

Newsletter

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

No 49, Summer 2001

INSIDE

Botanic Gardens Jottings



1 Botanic
Gardens
Jottings

This spring has produced some of the best flower display for years with azaleas, rhododendrons and magnolias attracting many visitors. The bedding along Rolleston Avenue frontage flowered well and was a credit to the gardening staff. We will shortly be removing this display and making way for the summer plantings.

2 Recent
Events

City Care tree unit have been assisting the grounds staff by removing deadwood from many of the Gardens specimen trees and this will help with tree health and add years to the collection in general.

7 Snippets
Articles

On the education front Kevin Garnett has reported a down turn in overseas tour groups of about 25% however this has meant that additional time has been spent with school programmes. We have also started replacing old signage and the conservatories will be the first to benefit.

Insert

Coming
Events

Since the publicity on vandalism we have had little damage and a concentrated effort to patrol the Gardens with the assistance of the New Zealand Police has been very much appreciated.

New drinking fountains have been installed at the children's playground and adjacent to the Peacock Fountain. Work has started on the refurbishment of the Bandsmen's Rotunda with an investigation of the concrete structure and strengthening work will begin in March 2002. The children's paddling pool has been sand blasted and completely repainted. Design work for the Addington Brook is in progress and it will complete a project through the Heritage Rose Gardens started some years ago.

There are two trees flowering at present and well worth a look. *Stewartia sinensis* at the east entrance to the Central Rose Garden is flowering and the warm reddish brown bark makes this tree unique. Alongside Cunningham House a *Sorbus aria* is in berry and these trees together with the display of roses in the Central Rose Garden make this part of the Gardens well worth a visit.

May I take this opportunity to thank all those Friends who have given time and energy to assisting to make the Botanic Garden the wonderful garden that it is and wish you a very merry Christmas and well for the New Year.

Craig Oliver
Botanic Gardens Team Manager

FCBG

PO Box 2553
Christchurch

Recent Events

'Gentlemen in My Garden'

A walk in the Botanic Gardens with Adrienne Moore .

The walk titled 'Gentlemen in My Garden', comes from one of Fay Clayton's books; Fay lectures at the Polytec in Lower Hutt.

Adrienne began with an introduction. "Had we been taking this walk in the early 1700's, supposing that this Botanic Garden was here then, it would take a very long time. Plants used to be named with a long descriptive sentence, sometimes in Latin, sometimes in some other language."

The first plant commented upon, ake ake (*Dodonaea viscosa*), was the purple form growing in front of the kiosk. Its wood is dense and heavy and was used by Pre-European Maori for making clubs and other weapons. There are about 60 *Dodonaea* evergreen trees and shrubs; about 40 are confined to Australia but only one to New Zealand. The plant is named after Rembert Dodoens (1516 – 1585) a Flemish herbalist and writer on plants, the common name ake ake means everlasting. The purple leaved form, widely grown as a foliage plant was originally found in the 1890's by Miss E. Wilkins of Tuamarina, Marlborough on the banks of the Wairau River.

The *Abelia* family, which includes *Kolkwitzia*, *Lonicera*, *Viburnum* and *Weigela*, comprises some 30 species of evergreen and deciduous shrubs from East Asia and Mexico. Named for Dr Clark Abel (1780 – 1826) *Abelia x grandiflora* is growing on the west side of the Kiosk. It has small dark glossy green leaves and profuse white flowers in early summer usually with a second flush at summers end.

Escallonia: named for Senor Escallon who was a Spanish traveller throughout South America but mostly in Chile. The small-toothed leaves are usually shiny and the flowers have white or pink petals that in many species are pressed together to form a tube with the tips recurving.

Berberis, barberry is growing on the path to the West Bridge. *Berberis darwinii* was discovered by Charles Darwin in 1835 in Chile. *Berberis thunbergii* the most widely planted species is named after Carl Thunberg, a Swedish botanist and pupil of Linnaeus. It has many cultivars.

