

# Newsletter

*For Friends of the Christchurch Botanic Gardens Inc  
To Promote, Protect, & Preserve*

*No 94, Summer 2013/14*

## **President's Report -**

What a year it has been! I can hardly believe that the year is almost over, and all the celebratory events for the Christchurch Botanic Gardens 150<sup>th</sup> Anniversary have reached their conclusion.

The Australasian Volunteer Guides Conference consumed most of our time and energies. A dedicated sub-committee, combined with the enthusiastic guides made this a fantastic event. Here are a few comments made by guides of Botanic Gardens that attended the conference:

**Canberra** - Thanks again for a great conference and going the extra mile...

**Sydney** - ... a fabulously generous and informative conference...

**Melbourne** - ... a splendid time of learning and exchange of guiding. We all mentioned the delicious food provided and the abundance of fresh produce. The warmth and welcome of everyone was such a joy.

**Tasmania** - ... an excellent conference. The speakers and tours were all of a superb standard. We greatly enjoyed the wit, as well as expertise, of all involved. The dinner was a master stroke!

**Adelaide** - Congratulations and thanks for a truly great week.

**Wellington** - Many thanks for the amazing conference your Christchurch team organised. Your programme was so well organised and your guides so well prepared for the different walks.

**Melbourne** - ... an excellent conference you organised...

**Melbourne** - ...superb plenary speakers, breakout sessions, guided walks in the afternoon, and superb tours.



*Australasian visitors on an Avon River tour - photo Phil Tomlinson*

Our guides and organizing committee deserve a well earned rest after a job so well done.

## **Guiding**

The guides have not quite sat on their laurels since the conference. With the daily guided walks in full swing, we are all hoping for an improved year as visitors to our city begin to increase over the summer months.

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Friends' website

Have you visited the Friends' website? The address is <http://www.friendschchbotanicgardens.org.nz/>

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### Distribution of Newsletter

We distribute the Newsletter by email to those members who have given us their email addresses and who have not requested otherwise. If you would prefer to receive the Newsletter by mail, rather than electronically, please contact Philippa Graham – phone 348 5896 or email [philippa.graham@gmail.com](mailto:philippa.graham@gmail.com)

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*The spring plant sale*

### **Plant Propagation**

The propagation teams are busy this time of year. The plant trolley is continuing to be a good outlet for our plants. The spring sale was particularly successful with well over \$1,000 of plant sales taken in the morning.

### **The new Visitors Centre**

This is slowly taking shape, and will probably be open to the public about February or March next year. In consultation with the Botanic Gardens management, the Friends are going to fund graphic displays with touch screens mounted on free standing aluminum propellers. These displays will be in the main atrium, and will have three functions:

1. To orient visitors with maps and brochures.
2. To explain the role of the botanic gardens and facilities in the building – herbarium, nursery and library – these displays will be on three free-standing blades.
3. Changing displays focusing on sustainable gardening and plants in our everyday lives – these displays will be on two free standing blades

It is thanks to your support as members of the Friends that we are able to fund projects like this.

### **Skills for the Future Award**

A place on the Field Botany Course at the University of Canterbury Cass Field Station is being offered by the Friends again this year for a member of staff of the Botanic Gardens. Don Bell is taking applicants names now.

### **Christmas Party**

Please don't forget the Christmas Party on Sunday 15 December. It will be held in the Browne Room at the CHS rooms in South Hagley Park between 2 and 5pm. There will be good company, Christmas cake and drinks. A trivial quiz with a botanical theme will keep us alert during the function, and the raffle will have a few extra goodies to win this year. Please bring a plate. I look forward to seeing you there.

Charles Graham

# Gardens' News

From Curator John Clemens

## Global Botanic Gardens Congress, Dunedin

Along with over 300 delegates from 43 countries and many botanic gardens throughout New Zealand, I attended the 5<sup>th</sup> Global Botanic Gardens Congress in Dunedin at the end of October. There were many excellent presentations and workshops, and plenty of talking in the renovated Town Hall, which was a great conference venue.

Half-way through proceedings, we had a break from indoor talks and went on a field trip to Aramoana, the Orokonui Ecosanctuary, and the Peninsula – where we did even more meeting and talking. Some saw seals and albatross, but we looked in vain for jewelled geckoes. Orokonui is a large fenced mainland island with its own Cloud Forest for plant and animal conservation and education.

