

# FRIENDS OF THE WAITE ARBORETUM INC.

## NEWSLETTER 113 SPRING 2022

### FORTHCOMING EVENTS

Volunteers  
FWA, FUH, FWCR  
XMAS gathering  
Monday Dec.12  
5-7 pm  
Urrbrae House

### Free Guided Arboretum Walks

The first Sunday of every month at 11 am.  
Meet on lawns Urrbrae House.  
Please observe all SA Official Covid-19  
directives when visiting the  
Arboretum.  
[Covid-19.sa.gov.au](https://www.covid-19.sa.gov.au)

No tours in January



Waite Arboretum App



**Patron:** Sophie Thomson

**President:** Dr Wayne Harvey, **Vice-President:** Terry Langham

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One of the few roses planted by Peter Waite (1834-1922) that still remains in the garden. An old Tea-Noisette rose hybridized in France by Joseph Schwartz in 1879. This rose received an award in 1993 and was entered into the Old Rose Hall of Fame by the World Federation of Rose Societies.

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**Report from the President FWA Dr Wayne Harvey  
Spring 2022**

One of the more important aims of the Friends is to raise funds for the development and promotion of the Waite Arboretum. The Friends has been able to pass funds collected through membership fees and donations to the University for designated activities in, and for the promotion of, the Arboretum.

The Arboretum App has been reworked to provide more accurate information about the collection. This latest version has additional themed walks, increased content and specimen details which now include height and area of shade. The App can be downloaded onto smart devices at no charge. It gives information on the 2,300 trees in the arboretum and includes an interactive map, allowing visitors to find particular specimens while in the arboretum.

The new version of the App retains the familiar features, including the themed walks "Out of Africa", "Trees of the Mediterranean", and "Trees of California". These three self-guided walks take the visitor to trees found in other parts of the world that have a climate similar to that of Adelaide. The other self-guided walks included in the App will take the visitor to a series of particularly aromatic trees and to almost 20 specimens regarded as being used by this country's first inhabitants for food and for medicines.

The existing brochure describing the Arboretum has been in need of revision for some time, to ensure visitors have current and reliable information. The Management Committee agreed to invest a small amount in the redesigning the brochure, combining some external expertise with our own resources. The result is an improved brochure that should be available for distribution for events and groups by the time this Newsletter is with you.

Students continue to conduct investigations into the Arboretum flora and fauna, including research into how the collection can provide insight into the response by the habitat to our changing climate. Monitoring of beneficial and damaging insects also continues. Each year the grand avenue of elms shows the effects of infestation by the elm leaf beetle. This year the effect of this beetle on the health of the avenue and the impact of control measures used will be recorded.

Finally, a reminder that memberships are due for renewal. You will note the Management Committee has set a modest increase in the annual fee. This is to offset some increase in the costs of maintaining the website, producing and distributing this Newsletter and to increase the amount we can pass to the University to assist with its costs in maintaining and developing the Arboretum. Some of the current priorities have been identified in the preceding paragraphs.

The Management Committee have also introduced a membership classification for students as a way of increasing the engagement of university and TAFE students in the work of the Friends.

I encourage all members to renew as soon as possible to ensure the Friends Newsletter and other notices of events are received.

**7th Global Botanic Gardens Congress in Melbourne  
Influence and Action  
Botanic Gardens as Agents of Change  
Kate Delaporte**

7th Global Botanic Gardens Congress was held in Melbourne from Sunday 25th to Thursday 29th September. Influence and Action: Botanic Gardens as Agents of Change explored how botanic gardens can play a greater role in shaping our future. With accelerated loss of biodiversity across the globe, increased urbanisation, population growth and climate change, our need to work together to find new solutions for the future has never been greater.

Erica and I attended and presented a poster on the Bee, Butterfly and Bird Garden.

I took the opportunity to join a tour to the Royal Botanic Gardens Cranbourne; this has been on my bucket list for a long time, but try getting there with kids and non-gardening partners.... It did not disappoint! In fact, it was quite amazing and inspiring.

We were welcomed by Chris Russell, Executive Director of RBGC, followed by John Arnott who introduced us to the program and our guides for the day.



John Arnott welcomes us and provides background to the Gardens.

