

Veronica lavaudiana Sun Hebe Endemic to Banks Peninsula Christchurch

### NEWSLETTER No 138 SUMMER 2024-2025

Doesn't time fly! Here it is 2025 already. I hope you are all enjoying a wonderful summer in your gardens, and of course in our spectacular Botanic Gardens, despite the vagaries of the weather. In

this edition of the Newsletter you will find our President's report as well as a report from the Director. Heidi has written a detailed account of the Heritage Rose Conference she attended in Cromwell in November and Ric Acland regales us with his trip report from Lisbon

I'm sure you have all noticed the ongoing repairs to the Cuningham House, but don't despair, many of the treasures have been stunning displayed in the Townend House, which is looking as gorgeous as ever.

The plant stall has reopened after a brief holiday, with an exciting array of plants. Do look out for the many different colourful perennials. All plants are still \$7 with four ways to pay.

On Sunday 16th February at 4pm we have our monthly talk. The topic is "The Magnetic Observatory - Birthplace of Geophysics in NZ?" The speaker is Laura Jones, one of our very knowledgeable volunteer guides. All welcome. \$5 for members & \$10 for Non-members.



Christmas in the Townend House

Vicki Steven - Editor



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#### Greetings to you all

By the time you read this, the holiday season will be over. I hope you have all had an enjoyable time. It was a pleasure to see so many of you at our Christmas gathering and to hear Wolfgang Bopp speak about his visits to two UK gardens.

I would like to take this opportunity to thank all members of our organization. Just by joining, you help to underline the importance of the Botanic Gardens to the people of our city. We would like to grow our membership and I encourage you to talk about the Friends to your friends and relatives. An especial thank you to those of you who actively volunteer.

At our December meeting I reviewed the year's activities. It has been a particularly satisfying year for the Friends, with several ongoing projects coming to fruition. We started the year with a successful auction of the high-back Welsh stick chair donated to the Friends by David Laird. It has been a great pleasure to see work underway on the Mona Vale Bath House and we look forward to a formal opening next year. The funds contributed by the Friends were of key importance to getting this project underway and we hope to make further contributions to a water feature for the Bath House. A search for a suitable piece is underway. As well, at Mona Vale, we assisted with the design and installation of two donation boards using QR codes to enable contributions from visitors and in the New Year will see the installation of new cycle stands. We have had two sets of note cards produced, with images of the Mona Vale Bath House and of Cuningham House. Please consider purchasing these, available at Mona Vale and the Kiosk - they are very good value. We are very proud to be continuing partial funding for a Gardens trainee for the next three years, and welcomed Alanah Kwant as the second recipient of this scholarship. Two bequests have been made to the Friends in the past year and one of these is to go towards our scholarship fund. Our previous newsletter editor, Annette Burnett resigned and this is new editor Vicki Steven's third newsletter. Thank you, Annette, for your valuable editing work over many years. Finally, we were very proud to have our nomination of Geoff and Margaret Allison for Civic awards accepted - see more below. In the Botanic Gardens, the big event is that work has started on the renovation of

In the Botanic Gardens, the big event is that work has started on the renovation of Cuningham House. As part of this, some of the plants collection has been moved into the adjacent Townend House, which has had strengthening work completed. If you haven't already been in to look, I encourage you to do so. The display is lovely. Near Cuningham House, the fuchsia collection is coming on well and worth a look, and, of course, the rose garden is in full bloom and the dahlia collection just getting going. New planting of mainly South African dry garden plants has been completed around the pine mound. It is a pleasure to see repairs to the Peace Bell completed, entailing rehanging of the bell and having the



Puya alpestris

paving around the bell extended.

The following three images are of plants that have caught my eye over recent weeks. The Puya alpestris is the most extraordinary colour and I always look forward to it coming into flower. Incidentally, it is lovely to see fresh new growth at the yucca beds, as they recover from the recent small fire which was fortunately extinguished before it spread too far. The Fuchsia procumbens, a New Zealand native, is worth a close look at its



Fuchsia procumbens

tiny flowers for the unusual blue pollen. Finally, at the eastern end of the temperate Asian border is this strange shrub, *Helwingia chinensis*, which bears its flowers and berries on the midrib of the leaf

Outside the Gardens, car parking has been a hot topic. Metered parking is now in place for the Gardens car parks, 8am-5pm. This still leaves a morning and evening window for free parking and a positive result has been that it is now much easier to find a park when you visit the gardens during the day. Provision is being made for free parking for volunteers when working in the Gardens. The

PayMyPark app is useful as you can set it to pay only



Helwingia chinensis

for the duration of your parking, just remember to stop it when you get back to your car.