The Congress was organised by the London-based Botanic Gardens Conservation International



*Orokonui Sanctuary with children on a bridge, from a Sanctuary brochure.*

(BGCI). Despite its name, BGCI fosters and coordinates all aspects of botanic garden work, including research, education, and horticultural display – as well conservation – to help visitors understand the significance of plants and their associated biodiversity. The Congress was held in partnership with the 6<sup>th</sup> Biennial Botanic Gardens of Australia and New Zealand (BGANZ) Congress, our local organisation that increasingly advances practice and understanding on a similar broad front.

## International Plant Sentinel Network

One of the highlights of the Congress for me was speaking at the Symposium to mark the official launch of the International Plant Sentinel Network. The Network is built around a worldwide community of botanic gardens and arboreta. Their combined plant collections of “sentinel” plants constitute an early warning system of potentially damaging pests and diseases.

For instance, we can discover an abundance of pests feeding on southeast Asian trees growing in our Botanic Gardens that so far have not found their way to these trees in their native homeland. Likewise, ex-pat New Zealand trees growing in other countries can harbour pests that might one day find their way to our shores. The network aims to forewarn of problems for native habitats, gardens and crop plants.

Effective plant sentinel networks already exist in some countries: in North America there is a scheme run by the American Public Gardens Association, and in New Zealand we have Better Border Biosecurity (B3) as the overarching body. BGCI has obtained funding to appoint a new Network Coordinator based in Europe.

Our very own Christchurch Botanic Gardens is at the forefront of the Network thanks in part to the foresight of the Friends of the Christchurch Botanic Gardens. The Friends co-sponsored a University of Canterbury Summer Scholarship student last summer, Sarah Redlich. Collaborating with staff at Scion and the School of Biological Sciences at the University, Sarah identified the feeding preferences of aphid species for different exotic pine trees growing in our Pinetum. The aphids were spoilt for choice, but they knew which trees they preferred.

As the new Network Coordinator, Ellie Barham, says in her report on our Friends-funded Christchurch Botanic Gardens work:

“This project is a brilliant example of the value of sentinel plants in recognising pests and diseases. It is a good example of sentinel plants being used to identify new host species for potentially invasive pests as well as recognising those species that are not potential hosts.”

Ellie’s talk about the Network can be viewed from the BGCI website at <http://www.bgci.org/resources/news/1081/>. We hope to extend our work in years to come. So, clearly, a botanic garden is not only about plant collections and people: there is a lot of other interesting biodiversity as well, much of which is also interesting and potentially useful!

### Hot topics

Other initiatives at the Congress were the Global Seed Conservation Challenge (through the Millennium Seed Bank) and the Ecological Restoration Alliance, to both of which we can contribute.

Some important facts and conclusions drawn from the Congress (shown in greater detail in links from <http://www.bgci.org/resources/news/1081/>) were:

Botanic gardens continue to multiply in number (now over 3100 globally), they increasingly emphasise “plants with a purpose” (not only good to look at), and incorporate sustainability practices and principles.

Conservation action is giving greater recognition to the value of ex situ (cultivated out of the wild) collections of threatened plant species, complemented with the management of in situ habitats.

On the technical side, botanic gardens are getting more involved with seed banking native species and working out how to grow and conserve species

whose seeds cannot be stored (the so called “exceptional” or recalcitrant species).

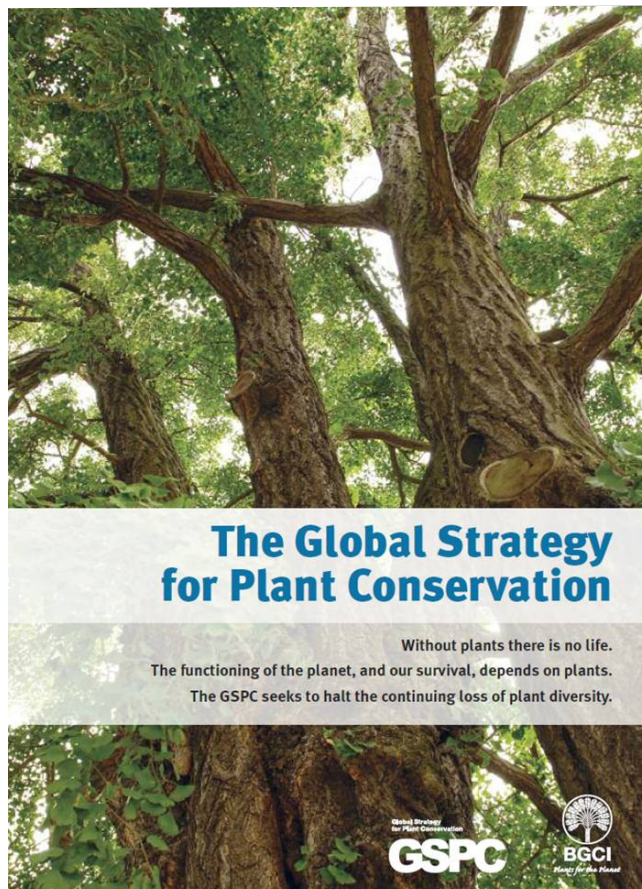
And (as some of us have known for a long time) horticultural expertise is essential for this conservation effort. Let’s make sure the skilled and knowledgeable horticulturist does not become an endangered species!