We then moved on to larger plant specimens. Douglas Fir (*Pseudotsuga menziesii*) from Western North America named for David Douglas a Scottish plant collector and the botanist Dr Archibald Menzies who discovered it in 1792. It was later collected by David Douglas (1799 – 1834) who began as an apprentice gardener in Scotland. More interested in nature than schooling, he quickly rose from a garden lad to an expert plants man. He worked at Glasgow Botanic Garden in 1820 – 3. Taken on botanical forays with students by Sir William Hooker who later recommended Douglas when the Horticultural Society was looking for plant collectors. Douglas was sent to eastern North America in 1823. His collecting included oaks and fruit trees. He travelled to the far west of North America in 1824 – 7 where he travelled over 7000 miles. Later in 1834 he journeyed to Hawaii where he met a tragic death while following a path. He fell into a covered bull pit and was gored to death. Only 34 when he died, he had tracked thousands of miles through unknown wilderness and suffered untold privations. In 11 years he sent back 20,000 herbarium specimens and more than 240 plants new to cultivation in England. Some of these plants are well known to us for example *Garrya elliptica* with long male catkins 15 to 20cm long.

A number of other plants were seen such as *Magnolia campbellii*, which was in flower. Named after Pierre Magnol (1638 – 1715) a Professor of Botany and director of Botanic Garden at Montpellier in France. This magnolia has large, perfumed tulip shaped pink flowers and is one of the earliest to flower and can take 15 – 20 years to flower.

P. Mahan

(Some parts adapted from Adrienne's notes)

New Zealand Native Conifers

Max's September walk began with a short discussion on the differences between Northern Hemisphere conifers and New Zealand conifers. About 200 or more species of conifers occur naturally in the northern temperate regions. Max produced a couple of species of pines (*Pinus*), to show their long needles in bundles of two or three, or in some cases five. The flowers are borne separately on the same plant. The females he explained develop into a woody, often large cones.

We walked along the main path where opposite the Townend House at the north end of the Australian section grows an Australian *Podocarpus elatus*. In podocarps the cone is reduced to a scale and the seed is often surrounded by an aril, which is an envelope around the seed that is often coloured and fleshy. This one had many which were easily seen.

On our way over to the New Zealand native section we looked at a rimu which is the most widely occurring tree from North Cape to Stewart Island, although only two trees are known to exist on Banks Peninsula. The young rimu trees have light weeping foliage and are very attractive.

Another tree seen was kahikatea or white pine; this is our tallest native tree and forms the canopy of Riccarton Bush. Like rimu it is a podocarp (*podo* – a foot, *carpel* – stalked flower). Male and female reproductive organs are borne on different trees.

We had gradually been making our way to the native section at the

southwest of the gardens and here we quickly located a matai or black pine. The trunks of matai are clean and are 'hammer marked' depressions where bark flakes have fallen, which gives a tree a handsome, mottled appearance that is often a dark purplish brown. Not far away was a miro which can be distinguished from matai by its bark which contains resin canals and resin will exude if a piece of bark is chipped with a knife. These canals are absent in matai. Miro has ovoid, orange fruits whilst ripe matai fruits are shiny black. In a rimu podocarp forest where miro is also growing both species are cut and sold as rimu.

Max showed us Hall's totara, which generally is a smaller tree with thin bark. It grows at higher altitudes. Together with kaikawaka it forms the upper storey in districts where beeches are absent. The totara together with broad leaf, which is not a conifer, originally covered large areas of Banks Peninsula. The durable wood of totara was to the Maori a symbol of strength and goodness. From these trees they made their canoes and dwellings.

One further tree Max showed us was the bog pine which is seldom more than 3m tall and often much smaller. As its name suggests it grows in open bogs often among stunted manuka. Of the twenty or so native species of conifers nearly half are dwarf or of modest stature. I have not included the two New Zealand cedars kawaka and pahautea, which are in the Cockayne Memorial Garden as they were mentioned in a recent article of a walk taken by Neil O'Brien.

Thank you Max. This was an interesting walk and talk.

