

# Newsletter

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

No 43, Winter 2000

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## President's Comment

I was lucky to be invited to the opening and handing over at the recently restored and refurbished 'Bellamys' wing at the Canterbury Provincial Council Buildings.

The University of Canterbury has taken up the lease and this is their first step in re-establishing a presence in the central city. The Christchurch City Council Environmental and Property Units have been earthquake strengthening and restoring these marvellous buildings and the completion of the 'Bellamys' wing is a great achievement. Original construction began as far back as 1859 and was based on the work of Benjamin Woolfield Mountfort, the provincial Architect. When you consider that, in 1859, new arrivals were walking over the Bridle Path from Lyttelton and their goods were taken up the Heathcote River by boats being towed by horses and oxen, the confidence the early provincial leaders had in Canterbury and its future must have been absolute to build such a grand structure.

The buildings also had some pretty early plantings with a thicket of gum trees and riverside willows established between

1860 and 1865. Over the years the external areas had a number of different plantings undertaken from formal circular annual beds to native flax and Hebe shrub beds. Azaleas were planted on the terraces beside Bellamys and were considered a "wonderful sight". (Thelma Strongman – "The Heritage Values of the Canterbury Provincial Council Buildings and Their Surroundings"). The intention is now to keep planting simple, and not to distract from the views of, and to the buildings.

There is a central courtyard that has been laid out in rectangular grass beds with grit paths. The courtyard is a quite tranquil place with valuable shade being provided by two old maples. With seating around the inner wall, the courtyard will be one of those 'special' places for the city workers who discover it during their lunch break. The Provincial Council Chambers are Christchurch and Canterbury's premier heritage buildings and for those of you who haven't visited them yet, make the time. You won't be disappointed.

*Dennis Preston*

## Botanic Gardens Jottings

### Annual Bedding – Spring 2000

In the last few days the Summer Annual Bedding has been replaced by the Spring Bedding with most of the Botanic Staff being involved. The Summer display has been spectacular, much praise must go to Louise Morgan who has not only worked wonders with colour combinations but also pulled out a few surprises with that Parsley edging around the Peacock Fountain being one.

### Autumn Colour

With the cool nights now upon us, the leaves of some of the deciduous trees are showing spectacular colour with plants like Taxodium, Stewartia, Liquidamber, Parottia, Nyssa, Fraxinus to mention just a few, making it well worth your while to visit the Botanic Gardens.

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**FCBG**

PO Box 237  
Christchurch

## Jottings continued ...

### *Spring Bulbs Fed*

Now is the time for you to feed those spring flowering bulbs like Daffodils, Tulips, Freesias, etc with a mixture of 2 parts by weight of Sulphate of Potash, 2 parts Superphosphate and 1 part Bone Meal or similar. Just for the record there was about 2 tonne put on the bulbs in the Woodlands and surrounding areas plus another 2 tonnes in north and south parks bulbs.

*Kevin Garnett - Botanic Gardens Supervisor*

## Recent Events

Saturday the 18<sup>th</sup> of March was a warm sunny afternoon and a large group assembled at the Information Centre to accompany Max Visch on a walk to view conifers.

The area selected was the children's playground. First Max explained what a conifer was. Briefly a conifer is an evergreen – there are some exceptions – and they are cone bearing. To speak of conifers in terms

# WANTED

A volunteer with secretarial and computing skills, to operate initially for half a day each week at the Information Centre. The key task is the membership list and typing sections of the newsletter.

If you can help, please ring Faye Fleming – phone 351-7798.

of flowers is not strictly correct. The female organs (strobili) tend to be on the upper branches while the pollen organs are on the lower; a simple precaution against the pollen falling too easily onto the ovules of the same tree.

First up was a *Sequoiadendron* noted for its size and longevity. Native to the Western Sierras of California it stands in open groves where most of



*Douglas Fir cones showing the typical, three-pronged bracts.*

## Recent Events continued ...

the precipitation comes as snow. In the same general area was a fine coastal redwood (*Sequoia sempervirens*). They come from the same state but grow closer to the sea in the coastal fog belt.