Botanic gardens have an essential role in science communication using blended learning resources from cutting edge IT to more personal approaches.

Botanic Gardens are working harder to engage with the public, forming partnerships to reach local communities with important messages. The messages are global. They relate, for instance, to food security, climate change, and the loss and restoration of habitats. Working with BGCI, botanic gardens are addressing several of the Global Strategy for Plant Conservation (GSPC) targets.

Overall, it was a very stimulating conference. We have plenty we can do in the Christchurch Botanic Gardens and wider Parks network throughout the city to address our global challenges locally, and help our public understand the significance of plants and the natural world.

It is an old adage, but *think global, act local* (or *think globally, act locally*, if you prefer) applies. It reminds me of something that came into my head at the welcome for the recent, and highly successful, Australasian Conference of Volunteer Guides in Botanic Gardens. It struck me again that every guiding delegate interacts with members of the public each time they devote time to their botanic garden. Each meeting is an opportunity to *go forth and save the world, one interaction at a time*.



The cover of a BGCI brochure explaining the Global Strategy for Plant Conservation.

## Articles

### Botanic Gardens celebrate 150 years

Diana Madgin

It's a century and a half since the Christchurch Botanic Garden was formally established within a wide horseshoe bend in the Avon River. To mark the occasion, Government Gardener Enoch Barker planted a young oak, *Quercus robur*, by the river near the present Woodlands. Grown from an acorn sent by Queen Victoria, it commemorated her son Albert's marriage to Princess Alexandra of Denmark.

The queen would have been hard put to imagine just how desolate the Gardens' site was initially. An 1850 photo depicts the bare land, bumpy with pre-historic sand hills and rough tussock and grass. Cattle were grazing there and not a tree in sight.

A plethora of botanic gardens emerged as the energetic Victorians expanded their empire in the 1800s. The search was on for plants that might be economically profitable--tobacco, tea, cotton, rubber--and if these plants were found outside Victoria's realms, they might be "captured" for development within the empire itself.

The first curators of the Christchurch Gardens, John Armstrong and son Joseph, began work in 1866 to collect and identify local flora as well as landscaping the preliminary design. Specimens of every local plant were lodged in a new herbarium. In the Gardens' nursery they grew both exotics and native flora along with a wide range of grasses suitable for farm pastures, also plants for shelterbelts; gorse, eucalyptus, toetoe and flax were quick to make a thicket of protection on the windswept plains.

When John Armstrong lectured the newly established Royal Society on local vegetation, he was enthusiastically introduced by Julius Haast. Then as now, notes present Curator John Clemens, the aim was for locals to be informed about what grows around them. At that time, 1868, Armstrong presented lists of 290 plants, including 38 species of ferns and 26 of mosses and lichens. "We may conclude," he said modestly, "that the collection is tolerably complete."

Both men were uninterested in bright floral displays and fine grooming. Eventually the public criticised the rough appearance of Joseph's native garden, a

brilliant collection, and demanded that it be removed to the southwest corner. By this time, the new central government (1876) offered scant moneys for the Gardens. Fund-raising was not for the Armstongs, and they resigned in 1897. In twenty years these two men had raised over three quarters of a million trees to distribute to district bodies. The Armstong Lawn is named for them.

A succession of curators has led the Botanic Gardens to the present day. Economic downturn in the 1880s reduced the supply of both men and money for Ambrose Taylor, who faced heavy issues with vandalism. It was during his office that a large section of the Gardens was destroyed by fire.

The 1880s, however, saw a luminary appear on the botanical horizon: Leonard Cockayne (1855-1934) came from England via Australia to New Zealand in 1881. By then he had inherited an income that supported his self-taught horticultural brilliance to the extent that eventually he became known as the Father of New Zealand botany.

