

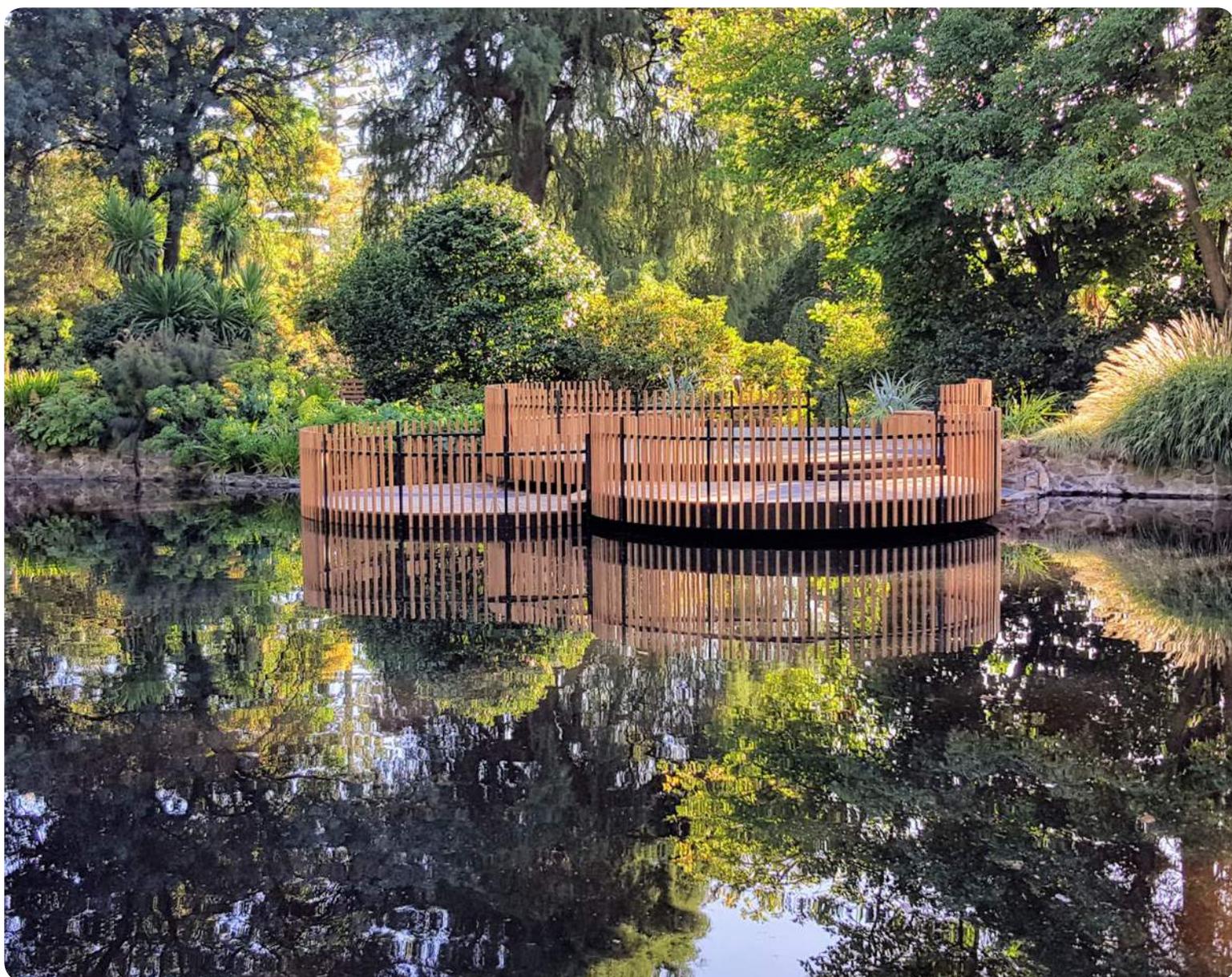
# THE BOTANIC GARDENer

The magazine for botanic garden professionals

ISSUE

51

NOVEMBER  
2018



Theme: Engaging youth – in work and play

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DISCLAIMER: Please note the views  
expressed in articles are not necessarily  
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encourage a broad range of articles.

Feedback and comments on the  
newsletter and articles are welcome.  
Please email: [secretariat@bganz.org.au](mailto:secretariat@bganz.org.au)

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COVER: The Lily Pads viewing  
platforms, a Royal Tasmanian  
Botanical Gardens bicentennial  
project, were opened by HRH  
The Prince Edward, Earl of  
Wessex in April 2018.  
Photo: Marcus Ragus

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The theme of the June issue is *Ageing gracefully – managing heritage and history in a changing world*.

The deadline for contributions is Monday 1 April 2019. Please contact the Secretariat ([secretariat@bganz.org.au](mailto:secretariat@bganz.org.au)) if you are intending to submit an article or have a contribution to other sections.

# President's view

Paul Tracey, BGANZ President



Paul Tracey

Welcome to the latest edition of *THE BOTANIC GARDENer* magazine where we explore the ever challenging topic of engaging youth.

The articles in this edition will provide inspiration and insight into how we can continue ensuring our outwardly facing messages resonate with a young audience, and how the training platform we provide in our gardens will inspire the next generation of horticulturists and scientists.

It has been a busy few months at BGANZ with a number of projects and planning activities keeping us all occupied.

## ***BGANZ sign Funding Agreement 1 with BGCI – Threatened Species Assessment***

We continue to develop a strong working relationship with Botanic Gardens Conservation International (BGCI) having commenced a BGCI-funded project to undertake red listing threatened species assessments of 800 *Eucalyptus* and *Corymbia* species. This project will be undertaken in partnership with the Australian Seed Bank Partnership and the national Threatened Species Recovery Hub, with the assessments due for completion by the end of the year.

## ***BGANZ sign Funding Agreement 2 with BGCI – Status of Plant Collections Records, Australia and New Zealand***

I am pleased to announce that we have recently signed a second funding agreement with BGCI to undertake research into the status of plant collection records across our network of gardens.

The aim of this study is to understand the current status of plant collection records in our gardens, including how we collate and store this information, the estimated percentage of our collections we have recorded, and the barriers, challenges and limitations of being able to do more.

This research is important for a several reasons. It will lead to a better understanding of how BGANZ could focus its efforts into the future. It will consider how BGANZ can support smaller gardens to ensure strong collection records. It will enable BGANZ to identify the total number of gardens in Australia and New Zealand undertaking ex-situ conservation action on threatened plant species, which in turn will assist in reporting on the Global Strategy for Plant Conservation.

Currently, only 25 per cent of all botanic gardens across Australia and New Zealand have their plant records listed on [BGCI's PlantSearch database](#), and most of these records are at least five years old. Your garden will be contacted in the near future to participate in this project.

By the time this article is published BGANZ Council will have met in Hobart in October for the Annual General Meeting and Business Planning workshops that will set our business focus until 2020. We are committed to identifying opportunities to support our gardens network and I welcome any suggestions on how we can improve the current services we provide to our members.

The BGANZ Partnership Project remains on track. There is no doubt retaining and gaining partnerships is a time consuming process and with this in mind council has recently appointed Sophie Hastwell to assist with the progression of this project.

For those who know Sophie, she gained a significant number of partners for the BGANZ 2017 Congress held in Adelaide in her role at Botanic Gardens of South Australia.

Finally, I would like to thank one of our BGANZ volunteers who is stepping down from his role after making a significant contribution.

Brad Crème, formerly of the Bendigo Botanic Garden, has commenced a new role with Parks Victoria and has stepped down from his role as chair of the communications group, and editor of this magazine's 'Hort Section'. Brad's most significant volunteer contribution to BGANZ was the development and construction of the new BGANZ website, and development of our social media channels.

I would like to take this opportunity to wish Brad well for the future, recognise his contribution and say that he will be missed in the botanic gardens community.

I hope you all enjoy the latest edition of *THE BOTANIC GARDENer*.



  
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The graphic includes two photographs: the top one shows a stone staircase winding through a lush green rainforest, and the bottom one shows a large, intricate sculpture of a dragon-like creature on a red dirt path.

# Editorial insights

Helen Vaughan, Managing Editor



Helen Vaughan

Welcome to Issue 51 of *The BOTANIC GARDENER* – my first full edition as Managing Editor. Judging on previous issues, I suspect I have big shoes to fill.

First up, a little bit about myself. I previously worked at Royal Botanic Gardens Victoria for 12 years as their publications coordinator and prior to that in state and local government.

I remember how excited I was the day I got the keys to the garden gates. The gardens had been one of my abiding 'go to' places in Melbourne for many years – somewhere to chill out, read a book, walk and simply contemplate life. Armed with the privilege of being able to let myself in and out at all hours of the day, my work soon became all-consuming (as it is with many jobs) and it was sometimes easy to forget my beautiful surroundings – but not for too long! The opportunity to work on *The BOTANIC GARDENER* has allowed me to revisit the inspiring stories and places that lie in wait behind the garden gates – please share your stories with me in forthcoming issues.

We look at *Engaging youth – in work and play* in this issue and in doing so haven't limited the articles strictly to 'youth' i.e. as defined by the UN as between 15 to 24 years.

Pollinating Great Ideas features three articles that examine the importance of creating opportunities for much younger children to engage with nature. Something that is acknowledged by David Sole from Wellington Gardens when he reflects on how best to engage youth with botanic gardens beyond embedding an appreciation of nature in children at an early age.

In our second feature article, Dale Arvidsson from Brisbane Botanic Gardens provides an insight into the importance of horticulture apprenticeship programs and the additional training opportunities that big events can provide.

We celebrate a few milestones and look forward to more. Royal Tasmanian Botanical Gardens, one of our oldest botanic gardens, celebrated its bicentenary this year. And one of our newest members, Mossman Botanic Garden, marked another achievement on its journey towards achieving its vision for a tropical botanic garden in Far North Queensland.

In 2019 the BGANZ Congress will be held in Wellington, New Zealand, and next year Wellington Botanic Garden will be celebrating their 150th year of operation. If you have an important celebration planned we are always delighted to include the events of our members in the magazine and through BGANZ social media.

I hope you enjoy this edition and feel a little bit inspired to contribute to future editions. For those of you who are particularly keen, there's an opportunity still available for someone to join the team as editor of the 'Hort Section' as we say thank you and farewell to Brad Crème.

## Where's the 'Hort Section'?

If you're wondering why the 'Hort Section' is missing from this issue of *The BOTANIC GARDENER* then it's because we're in search of an editor. If you have a passion for plants and publishing, then we invite you to contact us at [secretariat@bganz.org.au](mailto:secretariat@bganz.org.au) or [managingeditor@bganz.org.au](mailto:managingeditor@bganz.org.au) indicating your interest in editing the 'Hort Section'.



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# Outstanding in the field

Fresh faces and the next generation of horticulturists

Julia Watson interviews

Jonathan Parr, Apprentice Gardener, Auckland Botanic Gardens

We have a new generation of gardeners making their way in their horticulture careers and I wanted to find out more about their thoughts on working in this industry. In this interview, I speak to Jonathan Parr who is in his second year of a three-year apprenticeship at the Auckland Botanic Gardens; Jonathan shares his thoughts on the job and the botanic gardens industry.



Jonathan Parr

***When did your interest in horticulture start, and what has your career/study path been so far?***

When I was at school I was interested in science, and I went into biology at university – it all started there. I got a part-time job picking up rubbish at a local beach over the summer and then joined their horticultural team while studying biological science at university. But while I was studying, I couldn't see how my studies were going to affect anyone, or be able to see my work and say 'I did that'. So one day at university a lecturer advertised a three-month summer student role at the Auckland Botanic Gardens, which I applied for and got. I really enjoyed the role and didn't want to go back to university! Then a three-year apprentice role came up and I applied for it. When I got it, I dropped out of university the very next day. The stars aligned! My dad is in the horticulture/parks industry but it took a bit of convincing for my parents to get used to the idea. I was quite adamant (even though I was at the tail end of my studies).