My group first went to the new and impressive horticultural nursery facilities at Cranbourne. The gardens has a special program to conserve native orchids and we were delighted to see not one, not two but THREE poly houses full of beautiful flowering native orchids from across southern Australia. The Gardens are working hard to promote native indigenous plants for Victorian gardens as opposed to plants from other states of Australia and exotic species. Lots of great work on propagation. We were then taken on a brisk walk to the highest sand hill in the 360ha site surrounding the curated gardens, which consists of remnant bushland, rapidly being surrounded by housing developments. Over the strident and happy calls of the pardalotes, we spent some time discussing the good, bad and ugly of conservation and humans. We returned to the visitors centre for lunch and regrouped for a tour of the Gardens themselves. I met some very interesting staff who share a passion for eucalypts. I was particularly interested in the interpretive signage; each sign had a strong focus on the story behind the plant species, in particular their Eucalypt walk and all the great information they provided. The Gardens themselves are extensive and, with a group of mega plant nerds, it did take us a long time to get anywhere, so I have a determination to return with a whole day to enjoy.



7th Global Botanic Gardens Congress in Melbourne. Kate Delaporte



Sign 1 The Whole site. Sign 2 The Eucalypt Walk glass panels. Sign 3 The Eucalypt Walk stacked blocks



Constructed creek, dry creek and red sand garden.

The Congress was held on 27-28-29 September and was jam packed with interesting, informative and inspiring presentations and workshops. We are united in knowing that trees (and plants in general) are under threat from human destruction and climate change, and that botanic gardens and arboreta have an important role in the conservation and protection of plants across the world. We are also united in knowing that we have an equally important role in the education and inspiration of people from all walks of life, to realise what we have and how important nature is to us.

Of most interest to me - A range of tools have been developed to enable assessment and understanding of the impacts of climate change on tree/plant collections; Why do trees die in hot weather?; Indigenous perspectives on country about country; Engaging community and visitors, so lets chose some hero species to connect and narrate content, eg “Draco the Dragon Tree and his tribe” and create interactive signage that kids can engage with; Resilience vs adaptation and fear of loss vs hope for gain; and finally, the Arboretum needs to properly join the Botanic Gardens Conservation International to put our place in the Global plant community.

I returned home with thoughts leaking out of my ears, but determined to grow our Arboretum and achieve greater things in a regenerative and sustainable way for the greater good of all creatures on Earth!

**BBB – what’s it all about?**  
(Hint: Bringing Biodiversity Back)

Kate Delaporte<sup>1</sup> and Erica Boyle<sup>1</sup>  
<sup>1</sup>Waite Arboretum, University of Adelaide, Adelaide, Australia arboretum@adelaide.edu.au

**INTRODUCTION**  
Global biodiversity is declining rapidly due to land clearing & habitat fragmentation, urbanization, pollution, over grazing, poaching, human interference at all levels (reference). Urban landscapes must step up and provide space to fill the void and can do so following the five principles described by Gaillard et al. (2018). People want to and don't know how to. Education and real-life demonstration are key.  
Botanic Gardens and Arboreta can play a critical role in supporting biodiversity through raising community awareness by real-life living demonstrations, focusing on Gaillard et al.'s (2018) Principles 4) Facilitate natural ecological processes and 5) improve potential for positive human-nature interactions. We have set up one such real life demonstration site at the Waite Arboretum. The Waite Arboretum, est. 1928, comprises over 2,500 specimens of trees (mostly Australian native and South Australian endemics) and is located in urban Adelaide 6 km from the Central Business District. The Arboretum was established on an estate that was almost completely cleared in the late 1800s. Thus, it is not a "natural" environment, and with the exception of 30 remnant trees, everything has been planted since the 1800s.  
We are seeking to Bring Biodiversity Back within the Waite Arboretum through targeted plantings of understory plants, to support native insects (bees and butterflies) and woodland birds. Since 2020 we have established over 1,000 plants in 700x2 of our 'Bees, Butterfly and Bird' gardens, assisted by students and volunteers. Additional to the physical benefit of supporting biodiversity, is the important role the BBB gardens play in education and community engagement. Our BBB gardens are funded through donations and most maintenance is undertaken by volunteers and are frequently visited by groups of primary aged school children.