From A G Tansley's obituary of Cockayne (January 1935), we learn that Cockayne "early came to the conclusion that a large number of our native species exhibit strikingly different leaf and growth forms at different stages of the plant's development". He studied seedling forms, showing that they were of immense importance for tracing plants' ancestry. He was most fascinated of all by the relationship of plant form to habitat. From his own garden at "Tarata" in New Brighton, and from hands-on study, Cockayne noted that plants could change form if moved to a different environment. He observed that many of New Zealand natives have juvenile forms with different leaf growth at different stages of development.

Cockayne's field research was prodigious at a time when most botanical research was done in herbariums. He loved flowers, narcissus especially, and as an inaugural member of the Christchurch Beautifying Society, he instigated street competitions as a means of uplifting the face of the Garden City.

Cockayne created his own botanical garden; from here he corresponded with superintendents and botanists connected with botanic gardens throughout the world. And he wrote copiously - 170 publications - and received a multitude of distinctive honours.

During his term as Curator, 1933-45, James McPherson extended the native section by creating the Cockayne Memorial Garden. McPherson was best known as the "Daffodil Man", responsible for starting the expanse of Woodland daffodils, a springtime icon of the Garden City. The fabulous display of magnolias and azalias, the present rose garden and the rock garden are largely his work.

Before McPherson, the enthusiastic James Young had established an enormous rose garden about 1908. Water was bucketed from the river by hand to the thirsty plants. Cuninghame House, Townend House, four propagating houses, the children's playground and the large tea kiosk were all his work, as were lilac and rhododendron collections.

Botanic gardens are places of floral beauty displayed in spacious lawns for public enjoyment, but scientific research and education play a key role behind the scenes. Bill Sykes, long-time botanical adviser to the Friends of the Botanic Gardens, was sent to the then DSIR from Wisely Botanic Garden in England in 1961. As an horticultural taxonomist (plant classification), he had permission to collect exotic specimens from the Gardens for what became the largest herbarium in New Zealand at Landcare Research.

Later Sykes would collect specimens from the tropical glasshouses for the Pacific Collection at the Landcare Herbarium. For him, the most important features of the Botanic Gardens are the collections from particular areas of the world. "Chile, Australia, South Africa, plants specifically from the Southern Hemisphere, are extra special to these Gardens".

By 1960 Christchurch was applauded internationally as having one of the ten best botanic gardens in the world, and by the 1990s was a leader in sustainable public garden practice, a contributing factor in Christchurch winning "Best Garden City of the World" in 1997. In the new millennium we became a "Peace City" with the rarely-bestowed International Peace Bell installed in the old Japanese cherry garden sloping down to the river.

More recently still, visitors can view the comprehensive herb garden and potager surrounding the Curator's House, which has itself been transformed from the 1920s building with rusted bath and damp rooms into a fine eatery, fit for demonstrating the organic food that Curator Louise magics out of the worm-filled soil.

We lost a few trees in the ferocious earthquakes,

but truly, the Christchurch Botanic Gardens is powering along. A new reception centre, teaching rooms, herbarium, library, potting sheds and offices--all is going up apace. Ready indeed for the next 150 years.

Congratulations Botanic Gardens, and love from us all.

### **Stories of earlier staff of the Christchurch Botanic Gardens – Neiel Drain**

Even at primary school, Neiel Drain knew what he wanted to do with his life, but it was not until later years that he learned his horticultural leanings had a family connection. He was related to the head gardener for Sir Heaton Rhodes at Otahuna. "He would have been a great uncle. He was famous for his daffodil breeding."

Young Neiel was interested in flowers and art – "My great love was just to create things." On his parents' quarter-acre section sloping down to the Heathcote River, "we had vegetables, fruit trees and so on. And of course neighbours had their gardens, too. When I was six or seven, my dad gave me a six square metre patch of ground for a garden.

"I can remember walking down to the corner store to buy seeds. Calendula – pot marigold. There was the thrill of seeing the growth, a sense of wonder and excitement. I had a flower garden when most other kids had their vegetable gardens.

"When I was 12 years old, I had put little windy paths through the garden.

At school, "my focus initially was getting knowledge and skills. I often would go the library at lunchtime and read - any science and just general knowledge."

"At the back of my mind I had the thought of gaining some sort of position with the city parks department."

As a Botanic Gardens apprentice after high school in 1948, he had 7.30am starts at the Linwood nursery. That meant cycling eight kilometres from his family's home in Hoon Hay. The nursery ground was frozen in winter, and he went straight out to lift trees for moving. "That first hour was pretty tough, but you warmed up after a while." He worked in propagation, grafting and training up trees for planting in parks and streets.