They saw how much happier I was working full time and working outside, and eventually agreed. And now the more I study plants the more I see how amazing they are!

### ***What does your role at the Auckland Botanic Gardens involve and what parts do you enjoy most about it?***

My role right now is as an apprentice, and I'm halfway through the second year of a three-year apprenticeship. I will gain my Level 4 Advanced Certificate in Horticulture at the end of the apprenticeship. I work on a rotation basis through different parts of the garden, learning about the seasonality of gardening, what happens when, gaining plant knowledge with plant identification tests every month, and also going on field trips to see what happens in other industry-related areas. I also help out with anything else that pops up like big planting projects or industry competitions.

**[ As I gain more knowledge I get more passionate, and I'm even more interested now than I was when I started. ]**

My interest has grown through the apprenticeship program and I'm still figuring out exactly what I want to do. I'm continually learning but I like to experiment with different things, which is what the apprentice role allows you to do. As I gain more knowledge I get more passionate, and I'm even more interested now than I was when I started my summer student role originally. In terms of future roles, a curator role is quite appealing. A curator role is nice because you know that an area is your responsibility, you get to know it as you work with it, and you get to make plant choices, you have freedom to make decisions. I've had a chance to try other things like nursery work, but I don't know that I'd want to do that full-time – I really enjoy the amenity sector. The more you learn, the more things become available to you and you can try out.

### ***What are your biggest challenges?***

Balancing work and study can be a bit challenging. We are all here to work, but apprentices are also here to learn so it's sometimes hard to get both in while on the job. My days are also very structured working with different people each week and I'm told what to do every day of the week. But I understand that apprentices are inexperienced and it needs to be done this way. Over the three years of the apprenticeship we are encouraged to have more independence, and I acknowledge that even if I got to work by myself I may not know what I'm doing! I work with other people a lot and would sometimes like to work on projects more independently – but I think in the latter part of my apprenticeship I'll get more time to do that. I'm looking forward to that in my final year.

### ***How do you see young people represented in the horticulture/botanic gardens industry?***

Internally in the industry I see a lot of passionate young people. For example, we have the annual Young Horticulturist of the Year competition, and it's inspiring to see other young people competing. Outside the industry, horticulture is not well represented as a career. When I was at university I went to a career guidance counsellor and I listed all the things I love: I wanted to work with plants, make people's lives better, and work in a beautiful outdoor environment. They recommended that I should be a food technician! What a missed opportunity to recommend horticulture. When I was at school my school didn't offer horticulture so I thought I couldn't do it and I wasn't going to change schools just to get to do horticulture. It would have been nice if there was an option to do horticulture by correspondence.

### ***What do you think the benefits of networks such as BGANZ are for young people in this industry?***

I like how BGANZ lists job opportunities, although they are predominantly in Australia (which is understandable, and still interesting to see what opportunities are out there). It is good to know that the BGANZ network is there and that they are interested in people who are in the network. I don't know too much of what BGANZ does. It would be nice if BGANZ had a network where you could actively and regularly meet with young people. The ability to get to know other people in the industry would be great; for example, meeting experts, meeting the BGANZ President, making contacts and seeing what other people in the industry do. It would really help me to know where to go once my three-year apprenticeship is finished.

### ***What strengths do you think young professionals bring to this industry?***

Young people bring passion to this industry. There is so much to know, so much knowledge to chase after and we are driven by knowing that there is so much that you don't know. With that comes high work efficiency and drive. I also think there are opportunities to teach others, such as high school students or young visitors to botanic gardens. Young people also enjoy helping other people and a lot of that mentality is why people want to work in a job where they feel valued and they have an impact. In this industry there definitely is that feeling, and there are many different avenues to express it. Young people also make this industry and the career more attainable to other young people – young people teaching other young people shows them that it's not as hard as it seems. This is because we were in their shoes not that long ago, therefore it's easier to teach them – it's easier to see where they are at.

Young people bring passion to this industry. There is so much to know, so much knowledge to chase after and we are driven.

***If you were the manager of a botanic garden, what projects would you focus on?***

Initially I'd put my focus on the back-end of things – tools, systems and processes. I'd make sure they were working well – if staff lives are easy and they are happy with the systems, then that will make their attitude even better which will show through in the gardens. I'd also like to create gardens where there is a bit of a surprise once in a while as you explore the garden. I like inspiring people with different gardens – I quite like coming across an area in a garden like a hidden gem and I think 'wow, this is so cool'. You don't expect to be amazed by somewhere and you are!

***What do you think the future holds for this industry, and how do young people play a role in this?***

If you engage with more young people and encourage them you'll see that they have a lot of great ideas that they can bring to the table. This will help the industry to remain vibrant and not stagnate. I think the industry is becoming more visible to everyone including young people, especially in New Zealand as everyone loves parks and green spaces. For example, there are a lot of garden beds in public areas. If they were removed, people would be up in arms about it and it's a shame it's only realised when it's taken away or when the quality slips.

If you engage with more young people and encourage them you'll see that they have a lot of great ideas that they can bring to the table.

***Do your friends/family think you're crazy for working in this industry?***

My family are pretty happy with it, especially my dad. When people my age ask what I do and I say I'm a gardener for a botanic garden, they want to know more about what I do. So I tell them about the weeding, pruning, planting trees and the whole range of work I do: they don't think I'm crazy and I've never come across people who perceived it with negative connotations. Some people are actually really interested to hear about it since it is refreshingly different to the usual careers of being a doctor, engineer or computer scientist.

### ***What can more experienced professionals do to support people like yourself in this industry?***

I think they can make themselves more known. You hear names of people in the industry but names don't mean anything. It would be good to have workshops where you could meet industry professionals. They can then pass on the wisdom they've gained over the years and also recognise that not everyone knows what they know. It can feel very daunting with how much information there is out there, and trying to figure out 'how do I get from here to there in my career?' I also think it would be nice to visit other botanic gardens to compare how they look and also to see how my knowledge translates to other gardens.

### ***How do you feel about career opportunities that are open to you?***

I feel that I do have a range of opportunities open to me – I might do an internship at a Scottish garden after my apprenticeship or apply for a Longwood Gardens internship. There are opportunities out there. However, it would be great if there was an easier way of seeing what the regular internships are on an annual basis, with a regular list of opportunities. Once I've left here, I won't have access to that information from BGANZ as easily, so it's valuable to access now.

### ***What would make this industry more attractive to young people?***

Good salaries – people don't look at jobs that aren't well-paid. You want to recruit people who are passionate though and not just in it for the money. You want to attract the people you do want to be in this industry, so it's a bit of a balancing act. I think that what would also help would be more visibility about this industry from when people are younger (e.g. hearing about this career more in high school), so they know it's even an option.

### ***What are you reading/writing/listening to?***

I enjoy reading through plant books that list different plants e.g. Jack Hobbs' book on bulbs, books on plant families – I use them as a resource. I also flick through the NZ Gardener magazine. I use the internet a lot to search on plants, read about conditions and to gain new plant knowledge. Once I have the plant knowledge then I can focus on how you use it.

# Botanic news: from home and abroad

## Save the dates

### **1: *BGANZ Congress 2019: 20–23 October, Wellington, New Zealand***

BGANZ congresses are increasingly popular events, and the 9<sup>th</sup> BGANZ Congress to be held in Wellington, New Zealand in October 2019 is shaping up to be another fantastic member event. Put a note in your diary and get planning. First call for papers will be in January, with abstracts due in March.

[Check the congress website](#) for all details. As news comes to hand, congress updates will be posted on the BGANZ website and Facebook, and all members will be notified via email.

We hope to see you in Wellington in 2019.

### **2: *4th Botanic Gardens Day (Last Sunday in May) 26 May 2019***

Following feedback gained at the 2017 BGANZ Congress in Adelaide, BGANZ Council took the step to rename the BGANZ Open Day to be more inclusive of all gardens to the simply termed 'Botanic Gardens Day'.

The third Botanic Gardens Day was successful with over 75 botanic gardens participating this year on the 27 May – the last Sunday in May. There was an exceptional effort made to promote the event from many regional gardens in Australia, and it was extremely well embraced by New Zealand gardens despite the late May date continuing to be a challenge in colder climates.

BGANZ Council has discussed at length the appropriate date for Botanic Gardens Day. Poor weather and reduced visitation have been some of the feedback from members. After lengthy discussions, council took the decision to hold Botanic Gardens Day, each year, on the last Sunday in May.

Getting a day that suited the diverse climate of members was always going to be difficult and, of course, any date could have adverse weather effects across Australia and New Zealand. Further, it was felt gardens have very successful local events across spring, summer and early autumn, and it was felt the last Sunday in May was a time when all gardens could promote the day without impacting on traditionally well attended events. It is hoped that in time, Botanic Gardens Day will entice the community to the gardens at a time of year when visitation is lower.

### BGANZ Members: Professional Development opportunities

BGANZ Council encourages all members to look out for these awards, and many other non-BGANZ annual awards each year. If you are looking for professional development opportunities, BGANZ has a list of awards and secondment opportunities on the BGANZ website. We will aim to keep it updated as new professional development opportunities become available.

#### **2018 award winners**

BGANZ Professional Development Award 2018 (Value \$2,000 AUD) **Rebecca Stanley**, Auckland Botanic Garden. Rebecca will present at the BGANZ NSW Conference and attend the 12<sup>th</sup> Australasian Plant Conservation Conference in Canberra.

BGANZ Young Member Award 2018 (Value \$500 AUD) **Brittany Webster**, Mackay Regional Botanic Gardens – Brittany gained an internship with National Tropical Botanic Gardens in Kauai, Hawaii.

BGANZ/American Public Garden Association 2018 (Value \$800 USD) **No applications** were received from members in 2018.

#### **2019 BGANZ award applications**

BGANZ Council is delighted to announce the BGANZ Awards for 2019. Applications will be called for in early 2019. Sign up for the BGANZ newsletter or check the website for the latest information.

- **BGANZ Professional Development Award 2019 (Closing date 31 July 2019 – Value \$2,000 AUD)**
- **BGANZ Young Member Award 2019 (Closing date 31 July 2019 – Value \$500 AUD)**
- **BGANZ/American Public Garden Association 2019 (closing date 28 February 2019 – Value \$800 USD)**

## An opportunity to lead in public horticulture

BGANZ members take note that Longwood Gardens, one of the largest public gardens in North America, is offering a fellowship program in public horticulture. Applications open around 1 August each year. Check the [Longwood Fellows Program in 2019](#) for the latest information. The program was launched in the past 12 months and offers a 13-month residential learning experience designed for those who have a passion to lead in a public horticulture environment. If you think this program is for you, check out their website for [more details](#) or email the Program Director, Tamara Fleming, Ed.D. at [fellowsprogram@longwoodgardens.org](mailto:fellowsprogram@longwoodgardens.org)

## BGANZ member benefits

### 1. *BGANZ partner with Augusta Golf Cars*

BGANZ Members have a great opportunity to discuss all their transport requirements with Augusta Golf Cars. BGANZ encourages all members to contact Augusta Golf Cars to discuss future purchasing opportunities. More information about Augusta is available on the [BGANZ website](#) and in this edition of *THE BOTANIC GARDENer*.

### 2. *Get a great new car deal!*

For the exclusive benefit of BGANZ members, BGANZ has entered into a partnership with [Autotender](#). BGANZ members can now get great prices when purchasing their new car through Autotender.

For more information on how members can get better car prices check out the [information page here](#).

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### BGANZ member news

#### ***Vacancy: BGANZ NSW Regional Group Chair***

Calling on Expressions of Interest for someone to take the reins as BGANZ NSW/ACT Regional Group Chair.

This role requires someone to assist with the planning of the Biannual Regional Conference (2018 already completed) and to identify and develop smaller seminar/professional development opportunities across the state.

