



Presidents Report - November 2019

Since the last newsletter I have been to Switzerland to visit my daughter and eight year old grandson Cash, who came to stay with us from Switzerland for six months in January. This visit extended to seven weeks with side trips to Spain and Corsica, so I feel very lucky.

I would like to thank the committee and others who stepped in to run the ship while I was away which was done most admirably during this busy time for the Friends. In September there was a very interesting talk by curator Guillaume Jacobs on the **Botanic Garden's palm collection, followed by** the October Banks and Solander celebrations with two visiting speakers, Ewen Cameron, curator of Botany at Auckland Museum and Malcom Rutherford, curator of the 1769 garden in Gisborne. I was sad that I missed these events and I know you will be interested to read the summary of our Banks and Solander week, written by Bindy Barclay in this newsletter.

By the time this newsletter goes to print we will have had talks by Luke Martin, curator of the New Zealand section and Kate Roud, from the Royal Botanic Gardens Melbourne, who looks after the New Zealand collection there. Vicki Steven has also led a trip to **Fisherman's Bay and French Farm Gardens on Banks Peninsula**. A very busy November.

The plant sale at the beginning of October was very successful with sales reaching \$4,530. Many thanks to the Propagating Teams who worked very hard on a hot Canterbury day. Thanks also to the Visitors Experience Team for advertising this event.

We are ready to fill our events calendar for 2020 so if you have any suggestions/requests for speakers or visits please contact me via email or phone.

2019 will be ending with several Botanic Garden projects completed.

The wheelchair that the Friends purchased for the Kiosk has been well used and appreciated by visitors. **You can borrow this chair from the Kiosk any day between 10.00am and 4.00pm.**

We are currently installing a new shade house at the propagating nursery to expand our capability to grow more plants for sale and keep up with demand.

A new Commemorative Tree brochure which the Friends commissioned has been completed and gone to print. This has been a major effort and I would like to thank Graham and Penny from the committee, Lachlan Hunter from the Friends, and Wolfgang and

Sue Molloy for their dedication to this task. Jennifer Kenix (graphic artist) has made a stunning job of the design so do have a walk around with the brochure which will be available from the

Information Centre and the Kiosk very shortly. I know the Guides will make very good use of it.

Two Garden information panels will be in place by Christmas; one telling the story of the cicada which will be in place over the summer months, and the other about the Teucrium Moth found by Brian Patrick which will have a permanent place. These panels have been commissioned from the Biodiversity survey that the Friends paid for at the end of 2017. Karyn Durham from the Visitors Experience Team has made a fantastic job of designing these panels. Watch out for them on the pine mound and in the Leonard Cockayne garden respectively.



Veronica laudiana

Banks Peninsula
Sun Hebe

Endemic to Banks Peninsula
Christchurch

A TREETOP CHORUS

If you are here on a warm sunny day you will be serenaded by thousands of cicadas 'singing'.

Māori know this cicada as kīhikīhi-kōwhiri - kōwhiri meaning to 'tear like the sound of heavy rain'.



There are 42 species of cicada in the Zealandia. The Chinese Cicada is the most common and usually green. It is also the largest with a wingspan of up to 6cm.

Can you see any cicada skins on the tree trunk?

Friends of the Christchurch Botanic Gardens

Friends of the Christchurch Botanic Gardens is an Incorporated Society. We are a not-for-profit organisation. All proceeds from our events go to the Gardens.

During August the committee awarded the following grants to staff.

Tim Connolly, CBG trainee, to attend the Canterbury University Cass Field Station (Biology 305) in January 2020.

Luke Martin, curator of the New Zealand plant collection, to attend The NZ Plant Conservation Network and Australasian Systematic Botany Society combined conference in Wellington.

Dr Janet Cubey, volunteer herbarium curator, Lawrie Metcalf Herbarium, to attend the 9th BGANZ Congress at Te Papa, Wellington to present on the Lawrie Metcalf Herbarium.

Heidi Connolly, collections curator at Mona Vale, to attend the 'Melbourne International Flower and Garden Show', March 2020. Heidi will also visit the

Melbourne and Cranbourne Botanic Gardens which have excellent examples of drought tolerant plants.

The committee are very pleased to fund these grants on your behalf to support the development of the staff and raise awareness of the Botanic Gardens. These grants are over and above what is funded by the CCC.

Thank you to you all for your continued support of the Friends; we would love to increase our membership so please spread the word.

We hope to see many of you at the Christmas party on Sunday 8 December.

Merry Christmas
Jeanette Christensen



Gardens News

From Director of Botanic Gardens and Garden Parks

A Royal Visit

Saturday 23rd November, a beautiful late spring day, bright and sunny with the odd cloud. For the Christchurch Botanic Gardens and its Friends and volunteers a very special day was unfolding. The Duchess of Cornwall had kindly agreed to a private visit to the Gardens. Not being part of Her Royal Highness's public engagements meant we had to keep it private, hence we were not able to share it with all of you beforehand. Her Royal Highness enjoys plants and gardens and it was therefore appropriate as her final event of the recent visit to New Zealand. Everything was ready and at noon Her Royal Highness's car arrived, being met by the Mayor of Christchurch and myself as Director of the Gardens.

We enjoyed a leisurely walk over the Woodland Bridge to the big *Eucalyptus*, the Native Garden and concluded in the Central Rose Garden.



The Duchess meeting Friends of the botanic gardens.