A new newsletter feature: the Presidents quiz question: Where are Flora and Otto? If you don't know, go looking. If you do know, perhaps this could be a goal for your next walk. As a hint, the Heritage Rose collection has been beautiful this year and the new name labels are much more visible. Although the roses are largely over, the perennial underplanting will be lovely for some time to come.

It looks as though we are heading into another dry summer so making the best use of our precious water supplies in our gardens is, I think, going to be the main home gardening activity for the next few months. I had a lovely spring in my own garden and especially enjoyed seeing the results of bulb planting over the past few years, particularly several varieties of snowdrops. Canna lilies are appearing now, so more treats to come.

I would like to wish you all a happy New Year and many more visits to our beautiful Botanic Gardens.



The Friends were delighted when their nomination of Geoff and Marg Allison was accepted for a Civic Award recently, for their work in building up and maintaining the wonderful dahlia beds in the Botanic Gardens. More can be read about their work here: <u>https://www.ccc.govt.nz/culture-and-community/community-awards/civicawards/recipients-civic-awards-2024</u>



L to R: Cr Johanson, Geoff Allison, Marg Allison, Phil Mauger Photo courtesy of Christchurch City Council



# DIRECTOR'S REPORT

#### Cuningham House is being restored and updated for the 21<sup>st</sup> century.

The coming months will see great excitement with Cuningham House being restored and updated to enable us to grow plants better and more efficiently. We do apologise to all that for the time being, there may be some noise and dust to contend with. Sadly, the house will not be open for the next 18 months while the work is being undertaken, but it will all be worth it.

Cuningham House is named after the benefactor Charles Adam Cleverly Cuningham (1850-1915), who was a former law clerk and avid garden admirer and bequeathed £8,000 to the city. In 1923 the city started the work on this magnificent glasshouse to enable the public to see a tropical plant collection.

At a time of low-tech media and no TV, this would have been very special for anybody to see new exotic plants. The house was inspired by a house in Springburn Gardens in Glasgow, Scotland, although ours has been built out of reinforced concrete and not brick.

Completed in 1924 the house is now 100 years old. It is a fitting tribute that we are now in the process of restoring and modernisation. There has been previous work done on the house in the 1970s which included new glazing.

The original heating system began as coal which was changed to diesel in the 1970's. With the construction of the Ilex Visitor Centre the heating system was sized to allow to both complexes to be heated with an underground hot water supply, thus removing the local boiler that was no longer fit for purpose.

#### What will be done?

\* Strengthening to enable the house to better withstand future quakes. This includes main buttresses to be carbon fibre strengthened and cross bracing to be added to the roof space.

\* Clean, locally repair and repaint the steel work.

\* Entire new glazing to comply with modern standards. The windows and doors designs will be in keeping with the original design. This will also include improved ventilation.

\*The entire building surfaces will be cleaned.

\* The central bed will retain the existing rock features, but the formal edging will be reinstated.

\* Installation of a more efficient heating system, misting units, lighting and automation to help the plants thrive and enhance the displays for visitors.

\* New prefabricated display benches throughout the house.



We anticipate the work will take 18 months and it will start in late January. The collection as you will have noticed has been moved into Townend house, the nursery and some



Existing Rock Features will be retained

plants are being kept in a commercial nursery, as we don't have enough space. A handful of trees that are hard to propagate or move are remaining in the house and will be locally protected. This means we will have some taller plants there from the start. We will aim to keep you up to date on the progress and look forward to sharing the 'improved' house with you soon.



### **GARDEN VISIT - Botanical musings from Giverny to**

In September I took leave from my role as a Tuesday morning propagator to travel with my wife to France and Portugal: our editor suggested a botanical report on return!

