few hours on Saturday 26.

We met up with some people passionate about the Gardens and we hope at least a couple of them will join us at the Friends bringing both their skills and wonderful attitudes with them. It would have been worth it had been just one person! In many senses the numbers game can be pretty meaningless on such occasions.

Spreading the word is not hard to do when you are a Friend of our wonderful asset, the Gold Coast Regional Botanic Gardens.

I urge you not to miss any opportunity to share our story.

Susan Bahr

Communications group



CLIMATE WATCH— Neil Morley



Neil recording sightings for the Climate Watch Birds Study. Photo Shelly Kelly

There have been many dramatic changes in world climate over past years and the science community is collecting data to illustrate the effects of these changes. There seems no argument with many that this is occurring but many political leaders do not seem to be accepting these climate changes as significant.

The Earth Watch organisation has established Climate Watch to monitor effects on plant and animal species. Its scientific committee selected species which need to be observed to check these possible effects. Species of plants, butterflies and birds were listed and the Friends Climate Watch group selected species found within the Gardens. Friends who had knowledge of these groups regularly monitored presence, numbers, behaviour and growth factors of these species.

There are ten plants growing in the Gardens and these factors are recorded and lodged with Climate Watch.

This has also occurred with butterflies and birds on a weekly basis. Since the data we collect is only a small part of the picture and needs to be analysed over a long period, it is difficult to produce any valid results from the Gardens. Hence we submit our data to Climate Watch to be included with data Australia wide.

A small story from last summer's lack of rain (only 4 millimetres in January) was with the Common Koel, known locally as the Rainbird. It comes to the coast from New Guinea and Cape York around October/November each year and leaves at the end of the 'wet season'.

Last summer it was not heard until March and then only for a month. This was a significant response to our 'climate change' last year. However this alone is not sufficient to show the sceptics and needs to be collated along with all other records to prove and to be accepted scientifically.

Friends are assisting the scientific community with this important work with the hope that our community and political leaders accept that climate change is a fact and will cause many problems worldwide if we do not act now.

For more information on the GCRBG Climate Watch trails and signing on please visit;

<https://www.climatewatch.org.au/trails/gold-coast-regional-botanic-gardens>

Please call into the Friends Centre to pick up information and recording sheets if you are interested in joining the Friends Climate Watch group at our Botanic Gardens.

Flower Arrangements: for Sale at the Friends Centre

Produced by Flowers by Friends.

Stock is purchased from flower markets and elsewhere.

The Flowers by Friends garden is now in business and is providing much of the stock now as the plants mature.

We wish FbyF all the best in getting this garden to flourish.



Education matters

Rana Baguley

The spring school holiday program was as popular as ever with many children and their carers enjoying the nature based activities at the Gardens. For the upcoming summer holidays there will be more activities. Please note the following and book as soon as possible:

Christmas Arts and Crafts

Friday 20 December 9:00 - 10:00am

www.eventbrite.com.au/e/naturallygc-natures-art-and-craft-workshop-kids-tickets-62680708687

10:00 - 11:00am

www.eventbrite.com.au/e/naturallygc-natures-art-and-craft-workshop-kids-tickets-62680689630

In Search of Insects Tuesday 14 Jan 8:30 - 10:00am www.trybooking.com/BGHUW

Discover our Feathered Friends

21 Jan 8:30 - 10:00am www.trybooking.com/BGHVA

There were also other programs conducted for vacation care and special interest groups.

All these activities would not be possible without the continued support of the team of our wonderful volunteers.

Arbor Day

On Tuesday 15 October, we celebrated Arbor Day with two schools, Burleigh Heads State School and St Francis Xavier Primary School, planting trees and under storey plants in the Callitris Grove and the Ironbark section of the Gum Tree Corridor. Cr Paul Taylor addressed the students and teachers. Kate Heffernan and Alan Donaldson gave the students a background to the species of plants being planted.