**METHOD**  
The heart of the BBB is the plant list. In 2020, research was undertaken to develop a list of plants endemic to the South Australian Botanical Regions of the Southern Lofy and Northern Lofy (Katterman, 2013), with the focus on small flood plants for local native bee and butterfly species. A secondary focus was species for habitat and shelter, for both birds and insects. Species from further afield were added as the list evolved. The desired species were selected for availability and the list refined down and plants purchased from local suppliers. While all efforts were made to plant local provenance, in some cases this was not possible, and all sources of germplasm were recorded. Most plants were in 50mm forestry tubes at planting. Plants are hand-watered during the dry months (November to May) as required. The ground is not mulched to protect nesting sites for ground nesting bees, such as *Fragiponopsis* sp. and *Amegilla* sp. Unwanted plants are removed by hand.  
The planting was designed in a 50m x 10m grid, with 3 plants per species sited in each 1m<sup>2</sup> following a prepared plan. Where plants would grow larger than 0.5m in height, only one plant per m<sup>2</sup> was planted. Planting was undertaken during the rainfall period (monthly) each year between 2020 and 2022 (4 years), with an average 250 plants and 175m<sup>2</sup> of area planted each year.  
The BBB garden is adjacent to our native bee hotel (Figure 2) to combine food and habitat in close proximity.

**RESULTS & DISCUSSION**  
Over the four years of the BBB establishment phase, 1021 specimens representing 47 species have been planted (Figure 4). As plants are hand watered their survival and growth rate is excellent. The insects become more common each year, and this spring we will endeavor to undertake assessments on the number and range of insects present; preliminary assessments from the Waite Arboretum suggest over 57 taxa from 14 genera of 'native bees' are present (Figures 3a, b, & c), with around 70m<sup>2</sup> being ground nesting (*Hopwoodopsis*, pers comm 2022).  
The BBB was funded as a living memorial garden and is maintained by the extended family and friends, introducing new volunteers to our site and our program. This provides a wonderful place for the family to tend the garden and remember their loved family member while creating something both beautiful and useful. Apart from the positive outcomes of the planting process, we have learnt that regular small plantings can be supported more easily than a single large planting and produce greater plant survival and retain volunteer enthusiasm!  
To enable wider community engagement, we are developing interpretive materials, with Phase 1 being an interactive map developed by E. Boyle (Figure 1). The map enables the viewer to interact with the map and learn about different plants and how the garden was developed. <https://www.adelaide.edu.au/waite-arboretum/waite-arboretum/bees-butterfly-and-bird-garden-bbb>. We are also able to share our BBB plant database with interested persons on request.  
Our BBB has provided us with an excellent demonstration of how community engagement can be enhanced through proactive real-life demonstrations of targeted plantings to support local biodiversity. While it's good to be ambitious regarding the size and complexity of the planting site, the practical realities of hand watering and hand weeding large sites needs to be considered during planning. Over the coming months we will be assessing the insects present in our burgeoning garden to determine how our web of life is growing.

**Literature & Acknowledgments**  
Delaporte, K. (2021) Introduction to the Live Tree Garden 2). In Delaporte, K. and J. Rose of South Australia (Eds.), *The Waite Arboretum: A Living Memorial Garden*. Adelaide: Friends of the Waite Arboretum. <https://www.adelaide.edu.au/waite-arboretum/waite-arboretum/bees-butterfly-and-bird-garden-bbb>.  
Figure 1 was produced by E. Boyle through the 2021 University of Adelaide Faculty of Science Engineering and Technology Communication Scholarship, with funding by U. Larkman and M. Smith. U. Larkman & M. Smith are thanked for their contribution to the project.  
Delaporte, K. (2021) Introduction to the Live Tree Garden 2). In Delaporte, K. and J. Rose of South Australia (Eds.), *The Waite Arboretum: A Living Memorial Garden*. Adelaide: Friends of the Waite Arboretum. <https://www.adelaide.edu.au/waite-arboretum/waite-arboretum/bees-butterfly-and-bird-garden-bbb>.  
Figure 1 was produced by E. Boyle through the 2021 University of Adelaide Faculty of Science Engineering and Technology Communication Scholarship, with funding by U. Larkman and M. Smith. U. Larkman & M. Smith are thanked for their contribution to the project.  
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**Let's bring the Golden Pea Bee to the Arboretum! By Erica Boyle**

Following Dr. Katja Hogendoorn's article about bringing the Golden Pea Bee to the burbs in the last newsletter edition I would like to share the good news of two new projects in the Mallee section.

Thanks to Dr. Hogendoorn who kindly donated a tray full of seedlings—the ones this particular bee likes the most- *Daviesia leptophylla*, *Daviesia ulicifolia* and *Indigofera australis* and to our volunteer Janis who is helping in the development of the gardens, the arboretum has now two GBP-magnet gardens!