In Paris, we meandered through the Luxembourg Garden on a cloudless early autumn day: what a joy to witness Parisiennes enjoying the spectacular ambience of this historic dwelling with its symmetrical lawns, beautifully trimmed hedgerows and multiple gravelled pétanque courts. Another day, we went to Giverny, the home of Claude Monet: one of the founders of Impressionism. The day was overcast, providing an interesting light to view the lily ponds and wildflower beds. Monet's garden artworks celebrate the beauty of light variation. In particular, the famous haystacks which were commonplace around his home in Giverny allowed him to experiment with using colour to reproduce the infinitesimal variations in light in different seasons or at different times of the day.

We then traveled to Portugal, and commenced an Intrepid tour (thoroughly recommend it) in Lisbon. Lisbon has an amazing seafaring history. It is an ancient city that was virtually destroyed by a mammoth earthquake (fire and tsunami) in 1755. The ruling king, José 1, whose Court was in an area of Lisbon known as Belém, rebuild his palace there and created a botanical garden in an adjacent plot. An Italian naturalist, Dominigos Vandeli, was asked to design this first botanical garden in Portugal, the Ajuda Royal Botanical Garden. Originally used as a place of science and education for the King's grandsons and a 'place of leisure for the family'. It was constructed in 1768. The 2 level, 3.3 hectare garden was enriched with balustrades, staircases, statues and ornamental fountains. Plants arrived from around the world, as Portugal was at the forefront of the 'Philosophical Voyages'. It became known as one of the richest scientific institutions in Europe. The garden was renovated in the mid 1990's under the European Year of Historic Gardens Pilot Project. With this in mind, I climbed up from Belém, on the Tagus estuary, to view this historic garden. I was sadly disappointed. The garden had fallen into relative neglect, especially the water features. The extensive sculptured hedges (boxwood and myrtle) had been formed in intricate geometric patterns,



Dracaena draco - Dragon Tree



Tropical Botanic Gardens, Lisbon

but were now sadly rather unkempt. It was stated that there were 1100 species of plants. Indeed, there were some impressive mature trees, not least the Dragon tree (*Dracaena draco*). One of their specimens is believed to be over 250 years old and was nominated as European tree of the year in 2019. This tree is under threat in the wild due to the popularity its sap's medicinal properties. The day was hot, I was botanically disappointed and in need of refreshment.

Walking back to the tram, I then came across the Tropical Botanical Garden. It had not been highlighted in my guidebook, but it was twice the size, and it was a joy to wander down its magnificent avenues of towering palm trees. There were many impressive subtropical specimens to admire, and in the late afternoon, I was alone (apart from Hercules) in this garden paradise.

What a joy to ponder botanica in a foreign clime!



Hercules

### Heritage Roses NZ Conference - Heidi Connolly

In late November I attended the Heritage Roses NZ National Conference in Cromwell. This was enabled by a generous grant from the Friends of the Christchurch Botanic Gardens.

The conference began on Thursday with a beautiful welcome to the region and some speeches and singing led by Murray Radka followed by a very enjoyable feast to set us up for an action packed four days of learning, eating, connecting and viewing some outstanding gardens throughout Central Otago. Over the Friday and the Saturday, we heard seven inspiring, interesting and at times emotional lectures on all things roses.

Beryl Lee took us through the evolution of cooking with roses from the Persian Empire, the China Silk Route and throughout the Mediterranean stopping by for delicious and diverse dishes from Apicus ca. 900 to present day sweet and savoury delights.

Fiona Hyland spoke a thoroughly well researched lively saga on the arrival of the first rose in Central Otago which contained intrigue, controversy and some very amusing anecdotes.

"Crossing the Worlds of Tradition and Science focussing on the Wild Roses of Central Otago" was the title of Isla Burgess's talk which began with the distribution of a rose water-soaked tissue as she detailed some of the incredible research which has been done on scent.

With a crowd where the average age ranged from 60 to 80 her facts detailing studies where subjects of 65+ being exposed to scents for two hours per night for six months their memories skyrocketed by 226% had us all riveted. Just smelling forty different fragrances daily has been proven to increase memory recall seems like another fantastic reason to stop and smell all the roses!