The Burleigh students were thrilled to be planting native pines, *Callitris columellaris*. Their school grounds have remnant veteran native specimens, probably pre-dating European settlement on the Gold Coast. Friends and botanists have been working with the school to collect seeds from these trees and propagate them for future plantings within the school grounds. Francis Xavier students planted in the Ironbark section. They learned that ironbark trees hold on to each year's new bark layer, which grows harder and denser, protecting the trees from all but the very hottest of bushfires. Their blossoming flowers are also an important source of food for native animals

Arbor Day at the Botanic Gardens is special, not only for the tree planting but the relationships forged with youngsters. It's not only a day of planting, but a chance for local children to learn about the amazing diversity of local flora and the work of Friends and Botanic Gardens staff as champions of the region's plant life. Our thanks go to Council officers who prepared the sites, Friends who assisted on the day with planting and the organisation required for coordinating another successful Arbor Day. It was gratifying to receive such positive feedback from the schools and to know they are keen to continue this very special connection with Friends and the Gold Coast Regional Botanic Gardens.

Thank you also to Kate Heffernan who wrote an excellent article in the Gold Coast Bulletin on Arbor Day titled, '*Big Things are Growing*'.

To find out more information about these children's activities go to:

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>



Photo courtesy Rana Baguley





Succession planning in action

Like all good succession plans, the seeds for this one were sown at its birth. When the Australian Plants Special Interest Group was formed, By-laws of the Friends were formulated so that other horticultural groups could similarly be under the Friends' umbrella and call the Gardens 'home'. At the same time, it was foreseen that if a Special Interest Group closed, the ending would be straightforward.

Well, no other horticultural Special Interest Groups have eventuated.

Lots of activity groups have formed within the Friends - herbarium, nursery, garden maintenance, garden guiding, visitor centre volunteering, craft, Flowers by Friends, climate watch and children's programs.

Each of these groups has a coordinator - a contact point for the Management Committee - but no rigorous hierarchy of leader, secretary and treasurer.

The last few years have seen a reluctance by members to keep taking on these roles, so at the Australian Plants group's AGM on November 9th, the succession plan was put into action. We ceased being a Special Interest Group and wound up our affairs according to the By-laws. We have become another 'activity group' of the Friends like those cited above.

Kate Heffernan will be the coordinator and Gareth Davis the communications assistant. Any members desiring to initiate an activity - visit, talk, demonstration etc - can pass the proposal to Kate through Gareth (ausplantsgc@gmail.com).

One proposal which has a good deal of enthusiasm behind it, resulted in the formation of a working party to investigate the possibility of an orchid house in the Gardens.

And like all good succession plans, it should ensure 'business as usual' from now on.

Lynette Reilly



More photos of students planting on Arbor Day.. See article p8



BOTANIC GARDENS AUSTRALIA NEW ZEALAND

BOTANIC ENDEAVOUR 250

Kate Heffernan

Plants were critical to the survival of First Nation Australians long before European exploration around the Australian coastline. Our botanic gardens Plant Collection Zone 'Story of our Country' demonstrates just some of the vital resources flora provided for everyday life.

After the settlement of the colony by Britain in 1788, Australia's flora was viewed by few for its real value. Early plant collectors and botanists mostly lauded its unique characteristics and beauty. It was grown in glasshouses in some of the world's leading botanic gardens, but colonists mostly misunderstood or exploited it, leaving a legacy of destruction which in many instances continues.

Always the visionary, friend and mentor Lawrie Smith OA introduced an idea to an assembly of Officers and Friends of Australian and New Zealand botanic gardens at the July 2008 BGANZ Conference, hosted by Gold Coast Regional Botanic Gardens at Palm Meadows Golf Resort. Lawrie's enthusiasm for Australian flora and his commitment and work seeing it celebrated and adopted in gardens across Australia and on the international stage are admired by all who meet and know him. Lawrie was the Master Planner for our botanic gardens. Discussions around the commemoration of the flora of Australia collected during Cook's Endeavour voyage along New Zealand and Australian coastlines began with that first talk by Lawrie.

In 2010 BGANZ met again, this time in Gladstone where Lawrie's idea became a documented proposal, agreed by the Conference participants as '*an excellent opportunity to increase the status and promotion of botanic gardens*'. Tondoon Gladstone and Cairns Botanic Gardens had wasted no time since 2008 and they were already researching landing locations of the Cook expedition at 1770 and Cape Grafton.

