



FRIENDS OF THE WAITE ARBORETUM INC.

NEWSLETTER 103 AUTUMN 2020

FORTHCOMING EVENTS

The Implications of COVID-19 and the Waite Arboretum.

The Arboretum remains open and accessible to the public. Please observe all SA Official Directives when visiting the Arboretum.
[Covid-19.sa.gov.au](https://www.covid-19.sa.gov.au)

All organised tours have been cancelled for the near future. COVID-19 may last for at least 6 months in Australia. We will provide our members with updates when guided tours begin again.



As a Friend of the Waite Arboretum we are a member of the Australian Association of Friends of Botanic Gardens



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"Towards the Land" by Greg Johns. This work depicts Peter Waite, a Scotsman travelling from a European landscape represented by roses and a gothic arch into a SA landscape with references to heatwaves, bushfires and fire-resistant yakka. Peter Waite worked hard to understand how to survive in the SA landscape and how to overcome adversity. Photo EB.

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Arboretum Report. Dr Kate Delaporte May 2020

Well. The year 2020 will go down in the history books and being a bit of a difficult year, and we are only just in May!

The best thing I can say is RAIN.

RAIN RAIN.... RAIN and rain and rain..... and then some more rain and then sun then more rain. Is it possible to have too much rain? Yes, but not here, in Adelaide, I don't think we ever get too much rain.

What does this mean for us, now, with the pandemic changing so much about the way we do things? Life here in the Arboretum office is much of a muchness, although without the volunteers Erica is busy in the gardens doing the work of all of the volunteers. We have been fortunate to have the help of a number of the Waite Campus staff community – deadheading roses is a peaceful and rewarding pastime for stressed academics, managers, technicians and students. But the work is relentless – the rain is WONDERFUL but it does result in more weeds and more work.

We are seeing many more visitors to the Gardens and the Arboretum, which is great. The Arb will soon be very green and it will be time to start mowing and keeping the ground vegetation under control. While some trees have donned their Autumn finery, the Elms have yet to change colour.

There are a number of things happening in the background that have been taking my attention that are not yet reportable. You will have to be patient with me on that!

One thing I can talk about is the new 'Graminetum'; you remember I keep talking about enhancing native grasses as the ground vegetation in the Arboretum? Andrew Walters spent a lot of energy establishing areas of Chloris and Wallaby Grass in various parts. But the Arb needs more. Self seeding is slow, I don't have the patience, so a colleague came up with the idea to establish a seed orchard in the Arb to grow our own seed. This grew into the 'Graminetum' a place where we can not only grow our own seed, but grow a range of species of native grasses to provide seed, educate the public, use species for research into food sources, and generally share the wonderfulness that are our native grasses.

Work will commence on refurbishing the 'Meteorological Station plots' that have been part of the Campus since 1928, and used more than once for demonstrating grasses – both native and exotic.

The 'Graminetum' should take shape over the next few months, so keep an eye out.



Meteorology station plots at the Waite Arboretum and the location of the new Graminetum. Photo KD



Compound used for the Uni/EPA water testing West of the dam. Photo JB

Recently, the University of Adelaide and the Environment Protection Authority (EPA) began working on a collaborative project to test, validate and refine the water quality stressor values for South Australia. A water quality stressor is a particular factor (e.g. pollutant or sediment) that can cause harm to an aquatic ecosystem. A trial site is being established at the Waite Campus near the dam on Claremont Rd, adjacent to the Waite Arboretum. At the trial site scientists will use channels with the aim to experiment and identify critical stressor levels that cause varying effects. The results will provide the information needed by the EPA to design strategies for remediating the major causes of water quality degradation in South Australia. The Arboretum is not just a place of trees, it is also a site for experimental work! Although this is not work on trees, it is important environmental work.