One of the beds is located very close to the Native Bee Hotel, so this newcomer can be spoiled not just with great food, but also with excellent accommodation facilities! The second bed is located next to Gate 28 on Claremont Avenue, so GP bees are welcomed to the arboretum through the main door! The seedlings are still very small, but some are already in bloom (photo).

*Daviesia ulicifolia* grows between 1 and 2 m tall, blooms in winter and spring and grows very fast. It features narrow, rigid, sharp-pointed leaves and the pea-like flowers grouped where the leaves join the stem, are yellow-orange (sometimes pinkish) with a distinctive dark centre making it stand out from a distance.

Our arboretum volunteer Janis will take care of these collections and we will be attentive and waiting for our soon new friend *Trichocolletes venustus*!

*Daviesia* named after botanist Rev H. Davies; *ulicifolia* refers to the gorse-like foliage (*Ulex*).



*Daviesia ulicifolia* (Gorse Bitter-pea) beautiful flowers.

**Irises growing in the gardens. Erica Boyle**

This wide-ranging genus of more than 300 species native to the temperate regions of the northern hemisphere, is named for the Greek goddess of the rainbow and is valued for its beautiful and distinctive flowers. Iris is the largest genus of the family *Iridaceae*.



GBP garden next to Native Bee Hotel – in process





Friends of the Waite Arboretum



Thank you for your support of the beautiful Waite Arboretum.  
Reminder notice for FWA membership renewal for 2022/23

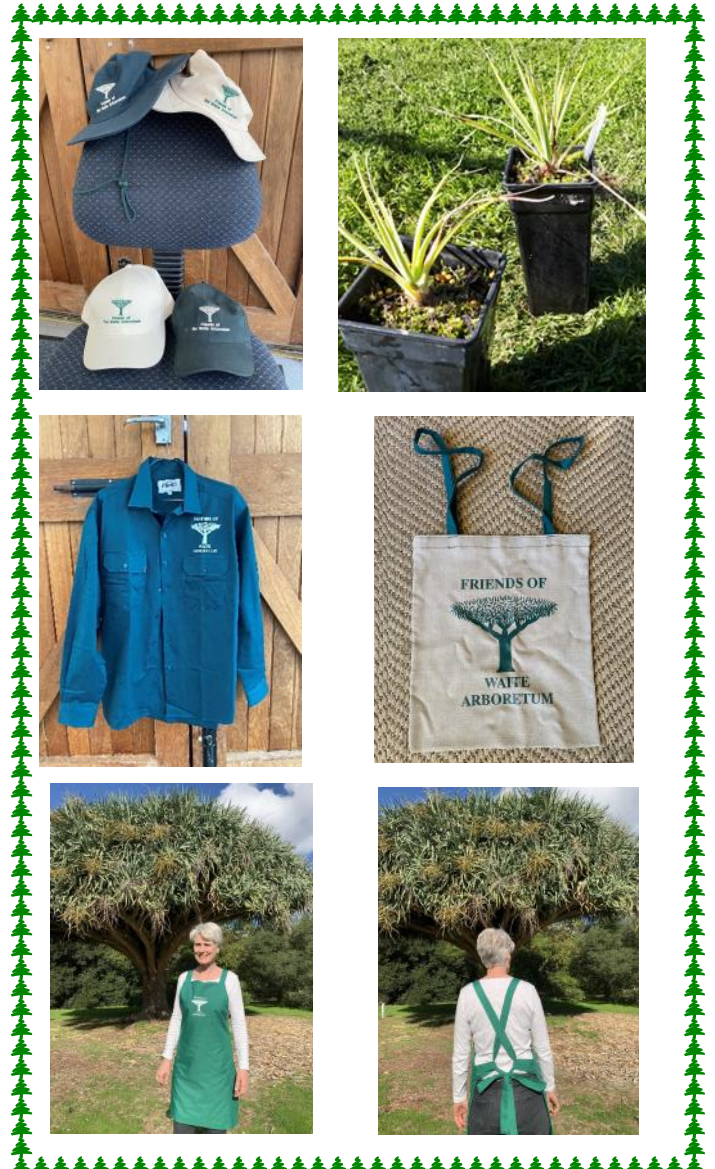
For all FWA  
Wittunga Botanic Gardens Tour  
March 2023  
Guided tour for all FWA  
Date and time will be posted

Arboretum guides in action! By Erica Boyle

Our dedicated team of guides have the noble mission of enriching visitors with the delights of our arboretum and in turn assist in the FWA's fundraising program. Being the one in charge of organizing the tours, I am always happy to receive the praise from the visitors after each tour. Don't miss out the opportunity to come with your friends for a great walk in the Arboretum with our experienced guides, for more info send me an email to [arboretum@adelaide.edu.au](mailto:arboretum@adelaide.edu.au)



Arboretum guides Jennifer, Henry and Terry welcoming a large group of visitors from the Blumberg Garden Club.