From 2008 Gold Coast Regional Botanic Gardens Council Officers and Friends discussed and agreed the proposal had merit and should be on the agenda as the date neared. The HMS Endeavour had passed by the region, and Captain James Cook gave English names to two prominent landmarks, Mount Warning and Point Danger. Both are significant physically, and for their vegetation.

The project for GCRBG to commemorate the flora once found growing on Point Danger is in the final planning stages after a long lead time. In 2012, as Friends Honorary Living Collections Co-ordinator, Alan Donaldson drafted a concept for new Zones of the Mangroves to Mountains Transect. These included Wallum Woodland, Wet and Dry Heath and Coastal Headland - with the intent that these zones ultimately merged with the Mangroves Zone proposed on the Master Plan.

In 2013 the Wallum Woodland planting design was implemented on a Friends' Community Planting Day. It was resolved by the Horticulture Reference Group then that the Headland Zone be planned as the Gold Coast Endeavour 250 Project in time for the joint BGANZ national commemoration. Concepts were prepared throughout 2018, and reviewed more recently. It is important the site merges with the surrounding collections in the Gum Tree Corridor, including 2 Coastal Headland Beds. Its overall scale has to allow for large basalt columns and loose rocks intended to symbolise some of the headlands of the region. It was a series of lava flows from Mt Warning which shaped Burleigh Headland, Fingal Head and Point Danger, as well as a 5-kilometre long coastal reef.

The site for the new Headland Garden has been re-surveyed and measured, and associated planting theme created. Hopefully works will be completed sometime in January, and the project will be settled in and growing well by Botanic Gardens Day in May 2020. (See sketch p.12)

GCRBG will be part of the national commemoration which culminates at Cooktown in July 2020.

Point Danger forms the commencement of the New South Wales and Queensland border. There has been conjecture over whether Cook actually identified and named what became known as Fingal Head as his Point Danger. His charts and records clearly take into account nearby Cook Island. Anyone interested in the ongoing saga may like to read the following report and make your own opinion. I personally have no idea, but prefer to think it might be Fingal as this headland has not been quarried and altered beyond recognition.