Along the way Her Royal Highness met one of the young people that has helped at the Gardens as part of her Duke of Edinburgh award, as well as a number of staff, Friends, volunteers and the Vice Chairman of the Charitable Trust.

Thank you to all the staff, the Friends and volunteers for your help and support in the build up and during the day. It is to your credit that it was such a success and such an enjoyable day for all. We were able to highlight a number of aspects of what we do and share the great value all of you add by being ambassadors for the Botanic Gardens, volunteers and general supporters. A sign of Her Royal Highness's enjoyment of the visit was that she wanted to stay longer but had a flight home to catch.

I wish all of you a peaceful and enjoyable Christmas time and a very happy New Year.

The Duchess of Cornwall planted a cabbage tree in the Icon Garden, a first for Her Royal Highness as a ceremonial planting.

Wolfgang Bopp



Ceremonial tree planting.

Botanic gardens plant collections team

While the collections team's focus is on the development and maintenance of the collections within the botanic garden there really is one aspect to this team that sits over every other requirement. That is people.

The year has proven challenging at times, but with many positives also. We have had new staff join the team, Nathan Trent as Collection Curator for Section D Central Rose Garden, and Grant Matheson as Parks and Gardens Maintenance officer. Grant is based around the Rock Garden.

The Conservatories Nursery team have two new staff in the conservatories. Paula Silva is the new Collection Curator and Marcela Moreno the new Parks and Garden Maintenance officer.

This year has seen an increase in the number of **Garden's Friends who are volunteering in the grounds**. This has been a huge positive to the Gardens and to the team. Volunteers work alongside collection curators assisting with their work and gaining an understanding of how the gardens run. This has provided invaluable help and support for the gardens both on the grounds but also building the Gardens/Friends relationship.

A huge thankyou to all our volunteers from myself and the rest of the collections team. I also would like to thank Jeanette Christensen for making this happen.



Ursula and Grant Hadley working with Guillaume in the Gardens.

The Collections Team, along with members of other teams within the gardens, were tasked with the job of processing the many thousands of floral tributes that were placed along the Rolleston Avenue wall. This was a large job that required the moving of the flowers from the fence to a large room within the **Art's Centre where the flowers, paper and ribbons** were sorted and the messages dried out and saved. This took many days to complete and was at times emotionally challenging. I am incredibly proud of all our colleagues that saw this process through. May it never have to be repeated.

Richard Poole
Botanic Gardens Plant Collections Team Leader



Articles

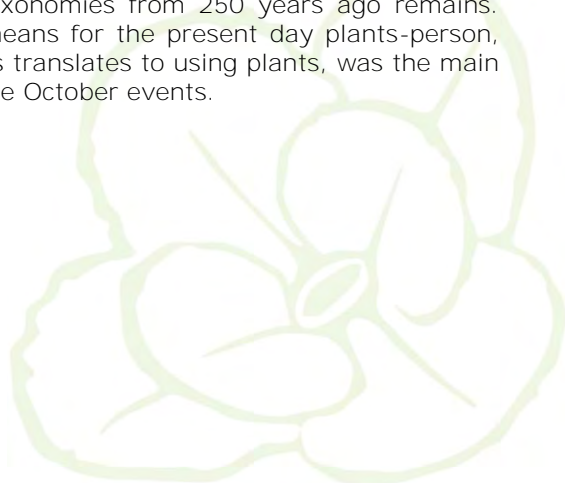
Banks and Solander - Looking Back on 250 years

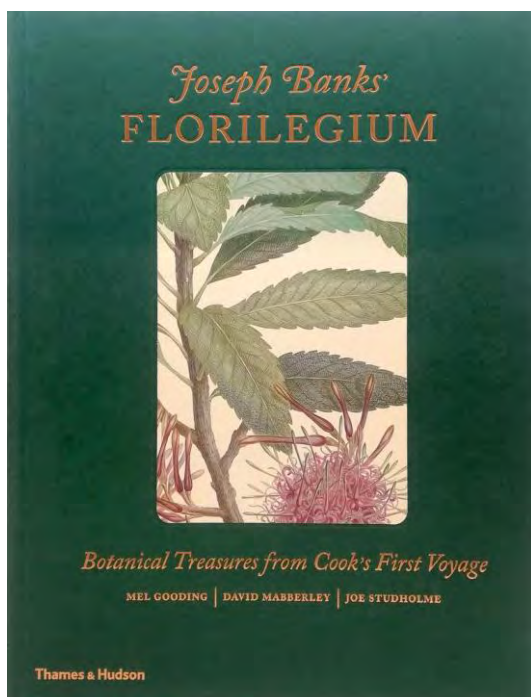
During October the Friends hosted several events and displays to remember and reflect on the work of the first European botanists who arrived on the *Endeavour* and 250 years of botanic legacies since. Those who did not attend the events certainly missed some treats. The Friends were gratified to discover the clear passion for detailed botanic knowledge which the audiences sustained. We hope to offer more in this vein in future.

Two talks, a display and a guided walk, referencing but not officially part of the Tuia 250 commemorations, highlighted links between the work of naturalist Joseph Banks, the botanist, Linnaean and museum curator Dr David Solander, and the scientific team that accompanied them on the 1769 voyage. Already firm friends before embarking, Banks and Solander were part of a network with strong links to the relatively new Royal Society and other scientific societies. At 26 years old Banks was a major funder of the voyage, inspired by a wonder and fascination for all things natural. Solander, older and more experienced had requested a place on the voyage to be able to continue the work, so avidly expanding in Europe, of collecting and classifying as

much of the natural world according to Linnaean order. With their illustrator Sydney Parkinson, they collected thousands of specimens from more than 70 species of plants at the six New Zealand sites where Endeavour landed. Pressed carefully, documented in detail and sketched with precision and notation they used plant collecting technologies that have changed little over 250 years. This work, together with the plant collections from the rest of the voyage, became the basis for the *Banks Florilegium*, eventually published in full in this century.