And so we are now in Autumn. Adelaide has seen the wettest April for 20 years. Let's hope it continues to be a slightly above average year for rainfall, to replenish the soil moisture and let the trees and plants we love so much recover. The campus is nearly deserted, the café quiet, but we hear the laughter and shouts of children in the Gardens, as always. We are finding over 6000 visitors have accessed the Waite Conservation Reserve in 2 months – amazing numbers – as the population of Adelaide slows down and starts to take time to enjoy the outdoors. What a wonderful thing, even though we miss our contact with the volunteers and our Friends and the tours and colleagues.... We look forward to seeing you all again soon. BRING ON MORE RAIN!



Report from the President Dr Wayne Harvey

Dear Friends of the Waite Arboretum

The declaration of the spread of COVID-19 coronavirus as a pandemic has changed many things. There is hardly an organisation or a family that has not had to change the way it goes about its daily routine. The Friends Management Committee has discussed how the new circumstances affect our activities and I take this opportunity to let you know what decisions have been made and how those changes might affect our members. Our regular Management Committee meetings will continue, although using teleconferencing and videoconferencing systems. Our AGM scheduled for late April will be deferred until further notice. This Newsletter will continue to be published and distributed as before.

Our major fundraising plans have been put on hold until the regulations around group events are changed. However, we continue to welcome donations and new members to support the maintenance and enhancement work in the Arboretum. I would like to acknowledge the generous donations received in recent months from members renewing their subscriptions. Each contribution is very much appreciated and you can be assured your individual donations will be applied to the work in the Arboretum.

The expert opinion is that the risk of COVID-19 in Australia will last for at least 6 months. We will provide our members with news of significant developments and invite you to use our website at www.friendsofwaitearboretum.org to check for announcements.

The Arboretum remains open and accessible to the public but guided tours and other volunteer group work has been cancelled. The Arboretum is still a good place for light exercise. Enjoy the open spaces but always follow current government guidelines on outdoor activities, group numbers and social distancing. You will notice more signs erected by the University barring dogs from the Arboretum and Waite Reserve and requiring dogs in the rest of the University campus to be on a lead. Please comply with that University directive and encourage your friends to do likewise.

You may see several branches that have recently fallen in the Arboretum after our dry Summer. Visitors need to be patient and careful as work by the University gets underway to clear them. You may also see some recently worked sites where trials by the University on safe methods of weed control are being conducted. These sites are research areas and should be left undisturbed by visitors.

I reported in the last Newsletter about plans for redeveloping the intersection of Cross Road and Fullarton Road and the likely consequences for the Arboretum.

Your Management Committee has made sure the Government is aware of our concerns for the integrity and preservation of the Arboretum. The news from the Government is that the first phase of community consultation is complete and that a second phase of consultation has begun.

This next phase will see representatives of the Government at and around the Waite precinct to conduct further surveys. This phase of consultation is described as including heritage and vegetation implications of any intersection development works and I encourage you to make your views known if you get the chance. The Government's progress on the planning for road works can be monitored at www.dpti.sa.gov.au/infrastructure/road_projects/fullarton_road.

A message from Dr Kate Delaporte and Erica Boyle

From the new University Arboretum office at the Waite Campus.

"In order to keep our wonderful volunteers safe, the April and May free guided tours of the Arboretum have been cancelled; we will review the availability of the tours as time goes on. All organised tours have been cancelled for the near future. All volunteer group work has been suspended, and will be reviewed on a weekly basis. Erica Boyle is communicating with our volunteers every week. If you would like to be included in that email sharing please let Erica know on erica.boyle@adelaide.edu.au. For those of you using social media, the Arboretum maintains a Facebook page and an Instagram account, so please have a look. Don't forget, you can enjoy all the Arboretum has to offer if you take your Waite Arboretum App with you on your smartphone when you next visit. Erica will be posting regular updates and videos of the gardens and arboretum for all to enjoy.