The role presents an opportunity for any interested person to develop leadership skills within the botanic gardens network.

Expressions of Interest to Greg Bourke [Greg.Bourke@bgcp.nsw.gov.au](mailto:Greg.Bourke@bgcp.nsw.gov.au) or Paul Tracey [ptracey@wollongong.nsw.gov.au](mailto:ptracey@wollongong.nsw.gov.au)

#### ***Vacancy: BGANZ Web Content Manager (Volunteer position)***

An opportunity exists to join the BGANZ Communications Group as BGANZ Web Content Manager. Brad Crème has recently stepped down from the position after leading the BGANZ Website team. This is a volunteer position. BGANZ Website uses Wordpress content management system, and full training and support will be given.

The position is not onerous – usually only an hour a week once you are familiar with the system.

BGANZ Web Content Manager works closely with Eamonn, BGANZ CEO and Sam Moon, Social Media Coordinator. Join your professional network and help your member organisation have the website members deserve.

Contact [Eamonn@bganz.org.au](mailto:Eamonn@bganz.org.au) for more information. We look forward to hearing from you.

### BGANZ network staff changes

BGANZ has recently appointed **Sophie Hastwell**, Botanic Gardens South Australia to a part-time position Partnership Director. BGANZ Partnership Project will be the sole focus of Sophie's appointment. BGANZ is aiming to increase the value and number of partnerships in coming months as BGANZ Council aims to deliver increased professional opportunities and services for all members.

**Brad Crème**, formerly of Bendigo Botanic Garden, has gained a position with Parks Victoria as Regional Area of Work Coordinator, Visitor Experience and Historic Heritage, Northern Victoria. Brad recently stepped down from his role as BGANZ Communications Chair. In this capacity he oversaw the development and implementation of the new BGANZ website and worked closely with **Sam Moon** and **Eamonn Flanagan** in developing BGANZ Social Media and Web Communications projects. Brad and Sam are both volunteers and have made a fantastic contribution to BGANZ.

**Dale Dixon** has recently retired from his role as Curator, RGB Sydney.

**Glenn Maskell** has moved to Cairns Botanic Gardens.

## BGCI accredited gardens

BGCI's Conservation Practitioner Accreditation recognises excellence in plant conservation policy, practice and education, and accredits botanic gardens carrying out plant conservation activities of local, national or global importance. We would like to congratulate **Wollongong Botanic Gardens** on being the first recipient of BGCI's Conservation Practitioner from the BGANZ network.

The full list of Accredited Botanic Gardens is available [here](#)

More information on [BGCI's Accreditation Scheme](#) [here](#) or contact Yvette Harvey-Brown at [yvette.harvey-brown@bgci.org](mailto:yvette.harvey-brown@bgci.org)

## BGANZ Council 2018–19

There has been a number of changes to council with the previous past President John Sandham's tenure coming to a close.

Council of Heads of Australian Botanic Gardens (CHABG) representatives on council, Judy West (Australian National Botanic Gardens) and Dale Arvidsson (Brisbane Botanic Gardens) have been replaced by Dr Lucy Sutherland (Botanic Gardens of South Australia) and Geoff Davies (Royal Tasmanian Botanical Gardens).

Leonie Scriven (Botanic Gardens of South Australia) has been appointed South Australia representative.

You can find details of the full council, including vacancies and all positions and tenure dates on [www.bganzt.org.au](http://www.bganzt.org.au)

# Pollinating great ideas

## Nature play in botanic gardens

**Cecile van der Burgh, Director, Kids in Nature Network**

What is your favourite childhood memory in nature? Do you remember playing outside until the lights came on? How alive you felt running in the rain, breathing in fresh air, feeling the wind streaming in your face? Your big appetite and rosy cheeks after another unforgettable adventure? I sure do. And I remember it was so much better than staying inside!

Over the past 30 years, childhood has gradually moved indoors and screen spaces have replaced green places. Use of television, computers, the internet and smartphones, increased parental fear, poor urban planning and more highly structured play and supervision keep kids from playing outside. This change in the experience of and exposure to nature has led to a gradual distancing of our kids from the natural world, and has profound implications for their mental, physical, emotional and spiritual health – and for the health of nature itself. A growing body of evidence shows that kids do better outside.

'Nature play' is a term used to describe the creation of simple play opportunities in the natural environment. Nature play encourages kids and parents to see the natural environment as a place to enjoy, play, imagine, relax and explore. Getting kids involved in nature play doesn't have to be expensive or time consuming. It can be as simple as a visit to the local park or botanic garden where the kids can roam free.

### ***Collaborations to reconnect children and nature***

Eight years ago, [Kids In Nature Network \(KINN\)](#) started working in partnership with Royal Botanic Gardens Victoria on a series of networking forums at the gardens to explore the connections between children and nature. These events planted the seeds for an annual event to celebrate the



KINN's Director Cecile van der Burgh, *Botanica* Curator Darryl Cordell and RBGV's Cranbourne Gardens Executive Director Chris Russell cut the 'ribbon' with garden shears to launch Nature Play Week 2018 and *Botanica*.  
Photo: Mark Gambino

connections between children and nature. In its fifth year now, Nature Play Week is a favourite on the Victorian events calendar for children. It is an annual celebration of all things nature play in Victoria, an opportunity for kids and families to connect with like-minded groups in their area. The week features more than 150 events staged by over 80 organisations across the state.

This year, the [Nature Play Week launch event](#) was celebrated in conjunction with the launch of Botanica, a village in the Australian Garden at RBGV's Cranbourne Gardens. Curated by artist Darryl Cordell and inspired by his childhood in the bush, and created by Royal Botanic Gardens Victoria, Botanica offered families the opportunity to work together to build a unique village, by building cubbies and creatures using natural materials collected from the gardens.

### Imagine this

*Children run from their parents through the towering arch made of flowers and leaves and enter the large grassy space. There are loose natural materials scattered everywhere and no rules for the children here, except to make it a day they will never forget. It is lovely to see the spark in their eyes when we say this.*

*Eager to get their hands dirty and their imaginations working, they quickly find a spot and start building. For a moment I find myself in a book of my childhood imagination. If this was not an 'official' opening event, I would have joined the kids, just as their parents have. The cubbies, some very impressive, provide beautiful shelter from the hot sun. Fresh biscuits and lemon myrtle tea are taken 'inside' and enjoyed on a picnic blanket in the lovely shade. A little boy visibly enjoys sitting in the middle of the red sand pit as he inspects the colours and fragments and tiny insects. The menagerie of tiny hand-made creatures is growing and they have the most incredible names.*

I know I will not forget this day.



This boy is a picture of concentration as he constructs his abode in the Botanica precinct at Nature Play Week. Photo: Mark Gambino



A menagerie of tiny hand-made creatures grows. Photo: Mark Gambino

Nature Play Week 2019 runs from 17 to 28 April 2019 across Victoria and we welcome events in other states on the event calendar. For more information, visit: [www.natureplayweek.org.au](http://www.natureplayweek.org.au) and [www.kidsinnaturenetwork.org.au](http://www.kidsinnaturenetwork.org.au)

### **About KINN**

KINN is a catalyst for rebuilding the connection between our kids and the natural world. We exist to link up key initiatives that promote nature play in order to enhance children's wellbeing and development, promote creative play and facilitate connection to the natural world. We are based in Melbourne, Victoria. We act to empower, connect and grow a movement of individuals and organisations that get kids back outside. Our network is diverse, with leaders from health, education, environment, urban planning, outdoor recreation, community, government, business, arts and many other sectors.

### **Little Sprouts – growing future plant lovers!**

**Emma Bodley**, Botanical Records and Conservation Officer,  
Auckland Botanic Gardens

My office is joined to the Auckland Botanic Gardens (ABG) library which is a fantastic place to work. I get to utilise the collection of over 6000 books, magazines, journals and nursery catalogues every day. I am responsible for managing the library as part of my role as the Botanical Records and Conservation specialist. I oversee the team of volunteers who staff this great resource. One of the difficulties we have faced is attracting visitors into the library. People come to our garden to be outside, the odd visitor might walk around the library or a student might come in looking for a particular resource, but generally our visitation is very low.

This led me to think critically about what a library is in this modern era where you can ask Google just about anything. Most people don't use a traditional library as the first place to find out information. I looked at lots of libraries and their strategies, and realised they are not just a collection of resources but



Children investigating, feeling and smelling, flowers.  
Photo: Emma Bodley

an interactive place for engaging with local communities. Most libraries run public sessions and activities across a range of subjects. And for the library I work in with a specialist collection of books, how do we stay relevant? What services can we provide that connect with the gardens and attract new visitors?

One of the initiatives we have started is based on programs that are already run in public libraries throughout Auckland to get parents and their young children into libraries through 'Storytime' and 'Wriggle and Rhyme' sessions. These sessions are all about getting children activated and using the public space. We used this concept to develop our own session 'Little Sprouts'.

Little Sprouts is a new free one-hour session for children ages 0–5 years. We intend to run 'Little Sprouts' sessions once a month. Children and adults/caregivers are invited to join in with nature-themed stories, songs, and nature-based crafts, and to investigate flowers. Each session is tailored to the current season, following a similar template but changing the craft activity, songs and books to match the relevant season. The content has been developed for another project ABG has been involved in with local communities called Thriving Tamariki Maori. We are maximising the resource investment of this content, so the thinking, planning and time that went into the original project goes even further with the application to Little Sprouts. We think if songs or books are repeated then this is not necessarily a problem because new children won't have heard or read them yet and most children love repetition and hearing familiar songs. We will advertise Little Sprouts through our social media, local newspaper and website so that local families can participate in future sessions.

The sessions are run by a teacher who we have contracted to plan and deliver the sessions. This contractor has previously worked in the primary school aged curriculum-based program run at the gardens, so she understands our messages and is able to use the garden as a resource for teaching.



Completed butterfly and bee finger puppet craft. Photo: Emma Bodley



All eyes and ears were on Sarah, the educator, welcoming the children to the session. Photo: Emma Bodley

Our first session of Little Sprouts was kicked off in early September. We had about 30 children from a local kindergarten, plus six of their teachers, come along to this session so that we could see how the session worked. The children walked over from the local kindergarten and the session ran about an hour. The children loved the songs, especially holding the toy birds, bees, butterflies and flowers for one of the action songs. They picked up the hand actions in songs easily and were great at listening through the two spring-themed stories. We collected a range of fresh flowers for the children to investigate and take home to press. The final 15 minutes of the session allowed the children to be creative by colouring and assembling bee and butterfly finger puppets. The kindergarten teachers had positive feedback for us after the session. The songs and themes were different to what the children are normally exposed to, so they were very engaged and had a wonderful time.

This is a great way for our library to be used as a place for our local community to get together, meet new people, visit the garden, and learn about plants and nature. Our motto is 'Where ideas grow' so why not start with the young sprouts?

## Meaningful connections through native bush food plants

**Mandy Thomson**, Team Leader Nursery, Royal Botanic Gardens Victoria, Cranbourne Gardens

I would like to share with our readers a powerful connection that the Cranbourne Gardens Nursery volunteers and staff made with community at the recent NAIDOC (National Aboriginals and Islanders Day Observance Committee) event hosted at the Australian Garden in July this year.

Nursery staff and volunteers ran a very popular activity with families involving potting-up tubes of Yam Daisies *Microseris lanceolata* and River Mint *Mentha australis* into biodegradable pots for planting at home.

Nursery Volunteers had grown the plants from seed and cuttings many months before the event and produced well over 1000 plants. They took great pride in teaching the younger generation how to grow them on in their own gardens.

Sounds like a simple enough activity but the story behind these bush foods has rich historical and cultural meaning for Indigenous Australians, as explained below.