She detailed so many ways in which rosehips are an antioxidant and anti-inflammatory with studies carried out by the UK Arthritis Foundation using them to great positive effect in treatment. Cardiovascular health, diabetes, prostate health, bacteria, viruses, cells and hormone regulation all show good outcomes when treated with rosehips.

We were assured the only worthwhile way to use rosehips ideally *Rosa rugosa, R. rubinosa and R. canina* gathered at the end of April and dried to hard and glassy then ground and sieved to remove the fine hairs, two centimetres of this in a jar, add one litre of nearly boiling water stir 10 to 15 minutes then strain and drink one to three cups a day for maximum benefits. Sugar is unnecessary.

Another beautiful idea is finely grinding sieved rosehips and adding to almond oil then leaving for 4 to 6 weeks to create a skin treat.

That afternoon empowered with knowledge we visited three beautiful Cromwell gardens and enjoyed getting to know fellow rose lovers.

Project Rescue had us all in tears mixed with moments of absolute delight when Murray Radka spoke of his personal mission of finding, recording and saving the Heritage Roses of Aotearoa.

I have met Murray twice before in our very own Heritage Rose Garden and was blown away when this seemingly quiet, unassuming gentleman took us with him on his discovery of a dry hilly piece of land in Central Otago which became arguably our most comprehensive collection of Heritage Roses and swept his entire family into the vision that became Brandy Hill.

We were made very aware that this was all about the roses and his presentation was gripping. Starting with a video made for a Brussels Rose Conference which incorporated family, finding his heritage, his love for the land and the rose, he drew us into his world and we went with him on a helicopter to an extremely remote location in Western Southland with some DOC rangers to get a cutting of a very rare rose. We vicariously travelled throughout the South of NZ and discovered delights with names like 'The Brass Knocker Roadside Rose'.

There was not a dry eye in the crowd as Murray's speech drew to a close and he spoke of his succession plan to ensure that the Brandy Hill Collection would not be lost- to use my own poetic licence- when he had the call to tend the roses upstairs.

My next trip to Dunedin will be in Summer and my first stop will be the Northern Cemetery. Back in the early 2000s it is told that a contractor appointed by the local council sprayed and killed a large number of Heritage Roses at the cemetery. Fran Rawling took us through the incredible work done by their local branch of the Heritage Rose Society. They adopted the cemetery taking guardianship and have established a register of no less than 100 mother plants to provide rose propagation material to parks and gardens throughout New Zealand. This register in the form of a green book and is circulated and updated yearly as new yet very old varieties become available to be used. The voluntary work put in and the knowledge and tenacity of this group leaves me in awe.

Dr Clare Haig won me over by showing pictures of our own Christchurch Heritage Rose Garden as an opening to her talk on Ecological Considerations relating to Heritage Roses, offering yet another approach to roses from a biodiversity point of view. She spoke of functioning ecosystems, the toughness of wild roses, genetics, species roses and how all of our gardens are habitats. When we grow strong healthy roses among beautiful, useful companion plants, we have excellent propagation qualities to share the joy of roses.

She marvelled on the varieties from the tough Scots roses to the big showy in your face roses and discussed how some roses are adapting to shade, a phenomenon witnessed in many of the Central Otago gardens we visited. Also experienced firsthand from our beautiful collection many of which still thrive under the shade of *Magnolia accuminata* without which I would not thrive in these 30-degree days of Summer.

Our last and definitely not least speaker was eighty-year-old Arrowtown resident, Jean Britton. Inspired by, and not to be outdone by the North Dunedin's Cemetery project she set out to create the Arrowtown Heritage Rose Trail. Her tales of interactions with Council, wins, losses and sheer determination made for a very lively summary of what can happen when a small town unites- with labelling construction led by the men's shed; fundraising with bake sales; accessing Mayoral funds and some healthy debate at town meetings, the Arrowtown Heritage Rose Society is thriving and can be proud of what they have created. On visiting Jean's own garden, we were all delighted yet unsurprised at what she has done!