http://rupertgerritsen.tripod.com/pdf/published/A_Dangerous_Point.pdf





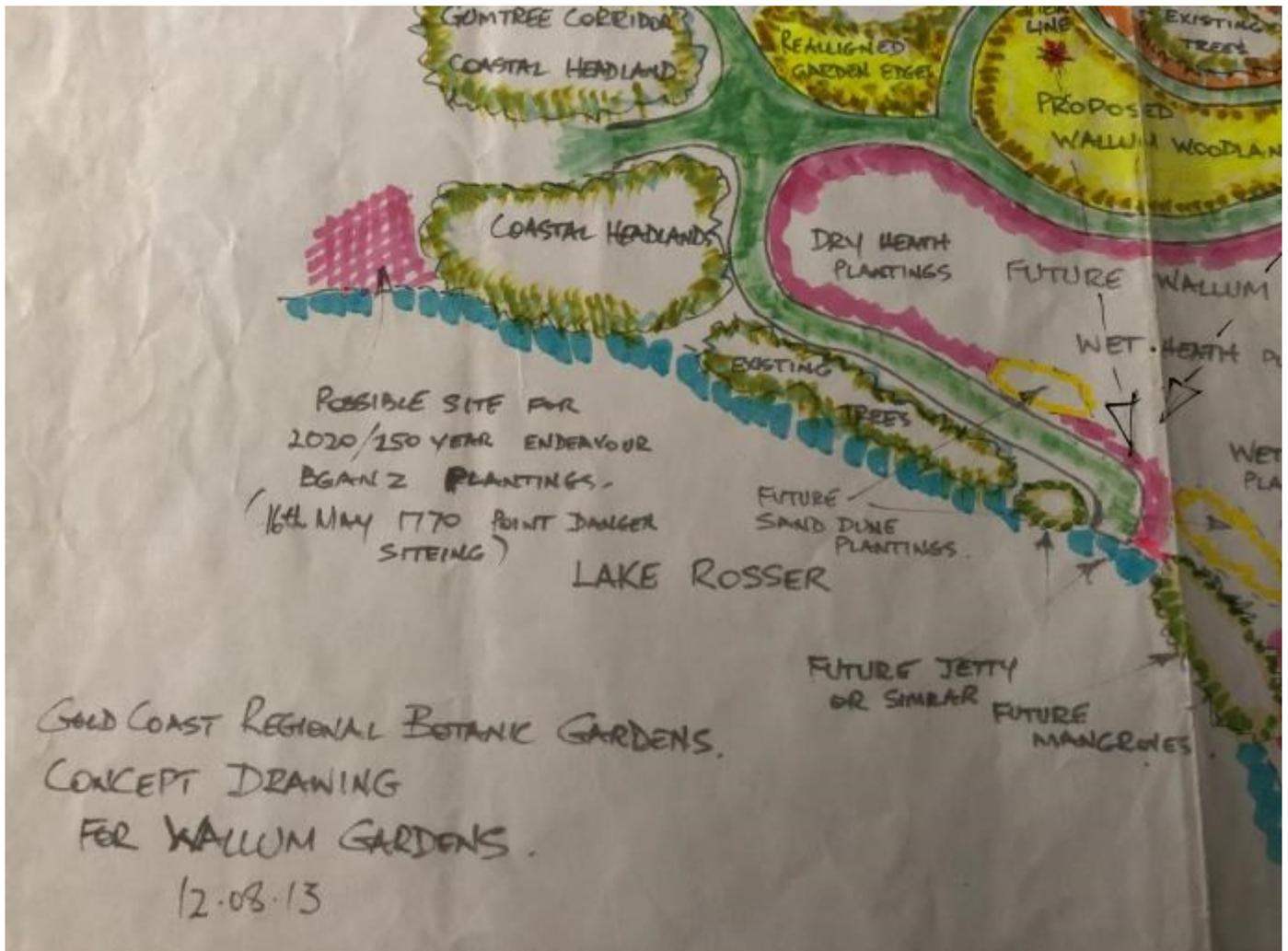
Basalt columns break up after erosion along Burleigh Headland (Jellurgul)

Basalt Columns
See article p10



Basalt columns remain upright at base of Fingal Headland (Booningba - porcupine place, after quills.)
Source

http://bundjalung.dalang.com.au/language/view_word/760



Concept Plan developed by Alan Donaldson.



Xerochrysum bracteatum headland form (Paper Daisy)

Alan Donaldson

Friends nursery has recently successfully propagated several batches of an unusual low growing ground cover form of *Xerochrysum bracteatum* from Northern NSW. In its native habitat it is found along the exposed coastal headlands.

We were fortunate to have seeds donated and to our surprise we were able to achieve excellent results when we propagated the first batch of seeds. Even more surprising has been the growth habit and prolific flowering of the plant. This appears to demonstrate that it is a distinct adaptation to the salt laden winds of exposed coastal headlands.

This species is not to be confused with a similar variety of *Xerochrysum bracteatum* known commercially as 'Diamond Head'. Whilst that species also grows in a similar environment and similar form, it has much narrower leaves. Our form has dull grey-green slightly hairy leaves approximately 30mm x 100mm. The plant grows to approximately 150 mm in height and with a naturally spreading habit. The bright yellow daisy-like flowers grow on stems up to around 150mm above the foliage. Seed collection is easy approximately a week or so after maturing.

In cultivation in our home garden this autumn and winter, the plant has shown considerable horticultural potential as both a pot specimen and as ground cover. In both situations the plant flowers prolifically. They continue to flower now we are well into spring and very hot weather. In the pot it requires regular watering to the potting mix (not over the leaves) preferably in mornings. It appears to be prone to fungal damage if the leaves remain wet at night. This has been shown to occur at our nursery as well. The plant benefits from a well-drained situation and regular applications of slow release native fertiliser.

Friend's Nursery has stocks of this plant along with other forms of *Xerochrysum*, so call in on our monthly sales day or look for the plant on the Friends Centre plant trolley.

You won't be disappointed.



Xerochrysum bracteatum headland form of Paper Daisy. Picture supplied by Alan taken at Fingal Head. Refer stories on this page and page 10 for related material.