At the north western end is a sand dune; one of three which occupied the gardens. It is planted with mature Cluster or Maritime pines (*Pinus pinaster*). It has very long needles in bundles of two and is a tree of light sandy soils. In Portugal large areas of sand dunes have been reclaimed by planting this tree. It is also a source for turpentine. Nearby is an Australian Bunya pine (*Araucaria bidwillii*). Its nuts are eaten by Australian Aborigines.

Other conifers noted in this area were the Italian Cypress (*Cupressus sempervirens*). The Chinese fir (*Cunninghamia lanceolata*) from the mountains of China. The best of the fragrant timber is used as coffin boards.

Two of the four true cedars were seen: Deodar (*Cedrus deodara*) which was planted in 1932 and is the most elegant of the four. It comes from the Himalayan mountains. Later we saw the Atlas Cedar (*Cedrus atlantica*) a native of the mountains of Algeria and Morocco. This one had the blue-grey leaves of the cultivar 'Glaucua'.

The Irish yew was noted. Yews are unusual among conifers in being either male or female. This one was showing a number of reddish berries, the seeds of which are poisonous. In English history the yew supplied the strong, tough, heavy wood for the longbow.

One of the last trees on this area which we looked at was the Dawn Redwood (*Metasequoia glyptostroboides*) a living fossil discovered in China in 1941. It is remarkable that a tree long known to the local people should have escaped the notice of the great plant collectors of the 1800s. Seeds were collected and widely distributed in 1948. The Christchurch Botanic Gardens was among the first to receive seed.

Finally I will make mention of the group of stone pines (*Pinus pinea*) which we visited on the original sand mound west of the rose garden. The large umbrella shaped head and the deeply fissured dark brown bark make an imposing sight. The nuts, known as pignons, can be bought and are good to eat. It too, like many European pines, is two needled.

Oh yes! The Douglas Fir should be mentioned. It is the next most planted timber tree in New Zealand after the Radiata pine and is one of the world's most important and valuable timber trees. Max pointed out the cones showing the typical three-pronged bracts. Thank you Max for an informative walk.

*Peter Mahan*

### Topic: **NZ's Past Climate: Lessons from Dead Wood**

Speaker: Dr Jonathan Palmer  
Soil, Plant & Ecological Sciences  
Division  
Lincoln University

Date: 15th March, 2000

The presentation basically consisted of two parts. The first focussed on explaining the technique of using tree-rings to reconstruct our past climate (dendroclimatology). The second part provided a brief overview of some current New Zealand research projects.

Dr Palmer started by explaining that there is intense interest in climate change but we are restricted in our ability to assess the significance of the anthropogenic effects because of short climatological records. One solution is to use other proxy-climate indicators such as tree-rings. The relevance was best summarized in the following quote from Sir Winston Churchill:

"The farther backward you can look, the farther forward you are likely to see."

Tree-rings can provide an insight into past environmental conditions but not every species or site is suitable. Samples are taken from a tree using an increment corer and the pattern of ring-widths compared to other trees from the same site. The aim is to find trees that have the same relative pattern of wide and narrow rings (i.e. crossdating). The raw ringwidth measurements also need to be filtered (standardized) to optimize the extractable climate information. The end result is a sequence of relative measurements, based on many trees from a given location, which goes back in time for hundreds of years. This is called a chronology.

The reconstruction of past climate from a chronology is based on the "uniformitarianism principle" or the present is the key to the past. This