*'Yam Daisy is called Murrnong by the people living around Yarra and Geelong. It is a small dandelion-like herb once abundant over much of Victoria, but now relatively scarce due to grazing and compaction of the soil by introduced hard hoofed animals. Each day women and children would leave camp in search of these roots turning over a considerable amount of soil as they went. Records indicate that in a single day an Aboriginal woman might collect 2000 plants, or 8kg of tubers. The thinning of the daisies promoted vigorous growth in the remaining plants, and some plants were always left for the next season.'*

*The River mint is a native mint with white flowers. It has a strong smell and is used for coughs and colds and sometimes as a food-flavouring lining for earth ovens.'*

Source: Jaffa Richardson, Balee Koolin Bubup Bush Playgroup Coordinator, Cranbourne Gardens

The most rewarding experience was seeing the enthusiasm for the Yam Daisies. Many visitors had heard about the tubers and their use but did not know how to go about sourcing them. I'm happy to say that there will be many tubers harvested in vegetable gardens all over Victoria in the months to come.

This simple activity created meaningful connections to culture, community and history that will continue to grow beyond the garden gates.



Potting up Yam Daisies into biodegradable pots.  
Photo: Mark Gambino



Putting the finishing touches on the Yam Daisy pot.  
Photo: Mark Gambino

### Nature, culture, science – a manifesto for a modern botanic garden

**Tim Entwisle**, Director and Chief Executive, Royal Botanic Gardens Victoria

Seven score and fifteen years ago (1863), the President of the United States of America delivered a pivotal address in Gettysburg, Pennsylvania. That speech of 272 words – [The Gettysburg Address](#) – eclipses most lectures and dissertations, and tweets, by succeeding Presidents. The Gettysburg Address was broad in scale, written in simple but poetic language of the time, and began with an acknowledgement of forebears.

If today I was to deliver a manifesto for the modern botanic garden, in particular Royal Botanic Gardens Victoria, it would read like this:

*We gather on the land of Koolin nation, acknowledging cultures flourishing today as they have for over sixty thousand years, paying respect to elders, past, present and future. We recognise too those visionaries and practitioners who over the last two centuries laid the foundations for these extraordinary botanic gardens.*

*We who work at those botanic gardens can be frustrated when our place of learning is sought primarily for sanctuary, health or healing. We are, we object, more than a park, more than a pretty place. Modern botanic gardens, like zoos, have found quite reasonable validation through conservation – it used to be science and discovery – but the unease remains.*

*Let us embrace this fake tension, accepting that people visit for many reasons, welcoming all on their own terms. Once here, do not shy away from raising big ideas and asking big questions, from entertaining, and from engaging hearts and minds. Ours are the perfect places for nature, culture and science to coexist, comingle and at times even collide.*

*Progressive galleries and museums claim they are ‘a safe place for unsafe ideas’. Let’s explore that in a living, breathing landscape, one that is always changing: choreographed, we might say, through four (or more) seasons. This is the only truly immersive and tactile place to think differently, every day.*

*We remain a place to celebrate plant and animal diversity, but increasingly also a place for diversity of audience and approaches. Most importantly, our botanic garden will no longer be simply a destination. While every visitor will be refreshed, if that is their wish, they will also be better equipped for their next journey in life.*

That says it all, more or less. Although I do feel the need to define my terms, demonstrating a very modern lack of courage.

I use 'culture' in its broadest sense, to include health, art, traditions and more. I use 'nature' to refer to the living environment around us, whether city or country, and no matter what the degree of human influence and impact, but primarily those ecosystems with a flourishing community of plants, animals and other organisms. This is also where health and welfare, or if you like, well-being, come in.

I would add, if I had the extra words, that nature and culture are intertwined and interdependent. Although the terms 'native' and 'indigenous' are often lifted from nature to culture with unhelpful results, so have to be used with care. As an aside, if you'll bear with me, there is no shame in using art and culture (or indeed any other legal and socially acceptable device) as a 'honey pot' and to then divert attention to deeper or alternative messages. You could think of it as 'deceptive pollination strategy' where plants mislead pollinators for their own ends, but for me it is welcoming everyone on their own terms. There is no shame in visiting the gift shop only or arriving in a tour group for a quick whiz around. None at all.

To avoid confusion I would stress that 'science' is the systematic study of our world through observation, testing and an openness to refutation. I sometimes use the term 'observational science' for those sciences with a strong emphasis on observing and recording the natural world, such as biology, astronomy and meteorology. Observational science is something I want to celebrate and harness in a new Nature and Science Precinct planned for our Melbourne Gardens.

'Diversity' is another term open to dilution in meaning and misapplication. I don't want to imply that diversity is intrinsically desirable in biology, but mostly it is a good yardstick for community 'health'. Diversity in our visitors is similarly mostly a good and desirable thing but we need to remember it has many axes – gender, community, scientific/non-scientific, plant-enthusiast/ plant-not-so-enthusiast, and so on.

I think that's enough qualifying and quibbling. Royal Botanic Gardens Victoria already has two stunning botanical landscapes, rich living and preserved plant collections, and over 170 years of expert knowledge and experience. If not already so, we can become one of the world's great botanic gardens by embracing the triumvirate of *nature, culture, science*.

Maybe I needed only those last three words.

# A reflection on youth and botanic gardens

David Sole, Manager, Wellington Gardens

Since long before my nearly 40 years in the amenity and landscape industries there has been a constant call for more youth in our industry, in our industry bodies and as our advocates. Increasingly youth, those in the 13–22 demographic, are seen as missing in action across our spheres of interest and operation. Is it because it is simply 'not cool'? Is it that by unintentionally alienating youth we have become our own worst enemies? Is it simply a function of the passage of life or have we been ignoring the opportunities before us to engage with youth?

I will be candid. Though it is on our mind, and part of the wider function of our parent Parks Sport and Recreation business unit, Wellington Gardens currently does not yet set out to formally connect with youth. Our mission for now is to connect with children aged 3–12 years to sow the seeds of the importance of plants to people, place and planet, and to open their eyes and their minds to the need to value plants, to care for our open and urban spaces and to benefit conservation, ecological health and people's wellbeing. The increasing disconnect from nature, especially with urban intensification, at times even a fear of nature, is not going to be addressed by preaching to young people. The connection will be embedded in their values as part of their early childhood learning and positive, affirming experiences with nature or from families and communities who are already connected and engaged with nature.

The Royal Botanic Garden Sydney's [Youth Community Greening](#) program<sup>1</sup> with its focus on disadvantaged youth aims to:

- Improve physical health
- Improve mental health
- Reduce anti-social behaviour
- Build community cohesion
- Tackle economic disadvantage
- Promote understanding of native food plants
- Conserve the environment
- Provide skills training to enable opportunities for the future.

Apart from the behavioural issues to be addressed, these are equally valid for young people who are not disadvantaged, but with whom gardens also do not easily engage.

A desktop scan of available resources and literature showed that much of the focus for the inclusion of youth is through civics and NGOs as they seek to maintain and build their mass and influence via youth councils and advisory boards. There are numerous NGOs which engage youth with animals – ‘fur and feathers’ conservation organisations and animal care groups have youth subgroups. There are few that consistently sustain engagement of young people with plants. Understandably, a rather undistinguished Gardiner’s Tree Daisy *Olearia gardneri* in the margins of a remote paddock is difficult to warm to let alone interest young people looking for its context in their world. What catches your eye for cuteness? The tree daisy or the baby owl?



Gardiner’s Tree Daisy *Olearia gardneri*.  
Photo: Tony Silbery/NZPCN



Baby ruru or morepork owl *Ninox novaeseelandiae*.  
Photo: David Sole

## Garden events and engaging youth

We have just held Tulip Sunday at the Wellington Botanic Garden, which was attended by thousands of people. What was remarkable was the number of people who could be classified as mid-youth to older youth attending in pairs and in larger groups and from a diverse range of cultures. Equally apparent was that the majority of the groups were young women. Of course, as a sign of our times, selfies with the tulips, azaleas, cherries and magnolias were the highlight of the day for many. Equally, other events held in the garden such as the Gardens Magic music festival and nearby city-based events such as World of Wearable Arts and rock concerts (with AC/DC fans in uniform black) bring youth into the garden. Even observing from our office, we can see that a significant number of visitors traversing the deck are in the youth category.

Youth already engage with gardens on their terms and enjoy the senses of place and space as much as anyone else – and it is free! Sometimes we are too quick to forget this in our angst to actively connect with youth who are apparently not quite missing in action after all. At the other extreme the ongoing large student parties at Wellington Botanic Garden, Dunedin Botanic Garden, and I am sure other gardens, are a form of youth engagement with our gardens which we could sometimes do without!

Sometimes we are too quick to forget this in our angst to actively connect with youth who are apparently not quite missing in action after all.

### The new normal – local, global and social

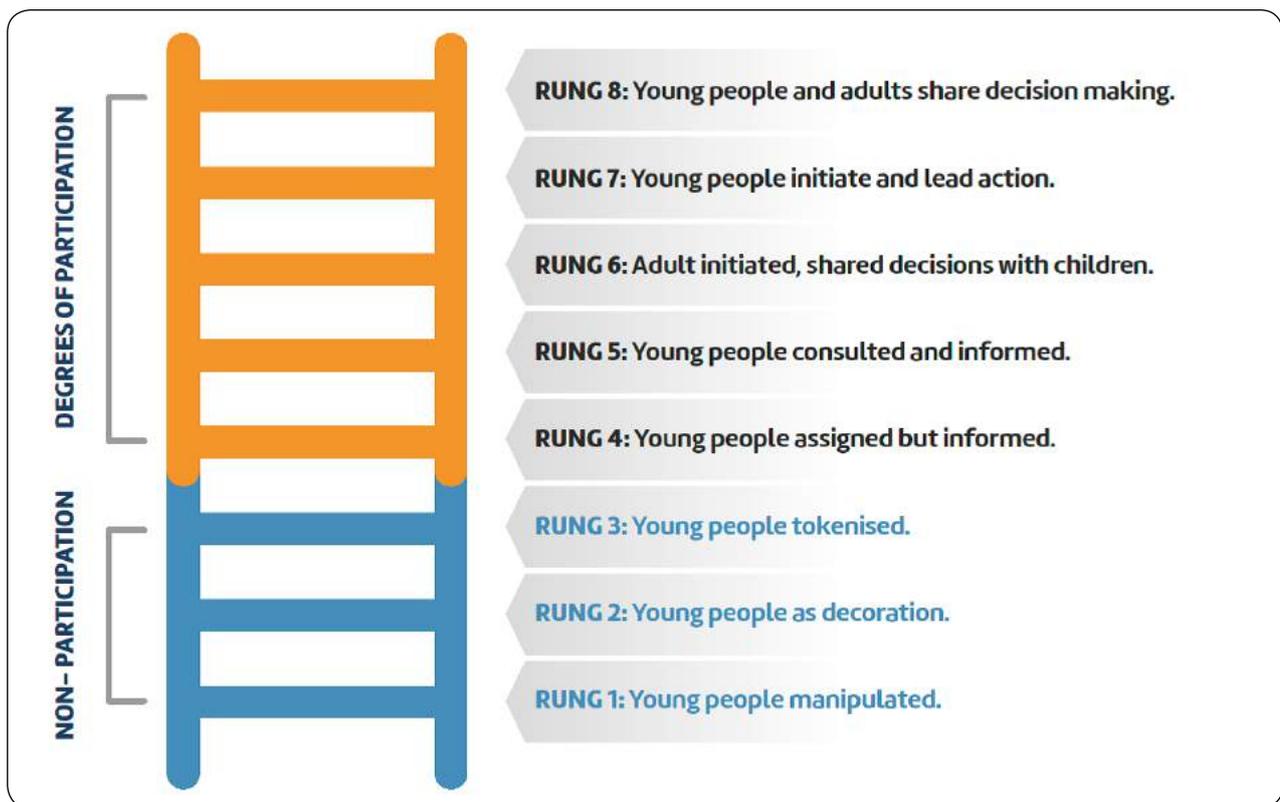
What pushes the buttons of youth to be engaged? More than ever young people have a sense of social responsibility. Many of the values and ethics of the baby boomers, ‘the greedy generation’, no longer resonate with them. Their notions of social cohesion are not the same as preceding generations. They want to work ‘for good’ whether it is project-based, volunteerism or in their choices of career and/or workplace. Young people are more international in their views and understand their ability to exert influence through the positive powers of social media. The social and work relationships of young people are increasingly indistinguishable. Young people seek relationships that are meaningful, encourage taking responsibility and leadership, and help to build their skills, knowledge and self-esteem<sup>2</sup>. This is also a time of fluidity in their lives as they come to understand who they are, recognise and set their values and reset their social norms. Young people also have unprecedented access to global information sources and to travel, both of which help build their global view of the world. The South Australian Government’s *Better Together – A practical guide to effective engagement with young people* observes

*Success is likely when activities have a clear purpose, are things that matter to young people (not just ‘youth specific’), are what young people want to do, and is something they believe in*

and, further

*Adults bring organizational and administrative experience, allowing youth to concentrate on more mission-driven and action-oriented aspects of decision-making*

The report uses Hart’s Ladder to illustrate tiers of engagement opportunities for youth.