The story of this voyage and Banks and Solander's roles, motives and intent have been widely debated. However, for the gardener or botanist today, the legacy of taxonomies from 250 years ago remains. What this means for the present day plants-person, and how this translates to using plants, was the main theme for the October events.





Banks Florilegium.

Two speakers, whose talks are briefly summarised below, travelled to Christchurch to speak to very appreciative audiences.

Ewen Cameron, Curator of Botany at the Auckland Museum detailed his longstanding work tracing and linking the first descriptions and illustrations of New Zealand Flora. The prime resources for this work are the original herbarium records of the New Zealand specimens. As well as those held in New Zealand, some Ewen Cameron personally revealed within the collection at the British Museum while others he has traced to several disparate locations such as Sweden and the US. The latter reflect the tendency for collections to be sold and travel to the locality of the buyer. The other key reference work is the meticulously detailed manuscript by Solander which, probably due to his early and untimely death in 1782, has never been published and is not widely known. *Primitiae Florae Novae Zelandiae* (First Fruits of Flora of New Zealand) has never been fully translated from its original Latin yet holds a wealth of taxonomic and, importantly, indigenous detail. By drawing carefully from these sources, Ewen has been able to triangulate the probable location and original collection notes of samples collected in 1769. His **work makes links from Solander's names to those now commonly used**, in many cases reflecting how subsequent plant hunters who, unlike Solander published, are credited with the taxonomy. Such **specific work highlights the importance of Solander's contribution** and may in future allow comparisons for evolution of species and shed light of endangered **plants and ecosystems**. **Ewen's work is due for publication in the near future.** A sense of the extent of this work can be found at:

www.waikaruru.org/assets/documents/1769TairawhitiSpeciesBanksAndSolander.pdf

The second talk, by Malcolm Rutherford, of the QEII Trust, described his work as curator of The 1769 Garden, part of the Waikeruru Ecosanctuary, Turanganui (Gisborne). A project initiated by Dame

Anne and Jeremy Salmond, designed by Philip Smith of O2 Landscapes, whose kaitiaki (guardians) are Malcolm and Department of Conservation's Graeme Atkins tohunga taiao (environmental experts) Ngāti Porou. The garden features plants that grew in the region when Banks and Solander collected there. Many now rare or endangered, 52 of the 73 species have been planted in a manner that intentionally **challenges a visitor's understanding of 'native' and familiar**. By showcasing rare and interesting plants the garden evokes some of the strangeness that the **Europeans may have felt when arriving**. Stone mounds, used cunningly for practicality and maintenance, replicate the kūmara garden layout described by Banks. In time, a blaze of kōwhai will reflect that observed by the visitors as *Endeavour* made landfall.

Malcolm shared the profiles and features of the **plants which can be seen in detail at the garden's website** www.waikaruru.org/1769-garden/. He discussed these and described how the mature garden will stand in the landscape. It was a talk of stories which wove the experiences of those whose collaborative work has established the garden with the stories of the plants themselves. The garden seeks, through its Welcome Centre, to educate, and to reflect on the irrevocable change that was begun when James Cook arrived at the mouth of the **Waimatā River in October 1769, bringing the Ra'iatean star navigator Tupaia and the first Europeans ashore**. Through ancestral knowledge, science, art and immersive experience, children explore the challenges faced by indigenous plants and animals, and how to safeguard their future.



1769 garden from above.



1769 garden. Stone rows and mounds are used to showcase rare and interesting plants, for instance tarakupenga (*Coprosma acerosa*), tūkōrehu (*Plantago raoulii*), kōpata (*Pelargonium inodorum*)

Herbarium Displays:

With the support of the Allan Herbarium, Landcare Research, the Friends also mounted a display of images from its Banks and Solander herbarium. Other herbaria in New Zealand are at the Auckland Museum and at Te Papa. These can be viewed as part of their digitised collections. The British Museum, functioning now as the Natural History Museum in London maintains the original Banks Herbarium. (Original specimens from the Allan Herbarium can be seen currently at the Christchurch Museum. *He Uru Hou: Our Native Plants* brings together Māori and European ways of understanding Aotearoa New Zealand's flora).

A slide show ran continuously while the kiosk was open, which further detailed the herbarium, and the

botanic legacies of Banks and Solander. Many people commented that after undertaking the guided walk (see below) it was great to view this presentation and glean more knowledge.

The Christchurch Botanic Gardens Library contributed a number of key effects to the displays. An example of a Solander box – still the standard for museum curation, a 19th century plant collecting case, and a plant press, probably similar to that used by Solander were kindly lent. There is currently an **exhibition of books at the garden's library**. Friends can access the library by asking at the Ilex desk. Borrowing can be arranged by contacting Librarian Sue Molloy Sue.Molloy@ccc.govt.nz

Bindy Barclay

Garden walk: legacies of 1769

Although *Endeavour* did not land close to the peninsula named for Banks, the flora native of the region and many that can be found in the gardens carry the legacy of the 1769 collections through their names. A special guided walk was prepared for the commemoration. The plants highlighted by the Friends guides on their walks for Captain Cook's 250 years were those in the Gardens named for Cook, Joseph Banks and Daniel Solander.