Photo right has been grown in a pot at Kate & Alan's home. Quite stunning!



Flowers by Friends - Claudia Knapman

Decorating Food with Flowers

Edible flowers look pretty on our plates and often are part of our diet. We all know that some plants are poisonous, however, but this is not always remembered when it comes to decorating our food.

There is some confusion over safety in the use of fresh floral items as food decor, as was pointed out in an article in the August issue of *Flowers: The magazine for the Australian flower and foliage industry*. For example, cake decorators may not be aware of which flowers are poisonous or have harmful chemicals on them, and they may not know the current techniques for placing them safely into or onto a cake.

With the trend for using native flora for birthdays, weddings and other celebrations, a much wider range of plants is being used in cake decoration. Even in Flowers by Friends' limited experience in this area, there is a tendency to overlook the potential for toxicity or health issues. Often the question about plant safety for human consumption is not even asked, as we found with a cake we were asked to decorate with native plants for a 21st.

FbyF members have seen eucalypt leaves lying on top of a wedding cake and, while this might be alright for koalas, it is not a good idea for humans. Koala diets are poisonous to humans. As Professor Tony Carroll pointed out when he spoke to the Australian Plants group in April, species of eucalypts have varying content levels of a toxin, which even affects the feeding rate and sleepiness of some koalas, which are programmed to neutralise and metabolise it.

The chemicals in many Australian plants provide potential treatments for diseases and many poisonous plants are edible, but only *with appropriate methods of preparation*. Very few Australian natives are organically grown, so even decorative plants safe for human consumption may be contaminated by pesticides or fertilisers.

While Australian native flora is beautiful, and properly prepared bush foods are great to eat, it is very important that people are aware of the need for detailed information about any plants that are to come in contact with food. Also, it is important to ensure that the plants are not chemically contaminated and that their preparation and use in food is correctly handled, ensuring that the plant matter is kept separate and hygienically placed.

Refs: Kearley Dent 'Safely using flowers with food', *Flowers*, pp.20-21; and see Lyn Reilly's report on Professor Carroll's talk in *Growing Matters*, Winter 2019, p.8.

SEASON'S GREETINGS to all!

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

The pictures below are from Flowers by Friends' participation at the Main Beach Spring Flower Festival on 7th-8th September.





Volunteer Garden Guides with Shelly Kelly

The season of spring attracted a large increase in visitor numbers to the gardens including those partaking in our guided walks. This was a great boost to our guiding numbers with visitors flocking to our regular guided walks as well as many groups booking for our specialty walks.

Congratulations and a big welcome to our new guides Anne Lange and Pat Morgan who have completed their guide training with Kate Heffernan.

We were delighted to welcome a group of 33 guides from Brisbane's City and Mt Coot-tha Botanic Gardens in early September. They had last visited in September 2013 and were amazed at the progress that has since taken place. They enjoyed a bush tucker morning tea on arrival, then split into two groups for walks through the Bush Foods and Story of our Country gardens with Sally-Anne and Gerard. The group departed our gardens late morning for their planned visit to Springbrook before returning to Brisbane.

A fellow GCRBG guide Sally-Anne and I travelled to Perth for the 16th Australasian Guides Conference which was held at the magnificent Kings Park and Botanic Gardens from 16th to 20th of September. The title of the conference was "Beauty rich and rare". Everything lived up to that title including all the workshops, walks, talks and excursions. It is easy to understand why Kings Park is the number one tourist destination for visitors to Western Australia. The gardens are focused solely on the globally significant flora of WA growing in what the Curator referred to as Perth's "gutless sandy soil".

The Rosser House and Garden were established by John and Essie Rosser in the early 1920s. They are both historically significant in demonstrating the early to mid-20th century phase of residential development in Benowa. Fifty years ago, John and Essie Rosser made a generous donation to the Gold Coast of a significant parcel of their land and this now forms part of the Gold Coast Regional Botanic Gardens.

Kate Heffernan was pleased to share the interesting history and take a limited number of guests on a guided walk through the very special Rosser House Garden on 13th September. The group then enjoyed a delicious morning tea served in the garden by members of the Friends. It was a great honour to have Gene Rosser join them for morning tea.