Source: Hart's Ladder from *Better Together – A Practical Guide to Effective Engagement with Young People*, page 13

It reinforces that organisations have to create opportunities for youth governance by inviting youth to the table<sup>3</sup> to participate in decision making. Jrène Rahm in her [2014 paper on youth in Montreal Botanic Gardens](#)<sup>4</sup> worked through a program for youth over eight weeks then a number of weekends, which most simply put involved growing and maintaining crops across 60 plots. At the end of the program Rahm observed that the young people involved gained confidence and realised they were capable producers, but most of all, in harvesting their crops and taking them home, they began to understand that they could be 'agents for change'.

The current generation of youth is the first to be consistently exposed to environmental issues from birth onwards. The environment is embedded in their curricula and frequently features across all forms of social media and ever increasingly in mainstream media.

Those same media are also responsible for increasingly promoting excessive consumption encouraged by greenwashing. It is the role of botanic gardens not only to create opportunities to highlight the connection between finite resources and consumption but also to encourage youth to make the link between plants, products and the environmental consequences of their harvesting and processing, and their use in manufacturing.

How can gardens do that? If they are to be serious, botanic gardens will need to create opportunities to connect with youth, to be more than places for just a stroll in the park and more

than where we just create and deliver events and activities. The activities will need to be designed by youth for youth to be successful, memorable and enduring experiences.

Botanic gardens need to be better at articulating their values, their benefits and their contribution to our communities. Conservation plays a big role but our role in 'saving the planet plant by plant' is not well understood. It is more than whales, rhinoceroses and orangutans. The Eden Project's disappearing room, though now a little archaic in its technology, powerfully articulates the role of plants in our lives as one by one it removes plant-based products until there is a pile of bones on the floor.

Activities will need to be designed by youth for youth to be successful, memorable and enduring.

Too often we target 'gardeners' or 'grounds people' in our recruitments and then often lament the calibre of applicants. So what is it that we really do that is more than mowing, edging, weeding, propagating and replanting in endless year in and year out cycles? We conserve our natural environment; through plants we are facilitators of a new urban ecology. We are health professionals as we prepare for and deliver green medicine, and we maintain free-access gardens that contribute to social cohesion and wellbeing in families and communities. We are teachers of sustainability, but way beyond simply recycling our bottles and plastics and metals. There is science to what we do day in and day out. We are gifted artists of the natural world. We can and do make a difference each and every day. So why don't we articulate those qualities?

If we are serious, then it is time to talk with young people to create opportunities for engagement and that all-important connection to plants in a way that resonates with them. It can be much more than the most elementary dynamic of simply visiting and sharing our very special 'green places'.

Oh, and by the way, how did you spend your youth?

## References

<sup>1</sup> Royal Botanic Garden Sydney (2018). Youth Community Greening program. Retrieved from <https://www.rbgsyd.nsw.gov.au/learn/youth-community-greening>

<sup>2</sup> Department of Human Services, the Government of South Australia (2018). Better Together Youth Engagement Guide. Retrieved from [http://www.officeforyouth.sa.gov.au/\\_data/assets/pdf\\_file/0008/39680/Final-Better-Together-Youth-Engagement-Guide-V3-2016-02-09.pdf](http://www.officeforyouth.sa.gov.au/_data/assets/pdf_file/0008/39680/Final-Better-Together-Youth-Engagement-Guide-V3-2016-02-09.pdf)

<sup>3</sup> Innovation Center for Youth and Community Development (2001). Youth in Decision Making. Retrieved from [http://www.theinnovationcenter.org/files/Youth\\_in\\_Decision\\_Making-At\\_The\\_Table-Report.pdf](http://www.theinnovationcenter.org/files/Youth_in_Decision_Making-At_The_Table-Report.pdf)

<sup>4</sup> Rahm, Jrene (2014). 'I always enjoyed touching the soil and growing things' – a spatial analysis of youth gardening in a botanic garden. *Revista Brasileira de Pesquisa em Educação em Ciências* Vol. 14, No2, 2014 Retrieved from <https://seer.ufmg.br/index.php/rbpec/article/viewFile/2697/2063>

# Engaging youth in the horticulture industry – 2018 Commonwealth Games and Botanica

Dale Arvidsson, Curator, Brisbane Botanic Gardens

Brisbane is renowned for its lush landscapes and is home to three botanic treasures: the City Botanic Gardens, the Sherwood Arboretum and the Brisbane Botanic Gardens at Mt Coot-tha, with all 90 hectares carefully curated by Brisbane City Council.

In addition to the city's iconic botanic gardens, there are also more than 2000 parks scattered across Brisbane, from small pocket parks to expansive parklands, as well as thousands of hectares of bushland.

Council is committed to keeping Brisbane clean, green and sustainable and is on track to increase the city's natural habitat cover to 40 per cent by 2031.

With a vision that looks to the future, council is dedicated to nurturing younger generations so that they can continue their efforts to cultivate unique green spaces.

Since 2016, council has worked closely with more than 70 horticulture and arboriculture apprentices, providing opportunities for them to get hands-on experience, and helping to protect the natural environment.

There are currently 11 apprentices working across the city as part of council's apprenticeship program, with an additional five horticulture apprentices set to join the council team next year.

## Clean, green and sustainable

Council's horticultural apprentices help keep Brisbane clean, green and sustainable by helping to revitalise the city's botanic gardens and parks, protect its natural environment

and boost the liveability and sustainability of the city. There are three types of horticultural apprenticeships offered:

- *Parks and gardens* apprentices gain experience in the maintenance of parks and gardens, including the botanic gardens and arboretum with planting of trees and shrubs, pruning, and learning about the operation and maintenance of specialised machinery and equipment.
- *Arboriculture* apprentices are involved in maintaining Brisbane's urban forest – the trees that make up Brisbane's subtropical landscape, character and biodiversity.

City-wide, 55 per cent of Brisbane's tree canopy cover is on public land and across the residential suburbs, 39 per cent of tree canopy cover is in public parks.

- *Sports turf management* apprentices learn the specialist operation of equipment and machinery, assist with green keeping and manage irrigation equipment.

## City Botanic Gardens focus in 2018

In 2018, horticultural apprenticeships have been focussed on the City Botanic Gardens with the opportunity to work closely with council's horticultural experts to plan, review and plant key collections and displays.

The City Botanic Gardens have played an important role in Brisbane's history as the most significant, non-Aboriginal cultural landscape in Queensland, having a continuous horticultural history since 1828 without any significant loss of land area or change in use over time.

With living collections dating back to the 1840s, specimens can be both rare in cultivation or of great maturity. This project was specifically designed to encourage a wider understanding of the value of heritage landscapes such as the City Botanic Gardens, which is one of Australia's oldest, and how we maintain these values whilst offering a modern space that continues to provide some of the city's most valued lifestyle and leisure opportunities.

In 2018, council received funding to develop the living collection, providing an opportunity to substantially restore plantings within the City Botanic Gardens, as well as expand the gardens' other plant collections.

**This project was specifically designed to encourage a wider understanding of the value of heritage landscapes and how we maintain these values whilst offering a modern space.**

The apprentices were able to learn first-hand how the living collection was skilfully collected and implemented by experts in their fields. The hands-on experience occurred over two weeks,

providing an opportunity for the apprentices to learn positioning and plant the majority of the plants sourced.

Some of these key projects at the City Botanic Gardens included:

- Albert Street entrance restoration of herbaceous planting – apprentices joined with staff in the refurbishment plantings
- Procurement of the Gymnosperm Collection – a significant addition to the gardens' growing collection of *Cycas*, *Macrozamia* and *Zamia*
- Hibiscus Garden renovation – commencing at the start of May, this has been a collaborative effort with the Hibiscus Society and council. Hibiscus expert Ida Dagan was able to pass on the Society's knowledge to apprentices with an onsite workshop on how to grow Queensland-bred cultivars of exotic *Hibiscus*.
- Zingiberales Collection – in keeping with the gardens' overall 'Tropicalian' theme, new additions to this diverse collection of plants occurred.

This year also marked the Gold Coast Commonwealth Games, with several events held in Brisbane, including the tour of the Queen's Baton Relay in April 2018.

In conjunction with the Commonwealth Games, council developed an event uniquely suited to engaging with a wide range of interests and visitors to the city – Botanica. Brisbane and Australia's leading artists transformed the City Botanic Gardens into a temporary outdoor gallery during April 2018 as part of Brisbane's first major outdoor contemporary art exhibition.

Apprentices were involved in planting and positioning flowers to display the word 'Fragile', under the expert tutelage of Gardener Maria Fallon. The apprentices also learnt that 4 a.m. starts were sometimes a necessity to beat Brisbane's summer heat and



Hibiscus expert Ida Dagan provided horticultural training in growing Queensland-bred cultivars. Photo: Brisbane City Council



Apprentices reviewed horticultural techniques in maintaining the Zingiberales collection with expert grower Maureen Symonds of Town Mount Tropicals and Curator Dale Arvidsson. Photo: Brisbane City Council

## FEATURE ARTICLES

protect the plants. Their efforts were well received, with over 25,000 people visiting Botanica during the 2018 Commonwealth Games, including HRH Prince Charles and the Duchess of Cornwall, who stopped by as part of their royal visit.

By the end of May, bedding displays in the formal area were changed over for the winter planting. The image below shows apprentice Grace Millar learning simple, yet effective, plant spacing techniques for annual beds.

The opportunities council provides allow apprentices to not only learn new skills about new plants, but to feel they are actively contributing to the gardens and the city's iconic outdoor lifestyle.

Teamed with a public collection of over 10,873 horticulture-related publications held at the Brisbane Botanic Gardens in Mt Coot-tha, participants in the apprenticeship program have access to a variety of contemporary and traditional learning materials, techniques and traditions at their fingertips.

Council is proud that our city's botanic treasures can remain as relevant to horticulture and learning today as they were in decades past when the City Botanic Gardens was the very first place in Queensland to trial and grow native and exotic flora in Queensland.