The garden visits were an absolute treat and very diverse, from a relatively small, dry yet beautiful working garden creating cosmetics and oils for skin care with a charming loping hound to guide us through to a grouping of three gardens side by side. Beginning with a landscaped garden of roses, perennials and natives surrounding a tasting room flowing into a vineyard, it seamlessly moved into another set of gardens including some incredible unusual under-plantings of perennials supporting old roses and framing an immaculate and very productive potager garden, leading into wilder yet beautifully calming open spaces with beautiful thoughtful plantings.

Alexandra boasts its own heritage rose garden within the town centre and accompanied by modern rose collection, bedding and herbaceous perennials all beautifully labelled and tended. Clyde is an absolute treat – with each house, church and building all flowing into each other with flowers, plants and trees.

I have returned from the Conference with a massive list of roses I would like to have propagated to plant in the Heritage Rose Garden, some lovely new rosarian contacts and with the joy that our Christchurch Botanic Gardens Heritage Rose Garden is a firm favourite among everyone I spoke with.

Thank you, Friends.



# GONDWANA - ....What's the Story ?

#### A personal view from Alan Morgan

The 2007 Botanic Gardens Management Plan has a proposal to develop a 'Gondwana Section'. It is a simple statement mostly featuring the evolution of the Canterbury flora. At Charlie Challenger's funeral 'after match function' in 2007 I asked council landscape architect Jenny Moore if they were considering a design for the area and her answer was 'Yes, but we're having trouble writing ourselves a brief'

The 'Friends' (of the Christchurch Botanic Gardens) offered help by organising and funding a workshop with the top 'Gondwana' experts in the country – Dr George Gibbs who had just published 'Ghosts of Gondwana', Dr Hamish Mathews, 'In Search of Ancient New Zealand', Dr Daphne Lee, geologist, palaeontologist and emeritus professor at Otago University plus representatives from Lincoln Uni, schools, the 'Friends' guides,' and Gardens staff. Botanist/Ecologist Dr Colin Meurk helped put it all together and Botanic Gardens Manager Jeremy Hawker provided the venue, lunch and a professional facilitator.

#### The theme was Gondwana...'What's the Story; How do we Tell it'

By the end of the day we came up with a workable brief and sheafs of plans and ideas– but the world, it seems, wasn't ready for it and it went nowhere.

However a few points became apparent:

- It's not about Gondwana. It's what happened after 'we' left it.
  - A more appropriate title would be more cumbersome; 'The Evolution of Canterbury's Geology and Botany since leaving Gondwana' 80mya (The geology provides the habitat and plants adapt to the habitat). That could almost be the brief.
- Every part of New Zealand has a different 'Gondwana' story. We only have room for our (Canterbury) one.
- · It's likely the space will only allow the story beginning from the time of the Gondwana split and finish before humans arrived in New Zealand

 The site in the Gardens is a microcosm of Canterbury. The upper level is a hard gravel ridge that slopes down to what was once a small wetland/swamp - a classic braided-river alluvial plain formation; plus a remnant sandhill evidence of the surging battle between land building and the fluctuating sea levels; and the Avon river, the result of the top aquifer's water coming to the surface.

#### So what is the Story?

Some history.....

- 80mya (million years ago) the now-called 'Zealandia' landmass, which extended from the present- day New Caledonia in the north to the sub-Antarctic islands in the south, broke away from the Gondwanan landmass and moved east at about 150mm per year.
- · 55mya; Zealandia stopped moving and started sinking.
- · 25mya; The New Zealand part almost fully submerged (some say totally submerged)
- 21mya A new tectonic plate boundary initiated. NZ starts rising probably totally devoid of plant life
- · 12mya; NZ rising accelerates. Plant life trickles in by long distance dispersal.
- · 6mya : Alpine fault maximum movement
- · 1.5mya: Serious Ice ages . Development of Canterbury plain really kicks in

The basic component of Canterbury is Greywacke which lies on top of the basaltic tectonic plate. It is a sedimentary rock resulting from around 350 million years of sediments from Gondwana landing by river and/or wind in the ocean off the continent's east coast, eventually being compacted into the rock we love and/or hate. The tectonic plate movement hoisted it out of the ocean to form the Southern Alps with Greywacke dominating at least on the eastern side of the alpine fault. Over millions of years the ice ages, with huge ice loading in icefields and glaciers often hundreds of metres thick and world-wide, contained so much of the earth's water that sea-levels were, at times, up to 130metres lower than they are now.