Astelia solandri
Carmichaelia solandri (now *Carmichaelia australis*)
Nothofagus solandri (now *Fuscospora solandri*)
Banksia grandis
Banksia integrifolia
Banksia serrata
Banksia spinulosa var. *collina*
Phormium cookianum
Olearia solandri
Cordyline banksii
Rhabdothamnus solandri
Carex solandri
Freycinetia banksii
Streblus banksii

Note: the New Zealand Plant Conservation Network describes the conservation status of *Streblus banksii* as being **AT RISK – RELICT** (2012). That is, it may once have been quite widespread but the current distribution is sparse and rarely common anywhere except on rodent-free offshore islands in the Hauraki Gulf and off the eastern Coromandel Peninsula.

Cook's *Endeavour* voyage is still considered to be perhaps one of the most scientifically rewarding voyages of all time. The great scientific illustrator Sydney Parkinson was also on board as part of "Team Banks". The shrubby rata *Metrosideros parkinsonii* is named for him. Currently this plant has a conservation status **NATIONALLY VULNERABLE**. Its distribution is the West Coast of the South Island north of Hokitika and both the Little and Great Barrier Islands where the populations of them are now threatened by myrtle rust (DOC 2018). **Parkinson's rata doesn't feature in the Gardens collections – perhaps we should *endeavour* to obtain one!**

For those of you who would like to read more about this voyage and its personalities, come and have a look at the display shelves in the library which I have featured with said publications.

Sue Molloy

Plants from the past: the Lawrie Metcalf Herbarium

This was the title of my lecture at the BGANZ Congress *Plants from the past – Plants for the future* in Wellington this October, highlighting just a few of the treasures within the Lawrie Metcalf Herbarium (CHBG). It was great to be there, representing Christchurch Botanic Gardens, together with more than 100 people from Botanic Gardens across New Zealand and Australia. I could only be there thanks to the generosity of my three sponsors, the Friends of the Christchurch Botanic Gardens, the Royal Horticultural Society and BGANZ – thank you!

I started working my way systematically through the Herbarium at the turn of the year, one day a week,

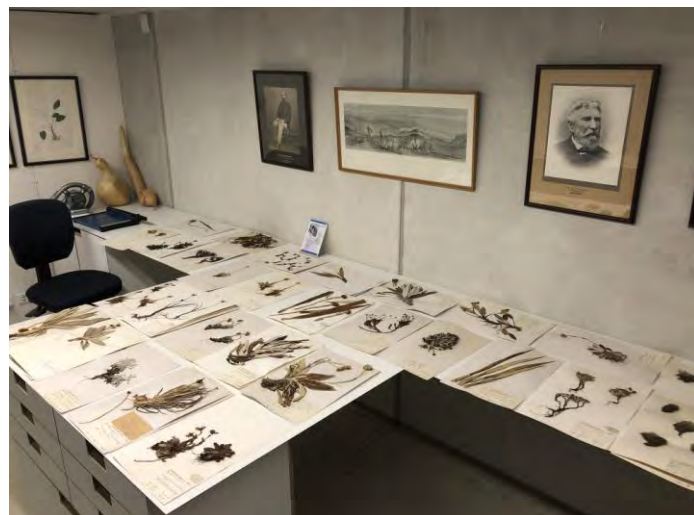
building on work that others have done before me. **As I go through, I'm checking and updating/adding the data for every single specimen, ensuring they are all correctly in sequence for easy future retrieval, carrying out nomenclatural determinations, deciphering handwriting and sorting out previous misinterpretations, and gaining personal insight into the cultural history of the specimens. I'm also gathering together all the specimens that originated in a Bulgarian Herbarium that have previously been gifted to the Allan Herbarium at Landcare Research – Manaaki Whenua but not yet transferred to them.**

When I spoke at the Congress, I had already checked more than 2000 specimens: all the ferns and fern allies, all the gymnosperms, and then through to *Cyperaceae* in the angiosperms (all the angiosperm

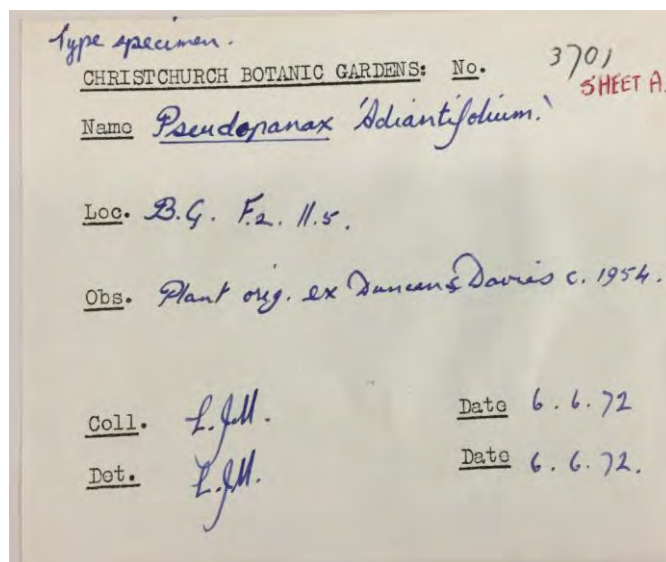
families are filed alphabetically). In that work I have also discovered more than 140 specimens that had either previously been recorded as “missing” or just not recorded at all.