Also at Linwood, he was assigned to a particular glasshouse at quite an early stage, keeping checks on everything. "Those were wonderful times. One thing I took an interest in was learning plant names. I would eat lunch then go out regularly with a notebook to identify plants. You have to learn even the common weeds.

"They were wonderful days – great camaraderie and supportive mentors. It was the most wonderful place you could work."

After his apprenticeship, Neiel stayed on with the council for about a year, given the responsibility of looking after some parks when their custodians were away. He had also been in charge of looking after Cuninghame House at some stage. "I always say we were trained in horticulture and public parks," he says.

He wanted to have a position "where I could climb up the ladder a bit, but it became very clear there was nothing on the horizon. I decided to take a bit of a punt and go out on my own. I got some contracts maintaining gardens – design, advisory, implementing the work with the help of contractors for heavy jobs." So he became N W Drain, Landscape Consultant, in the city and around Canterbury. "They were good years. I never had the desire to work it into a big business. I wanted to create beautiful gardens. I can visualize what a garden will be like in 10, 20 years. A sense of balance and proportion comes naturally to me."



*Neiel Drain*

Neiel worked on his own account for 13 years. He was part of a loose association of people doing landscaping, design and contracting work.

When he was encouraged to apply for a Ministry of Works job in Auckland, he approached Director Huia Gilpin for a reference. "He said, 'Why go to Auckland when the landscape architect's job here has been vacant for two years?' And he just offered it to me."

So he rejoined the council in 1967, and was in the new job only a year when the parks deputy director became director at Dunedin. The deputy's position was split in two and his new job as Assistant Director (parks) came with a house at Linwood.

Huia Gilpin retired in 1970 after 30 years as director. Neiel became director – "a huge jump from being a deputy" – and led the parks and recreation department for 10 years. "Then amid council reorganization, I was asked to become part of an in-house consultancy in the new parks unit.

"Getting a Botanic Gardens visitor centre up and running was one of the highlights of my years. I was interested in having a Gardens with a true botanic and educational role. This teaching thing was just in me. To be able to get young people to capture the magic gives a meaning to the Gardens they never had before.

Neiel retired after 50 years in public parks in 1997, also the year Christchurch gained an international award as the best garden city with a population of 300,000 or more.

Stan Darling



### Art in the Gardens: Taking Flight by Phil Price



A bronze, drinking fountain was commissioned and gifted to the City of Christchurch by the Canterbury Branch of the Institute of Foundrymen in 1993. It is situated at the Christchurch Hospital end of the Daffodil Woodland. After the modelling was finished it was cast at the Woolston Foundry. Phil Price designed the fountain to show a movement in time. Its flowing form gives the fountain its name "Taking Flight".

Phil was born in Nelson in 1965 and is best known for his large wind-driven, kinetic sculptures that celebrate motion, nature, and place. He also created 'Nucleus' a celebration of place on the corner of Lichfield, Manchester and High Street and 'Knowledge' at the Upper Riccarton Library.

Faye Fleming and Barbara Brailsford

## Events in the Gardens

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From Lynda Burns, Visitor Services Team Leader. 941 7585 or 027 559 0181.

### Ingham Lazy Sundays

Every Sunday from 5 January to 23 February, 3-4.30pm (postponement days 2 & 9 March). A free concert of local music on the Archery Lawn.

### Popsicle Busker Kid Pitch - SCIRT World Buskers Festival.

Friday 17 to Sunday 26 January, 11.00am to 3.00pm on the Weather Station Lawn.

### Sunday Bandstand

Every Sunday from 2 February to 30 March, 12-1.30pm. A free concert of big band music on the Central Lawn.

### NZ Rocks, a History of NZ Music - Anthony Harper Lawyers Summer Theatre.

Wednesday 5 to Sunday 23 February. Tuesdays to Sundays, 7.00pm; Saturdays to Sundays & Thursday 6 February 2.00pm and 7.00pm. (Please note: no shows on Mondays 10 & 17 February.)

A free performance by the Outwits on the Murray Aynsley Lawn, cancelled if wet.

### Festival of Flowers

Saturday 8 February to Sunday 2 March.

A variety of activities held in the city centre. The "River of Flowers", a simple ceremony with a "Tree of Hope" wishing tree will take place midday at the Peace Bell on Saturday 22 February.

### The Herbaceous Border – as well as visiting the Border in the Gardens we look at how such gardens originated.

A guided walk with Friends of the Garden guide Bill Whitmore and Section Curator David Barwick. Starting at 2pm Saturday 8 February from outside the Information Centre. \$2 per person.

### Ellerslie International Flower Show

Wednesday 26 February to Sunday 2 March