Peter Mahan



The pygmy pine, shown above, has three female ovules, each consisting of a nut-like seed with a red aril beneath.

4 FRIENDS OF THE CHRISTCHURCH BOTANIC GARDEN

Heritage and Historic trees.

On the 13th of October, a group met at the Museum entrance to the Gardens under the guidance of Max Visch to look at the Heritage and Historic trees of the Gardens.

The first trees viewed were on the Armstrong Lawn. Originally a large area of shingle pits which supplied gravel for Christchurch roads, this area had been levelled in the time of J.F. Armstrong. The fine deodar cedar (*Cedrus deodara*) close to the main path approaching the Hereford Street entrance was planted by John Armstrong on his 60th birthday, probably November 1880.

The Duke of Edinburgh on the occasion of his visit in 1869 planted an oak in the centre of the Armstrong Lawn; this is the Prince Alfred's oak. His Royal Highness especially requested that this tree should never be touched with knife or axe, though it badly needed attention Mr Armstrong would not allow it to be touched. Since that time it has been pruned and is much improved. When the Duke learned that four other trees were to be planted later the same day, he insisted on planting them all. Of these four trees only the *Sequoiadendron giganteum* remains. It is on the south side of the lawn and is more commonly known as the Big Tree or Wellingtonia. As Mr Armstrong wryly remarked so many years ago. The possession of five Royal trees was too much honour for one garden to sustain.

On the west side of the same lawn is a large Lebanon Cedar (*Cedrus libani*) planted before 1880, by the Marchioness of Normandy. A plaque marks it.

Of the many other historic trees we saw the oak which is close to the river near the woodlands bridge was planted on the 9th July 1863 to commemorate the marriage of King Edward, then Prince of Wales, it is of great importance and is known as the Price Albert Edward oak. Now a huge tree it is easily identified by the brass plate fitted into a strong post, which stands on the front of it. In 1861 the Reverend Richard Taylor of a Mission Station near Wanganui received, on behalf

of Queen Victoria, four acorns and a request that they be raised to commemorate the death of her

husband. One tree went to Rotorua, another to the Dunedin Botanic garden. The third tree, retained by the Mission died. The one planted in Christchurch marked the date when the Government Domain became the Botanic gardens and was the first tree to be officially recorded. Other trees such as willows, poplars and some eucalyptus trees had been planted years before but no record of their plantings had been kept. Enoch Barker who was the Government Gardener in charge of the Domains from 1859 to 1867 planted the Albert Edward oak and was responsible for the planting of other old trees, which add dignity and beauty to the Gardens.

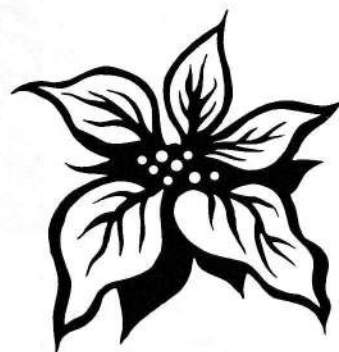
Addendum

In addition to the Horticultural Society Rose Circle helping to maintain the circular rose garden, mentioned in the Mona Vale visit article in the Spring Newsletter, the Canterbury Branch of the Heritage Rose Society also contributed by pruning and dead heading the heritage roses. These roses extend the length of the brick wall and on the other side of the drive up to the Summer House and include the roses on the buttresses around the Fernery. Approximately ten years ago the New Zealand Heritage Rose Society donated over \$1000 worth of roses for these areas.