I love the mixture of native and cultivated plants in the Herbarium. As a horticultural taxonomist, I’ve used Lawrie Metcalf’s books for years (yes, even in the UK) and now I’m exploring his specimens and celebrating the importance he put on specimens of cultivars – long before this importance was recognised properly in the *International Code of Nomenclature for Cultivated Plants* (ICNCP). Over twenty years before the ICNCP introduced the concept of Nomenclatural Standards for cultivars (the equivalent of Type Specimens for species), Lawrie was annotating specimens of cultivars with “Type Specimen” or “The Type”. By doing this he was saying that it was important for cultivars to have a fixed reference point too, that he knows that specimen is from original material and that it is true to that cultivar.

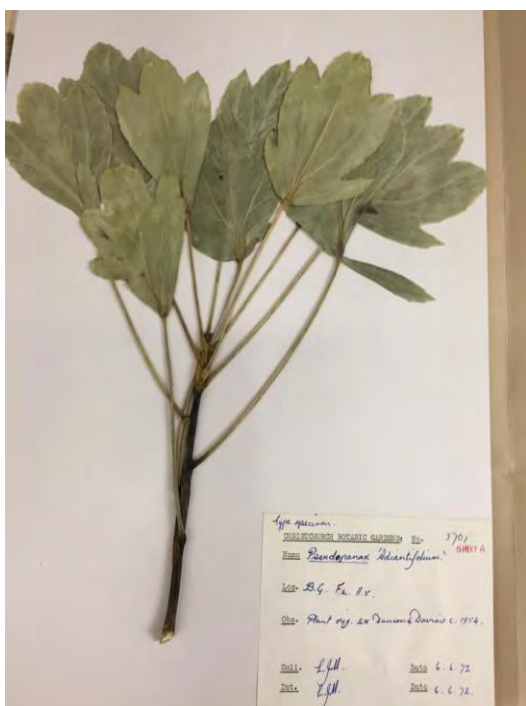
Just one example is *Pseudopanax* ‘Adiantifolium’, where he has collected material growing in the Gardens that came from the originator of that cultivar in the 1950s. Sadly, Luke Martin tells me that the large plant in the Gardens died in the winter of 2017, but the original cultivar “lives” on through the specimen in our Herbarium. Some say Lawrie considered this to be a hybrid of *Pseudopanax lessonii* and *P. crassifolius*, but what he said in print is that, “Its parentage is not known with certainty but it probably includes *P. lessonii*” and he went on to say, “the correct plant is now rare in cultivation and those usually sold under the name ‘Adiantifolium’ are hybrid seedlings that bear only a resemblance to the true cultivar”. This is why plants these days are usually referred to Adiantifolium Group instead of the cultivar ‘Adiantifolium’ – but we have a way of identifying those that do represent the cultivar, thanks to the “type” specimen in the Lawrie Metcalf Herbarium.



Celmisia specimen sorting day in the Herbarium.



A close up of the label



The “type” of *Pseudopanax* ‘Adiantifolium’.

And to the future? I’m going to keep on working my way systematically through the Herbarium; there are many more angiosperms to go and then, last but not least, the bryophytes too. Once the Gardens have a new database, I’ll coordinate another pass through the herbarium to add barcodes to each specimen and take high resolution images so that eventually we can put them online. I’m noting specimens that will need some conservation work in the future (mostly removing sellotape!), and next year we’ll restart active collection in the Gardens, continuing to build the Herbarium as an important archive for the future.

I can’t do everything myself, so next year I’ll gradually be recruiting some more volunteers to work with me. I know that some of the Friends put their names on a list for herbarium work many years ago ... so I’ll be in touch with you first, just in case you’re still interested!

Dr Janet J Cubey,
Volunteer Herbarium Curator (CHBG)

Kings Park Guides Conference

Every two years a conference of "Australasian Botanic Guides" is held at one of the member Botanic Gardens. (Christchurch hosted this conference in 2013). **This year's conference was held at Kings Park in Perth to coincide with the wildflower season in WA.** Alan Morgan and I attended on behalf of (and with support from) the Friends. We also enjoyed a 4 day pre-conference wildflower tour. The colours and variety of wildflowers ranging from ever-lasting daisies to acacias, myrtles, eucalypts and orchids made a deep impression.



Western Australian wildflowers. (Google Image).

The conference consisted of 3 types of activity over 4 days:

The plenary sessions were addressed by eminent scientists, including Prof Kingsley Dixon of Curtin University, and Grady Brand and Digby Grown of Kings Park. The emphasis was on climate change and ecological restoration. Kings Park scientists play an important role in seed collection and propagation of Australian native plants. The recognition of former Aboriginal occupancy of the site was an interesting side note to all the presentations.

Walks were held on Tuesday and Thursday afternoons, enabling us to experience the different styles of the Kings Park guides. Themes included historical figures, wildflowers, photography, birdlife and the Kings Park nursery.

A full day trip on Wednesday enabled delegates to view native bushland on the fringe of Perth. The tour I chose went high up into the Darling Scarp where **Perth's water catchment dams are located.** We were able to see examples of ecological restoration, both successful and unsuccessful.



Darling Scarp vegetation. (Google Image).

Opportunities to compare notes with guides from other Botanic Guides were serendipitous at morning tea and lunch times. Some gardens have enormous numbers of volunteers and offer free walks 2 or 3 times a day; others only have guided walks once a month! All guides shared an unbounded enthusiasm for "their" garden and a desire to share the wonderful world of plants with visitors.