The guides will be having a break over the heat and humidity of summer. In 2020, the garden walks will return in March to the regular schedule of the 1st and 3rd Sundays and 2nd and 4th Wednesdays of the month. The next native bee walk will be on Friday 17th January then on the 1st and 3rd Fridays of the month from February. The Butterfly Walks return on the first Tuesday in February and the Bird Walks on the 4th Tuesday also in February.

If you wish to book a group garden walk for February we may be able to assist, however the walk would need to commence by 7.30 or 8.00 am.

To find out more about the rewarding world of guiding or if you have any enquiries or wish to book a group walk for some time in 2020

please ring 0449 561 674 or email info@friendsgcrbg.org.au



Guided walks in our Botanic Gardens are increasingly attracting more walkers



Shelly & Sally-Anne relaxing in Kings Park BG



Australasian Darter *Anhinga novaehollandiae*

A familiar sight here in the GCRB Gardens is the Australasian Darter perched upon a rock or beside the water's edge, wings spread out to dry. This eye-catching pose easily identifies the bird as a darter or closely related cormorant.

Darters are medium sized, slim birds (85- 90 cm) with a long, slender, snake-like neck, giving rise to the name 'snake bird'. The male has streaked, black plumage with a white streak down the side of its head and neck and a dagger-like yellow bill. The female is easily recognisable with grey-brown above and creamy, white underparts.

Their streamlined bodies are well adapted to their aquatic life, slipping below the water's surface without a ripple. Darters' feathers are permeable to water, reducing their natural buoyancy and enabling them to swim more easily with their bodies submerged below the surface with only their long, sinuous neck protruding from time to time. They are able to move quickly using their webbed feet and wings for propulsion, Australasian darters are often seen on solitary perches near water with wings stretched out to dry. An oil gland at the base of their tail is used while preening and squeezing water from feathers.

Submerging for up to a minute foraging in shallow waters, darters use their sharp, spear-like beak to impale fish that are often brought to the surface and moved about to be swallowed head-first. Smaller fish, prawns, worms and a variety of beetles and bugs are usually swallowed underwater. Some ungainly prey like small tortoises may take up to 20 minutes to swallow.

Found throughout the east, north and west of Australia, darters usually inhabit freshwater or brackish wetlands including lakes, swamps and rivers. In the Gardens they are frequently seen around the lakes and on the lawns beside the display gardens.

Australasian darters emit a loud, cackling noise ...kar-kar-ka... becoming more rapid before fading away. While its gait is clumsy on land, it can soar gracefully on thermal currents to great heights giving a cross shaped silhouette.

Breeding occurs mainly in spring and summer or following heavy rain, in a solitary location in a tree in or overhanging water. Nests are often built in the company of cormorants and spoonbills. The male collects building material while the female builds a rough nest platform of coarse twigs with leafy overhanging branches, lined with leaves and fibre. Four to five creamy-green eggs with a chalky coating are laid then incubated and reared by both parents.

The Australasian darter is threatened by loss or destruction of habitat such as drainage of wetlands and clearing of vegetation. The GCRBG provides an ideal haven for this special water bird.





Friends Centre

.... Paula Wu Friends Centre Coordinator

We are open from 10am to 2pm

Closed from Monday 23rd December until Monday 6th January 2020.

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



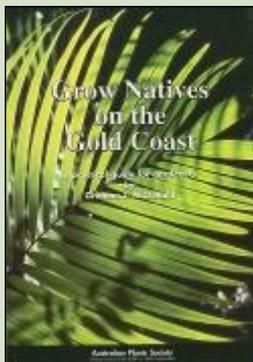
Myall Park china mug \$18.00

Friends Centre activities:

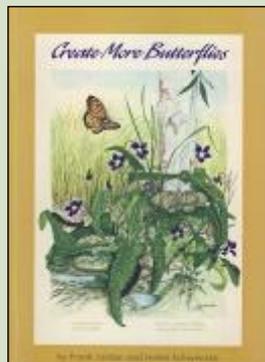
- A regular meeting place for all Friends Activity Groups
- A base for events and activities in the Gardens
- Avenue for small workshops

Books and other articles for sale.