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# Coming Events

May 2nd	Tuesday 9:00am Information Centre	Walk	Staff member - Sue Molloy
May 6th	Saturday 4:00pm Information Centre	Talk	<i>China - The Yangtze Gorges and Beyond</i> , with Professor Bill Willmot and Diana Madgin. Light refreshments served.
May 17th	Wednesday 7:30pm Information Centre	Talk	Tony Burnett. <i>Prominent Gardens of Western Europe</i> .
May 20th	Saturday 1:30pm Information Centre	Walk	<i>How Plants Got Their Names</i> by Lyn Heaton.
June 6th	Tuesday 9:00am Information Centre	Walk	Staff member - Darren Tillett
June 7th	Wednesday 2:00pm Information Centre	Illustrated Talk	<i>City River Banks</i> with Chris Fourier from Chch City Council Water Services. Afternoon tea will be provided.
June 17th	Saturday 1:30pm Information Centre	Walk	<i>The Cockayne Garden: A Look at our Native Flora</i> by Neil O'Brien.
June 21st	Wednesday 7:30pm Information Centre	Talk	<i>Wild Flowers of the New Zealand Countryside</i> by Max Visch.
July 4th	Tuesday 9:00am Information Centre	Walk	Staff member - Kevin Garnett, Supervisor Botanic Gardens.
July	Afternoon Meeting	Talk	To be advised later.
July 15th	Saturday 1:30pm Information Centre	Walk	<i>Our Trees in Winter</i> by Max Visch.
July 19th	Wednesday 7:30pm Information Centre	Talk	<i>Vegetation Changes to the Christchurch City Waterways</i> by Dennis Preston.
August 1st	Tuesday 9:00am Information Centre	Walk	Staff member - Dean Pendrigh.
August 13th	Sunday 2:00pm Information Centre	Meeting	<i>Annual General Meeting</i> followed by a tour of the changes in the Cuninghame House. Afternoon tea will be provided.
August 26th	Saturday 4:00pm Information Centre	Talk	<i>Sister City Gardens</i> by Dennis Preston.

## Bits & Pieces

### Heritage Rose Garden

The redevelopment of the Heritage Rose Garden will take place from late summer through to winter 2000.

This has been made possible by a generous bequest from the late Mrs Betty Hilda Bennett. The work will provide an increased planting area for the collection of Heritage Roses, companion plants and Paeonia cultivars. The construction of plant structures will enable further climbers and ramblers to be included.

The redevelopment will require the removal of a number of roses, however, these ageing plants will be replaced with new plants of the same type.

Provision has been made for more seating, along with smaller pathways to provide better access to enjoy the roses.

Thank you for your patience while this work is in progress.

See also Newsletter No. 38, page 7.

### Information Centre News

Alterations in the offing will be:

**Shop Area:** is to be enlarged with a new entrance office area to be added on south-west side adjacent to reception – up to balcony. Plans available at Info. Centre.

**Displays:** Little Pied Shag – Ducks – Cicadas – History – current work areas of interest.

**Townend House:** At present on show Primula obconica, Begonias and from June Kalanchoe, Poinsettia and Calceolaria.

### Recent Raffle Winners

**'The Plant Hunters'**

Jean Gluyas – ph 384-2989

**Cacti Basket**

Heather Wolcott – ph 352-0595

These members have received their prizes.

### Guiding Group Meetings

In April, this group spent a pleasant afternoon where members asked Max Visch to identify plants in the Gardens that they didn't know, or didn't know much about. A similar session, starting with lavenders and moving on to perplexing unknowns, will be held Thursday 25 May, 1.30 pm, leaving from Information Centre.

Brian Appleton and Richard Doyle have been guiding many thousands of Americans around 33 hectares for over five years. With now over 100 tours a year, Brian and Richard have got this educational and entertaining trip around the Gardens down to a fine art. If you are interested in learning to be a volunteer guide for the Friends, what better place to start than with Brian and Richard?

Walk with Richard, Thursday 6 July 1.30 pm, starting at Museum entrance to the Gardens;

Walk with Brian, Thursday 24 August 1.30 pm, starting at Museum entrance, AND you could also join one of Brian's American groups on Tuesdays, Wednesdays or Fridays. Just phone the Information Centre for times.

Anyone who thinks they might have even the slightest interest in guiding is warmly invited to join this group. Phone Lyn Heaton 3557 563 with any queries.

### Special Meetings

The Canterbury Rhododendron Society has issued a warm invitation to 'Friends of the Botanic Gardens' to attend two special addresses.

The first speaker will be Andrew Young who will speak at the Philatelic Centre, 67 Mandeville Street, Riccarton. This meeting is on Thursday 11th May at 7:45pm.

The second address at the same venue is Monday 3rd July at 7:45pm and the speaker will be Gary Clapperton, Curator of Eastwoodhill Arboretum.

Entry is by gold coin.