The conference concluded on a high note with an informal dinner in a restaurant within the Park, overlooking a large lawn where we were entertained by the "Adorable Florables", a performance troupe made up of Kings Park staff who dress as Australian wildflowers.



Adorable Florables. (Google Image).

The 2021 conference will be held at the Melbourne Botanic Gardens on 11–15 October.

Vicki Steven



Whitby Jet

I first heard of jet, the black gemstone, from my mother, always a wealth of information. She was showing me a jet bracelet that had belonged to her mother who was born at the end of Victoria's reign. The second encounter was whilst guiding in the Botanic Gardens. A couple from Whitby, England, were charmed by the Gardens and he sent me some figurines he'd made of local jet, and some pieces of the very black and shiny mineraloid. Wikipedia says its precursor is a sub-bituminous type of coal, or lignite, derived from wood that has been changed under extreme pressure over a very long period.



A piece of Whitby Jet.

When I was growing up on a farm in Southland we used lignite on the open fire from huge lignite deposits at Waitane in Eastern Southland. The jet that got me inspired to do more research was mentioned by presenter Fiona Bruce on the Antiques Road Show. Referring to some jet brought to the jewellery specialist she remarked that it began its life as the monkey puzzle tree.

There are references to jet being used as far back as 10,000 B.C. as part of ancient medicine kits, and it

was said to have been favoured for clearing the aura of impure energies.

Araucaria araucana, the monkey puzzle, once grew along a two mile stretch of coastline near Whitby, in North Yorkshire (where our Botanic Gardens visitors lived). It seems that Whitby jet was not mined, but collected along the beaches and then sent to Eboracum (modern York) for production. The Romans saw it as a magical material, using it in amulets and pendants, a protective material that could deflect the gaze of an evil eye, so to speak. The adjective 'jet-black' derives from this material. Jet jewellery was very fashionable during Queen Victoria's reign. She wore Whitby jet and made it popular as a mourning stone after her husband, Prince Albert's, death. Jet was highly regarded as the traditional material for rosaries being very easy to carve, although it was difficult to carve fine details without breaking it.



Family heirloom, jet necklace belonging to Carol Randal.

Di Magden

Magic Monkey Puzzle

National Tree of Chile *Araucaria araucana* is an evergreen tree native to Central Chile and Southern Argentina. Commonly known as the Chilean pine, it's not actually a member of the pine family but both Monkey puzzles and pine trees belong to the plant order Pinales. They lose their lower branches as they mature, and can grow to 45m or taller in their long life. Some trees live to 1000 years; Christchurch's best example is on a stretch of open lawn on Radley Street, Woolston.

Leaves of the dioecious Monkey puzzle overlap each other and completely cover the branches. Some say these sharp leaves look like reptile scales but they are painful to touch.

The comment 'a monkey would puzzle how to climb it' was made at an official dinner and so the name became common.



Araucaria araucana on Radley Street

Male and female cones are 7-12cm long, and heavy. Pollination is by wind and the cones take at least 18 months to develop. The mature seeds are large and delicious, about the size of an almond and eaten raw, boiled, roasted, milled for flour and fermented.

The Monkey puzzle tree came to England as seed nuts in the pocket of British navy surgeon, Archibald Menzies, who was also a plant collector. He was on a voyage on the HMS Discovery captained by Captain George Vancouver when they were hosted to a dinner by the Governor of Chile. Bowls of Monkey puzzle seed nibbles were taken back to the ship,

potted up on board by Menzies and 5 young trees had surfaced by the time they returned to England.

Araucaria araucana are now endangered due to deforestation caused by logging and burning to clear land. These giants don't reproduce for up to 30 to 40 years after seed germination, so the great forests that once clothed the Andes are under threat.

There is evidence to suggest that the very long necks of Sauropod dinosaurs may have evolved specifically to browse the foliage of these giant trees.

Di Madgin

World Bicycle Day



www.un.org/en/events/bicycleday/

World Bicycle Day 2019 slipped by without my turning a pedal. So what's it all about? In April 2018 the United Nations General Assembly declared June 3 would become **World Bicycle Day**.

The rationale centred on the longevity of the bicycle as we know it. The bicycles we ride these days have

changed little in concept over two centuries. The UN said the bicycle is simple, affordable and sustainable. It is logical everyday transportation but can also become a useful vehicle for competitive sport and recreation. The bicycle is also a symbol of progress. It is used by all cultures and does not discriminate between the **users'** race or colour. The bicycle promotes tolerance. It has become a culture of peace.

This last point is relevant to myself. In 2004, aged 60, I pedalled the length of Japan as part of a deal to have a World Peace Bell gifted to New Zealand. The bell has since become a striking feature in Christchurch Botanic Gardens. Regular bell ringing events are held. And I intend requesting our World Peace Bell core group to add World Bicycle Day to our calendar of bell ringing events. So, hopefully, World Bicycle Day 2020 will not slip by without a commemoration.

Roy Sinclair

Joya No Kane (The Bells of New Years Eve)

Joya No Kane is a traditional end of year event in Japan. Consul General Tsunakake has proposed we commemorate the end of year, Japan style, in Christchurch. One of our committee is working with BG Director Wolfgang Bopp on a plan to ring our bell 108 times!

"It is the Japanese custom to rid people of 108 bad thoughts". In other words we start the New Year with a clean slate.



Ringling of the Bell, a Japanese New Years Eve tradition. (Google Image).