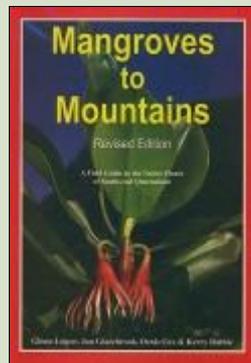
Note: RRP is shown with Friends discount following where appropriate.



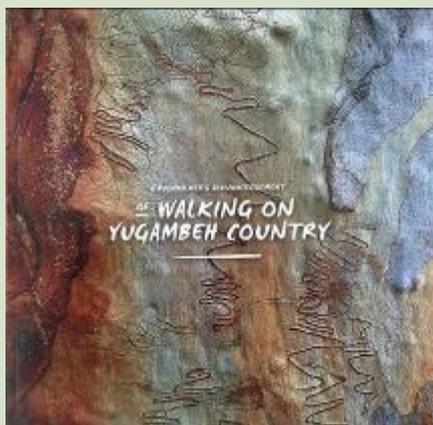
RRP \$10.00 Friends \$8.00



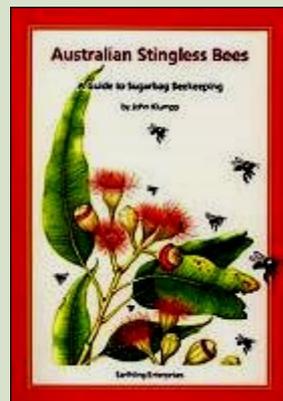
RRP \$32.00 Friends \$28.00



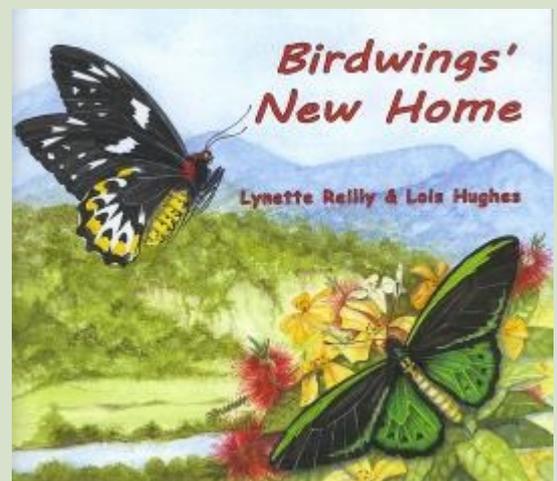
RRP \$55.00 Friends \$50.00



RRP \$30.00 Friends \$25.00



RRP \$33.00 Friends \$29.50



\$10.00



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:

We have replenished Bell Art stock and Wild Hibiscus stock for Christmas shopping.

The wildly popular Fingerlime Marmalade which already had pre-orders was included in this.

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

The new 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.





Little Nature Lovers

Success with our sunflower seeds planted at Little Nature Lovers for 3 - 5 year olds in September.

From a little seed a big flower has grown!

Herbarium News



A tale of two *Brachychitons*

Brachychiton species in new leaf. (L)

Brachychiton acerifolius — Flowering (above)

Photos: Beverley Windsor

The 'Herbies' have been extremely busy this year. Many plants have been 'proofed' with some still needing full ID. We continue to work ensuring that plants have a GPS reading and are labelled correctly. This work ensures that the Tuesday and Saturday groups are kept busy with walking, proofing, collecting and recording in the field and mounting specimens that are then preserved and are properly recorded in the appropriate registers. Noreen