For further enquiries, ring Adrienne Moore, ph 351-5915.

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## Bits & Pieces continued ...

### The Wardian Case

It happened like this...

It was a wet day. On any other day, Carl (McMahon) would be behind the wheel of his triplex. So I went over to his workshop and said - "Carl, I've got an idea. I've been giving talks trying to describe a case which sounds like a cross between a coffin and a portable greenhouse!"

I showed him some plans I got from Kew Gardens, and from Chris Gill from the Hamilton City Council. "Can you make it?". "Yes", Carl replied, "there's some old plywood over there and bits of perspex we could substitute for glass ... and those keyhold surrounds on the tool cupboard would look good." And so with a bit of kiwi ingenuity and artistic licence, Carl created a replica Wardian case.

The Wardian case was created in 1833 by Dr Nathaniel Ward, a London physician and botanist. They were used to transport live plants over long distances, usually by sea. Providing the glazed roof remained closed, the plants were protected from the inclemency of the weather.

They survived simply by recycling transpired water. Delicate plants could be transported panglobally with few mortalities. An exciting invention for the 19th century botanist. For further information see the display at the Botanic Gardens Information Centre 10:15am - 4:00pm from September to April and 11:00am - 3:00pm from May to August. We believe it may be the only case on public display in New Zealand.

*Sue Molloy*

## Feature Articles

### JANET MOSS

Janet Moss is a long time Friend of the Christchurch Botanic Gardens. She has had a lifelong involvement with plants and in the last 40 years has become an expert on conserving the Avon riverbank. Janet grew up in Evesham, an English Midlands town famous for its plum blossom. Her earliest memories are of following her father around looking at wild and garden flowers.

Janet trained as a nanny in England and upon arrival in New Zealand, in January 1939, she worked looking after children on farms. "But in fact," says Janet, "I would much rather work in the vegetable garden and get to know the weeds than look after the children."

When she was working in Wellington, Janet met Leonard Cockayne's secretary who introduced her to New Zealand's natives. "Ferns were my special interest, but since then every single one has had its botanical name changed."

In Wellington she took night classes at the Polytechnic in Chemistry and Botany, a pre-requisite for the national Diploma in Horticulture done by correspondence. That also required practical work so she got a job at Duncan and Davies in New Plymouth. Janet was 23 at the time, but V.C. Davies signed them up as students so he could pay them

less, according to Janet. "But being wartime we were teaching the young apprentices anyway because the only men were sixteen and seventeen year olds."

She spent her days layering rhododendrons and at other times making cuttings. Janet stayed at Duncan and Davies until the end of 1944. By then she was fully committed to becoming a horticulturist. When Massey University College began a two-year horticulture course in 1945 Janet enrolled and was able to skip the first year because of her junior National Diploma in Horticulture.

She took her Intermediate National Diploma in Horticulture at Massey and won the Campbell award for best student, but she took fright at the thought of the final N.D.H. examination. "I'm dyslexic and you had to write a thesis which would have been almost completely beyond me." She did complete her Massey diploma however.

After the war she turned down a job managing a rose trial nursery at Massey and in 1947 returned to England. She got a job at Sutton's Seeds in Reading. "The bonus was that my landgirl status meant extra cheese and bread rations."

Janet's main job was pollinating cyclamen. All the new hybrids were described by numbers. "They daren't put a name to any variety in case they got pinched." She was at Suttons when they took their

## Feature Articles continued ...

cyclamen up to the Chelsea Show. "I went myself, and I've seldom seen a bloom in New Zealand that would match those prize winners."

Back in New Zealand by early 1948, Janet took a job at the Dunedin Botanic Gardens working mainly with rhododendrons in the glasshouses. She met her husband, Brian Moss, on a skiing holiday. They set up home and garden at Annesbrook, Nelson, where their son Michael was born. Tragically, only nine months later Brian died on a climbing expedition to Mt Sefton.

"Gardening has been my salvation," says Janet. She shifted to Christchurch and tried for a job in the Botany Division of the D.S.I.R. but in those days there was no provision for school holidays and no childcare.