Looking across the rose garden to the Waite Arboretum. Photo EB



Some of the Adelaide University Landscape Architecture students took a walk in Arboretum on 12/03/2020 Photo JB

Bees, Butterflies and Birds habitat garden - BB & B

by Erica Boyle

After the depressing news about the devastating impact the recent bushfires had on the Australian flora and fauna and the massive loss of species our living kingdoms are facing, I would like to present this article as a message of hope. And at the same time inspire you with some ideas that perhaps you might like to use at home so together we can do our bit to protect our most vulnerable living creatures and support our ecosystem.

It is a great pleasure to announce that the Waite Arboretum not only hosts a 5-star Native Bee Hotel but now it offers further specialized accommodation. With signs of visitation every day since its opening, visitors continue to arrive at the new BB & B facility!

Yes, a BB & B! Not a common Airbnb! This one is a *Birds, Butterflies and Bees habitat garden*.

It was extremely satisfying to finalize the project just before the end of 2019. It all started with the idea of providing our native bees, butterflies, birds and other creatures that inhabit the Arboretum grounds with a good place that provides all-year-round food, plants, and shelter.

The main goal of this project is to enhance the biodiversity in the Waite Arboretum. The first habitat garden has been established as a model to learn from and based on the results, we hope to replicate it in another site within the Arboretum.

The first step of the project was to carefully choose the site. A suitable area to grow a good number of plants that had sun and some shade and was close to a water source. The next step was to carefully determine the plant collection. The selection was based on South Australian species that occur naturally in the Mt Lofty area, that have similar soil conditions and rainfall. The plants needed to attract birds, butterflies (& their caterpillars) and bees. Plant height and form was also considered for the design of an effective understory. The BB & B habitat garden is established in the Mallee section of the Arboretum which provides a canopy layer for our visitors. We wanted to focus on the lower layers, so small shrubs, herbaceous grasses and groundcovers were hand-picked from a long list.

Three areas of 10m x 10m were outlined and planted with 126 plants, mostly tube stocks. A total of 300 m² were planted with 370 plants from 29 different species. For plant species please refer to diagram on the next page.

For the planting design of the 10m x 10m garden beds, the overall plant sizes were considered and some species were grouped in 3s, 6s, 9s or just one specimen in the case of the biggest shrubs. Then, they were repeated in the other two blocks but in a different arrangement in order to create a more natural and organic corridor where the visitors could move from one plant to another.

Jack Kelly (B. Ag. Sc. Bachelor of Applied Biology) decided to volunteer with us to help in the marking, weeding, planting and establishment of the garden. We currently have a small group of volunteers committed to keep the area free of weeds and the new plants happy and hydrated. (*Well, at the moment the volunteer programs are suspended, but they will continue with this activity once all comes back to the normality. Hopefully soon!*)

Once the design was on paper, in order to properly replicate it on the ground, a grid of 1m x 1m was marked on the site and sticks holding plant labels were placed in the exact positions where the specimens were finally planted.

It was decided not to mulch the area except for the outskirts of the garden-bed to keep the weeds away, as certain insects and especially some native bees and wasps rely on bare ground to dig their homes or just go foraging. Keeping the soil un-mulched for an effective water absorption during the weekly (sprinkler) watering is another good reason. The area has some shady pockets and receives a daily dose of leaves from the trees in the vicinity that allow little creatures to find shelter too. The whole area was framed with fallen branches from the neighboring trees.

The plants are now growing beautifully, and many have already started to flower.



It is very rewarding to see that after all the work the visitors are already coming and using the installations at the new Waite Arboretum BB & B. (They don't understand about social distancing!)

Information of the BB & B project will be added to the new Waite Arboretum website. With the help of Jack Kelly we are also preparing a comprehensive list of plants that you will be able to use in your own BB & B garden project. In doing this, you can help us promote this initiative for the benefit of our biodiversity and natural ecosystems. Erica Boyle