Di Madgin

Spring weather notes

NIWA alerted us to the exceptional, Sudden Stratospheric Warming (SSW) event above the Antarctic in August with the prospect of a boisterous spring on the cold side. With 2002 the only guide to a previous similar experience, I was expecting late frosts and hail storms and warned gardeners and growers it might be useful to keep frost protection handy into early summer.



Stormy Sky's over Canterbury.

Spring is a capricious time of year and this spring has been no exception. Following another mild winter we entered spring with plentiful soil moisture and prodigious growth and magnificent flowering of an extended nature as September produced average temperatures with no extremes other than above average sunshine and few if any damaging frosts except out on the Plains and in susceptible sites.

October however was more unsettled as the winds turned more to the south, bringing periods of good spring rains and good snowfalls along the foothills. **By month's end the snow base at Mt Hutt reached its maximum at 2.5 m.** Even Hinewai had its first snow of the winter during what is recorded as one of their most snow free winters on their record. October caused very little detrimental comment however as once again there were no damaging frosts and any hail was of a wintry kind. The above average rainfall of 73 mm (av. 59 mm) is always welcome especially as sunshine was still average despite it all. At this site it was the coolest October mean since 2009 at 11.4 °C (av. 12.2 °C). The extreme maximum was a moderate 23.6 °C with only 7 days cracking the 20+ level. The extreme minimum of 1.1 °C (4th) came close to being a problem especially in areas susceptible to frosts where a -3.0 °C air temperature was experienced in places with definite need for frost protection measures to be taken. At this site six days had night minima + 3 °C or below leading to some frosts in those susceptible areas.

But summer arrived with a vengeance as early as 3 November with an extreme of 31.8 °C. After such a benign spring to date this caused some leaf scorching at this site especially on hydrangeas and

rhododendrons. This could become an increasing problem especially as early flowering shrubs are often pruned after flowering opening up canopy to this phenomenon. The first 10 days of November were the hottest of the month with a mean maximum of 23.9 °C (average 18.9 °C). The second ten days brought a magnificent spring rainfall of 42 mm (10th/11th) with a moderate flood on the river system and lower temperatures followed by those two spectacular thunderstorms. The one on the 18th had its associated summer hail, small tornado and associated water spouts off New Brighton. And then on the 20th a second thunderstorm which left storm chasers and watchers breathless and exhausted after such a spate of storms after the storm drought of recent years. This ten days brought the mean maximum temperature down to 18.6 °C, just below the monthly mean of 18.9 °C and gave a rainfall total of 62.4 mm at this site. Such an event is in keeping with that SSW event of NIWA and depending where you were located the results will vary. At this site precipitation of the first storm was mainly in the form of summer hail about large marble size. Exposed parts of the kiwifruit vine suffered significant damage but over-hanging trees prevented total disaster.

Further out on the plains to the south a significant certified organic farm suffered wipe-out to much of the spring-greens sowing or at least significant damage. The similar certified organic farm at Motukarara missed the hail this season as did the property out at Swannanoa only to be hit by the second storm but with no serious damage.



Marble Sized Summer Hail

Then summer returned for the last 10 days of November. The mean maximum returned to 22.3 °C at this site and after a total rainfall for the month at 71.8 mm (average 46.5 mm) and average sunshine, growth has been prodigious and the hail damage on vegetable crops will soon be forgotten but for other crops this will not be the case.

Taken as a whole November has been by far the warmest November on my record (38 years). The mean temperature looks like being 16.4 °C (av. 13.9 °C); the previous warmest was 15.6 °C in 1984 and next down 15.0 °C in 2010.

The mean maximum of 21.6 °C (average 18.9 °C) eclipsed the previous record of 21.0 °C in 1984. Only six years have exceeded 20 °C and none have exceeded 21 °C. The mean minimum was also a record at 11.2 °C (average 8.9 °C) with 2013 the previous warmest at 10.6 °C; 1984 came in with 10.2 °C.

Finally in summary the spring season September-November, has continued to be very favourable for growth with above average temperatures by about 0.6 °C - mean maximum 17.7 °C (average 17.1 °C), minimum 7.6 °C (average 7.0 °C), mean 12.7 °C (average 12.0 °C), exceptional rainfall of 211.6 mm (average 166.2 mm) and good sunshine 575.7 hrs (average 565 hrs).

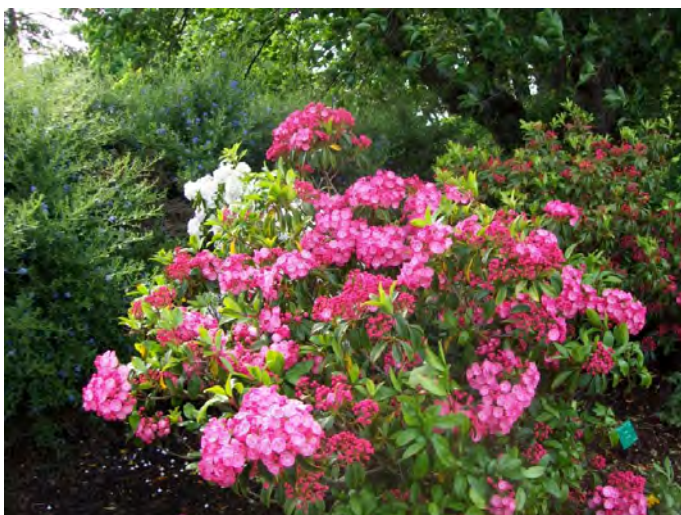
Everything in your garden should be lovely but spare a thought for those caught up in the excitement of those two days 18th and 20th November and be aware that the SSW alert is probably still in force as well as watching out for the Indian Ocean dipole and the possibility of some significant rainfall events.