These processes were vital to the formation of the Canterbury plains. The ice shattered and crushed the Greywacke and the glaciers transported vast guantities to their terminal faces where the water picked them up and transported them seaward in the format we know as 'braided rivers'. The makeup of Greywacke made it amenable to be ground back to its original consistency of 'sediment' as the rocks tumbled down the rivers. The fines were picked by the westerly winds, covering the land and the Banks Peninsula volcanos with loess. The cycle of Ice Ages and thawing causing sea level movement gave us the amazing aguifer system -a band of gravels with the thaw then the rising sea level lays down a layer of silt, then the next ice age repeats the process. We have up to five aquifers under Christchurch, up to 170 m deep 'confined' by the silt layers. All through this process plant life battled with the elements ultimately getting enough grip to turn the relatively lifeless silts (and stones) into Canterbury soils. Obviously after 30 million years of submersion the Gondwanan based plant life was wiped out (possibly with some survivors on the debatable 'high spots') so the emerging land was a clean slate for 'long distance dispersal' of plants and animal/bird life. Most came with the westerly winds by diverse means from Australia so that our flora had a strong resemblance to the eastern Australian bush including Eucalypts, Wattles, Casuarinas, Proteas etc. A series of Ice Ages, the most recent and harshest was only 20,000 years ago, wiped out those genera except two from the Protaea family - Rewa rewa (Knightia excelsa) and Toru.(Toronia toru)

Evolution is ongoing and never stops. Our lifetime is a mere blink in in evolutionary time. Plants (and all life) need to adapt to new environmental conditions – or they may not survive. Evolution is generally not random but follows well-trodden processes, the most common being '*Adaptive Radiation'*. Organisms radiate out from a base to different habitats and adapt by making changes to survive. Homo sapiens are one example. One of the best examples in the plant world is the Hebe group, over 100 species from a single ancestor that arrived in New Zealand (not from Australia) around 5mya, as a soft herb like Speedwell (*Veronica arvensis*), have adapted their woodiness and leaf form from the lush-leaf like *H.speciosa* to the leaf-less 'whipcords' like the alpine *H cupressoides*. (all now back in the Veronica genus) The important factor is that every leaf size graduation is evident across the whole group. 'Hebes' are well represented in the Canterbury flora.

Another good example is the 'Daisy' family ranging from tree-like Olearias to 'Vegetable Sheep' (*Raoulia sp*) originating from Australia but having to adapt to alpine altitudes greater than they found in Australia. Another evolutionary process is *Convergent Evolution* where unrelated plants adapt to the same environmental threat(s) so they all look much the same. One of the world's best examples is our 'divaricating' plant group, over 60 species from 16 (20?) different families. According to Dr Hugh Wilson of Hinewai, the author of the only book on the subject, 'Canterbury is just about the world headquarters for the (divaricating) phenomenon'. They deserve to feature in our 'Gondwana' story. There are two keenly debated theories for the phenomenon – one is that it is a protection against the grazing of Moas (we didn't have grazing mammals) and the other is a protection against the fierce gravel and dust laden winds of the emerging plains. Maybe a bit of both.

#### Telling the Story

Since Covid the garden guides have changed to themed walks starting from the Kiosk. A small group have been doing the 'Gondwana' walk in the area designated for it – the loop in the river beside the playground. Over the past 20 years plants considered by the staff as having 'Gondwana significance' have been 'stuck down there' without knowing what the layout is likely to be. There are still enough clues there to prompt a discussion about the origin of our land and biota albeit not in any chronological order. Here are the stops we use:

*Ginkgo biloba*: (by the kiosk) described by that oxymoron, a 'living fossil'. There is a fossil in the Canterbury Museum from the Conway River dated at 100mya, proof that it once grew on Gondwana and came away with Zealandia.

**Dodonaea viscosa** (AkeAke) (by the playground) long distance dispersal. The most widely distributed species in the world, native of over 60 countries from Afghanistan to Bermuda with Christchurch the southernmost point of it's distribution. Its seed capsules last a long time in sea water as a presumed means of dispersal. How it got from the ocean to the mountains of Arizona is a mystery.