Floral installation 'Say it with Flowers' designed by artist Mona Ryder. Photo: Brisbane City Council



Formal planting training for apprentices. Photo: Brisbane City Council

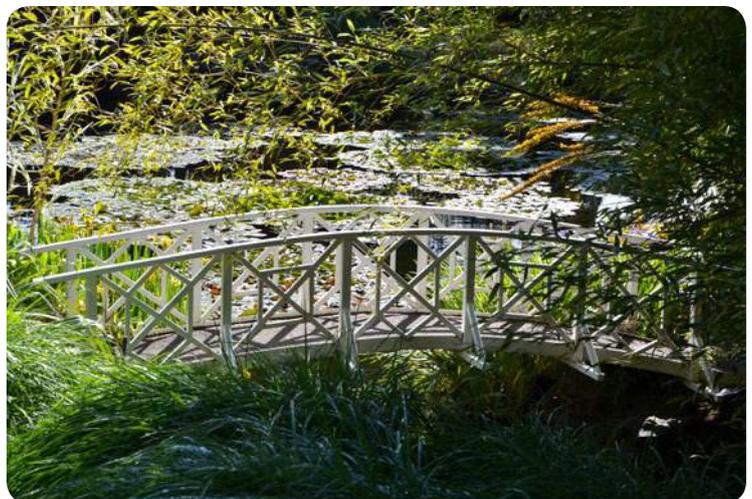
# Royal Tasmanian Botanical Gardens 1818–2018 – celebrating 200 years

Natalie Tapson, Horticultural Botanist, RTBG

Royal Tasmanian Botanical Gardens (RTBG) is celebrating its bicentenary in 2018. The Government Gardens were established by Lieutenant-Governor William Sorrell in 1818; the initial purpose, to supply the Governor's table and the acclimatisation of produce. In 1827 Lieutenant-Governor George Arthur expressed a wish for the addition of local native plants to the collection, and the appointment of [William Davidson](#) in 1828 began the gardens' engagement with our local flora. Davidson's appointment as superintendent of the gardens changed the focus of the site to one of a true botanic garden and by 1834 more than 60 Tasmanian species had been sent to Royal Botanic Gardens, Kew.

The gardens were administered by the Royal Society of Tasmania from 1844 to 1885, and the 1857 *Catalogue of Plants in the Royal Society's Gardens* lists over 1600 species and varieties of plants, including some of the mature trees still standing today. Royal Society records from the period list phenological data on the leafing, flowering and fruiting of selected species and information on the distribution of plants to public places in Tasmania and overseas.

Another important early figure in the life of the gardens was [Leonard Rodway](#). Elected as a member of the Royal Society of Tasmania in 1884, he was appointed honorary Government Botanist from 1896 to 1928 and then director of the gardens from 1928 to 1932, publishing *The Flora of Tasmania* in 1903. During this period a herbarium of native flora was established at the gardens in 1912. Rodway sold his private collection

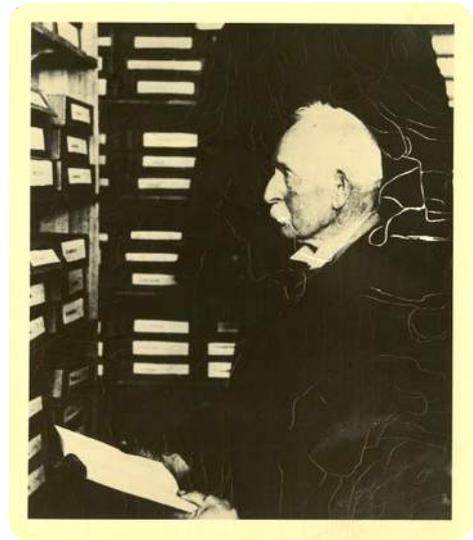


The White Bridge at the Lily Pond. Photo: Royal Tasmanian Botanical Gardens

## MILESTONES

to the Tasmanian Museum in 1930 but, due to space constraints, it was housed in the herbarium building at the gardens from the late 1930s until 1946. It was then moved to the University of Tasmania due to concerns about the fire risk to the wooden building in which it was kept. The university eventually passed the collection on to the Tasmanian Museum where the State Herbarium is housed today.

The conservatory opened in August 1939 on the eve of World War 2, with the war having a profound impact on staffing at the gardens and the conservatory displays. As men left for war, women became the mainstay of the workforce. It became too difficult to fill the conservatory with plants and the female staff created displays of model gardens from around the world. These proved popular with the public, with 6000 visitors viewing them in one day in November 1943.



Leonard Rodway in the RTBG Herbarium. As Director between 1928 and 1932 he pressed for a more scientific role for the gardens, deprecating their use as solely for public recreation. Source: Royal Tasmanian Botanical Gardens



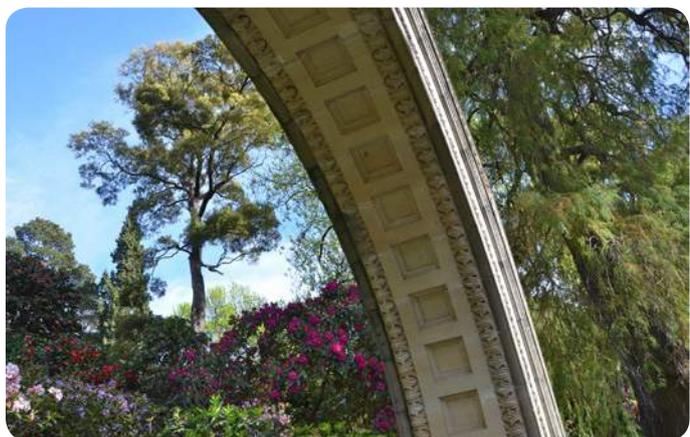
RTBG's Arthur Wall constructed in 1828. Part of the wall was heated and supported William Davidson's – the garden's first superintendent – Pineapple Glass house. Photo: Royal Tasmanian Botanical Gardens

Over time the addition of local native plants started by Davidson in 1828 seems to have waxed and waned, but in 1990 there was a resurgence of interest in the Tasmanian native collection and a commitment to one of the important core functions of a botanic garden: plant conservation. The Subantarctic Plant House opened in 2000 and the Tasmanian Seed Conservation Centre, funded by the Millennium Seed Bank Project, in 2005. The seedbank currently holds 1144 Tasmanian taxa and 43.9 million viable seeds.

Today Royal Tasmanian Botanical Gardens is a reflection of its 200-year history, hosting more than 470,000 visitors annually. The importance of the gardens to the community was apparent with the celebration of the bicentenary when more than 2100 people attended the official launch and opening of the Lily Pad decks by HRH, The Prince Edward, Earl of Wessex in April 2018. Stories and photographs submitted by the community were also central to the publication of a book, *The Gardens – Celebrating Tasmania’s botanical treasure 1818–2018*, marking the bicentenary. A range of other products including honey sourced from hives at the gardens and gin flavoured with botanicals from the gardens were also produced to mark the anniversary.



1856 Plan under the Royal Society. The plan shows the circular taxonomic garden. Source: Royal Tasmanian Botanical Gardens



The Anniversay Arch – an intricately carved stone arch (formerly the entry portico for a city building) was installed to celebrate the RTBG 150<sup>th</sup> Anniversary. Photo: Royal Tasmanian Botanical Gardens

**Wellington Botanic Garden** will mark its 150th anniversary in 2019. The process of establishing the gardens commenced on 3 September 1868 and culminated in September 1869. The 150th anniversary was marked with a launch but the main celebratory activities are planned for next year. We will bring you a full report of this milestone in the next issue of *The BOTANIC GARDENER*.

# Botanic Endeavour 250 – our plants, our future

BGANZ Secretariat

In 2019 and 2020, a number of botanic gardens and arboreta throughout Australia and New Zealand will commemorate the anniversary of the 'voyage of discovery' by Captain James Cook in the barque *Endeavour*, during which Joseph Banks and Daniel Solander made a comprehensive collection of flora unknown to Western science.

Cook mapped the entire coastline of New Zealand in 1769 before traversing the east coast of Australia in 1770 from Point Hicks north to Cape York.

Pressings of the new taxa were collected along the route and these, along with thousands of botanical illustrations and sketches, somehow made it back to England in the face of shipwreck, waterlogging and the dank and humid conditions below decks, and even international politics.

The rich abundance of diverse flora excited the botanic world and ultimately led to the settlement of the new colonies. The years 2019 in New Zealand and 2020 in Australia will mark the 250th anniversary of these flora discoveries by Western science, an occasion which will be celebrated as Botanic Endeavour 250 – our plants, our future.

After settlement by Europeans, the significance of our wild landscapes as places to sustainably live, harvest and be a part of the natural world as lived by our nations' first peoples was often overlooked. Intrepid explorers succumbed to exposure and lack of food with much to sustain them close at hand, or paid the price for consuming plants that looked, smelled or even tasted edible, but were highly poisonous. Early settlers often did not know of the abundance of native food and useful plants present in both Australia and New Zealand. Their clearing of native plant communities for westernised agricultural practices caused great losses. Native forests became resources to be swiftly used or removed as an impediment to farming, and the growth of our cities impacted not only the viability of floristic communities, but also native fauna at an alarming rate.



Botanic Endeavour

250 

Our plants, our future  
Celebrating 250 years of Australian Flora



Botanic Endeavour

250 

Our plants, our future  
Celebrating 250 years of New Zealand Flora

Slowly, the mindset of the greater populace changed. National parks and reserves were declared, native plants were more widely appreciated and began appearing in gardens, and their use and appreciation in modern culture was consolidated. Today, new technologies are exploring native species as medicines, and the conservation of those species of which little remain in the wild is a national priority. Botanic gardens and arboreta are now working with key partners and stakeholders in educating the community on the importance of native plants and actively conserving species at risk of extinction in the wild. This is occurring through the Australian Seed Bank Partnership and the New Zealand Indigenous Flora Seed Bank, with the Millennium Seed Bank Project a key international partner.

## Why 2019 in New Zealand and 2020 in Australia are special years for celebrating our native flora

At each of their landings Banks and Solander made extensive observations and collections of the local flora. As well as the botanists, the *Endeavour* also saw a team of botanical illustrators join the voyage, all of whom were to perish along the route.

These botanical artists were Sydney Parkinson, Alexander Buchan and John Reynolds. Parkinson is the best known of these, as he wrote an account of the voyage, which was published posthumously in 1784. Without their work the colours of the new flora as it was collected, before fading to brown and black, would never have led to the accurate illustrations produced in Banks' *Florilegium* many years later.

It was this work and Joseph Banks' passion and view of the potential botanical richness these places promised due to the immense new flora that eventually saw the European settlement of Australia and New Zealand. This was followed by 250 years of science, species loss and, today, conservation.

Prior to 1770, for over 40,000 years the traditional custodians of Australia discovered and practiced the ethnobotanic use of Australia's native flora for food, medicine, tools and building materials. Similarly in New Zealand, the Maori people have used the islands' native plants for more than 750 years. Today, botanic gardens are key places to work



*Banksia serrata* specimen collected by Banks and Solander, Botany Bay, April 1770; specimen sheet held at National Herbarium of Victoria. Source: Reproduced with permission of Royal Botanic Gardens Victoria

together to further reconciliation by adding an extra dimension to this botanical story through the dual stories of Indigenous and European uses of native plants.

Towards 2019 and 2020 many botanic gardens and arboreta along the route – and hopefully around each country – will develop a variety of new garden displays, exhibitions and rolling events to commemorate this historic journey, commencing in New Zealand in 2019 and culminating in Cooktown in Far North Queensland in August 2020, after a 48-day festival of botanic, cultural and commemorative events.

In New Zealand, final planning is under way in those gardens that will commemorate and highlight the significance of the botanical work of Banks and Solander as part of the 250th anniversary of the *Endeavour's* arrival. Many participating gardens were recently visited by the Swedish Ambassador Pär Ahlberger, who has also visited Cooktown in Australia, and who is very keen to work with BGANZ to ensure Australia and New Zealand's connection with Sweden via the work of Daniel Solander is promoted.

Watch the BGANZ website for all Australian and New Zealand Botanic Endeavour 250 updates.