"I became a landlady by default." She bought an old house on Kilmore Street, Christchurch and divided it into three flats. So began Janet's life in the Avon Loop Community and her wonderful work on ALPA, The Avon Loop Planning Association.

She began in the late 1960s when Elsie Locke asked her to do a survey of all the important trees in the Loop. For much of the time since then, Janet has worked as A.L.P.A.'s representative on the riverbank, taking concerns for riverbank management to the City Council and Drainage Boards. Janet did her training as a landscape architect at Lincoln University in the 1970's and she asked her colleagues for advice when a chunk of the riverbank fell into the Avon. A suggestion for terraced plantings was rejected by the City Council but they were prompted to begin pilot programmes in riverbank plantings. Some are now well advanced and very beautiful. Janet and Elsie were early voices against the close mowing of the riverbanks both vertical and horizontal and the consequent erosion.

Recently ALPA entered a partnership with the Council's new Wetland and Waterways Team in which the Loop manage their own riverbank and the City Council pays for a worker and some of the plantings. It is a prototype for the City - a very exciting development. Janet Moss has been a significant figure in the whole process.

*Diana Madgin*

## *Knightsia*

"Rewarewa" "New Zealand Honeysuckle"  
*Proteaceae*

Rewarewa is the Maori name, New Zealand honeysuckle the English name, for this tree which often, in bush clad regenerative land, stands, like some great sentinel, high above the rest. *Knightsia* has three species, the other two in New Caledonia. New Zealand's specimen, first discovered in 1769 when James Cook was here, is called *K. excelsa*. This suits it well. It is stately. Its wood is splendid for fine carved objects. In high summer, see its curious red-brown velvety, tubular flowers, dropped for your delight upon the forest floor, though their smell is less pleasing. It honours Thomas A. Knight (1758~1838) a pomologist, who, early in the nineteenth century, was President of the London Horticultural Society.

Printed from "Gentlemen in my Garden" with permission from Fay Clayton

## Recent Events continued ...

principle means that we assume trees responded the same way to climate in the past as they respond today.

A network of chronology sites, situated around the country, exist from several different native species. One of the current major efforts is based on kauri (*Agathis australis*). A series of chronologies have been developed from living trees in Northland and the Coromandel Peninsula. However, there has also been the discovery of huge quantities of buried kauri trees in Northland swamps and a smaller amount in the Waikato area. Some of these trees have been radiocarbon dated as having been buried for over 50,000 years. The evidence so far indicates that the trees were preserved (buried) quickly during distinct points in time. There are large gaps or periods of time when no kauri trees seem to have been preserved. This means we will probably never have a continuous tree-ring chronology going back for 50,000 or more years but we will be able to have insights into discrete periods of time from the preserved material. This project is on-going and has been supported by a Marsden Fund.

Finally, the following quote summarized the speakers feelings about the potential of tree-rings: "Trees don't lie - and they were there!" (Prof Mike Baillie, The Queen's University, Belfast, UK).

*Roy Edwards*

**Contact Numbers**

<b>President</b>	Dennis Preston	351-4131
<b>Immediate Past President</b>	Faye Fleming	351-7798
<b>Treasurer</b>	Colin Neal	359-8080
<b>Membership Secretary</b>	Ruby Coleman	355-8811
<b>Minutes Secretary</b>	Jim Crook	358-5845
<b>Committee Members</b>	Maria Adamski	366-1701
	Tony Burnett	384-1381
	Brenda Childs	382-2451
	Roy Edwards	338-5969
	David Given	351-6069
<b>Newsletter</b>	Peter Mahan	354-1550

**Committee cont'd**

Susan Molloy	366-1701
Valya Pavluk	388-5755
Cullen Pope	338-2528
Max Visch	338-2273
<b>Ex Officio</b>	Warwick Scadden 371-1637
	Kevin Garnett 366-1701
	Richard Doyle 371-1782
<b>Helpers</b>	Bill Sykes 366-3844
	Sally Jebson 352-6363
	Chris O'Sullivan 332-8565
	Janet Begg 385-5114
	Lyn Heaton 355-7563

**Afternoon Programme:**

Enquiries Information Centre Ph 366-1701 or  
Adrienne Moore Ph 351-5915

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