*Myrsine divaricata* (Weeping mapou) (by the toilets) opens the discussion on 'Divarication' a unique Canterbury phenomenon.

**Rewa Rewa**. (*Knightia excelsa*) (riverside walk) one of the two Proteaceous plants to survive the last ice age prompts the 'Ice age phenomenon'

**The Wollemi 'Pine'**. (*Wollemia nobilis*) named after David Noble who discovered it in 1994 after it had long been considered extinct. Leads in to discussion of other members of the Auraucaria family nearby including our Kauri, the big Australian Bunya Bunya and the Sth American Monkey Puzzle. This prompts discussion of the other big ancestral conifer group, the Podocarps (Totara, Rimu, Kahikatea,etc)– but there's no NZ examples there.

**The Beech Group** (used to be all conveniently called *Nothofagus*) One characteristic group that links Australia and South America and NZ together. There are Australian and South American examples but no NZ species in the 'Gondwana' area

**The geology**: A suitable place to talk about how the ponds that were conveniently dug as shingle pits for the early street builders. The aquifer fed Avon river, diverted at the Armagh St bridge by the solid gravel ridge under the gardens, plus the presumed 'wetland' by the river. The sandhill, traditionally planted with Maritime Pines, prompts the story of the surging battles between the sea and the invading shingle fans over millions of years.

#### How will the Story be told

The 'brief' that came out of the 2008 workshop suggested 'A chronological walk through the main geological events since leaving Gondwana and a representative demonstration of the evolution of the Canterbury Flora and its relationship to the floras of Australia and South America. The story can be told by physical features, interpretation panels and electronic devices. It suggests that it will have an entry at the Kiosk end and will be one way. Once the design decisions are made the area can evolve as budgets allow.

#### **The Current Situation**

That pretty much covers Canterbury's "Gondwana's story. Other NZ places' story will be different and it is for them to tell. The design process has been fumbled ever since 2007 which is a pity as so much could have been done within existing budgets if there was just a plan to work with. Plants could have been 17 years older by now.

In 2023 Isthmus Landscape Architects were engaged to write a brief for the design of the 'Gondwana' area and a redesign of the adjoining playground. It has not yet been released but will be offered soon to landscape architects to tender to complete the design.

I just hope they recognise some amazing factors we have in our favour namely:

- Arguably the best example of a *braided river alluvial plain* in the world
- The Hebe group as the best example of Adaptive Radiation in the world
- The remarkable **Convergent Evolution** of the 'divarication' phenomenon
- And for the playground a theme of *Canterbury's Natural History* could include columnar basalt climbing stacks, Simulated braided rivers, divaricating plant mazes along with the usual playground bric-a-brac. And the 'Gondwana' section should be very child oriented.

We'll wait and see.

### Alan Morgan Friends Guide



# Trainees' Visit to Dunedin - Alannah Kwant

In November last year the apprentices had the opportunity to head to Dunedin for a four day field trip. We had a full itinerary of public and private gardens, garden centres and the Dunedin Botanic Gardens. Dylan Norfield the Collections Curator in Dunedin kindly welcomed us to his home to begin our trip.

After a long drive south, we arrived at Dylan's house in Blue Skin Bay. A little tired and needing to stretch our legs, a relaxed tour through his garden made for the perfect introduction to what it's possible to create on your own land. After reducing the pine forest behind his house bit by bit, a sheltered garden full of play, experimentation, and planting what makes him happy had grown. As his cat bounded around leading the way, it was apparent this garden was a genuine labour of love and set the tone for an exciting trip. Back in an inspired headspace, we were ready for the days ahead.

After a full day spent exploring the Dunedin Botanic Gardens on a tour led by the apprentices,



it was hard not to compare their garden to ours. The main contrast was the diversity in their landscape. Terraced hills allowed for zig zagging paths and walls of plants, to be able to stand at the base of the rock garden and see the colour scaling the hill. The *Rhododendron* dell gave me a whole new appreciation for this beautiful plant. The contorted form of these trees, in their own small valley of winding paths, felt like stepping straight into a fairytale. I value the connections made with the staff at the Botanic Gardens, making the horticulture world feel slightly smaller.