***The route of the Endeavour and its proximity to today's botanic gardens and arboreta in Australia (Check [www.bganz.org.au](http://www.bganz.org.au) for information updates)***

<b>Victoria</b>	
<b>19–20 April</b> Point Hicks, Ram Head and Cape Howe	• Sale Botanic Gardens
<b>New South Wales</b>	
<b>21 April</b> Mount Dromedary, Batemans Bay, Red Point	• Eurobodalla Regional Botanic Gardens • Australian National Botanic Gardens • National Arboretum • Boodooree National Park
<b>28 April – 5 May</b> Botany Bay, Port Jackson	• Wollongong Botanic Gardens • Illawarra Grevillea Park • Royal Botanic Gardens Sydney • Auburn Botanic Gardens • The Australian Botanic Gardens (Mt Annan) • Blue Mountains Botanic Gardens (Mt Tomah) • Southern Highlands Botanic Gardens



Watercolour of *Banksia serrata* from Banks' *Florilegium*. Source: [Wikimedia Commons](https://commons.wikimedia.org/wiki/File:Banksia_serrata.jpg)

<b>11 May</b> Port Stephens, Cape Hawke	<ul style="list-style-type: none"> <li>• Hunter Region Botanic Gardens</li> <li>• Burrendong Botanic Gardens and Arboretum</li> <li>• Orange Botanic Gardens</li> <li>• Tamworth Botanic Gardens</li> </ul>
<b>12 May</b> The Three Brothers, Smoky Cape, Solitary Isles	<ul style="list-style-type: none"> <li>• North Coast Regional Botanic Gardens</li> </ul>
<b>15 May</b> Cape Byron, Cape Byron	<ul style="list-style-type: none"> <li>• Lismore Rainforest Botanic Garden</li> </ul>
<b>16 May</b> Mount Warning	<ul style="list-style-type: none"> <li>• Tweed Botanic Garden (in planning)</li> </ul>
<b>Queensland</b>	
<b>16 May</b> Point Danger	<ul style="list-style-type: none"> <li>• Gold Coast Regional Botanic Gardens</li> <li>• Tamborine Mountain Botanic Gardens</li> </ul>
<b>17 May</b> Cape Moreton, Morton Bay	<p>Brisbane's botanic gardens:</p> <ul style="list-style-type: none"> <li>• Brisbane Botanic Gardens Mt Coot-tha,</li> <li>• City Botanic Gardens,</li> <li>• Sherwood Arboretum</li> <li>• Redcliffe Botanic Garden</li> <li>• Rosewood Scrub Arboretum</li> </ul> <p>Toowoomba's botanic gardens:</p> <ul style="list-style-type: none"> <li>• Queens Park and Botanic Gardens</li> <li>• Peacehaven Botanic Park</li> </ul>
<b>18 May</b> The Glass Houses, Double Island Point	<ul style="list-style-type: none"> <li>• Maroochy Bushland Botanic Garden</li> <li>• Noosa Botanic Garden</li> </ul>
<b>19 May</b> Indian Head, Hervey Bay	<ul style="list-style-type: none"> <li>• Great Sandy Region Botanic Gardens - Hervey Bay</li> <li>• Phillips Botanical Gardens, Maryborough</li> <li>• Bundaberg Botanic Gardens</li> </ul>
<b>23–25 May</b> Bustard Bay, Cape Capricorn	<ul style="list-style-type: none"> <li>• Tondoon Botanic Gardens, Gladstone</li> </ul>
<b>26 May</b> Keppel Isles, Keppel Bay, Cape Manifold, Shoal Water Bay	<ul style="list-style-type: none"> <li>• Rockhampton Botanic Gardens</li> </ul>
<b>28 May – 2 June</b> Northumberland Isles, Broad Sound, Slade Point	<ul style="list-style-type: none"> <li>• Mackay Regional Botanic Gardens</li> </ul>
<b>4 June</b> Whitsundays Passage, Cape Gloucester	<ul style="list-style-type: none"> <li>• Whitsunday Botanic Gardens</li> </ul>
<b>6 June</b> Magnetic Island, Cleveland Bay, Palm Isles	<p>Townsville's Botanic Gardens:</p> <ul style="list-style-type: none"> <li>• Anderson Gardens</li> <li>• Dan Gleeson Memorial Gardens</li> <li>• The Palmetum</li> <li>• Queens Gardens</li> </ul>
<b>8 June</b> Halifax Bay, Dunk Island	<ul style="list-style-type: none"> <li>• Bill Markwell Botanical Gardens, Innisfail</li> </ul>
<b>9 June</b> Frankland Islands, Cape Grafton, Fitzroy Island	<ul style="list-style-type: none"> <li>• Cairns Botanic Garden</li> </ul>
<b>10 June</b> Green Isle, Trinity Bay, Cape Tribulation	<ul style="list-style-type: none"> <li>• Mossman Botanic Gardens</li> </ul>
<b>17 June – 3 August</b> Endeavour River	<ul style="list-style-type: none"> <li>• Cooktown Botanic Garden – commemorations finish with the Cooktown 2020: A shared history festival</li> </ul>

### *The journey continued up the coastline*

11–22 August The Endeavour sailed past Lizard Island, Eagle Island, Cape Grenville, Cape York, Possession Island and then on.

22–23 August – Endeavour Strait, Prince of Wales Island (Muralug) an island in the Torres Strait Islands (along with Booby Island).

# New funding drives Mossman Botanic Garden progress

Heather Carle, Secretary, Mossman Botanic Garden Inc.

In August, [Mossman Botanic Garden](#) in Far North Queensland announced it will soon be able to start vital restoration work on the banks of the adjacent waterway, thanks to a \$50,000 Landcare Grant through the Australian Government's Department of Industry and Science.

The grant will enable restoration work along Goobidi Creek to begin in cooperation with neighbouring properties, including the Douglas Shire Council. The project is due to start in the coming months with a cultural heritage approval process carried out by Jabalbina and a vegetation survey by the Australian Tropical Herbarium (ATH).

MBG Chair John Sullivan welcomed the news, which comes off the back of the work done on a Draft Strategic Plan and the successful bid for funding through the Australian Government's Regional Jobs and Investment Package.

He said a lot of work has been done over the past 12 to 18 months to establish a proper structure for the organisation and build a strong financial case for investment in Mossman.

'The idea is that MBG is here to run a world-class botanic garden that is complementary to our rainforests and other local botanic gardens.

'Through partnerships developed with the Eastern Kuku Yalanji, the ATH, James Cook University and many others, we'll be able to not only deliver a great tourism experience but also provide essential plant education and research programs.'

The not-for-profit organisation, with more than 100 members, has already invested \$1.2m on acquiring the land opposite the Mossman markets. A further \$200,000 has been invested in the development of an extensive master plan and business plan. This has led to a further grant through the Australian Government's Regional Jobs and Investment Package of \$100,000, which the organisation must match over the next three years. [Read more](#)



Design/artist impressions of the proposed Mossman Botanic Garden showing the Visitor Centre, Visitor Centre Bridge, overview of the wetland and the Wetland Bird Hide. Source: LA3 – <http://www.la3.com.au>

# Burnley Gardens – an inner-city gem and a centre for horticulture

Helen Vaughan, Managing Editor

*It is comparable to a botanic garden, and forms a valuable recreation, education and research facility.*

Source: Burnley Gardens Statement of Significance, Victorian Heritage Register, 17 December 2003

Nestled on a small peninsula on the Yarra River and bordered by Swan Street, Yarra Boulevard and the Monash Freeway in Melbourne's inner east is Burnley Gardens, a hidden gem situated on nine hectares of land just a short tram ride from the city centre.

The ambient noise of trams on Swan Street and passing traffic on the adjacent freeway seems to dissipate as you enter the gardens and it is easy to imagine the site as it once was as an emerging suburb in the early years of European settlement – and before that, a River Red Gum forest on the floodplains of the Yarra River.

The gardens opened to the public in 1863 after a land grant of 25 acres was made to the Horticulture Society of Victoria in 1860. The Horticulture Society was granted the land for the establishment of Experimental Gardens on the Richmond Survey Paddock on the proviso that part of the land be set aside for a public ornamental garden – a commitment that remains to this day. A design competition was held and Alfred Lynch, a landscape gardener from Prahran, was awarded the job of creating the new garden. Lynch's garden design was based on geometric lines similar to formal Italian-style gardens.

Almost 30 years later, the first School of Horticulture opened on the site in 1891 under the auspices of the Department of Agriculture. It was the first of its kind in the southern hemisphere and is regarded as one of the oldest continuing centres for horticultural education in the world. Charles Luffmann was appointed as the school's first principal and he set about transforming Lynch's garden design into a more fluid one representative of the English Landscape School.



Charles Luffmann, the first Principal of the School of Horticulture.  
Source: Burnley Archives

## The proving grounds

Even before the opening of the School of Horticulture in 1891, the Burnley site was a centre for horticultural learning and experimentation. In the decades that followed the opening of the gardens, the acclimatisation of fruit trees for the colony was trialled on the proving grounds beyond the public garden providing the foundation of the commercial fruit industry in Victoria. This area of the garden is still off-limits to the public and the boundary is marked by the Orchard Gates, signifying the historic border between the ornamental public garden and what is today known as the Field Station, where horticultural research is undertaken by students from The University of Melbourne.

By 1862 more than 1400 varieties of fruit trees had been planted in the Experimental Orchards. Floods later that year 'caused considerable damage'<sup>1</sup> to many of the trees but by 1888 the trees and vines had been re-established with 2235 varieties in the orchard, estimated at the time to be one of the largest collections of fruit varieties outside Europe. Floods continued to play havoc with this low-lying area of the site with serious flooding occurring in 1878, 1891 and 1903. The most devastating flood in 1934 inundated the whole Burnley orchard uprooting trees and 'flood waters at its highest point'... 'reached the doorway of the potting shed.'<sup>2</sup> The flooding ended in the 1960s when the Yarra River was diverted for the building of the Monash Freeway.

Burnley's social and economic impact was not only felt in the development of the commercial fruit industry, but also in the role it played in teaching agricultural science. Evidence of this remains today in the heritage-listed dairy building that is situated on the Bull Paddock. When the 1891 depression struck small farming courses were offered to the unemployed to foster self-sufficiency. Pigs, poultry, a dairy herd and a bull were kept on-site and in 1903 the school was renamed the Burnley School of Horticulture and Small Farming. This role continued into the 19th century and returned WWII soldiers were provided with vocational training there as part of the Commonwealth Reconstruction Training Scheme.



The proving grounds beyond the Orchard Gates – 2235 varieties of fruit trees and vines had been established by 1888. Source: Burnley Archives

Almost 160 years after the experimental and ornamental gardens opened, the proving grounds continue to be a site of research by staff and students from The University of Melbourne. Beyond the Orchard Gates there are reminders of the early fruit trees with two rows of pear trees planted after the 1934 floods and a Black Mulberry tree planted in the 1880s still standing. Today research includes studies into green infrastructure for a climate change future where green facades and urban forests provide cooling to reduce the heat island effect in cities but some traditions remain, with students still tending their own veggie plots on-site.

## The ornamental gardens

The ornamental gardens feature over 625 trees from over 225 different species and more than 3670 shrubs, vines and perennials from over 1200 species in beds and garden rooms across the site.

Elements of Lynch's original design are still evident in pathways at the bottom of the gardens open to the public and inside the Field Station. Luffmann's design remains apparent in the lawns and lily ponds that greet you on arrival and the curved pathways that meander through the gardens. Built on what was then a damp site the two ponds appear to have a long teardrop formation with grass running to a sheer edge allowing an uninterrupted view across the lawn.

A stroll around the gardens reveals the rich horticultural history associated with those who have taught, studied and worked there over the past 125 years. The gardens have been used for practical instruction over the years and students – current and former – and teachers alike have contributed to the design of parts of the gardens.

Along the pathways leading off Central Lawn beds and garden rooms dedicated to a range of species flourish. In the 1940s, Emily Gibson a former student and then lecturer designed the Island Beds to screen the newly-constructed administration building – a now heritage-listed building designed by Victorian Government Architect Percy Everett.