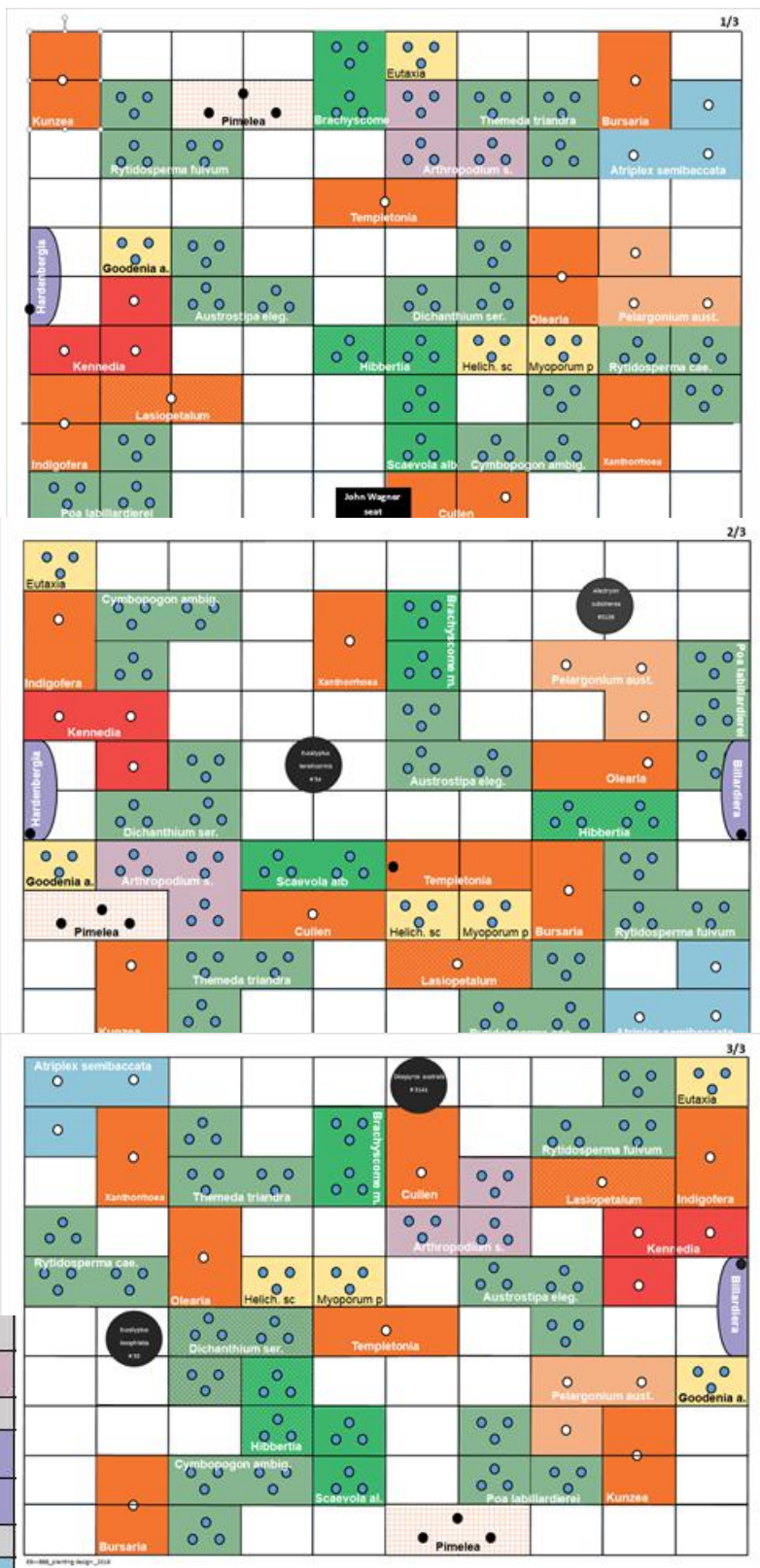
Location of BB & B in the Arboretum, in the Mallee section.
Photo EB