Larnach Castle was a great example of what can be imagined when there's plenty of room for play and creativity. The garden taught me about depth, dimensions and focal points. A long Laburnum archway in full flower created a window framed by macrocarpas to look out down the harbour to Saddle Hill. Elements of fantasy could be found throughout the garden to reflect the castle. Erica and Calluna shaped into clouds bordered a Buxus hedge which hugged a bed of Azalea, hiding their base to only reveal their flowers and foliage. A quick break at the albatross sanctuary for sandwiches made in the boot of the minivan did not prepare me for how overwhelmed with inspiration Hereweka Gardens would leave me.Dr Peter Cooke's garden was a good reminder of the

slow reward of putting in the hard work and the patience that is needed to reap the full benefits of a developed garden. His attention to the climate, site constraints and the positioning of his land for the sun and shelter made for considered decisions of placement and varieties of plants that would optimise from the land. I was taken by the diversity in his garden from native forest, to extensive plant collections, to a vegetable garden and orchard full of citrus basking in the sun on his north facing property. Peter's connection to the land was evident, taking ownership and responsibility to encourage native forest regeneration where deer once grazed. The return of the understory has created a habitat for native birds, and paths for the public to access Hereweka/Harbour Cone.

Thank you to the Friends of the Botanic Gardens for their support in making this trip full of inspiration and connection possible

# FRIENDS' CONTACT NUMBERS

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#### Free Guided Walks

Don't forget that our free guided walks run every day from 1st October until 30th April, leaving from the Kiosk at 1:30pm. These walks are themed to cover different sections of the Botanic Gardens such as the Central Rose Garden, Heritage Rose Garden, Native Section, Palms, Pinetum etc and are a great activity for your summer visitors as well as a reminder to locals what a wonderful place the Christchurch Botanic Gardens is. Group bookings are welcome.

#### Note Cards for Sale:

The Friends have produced two high quality note cards which would be very handy to use for thank you notes or to accompany gifts. Prices are very reasonable and you might like to keep a number handy:

1 Card -	\$3.00
4 Cards	\$10.00
10 Cards	\$24.00











# BALCONY DWELLERS



With a focus on environmentally conscious practices, discover the joy of cultivating your own greens, herbs and fruit, making the most of every centimetre of your outdoor sanctuary.

Next session Saturday 19 October

Monthly, third Saturday of the Month at Ōtakaro Orchard 10am – 12pm \$20 (\$25 Non-Members)



## **Margaret Watling**

Memorial Demonstration

Sunday 3 November 2pm Kate Williams

The After Hours Stylist Join Kate Williams, author of

The After Hours Stylist and discover how to style stunning tables for any event. Leave inspired with fresh ideas for creating gorgeous festive tables using seasonal elements from your own garden.

59 Charwell Lane, Prebbleton Book online: \$95 Members & Friends (\$120 Non-Members)





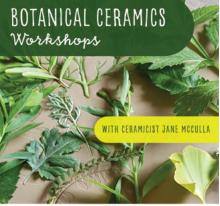
### **Edible Flowers**

Sip floral fizz while decorating your own cake with stunning edible flowers!

Join us for an enchanting workshop with Marion Smith from Petal & Co, the Canterbury expert in growing and supplying stunning edible flowers.

Saturday 19 October 3 - 5pm Tuesday 22 October 12.30 - 2.30p The Kiosk, Christchurch Botanic Gardens \$40 (\$60 Non-Members)





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# **Botanical Ceramics**

Plates & Tiles with Jane McCulla

Ceramicist Jane McCulla will demonstrate how to imprint botanical textures onto clay, hand-building techniques and how to make a botanically-inspired Green Man tile. Includes all materials, glazing and kiln firing!

Botanical Plate: 7 November 10am - 12.30pm 10 November: 1-3pm

**Green Man Tile: 2 March 2025** 10am - 12.30pm

The Kiosk, Botanic Gardens **\$65** (\$80 Non-Members)



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Friends of the Gardens are eligible for all CHS Member discounts! When you make an online booking for a course or workshop just remember to select 'CHS Member' as the rate.