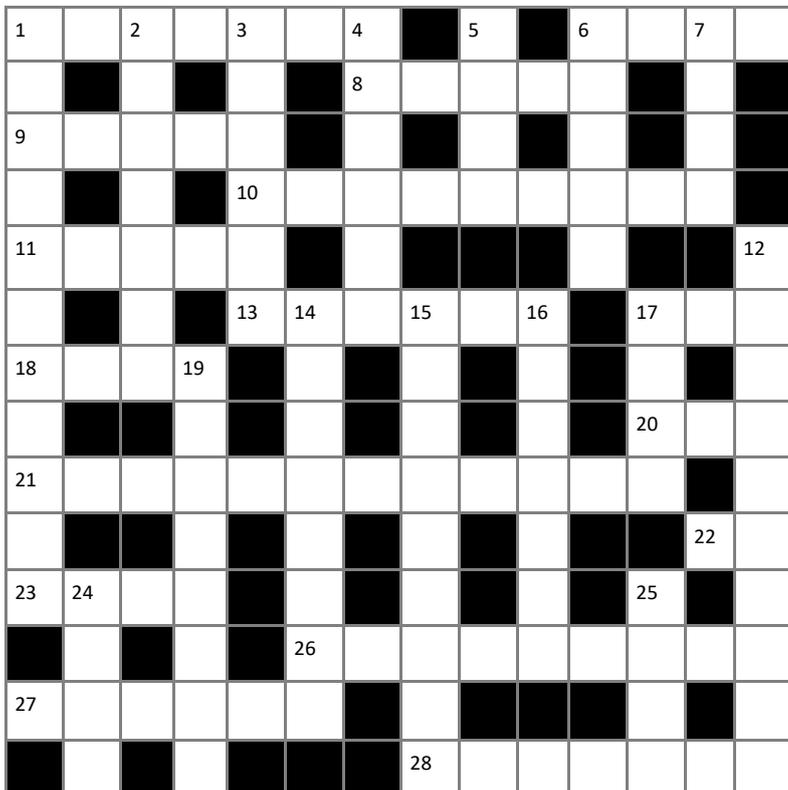


'Herbies' on a Tuesday morning study walk.

Well prepared



Dick's Challenge #17



Down

1. Site of riots near Young NSW 1860s (7,4)
2. Sam ____ former Broncos captain
3. A mound or depression in heavy clay soils
4. Tuber widely cultivated by Aborigines (Aboriginal name)
5. A bean which shares its name with the capital of Peru
6. Doryanthes, the _____ Lily
7. A tributary of the Clarence River
12. Lemon Myrtle's genus
14. Another tributary of the Clarence river
15. A genus of flowering bulbs
16. The tidal mouth of a river
17. Piglet's friend Winnie
19. Brisbane suburb near Newmarket
24. Town on Victoria's Great Alpine Road
25. A widely distributed owl

Across

- | | | |
|--|---|---|
| <ol style="list-style-type: none"> 1. Old iron & steel city west of Sydney 6. One of Brisbane's art galleries 8. North Stradbroke Island town 9. _____ Lakes central NSW coast 10. National Park near Wallangarra QLD 11. The lotus is the national flower of _____ 13. Inborn or natural | <ol style="list-style-type: none"> 17. Fabaceae, the _____ family 18. Late C18, Early C19 Spanish artist 20. _____ barrels used in winemaking 21. Sunshine Coast hinterland town named for C19 explorer and member of QLD legislative council 22. Northern Italian river 23. Sally-Anne will take you on a _____ of the Bushtucker Garden | <ol style="list-style-type: none"> 24. Aboriginal woven bags 27. St _____ Island in Moreton Bay 28. Grassy woodlands of Northern Australia |
|--|---|---|



White Beech
Gmelina leichhardtii.

Individual flowers from large raceme dropping to rocks in the Closed Forest Gorge.

Photo courtesy of
Kate Heffernan



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 # 17

Across

1 Lithgow 6 Goma 8 Amity 9 Myall 10 Girraween 11 India 13 Innate 17 Pea
18 Goya 20 Oak 21 Landsborough 22 Po 23 Tour 24 Dillybags 27 Helena 28 Savanna

Down

1 Lambing Flat 2 Thaiday 3 Gilgai 4 Warran 5 Lima 6 Gymea 7 Mann 12 Backhousia 14 Nymboida
15 Amarillas 16 Estuary 17 Pooh 19 Alderley 24 Omeo 25 Barn

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 Tuesday through Sunday. Closed on Mondays.

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

Coffee at the Gardens



Flowers by Friends' at the Main Beach Spring Flower Festival on 7th-8th September.

Proudly supported by
CITY OF
GOLD COAST.

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