BB & B garden bed design and list of plants. EB

Trees and shrubs
<i>Xanthorrhoea semiplana</i>
<i>Kunzea pomifera</i>
<i>Bursaria spinosa</i>
<i>Cullen australasicum</i>
<i>Templetonia retusa</i>
<i>Olearia ramulosa</i>
<i>Indigofera australis</i>
<i>Lasiopetalum discolor</i>
<i>Calytrix tetragona</i>
Grasses
<i>Themeda triandra</i>
<i>Dichanthium sericeum</i>
<i>Poa labillardierei</i>
<i>Austrostipa elegantissima</i>
<i>Rytidosperma caespitosum</i> (syn. <i>Austrodanthonia caespitosa</i>)
<i>Rytidosperma fulvum</i> (syn. <i>Austrodanthonia fulva</i>)
<i>Cymbopogon ambiguus</i>

Bulbs
<i>Arthropodium strictum</i>
Climbers
<i>Hardenbergia violacea</i>
<i>Billardiera cymosa</i>
Groundcovers
<i>Atriplex semibaccata</i>
<i>Kennedia prostrata</i>
<i>Pelargonium australe</i>
<i>Brachyscome multifida</i>
<i>Scaevola albida</i>
<i>Hibbertia exutiacies</i>
<i>Goodenia albiflora</i>
<i>Eutaxia microphylla</i>
<i>Myoporum parvifolium</i>
<i>Helichrysum scorpioides</i>



Indigofera australis and *Hardenbergia violacea* in the BB & B. EB



Basketry Exhibition 'Tracks Through Weaving'

Marilyn Gilbertson



The exhibition was very successful. Approximately 600 people visited over the 13 days with approximately 130 attending the opening on Sat 15th.

Urrbrae House proved to be an ideal venue. People enjoyed visiting the house, gardens and arboretum which enhanced appreciation of the use of natural materials for the works of art especially as some of the exhibits used materials from the arboretum. The main "gallery" had some stunning works of arts and the trading table with smaller items created much interest.

The Fibre Walk lead by arboretum guides was on Sunday 16th, the second day of the exhibition. In the future we would like to schedule the walk on the first day of the exhibition prior to the opening.

Volunteers from FWA contributed approximately 70 hours of supervision during the exhibition while approximately 130 hours were contributed by Basketry SA members.

Many thanks to all those who helped during the exhibition, especially Kate and Erica who gave their time on opening day, Jenny Birve, Jennifer Gardner and Linda Blake who conducted the guided walks, Terry who worked with me on the planning committee and all of our volunteers who contributed their time on the supervision roster. We thank the university for enabling the exhibition to be held in Urrbrae House and are appreciative of the assistance from the house staff in setting up and conducting the exhibition.



Native to the Eastern part of South Africa. *Afrocarpus* is a podocarp in the cone-bearing Class of Pinopsida (the conifers). Male and female cones occur on different trees and pollination is by wind. This female cone has a seed 15mm in diameter and is yellow when ripe. Photos JB



FWA Aprons for sale \$25. One size fits all. With pockets.



Neutrog donation. Bringing worms back to the soil.

By Erica Boyle

Last winter more than 160 roses were planted in the Urrbrae House Rose Garden at the University of Adelaide Waite Campus. That means that 160 holes were dug to make home for the newly bare-rooted plants. In every cavity we found a considerable number of worms. No less than three worms per hole in a soil that used to have none just a year ago.

Worm activity is a good indicator of soil conditions that impact directly on plant growth. This summer our roses opened the blooming season with an outstanding display of large and healthy flowers.

The activity of worms in the soil brings many benefits, for example improving the nutrient availability to the plants; the nutrient-rich casts the worms produce in their tunnels provide readily available nitrogen for plants to absorb. The worm tunnels not only loosen and aerate the soil improving its drainage but they also generate a favourable environment for roots to grow deeper into areas where extra moisture and nutrients can be reached. Through their tunnelling action they are the principal agents in incorporating and mixing dead surface litter with the soil, allowing the litter to be decomposed by soil microorganisms and increasing the organic matter in soil.

To actively be working, earthworms need moist soil and the best way to achieve this is by incorporating a generous amount of good mulch on top of the garden bed. We use a fabulous mulch called "Whoflungdung" produced by Neutrog that not only helps retain moisture and warmth in the garden but it also introduces a wide range of good bacteria making our soil richer.