XMAS Ideas

- Shirts, s/m/l. \$30
- Hats, broad brimmed, peaked \$25
- Apron \$25
- Dracaena seedlings \$50
- Tote bags, green or tan (30 x 40 cm) \$25

Contact our Secretary at [crosby\\_jo@yahoo.com.au](mailto:crosby_jo@yahoo.com.au) or [friendswaitearboretum@gmail.com](mailto:friendswaitearboretum@gmail.com) to order any of these items.



Neutrog donates fertilisers for the Urrbrae House Gardens and the Waite Arboretum native plants.



What is growing in the Arboretum. *Acacia cyperophylla*.



*Acacia cyperophylla* Red mulga, Creekline miniritchie, . FABACEAE SA WA NT QLD 1995. The limited occurrence in SA comprises the southerly limits of a far wider occurrence in NSW, QLD and NT. The botanical name refers to the resemblance of its foliage to a sedge, *Cyperus* sp. The phyllodes are long and thin, 8-20cm, and round in cross section. Flowers appear after heavy rains which may be many years apart. The bark peels off in curling flakes. The old bark can have sharp edges and should be handled carefully. The heartwood timber is dark brown and durable. The second variety, *A. cyperophylla* var. *omearana* is known from only a few populations near Port Hedland, all of which are under threat.

Seat of the Season.

Sam JACOBS 1920 – 11 October 2011

By Terry Langham



Nearby tree species: *Corymbia variegata* MYRTACEAE, NSW QLD. 1949  
Seat located in Southern area of Bee, Butterfly and Bird Garden.

In the Summer edition of the FWA newsletter, 2012, Dr Jennifer Gardner wrote;

“In October 2011 we noted the death of The Honourable Samuel Jacobs AO, QC, University of Adelaide – Chief Justice of South Australia, highly esteemed Deputy Chancellor and member of the University of Adelaide Council and Inaugural Patron of the Friends of the Waite Arboretum.

Sams Jacob’s high stature within the University and his staunch defence of Peter Waite’s bequest were invaluable in 2000 when part of the Arboretum was under threat of alienation for a building site.

Donations in his memory to both the FWA and the Friends of the Waite Conservation Reserve were gratefully received”. (Gardner).

Gardner, J. 2012, Friends of the Waite Arboretum Inc. Newsletter No. 70 Summer p.2



## Spring in the Arboretum



*Pelargonium austral* Native Stork's-bill GERANIACEAE. *Pelargonium* is derived from the Greek word for stork, as the seed capsule is said to resemble a stork's bill. Note the soft pink hairs on the stems. Bee Butterfly and Bird garden.



*Lasiopetalum discolor* Coast velvet-bush MALVACEAE. Endemic to coastal areas of Sth Aust. An erect spreading shrub with hairy stems, oblong leaves and pink/white flowers. BB & B garden.



*Hakea prostrata* Harsh hakea PROTEACEAE WA 1995. The stem clasping leaves have prickly edges and the flowers are sweetly scented.



*Dianella longifolia*. Flax lilies LILIACEAE. Three species occur in the Adelaide bushland. All species develop a dense clump of vertical strap-like leaves with a prominent vertical vein. Masses of small five-petalled blue flowers develop on long stalks in Spring. *D. revoluta* and *D. brevicaulis* have flowers with black anthers, while on *D. longifolia* (pictured) the anthers are yellow. The purple berries are edible on *D. longifolia*. *D. longifolia* is a foothill species while *D. brevicaulis* grows near the coast. *D. revoluta* is the most common species on the Adelaide Plains.

There are 5 varieties of *D. longifolia*. var. *grandis* is believed to have medicinal properties. The leaf fibres of *D. longifolia* are strong and silky and were used by indigenous people for baskets and cord.



*Acacia pycnantha* Golden Wattle FABACEAE Native to SE Aust. Grows to 8m and has profuse, fragrant golden flowers.