More recent developments have been dedicated to the use of indigenous species on land acquired in the 1950s and 1960s. The original Native Australian Garden was redeveloped in the 1980s by leading Australian native garden designer Kath Deery. Additional developments in the 1980s and 1990s included a Native Garden Pond and



Women were first admitted to the Burnley School of Horticulture in 1899.  
Source: Burnley Archives

Native Grasslands – all the work of former graduates or then staff members: Robert Boyle, James Hitchmough, Geoff Olive and Greg Moore. The most recent addition to the Burnley collection is a roof garden on top of the administration building. The work of students and staff, it opened in 2013 and demonstrates graduated green-roof plantings at different depths and a contemporary design.

In other areas, garden rooms have been dedicated to the memory of some of Burnley's notable alumni. Ina Higgins is recognised with a plaque in the Rose Garden, which features European species roses, cultivars and roses from Chinese species.

Higgins was one of the first women to study horticulture when Luffmann opened the way for women to study there in 1899. Indeed, she was instrumental in persuading him to open the doors of the school to women. When challenged by him to find six women who wanted to study horticulture, she identified 72 women<sup>3</sup> who were interested, but not all of whom took up the opportunity. Needless to say, women were accepted and Higgins graduated as dux of her class in 1900.

The Herb Garden was designed in the 1980s by Gardens Manager Geoff Olive in association with the Herb Society of Victoria and is planted out with culinary, medicinal and infusion herbs. A central feature includes a bronze water fountain dedicated to the memory of Enid Carberry who graduated from Burnley in 1914.

## The Burnley skyline



The Burnley skyline today features some of the original trees planted along the eastern tree line from the 1860s to 1880s. Photo: Helen Vaughan

Stand back on Central Lawn and cast your eyes eastwards and upwards and you can still see some of the original trees that were planted from north to south along the eastern tree line. The view is known as 'the Burnley skyline' and the trees form part of the original planting zone used from the 1860s to the 1880s, including a number of conifers, a preferred species in the Victorian era. The Shady Walk (part of the Burnley Gardens self-guided tour) follows this line and is bookended by two iconic trees – a grand old Queensland Kauri *Agathis robusta* (planted in 1861) and a California Redwood *Sequoia sempervirens* (planted in 1859). In between is the remains of an African Coral Tree *Erythrina caffra*, its massive stump providing an impressive landscape feature along the walk.

Many trees planted at the time were selected to test their suitability as forestry trees, including the Queensland Kauri. It is one of three trees in the Burnley Gardens listed on the National Trust's Register of Significant Trees. Standing at almost 25 metres tall and measuring 1.8 metres in circumference, it is regarded as one of the largest trees of its kind recorded in the world.

## FEATURE GARDEN

The other two National Trust listed trees are a Plum Pine *Podocarpus elatus* and an English Oak *Quercus robur*. Other iconic trees include a Dutch Elm *Ulmus × hollandica* and an English Elm *Ulmus procera* that stand either side of the roadway leading up to the administration building and on Oak Lawn is an English Oak *Quercus robur*. The elms were planted in the 1860s and were once part of an avenue of elms that led down to the punt crossing on the Yarra River.

There are still River Red Gum *Eucalyptus camaldulensis* remnants from before European settlement, some thought to be as old as 400 years. Specimens can be found in the newer, western section of the gardens in the Native Grasslands and Native Australian Garden – and just beyond the boundary fence a magnificent Red Gum overlooks the gardens.

### Heritage listing

Burnley Gardens was listed on the Victorian Heritage Register in 2003. The [Statement of Significance](#) recognised the gardens as being historically, scientifically and aesthetically significant: historically, for its role as Australia's first school of horticulture and the influence it had in training some of Victoria and Australia's leading horticulturalists; scientifically, for its collection of mature trees on-site including some of the 'oldest and finest trees in Victoria'; and aesthetically, for the design of the ornamental gardens.

Burnley Gardens is built on a solid tradition of horticultural learning that is embedded in the landscape and history of the place. In 1997, The University of Melbourne took over the campus and gardens, and continues to manage it today.



1940s heritage-listed administration building.  
Photo: Helen Vaughan



The Demonstration Green Roof on the main administration building opened in 2013 – one of the most recent collaborations between students and staff.  
Photo: Andrew Smith

## Acknowledgements

I'd like to thank the current Burnley Gardens Facilities Manager Andrew Smith for his assistance in helping me research this article. A graduate of Burnley, Andrew has worked there ever since. His knowledge of the gardens is matched by his willingness to share this knowledge. Needless to say, any errors in this article are mine alone.



Preparing the ground – agriculture and small farming courses were taught in the early years.  
Source: Burnley Archives

## References

<sup>1 & 2</sup> Winzenried, A.P. (1991). *Green grows our garden : a centenary history of horticultural education at Burnley*, page 17. South Yarra, Vic.: Hyland House, 1991

<sup>3</sup> Pullman, S. (2017). 'Women gardeners without chaperones: the role of Ina Higgins in advancing women in horticulture in Victoria'. *The La Trobe Journal* No. 99 March 2017. Retrieved from <https://www.slv.vic.gov.au/sites/default/files/La-Trobe-Journal-99-Sandra-Pullman.pdf>

Friends of Burnley Gardens website Viewed: <http://www.fobg.org.au/blog/about-the-gardens/2563-2/>

Pullman, S. (2016). Stewth! Women gardeners, with no chaperone! *GardenDrum*. Retrieved from: <https://gardendrum.com/2016/01/18/stewth-women-gardeners-with-no-chaperone/>

Victorian Heritage Register. Burnley Gardens Statement of Significance, Victorian Heritage Register, 17 December 2003 Retrieved from: <https://vhd.heritagecouncil.vic.gov.au/places/1892>

The University of Melbourne, School of Ecosystem and Forest Sciences and Friends of Burnley Gardens. Burnley Gardens Walk app Retrieved from: Google Play

## Burnley Gardens Walk app.

Download the Burnley Gardens Walk app. and take a virtual tour around the site or have it on hand when you visit the garden. This informative guide is supported by narrated text as well as comprehensive notes.

# Travels with my grant

Megan J Hirst, Royal Botanic Gardens Victoria  
(BGANZ Professional Award Scholarship Recipient 2018)



The green sweep of lawns rolling down to the central lake in summer, Chicago Botanic Gardens.  
Photo: M.J.Hirst, 2018

*For one glorious week in July I was fortunate to escape wintry Melbourne for some summer respite and spend time with Mr Richard Hawke, the Plant Evaluation Manager and Associate Scientist involved in the Plant Evaluation Program at the Chicago Botanic Gardens (CBG). I was keen to find out more about this program as I thought it would provide some insight into developing a protocol for my work in Melbourne. Richard's program, which he has managed since 1982, is now one of the largest of its kind in the United States, focussing on evaluating plants for local climatic conditions. The program covers an impressive range of flowering perennials.*

As the seasons are quite distinct in and around Chicago, with strong winter winds and snow, and high summertime humidity (plus strong winds!), identifying species that grow well under these challenging conditions is essential. Therein lies the idea of assessing the horticultural potential of cultivars, as well as wild-collected species for the seasonally



Evaluating plants in cultivation A: Rows of flowering Phlox cultivars, B: A view of the evaluation garden showing the pathway that circles the growing areas, C: Rudbeckia cultivars in flower.  
Photo: M.J.Hirst, 2018



challenged Chicago and Northern Illinois home gardeners. Richard and his colleagues match the local climatic conditions plants experience throughout a trial period, with individual plant health and growth also recorded. The end result is a comprehensive plant evaluation guide for local gardeners and horticulturists alike to select plants for their ornamental qualities, cultural adaptability, winter hardiness and pest and disease resistance.

Richard demonstrated how he assessed individual plants throughout a growing season, how he coded traits and considered the relevance of some traits over others (depending on the species). We discussed ideas for developing selection protocols on species we may know very little about and what traits may be important. Richard does his homework. He will not recommend a plant to the public unless he can back it up with results from his evaluation work. This considered approach no doubt contributes to the longevity of this program and the volumes of ornamental plant evaluations written by Richard over the years, which are freely available to the home gardener. I am keen to develop an evaluation program acknowledging Richard's protocols as benchmarks, which I could adapt for examining the horticultural potential of rare and threatened Australian plants.

**This considered approach no doubt contributes to the longevity of this program and the volumes of ornamental plant evaluations which are freely available to the home gardener.**

My CBG itinerary (thoughtfully devised by Richard) involved meeting other staff across the organisation. I met with Barb Kreski, the Director of Horticultural Therapy and her team of amazing volunteers. I gained an understanding of the infrastructure necessary to create engaging and accessible gardens for people of all abilities and differing needs, such as sensory spectrum disorder, stroke recovery, and post-traumatic stress disorder.



The Enabling Garden. A: Barb Kreski (centre) and two of her horticultural volunteers, B: The Veterans Garden. Photo: M.J.Hirst, 2018

## PROFESSIONAL NETWORKS

Geneticist (and ex pat) Jeremie Fant showed me around the science labs. I thought the proximity of the lab spaces to the nursery and plant evaluation gardens was an important design feature, which enabled a direct relationship between lab bench and plant bed. A car trip with Richard and his intern Patrick to Chicago's south side to meet Eliza Fournier, the Director of Programs for Urban Agriculture gave me an amazing insight into CBG's community outreach programs. I visited a joint project, Farm on Ogden, involving CBG and a local health-care centre. Farm on Ogden is a training provider for local youth and community groups in growing sustainable crops.



Windy City Harvest, Farm on Ogden  
Photo: A: The outdoor plots showing a healthy crop of tomatoes, B: Rows of crops ready for harvest, C: Eliza Fournier (centre) talking to our group about the Chicago Botanic Gardens community programs, D: Preparing the harvest for local community members to enjoy. Photo: M.J.Hirst, 2018

Back in Melbourne our plant evaluation trials are taking shape. Through the guidance of Warren Worboys, the Horticulture Curator of Royal Botanic Gardens Victoria's Cranbourne Gardens, and colleagues we are preparing the outdoor research plots (within the Australian Garden) ready to plant out some intriguing species. Our target list is growing and so too these rare beauties: *Podolepis robusta*, *Xerochrysum palustre*, *Brachyscome tadgellii*, *Rutidosis leptorhynchoides*, *Leucochrysum albicans* var. *tricolor* and *Argyrotegium nitidulum*.

Come and see our progress at the [Research Garden](#) when visiting Cranbourne Gardens.

Thanks to BGANZ for supporting my professional development and seeing the potential such awards can bring to those working with plants.



The alpine endemic *Brachyscome tadgellii* flowering in the Burnley Campus nursery, The University of Melbourne. Photo: M.J.Hirst, 2018

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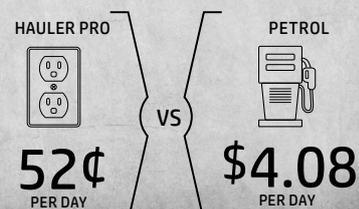
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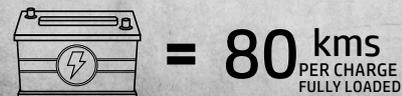
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# Calendar of conferences and events

## 4th Xishuangbanna International Symposium – Saving all plants in a changing world

Xishuangbanna Tropical Botanical Garden,  
China

3–4 January 2019

[Find out more](#)

## The First International Scientific Conference – Advances and perspectives of biodiversity research and conservation in Georgia

National Botanical Garden of Georgia

20–22 May 2019

[Find out more](#)

## American Public Gardens Associate Conference – Thrive Together: Diversity Grows Gardens

Washington DC

17–21 June 2019

[Find out more](#)

BGANZ Registration worth \$US800 available

## 6th Australasian Botanic Guides Conference – Beauty Rich and Rare

Kings Park and Botanic Garden, Perth

16–20 September 2019

[Find out more](#)

## 9th BGANZ Congress – Plants from the past, plants for the future

Wellington Botanic Gardens, New Zealand

20–23 October 2019

[Find out more](#)

### Key dates

- First call for papers: January 2019
- Abstract deadline: 31 March 2019
- Presenter's deadline: 1 February 2019
- Early bird registration: 26 July 2019
- Opening function: Sunday 20 October 2019

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