Wishing you good gardening into the summer season.

Bob Crowder

Some Spring colour in the Gardens

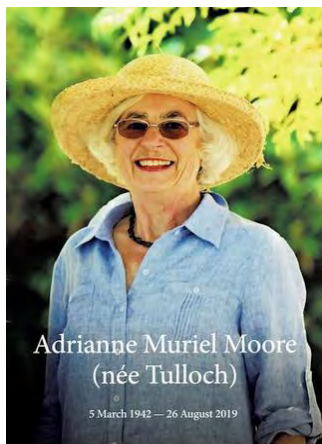
Photos by Phillip Skelton





Adrienne Muriel Moore: Eulogy

I met Adrienne in the BG 30 years ago and we said our goodbyes in the gardens exactly two weeks ago. A wonderful thirty years of friendship crowded with memories. Adrienne was a founding member of the FOBG set up in 1989. She worked tirelessly to help promote protect and preserve the BG. In fact, "tireless" is only one of the adjectives that contributes to a neat description of her.



She was a very active committee member and secretary for several presidents. In many ways she moulded the Friends of the Botanic Gardens and set a high standard for those who followed. She went the extra mile and was rewarded appropriately with a Life Membership for her long service and her contributions.

Within the Friends of the Botanic Gardens there are several sub-groups including the members, the committee, the propagation team and the guides. She was a diligent guide. I still use many of her planned walks for my own guiding. The detail in her research on flora and fauna, Canterbury and Christchurch history and pre-history, was voluminous and accurate and there will be many visitors here and overseas who will remember being guided by Adrienne.



Adrienne receiving her Life Membership award in 2016. With Andrew Rutlage (Head of Parks) on the left and Alan Morgan (President of the Friends at the time).

She would start off without hesitation. "Oh! Yes!", she would say, "We must see *this and this*" and, two hours later her audience was still there. Her Google was books, journals and newspapers and her house was deluged in well-organised paper, as her family will now know. Everything was dated, referenced, and put away for later use. There were photographs as well, and she could have had a career as a garden photographer and journalist. She could win a record for the most records.

We are training some new guides to take our daily walks in the BG. I can hear her voice now. She would ask, "Where is the reference or source and did you mean to miss a capital letter and some italics in that plant description." It was not an annoying interruption; it was just a matter of putting things to rights.

With her love of plants came a vast knowledge that she shared willingly and she was always on the hunt for a new idea, a new plant and a new journey that might reveal some new plants, or stories about them. She freely shared her plants with many, and propagated thousands of replacements in her own garden. Her standards were high and even those who staffed the annual plant sale in the Gardens had to look right and wear a boater hat and a matching apron made by Adrienne. The church we are now in benefitted from her work whenever they wanted to raise money.

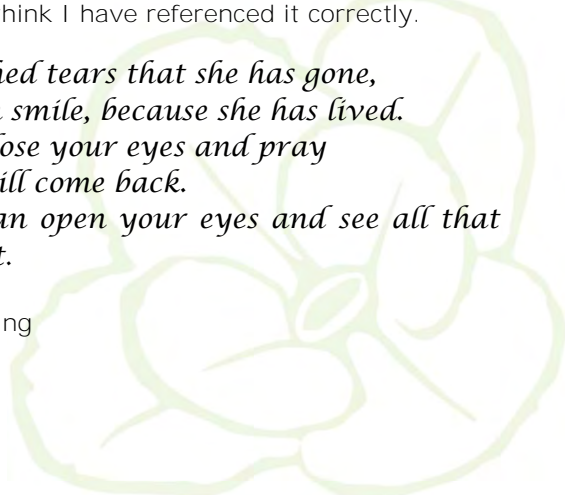
15 Glandovey Road became a mecca for plant lovers and friends. It was a hub of activity - walking around, admiring her collection of plants that were rare, or not in anybody else's garden and she would generously say, "Would you like a cutting?"

Adrienne and Cam were a great team sharing and supporting each other in their chosen interests. They were very hospitable hosts. Many here will have memories of those times that they visited their home. Thank you Cam - and family -for sharing Adrienne with us.

I am going to close, gently (because Adrienne was a gentle lady) and use part of a poem written by David Harkin and read at the Queen Mother's funeral. Adrienne, I think I have referenced it correctly.

*You can shed tears that she has gone,
or you can smile, because she has lived.
You can close your eyes and pray
that she will come back.
OR You can open your eyes and see all that
she has left.*

Faye Flemming





Contact Numbers

Committee

President	Jeanette Christensen	355 5007
Secretary	Graham Chick	385 9264
Treasurer	Pamela Niskanen	
Plant propagation	Don Bell	343 6699
Membership database	Claire Mulcock	027 4415605

Penny Martin, Alan Morgan, Mary Carnegie, Vicki Steven,
Jane Cowan-Harris, Nona Milburn.

Other Contacts

Guides Co-ordinator	Faye Fleming	351 7798
Group guided walks:	Pat Whitman	384 3475
Webmaster	Murray Dawson	321 9645
Newsletter editor	Annette Burnett	dananbur@outlook.com

Enquiries about membership: Claire Mulcock c.mulcock@gmail.com

Gardens enquiries: Information Centre **941-6840 x 7590**

Email: friendsofthegardens@gmail.com

Website: www.friendschchbotanicgardens.org.nz

Post:

Friends of Christchurch Botanic Gardens Inc
PO Box 2553 Christchurch