We would like to thank NEUTROG for the generous donation of 1400 kg of **Whoflungdung** mulch we received last November along with 60 kg Sudden Impact for Roses fertilizer, 60 kg Sudden Impact for Lawns to feed the palms and cycads in the Arboretum and 20 L of Gogo Juice that is an excellent product to help plants recover from heat stress. Photos EB



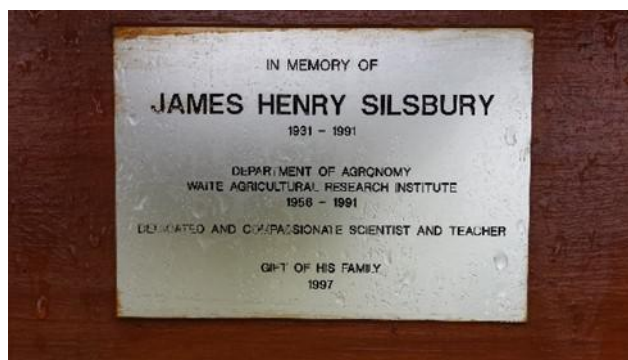
Neutrog donation. Worms in the soil



Blooming season at the Waite rose garden.

Seat of the Season: James Henry Silsbury

1931 – 1991 By Terry Langham



James Henry Silsbury

Qualifications: MScAgr Western Australia

Occupation: Waite Lecturer 1956 Senior Lecturer 1967

Seat location: North east side of the fenced dam near Claremont Avenue and on the south side of Elm Avenue. The seat is facing south west.

Nearby tree *Lophostemon confertus* #190 Brush Box MYRTACEAE NSW, QLD, NT

Research Speciality— as a plant physiologist in Agronomy James Silsbury examined how physiological processes in plants were integrated to cause whole plant response in cultivated communities (crops). His research was focused on understanding nitrogen fixation largely in pasture legumes such as subterranean clover. (Zeitz, 2014, p.237).



E. kruseana Bookleaf Mallee MYRTACEAE WA #1818



E. froggattii Kamarooka Mallee MYRTACEAE Vic. #1938A



E. oldfieldii Oldfield's Mallee MYRTACEAE WA #1912A



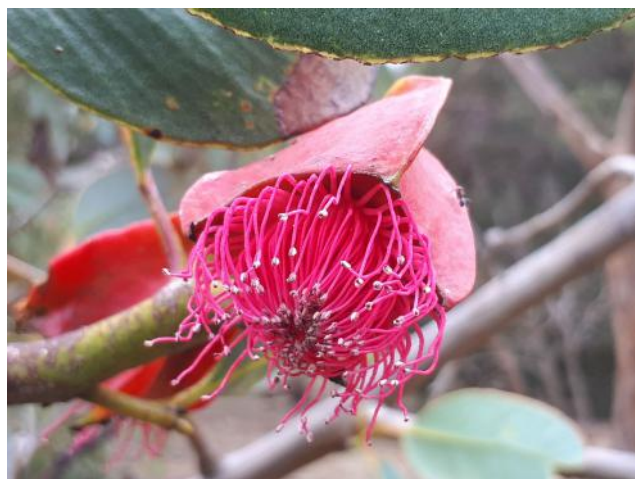
E. gillii Curly Mallee MYRTACEAE SA, NSW #1909A



Acacia melanoxylon Blackwood FABACEAE 1998 #2162A One of the early flowering acacias in the Waite Arboretum. Phyllodes are narrow, elliptic and flat with longitudinal nerves. A small to large spreading tree, 8-35 m. Widespread in S. Vic., along the coast of NSW, also QLD, Tas. (Dismal Swamp) and SA. Larger trees have been milled for their cabinet timber.



E. gypsophila MYRTACEAE WA, SA #1963A



E. tetraptera Four-winged Mallee MYRTACEAE WA #1860A