New Members

We welcome the following new members to the Friends:

A. & L. Young
Mr J. Salm
Mrs I. Platt
B. Peffers
A. & L. Peffers
G. James
A. Simmons
G. Hay



Snippets

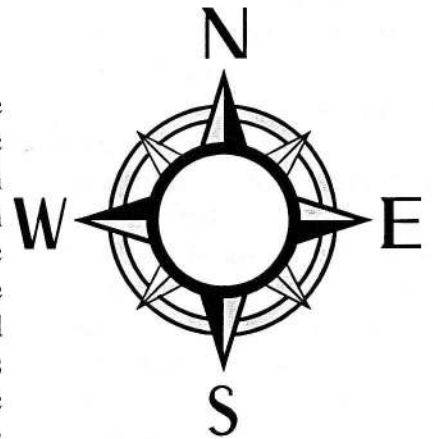
Plant and bulb sale

The Friends are deeply indebted to all of the members who helped to make the plant and bulb sales successful fund raising activities again this year. Thanks are due to all members who participated for their contributions in so many areas. These include the people who over many months, gathered, prepared, potted, nurtured and labelled both plants and bulbs for the respective sales. Additionally others whose work was most appreciated are those who co-ordinated, advertised and administered all the essential arrangements for the sale including last but not least everybody who worked long hours selling plants and bulbs on sales days.

The collective efforts of members were rewarded by the interest of the many continuing customers who went away with bargains and well presented good quality plants and bulbs. The net proceeds from both sales realised just over \$7,600 which was a good result particularly in view of other competing sales at that time of year. Plants left over from sale day have since been offered for sale outside the Information Centre.

Request for props

The December 2001/January 2002 display at the Information Centre will reflect over the 70 years when the Christchurch Magnetic Observatory was based in the Botanic Gardens. This will begin with acknowledging the 100 year anniversary of the arrival to Christchurch of Captain Robert Falcon Scott on his first expedition to the Antarctic when he used the Observatory to calibrate his instruments. The Information Centre staff are looking for props for the display i.e. old Union Jack flag, sledge, photos, any magnetic instruments, a compass etc. Aspects of this display will become part of the Magnetic Observatory Workshop Museum known over the years as the 'Ranger's Hut'. We are pleased to report that fundraising so far has reached over \$7,000. Please contact Information Centre Staff by phoning 364 7590 if you can help.



Articles

The Botany of Banks Peninsula

A talk by Hugh Wilson

When Forty Fortunate Friends were fed a feast (in words and on film) of flora and fauna of Banks Peninsula.

Hugh Wilson is well known for his passion, dedication, commitment and hard work as Reserve Manager at Hinewai* on Banks Peninsula. Prior

to this work, he spent five years in the 1980s on a detailed botanical survey of Banks Peninsula using an intensive grid system. He sampled 1260 plots, each 6m by 6m and recorded all the vegetation within each plot. Exotic plants were dominant in 59%, and native plants in 41% of the plots. His study produced some invaluable base data and many fantastic photos, which he shared so enthusiastically with us.

In his introduction Hugh told of the ancient

6 FRIENDS OF THE CHRISTCHURCH BOTANIC GARDEN

geological history of Banks Peninsula, the climate, development of plant and animal life and much later, the arrival of *Homo sapiens*. Hugh wonders how *sapiens* some were? People are very recent arrivals in the history of the area and have had an incredible impact on the ecology.

Forest covered the peninsula from "side to side and up and down." Some forest dies naturally, but the removal of the forest began either accidentally or deliberately when the first Polynesians arrived. They hunted native birds including moas, kiwis, kakapo, and the giant eagle, and were thought to have destroyed one quarter to a third of the forest. Native tussocks became established after the forests were burnt. Captain Cook recorded seeing clear ridges and headlands.

The first recorded European landing was in 1810. There was a huge loss of forest in the first years of European settlement, as timber was felled and land was cleared for farming. Eyewitness accounts tell of huge fires in the 1860s and it only took about 70 years to go from forest to cleared land. There was less than 1% of old growth forest by 1900 and logging continued till the 1920s. By 1996 up to 18% of the Peninsula was covered in mixed native second growth forest, including many species of ferns, fuchsia (*Fuchsia excorticata*), mahoe or whiteywood (*Meliclytus ramiflorus*), five finger (*Pseudopanax arboreous*), lacebark (*Houheria populnea*), horopito (*Pseudowintera colorata*), with young kanuka (*Leptospermum ericoides*) sheltering the regrowth. Native trees can re-establish eventually where sheep graze to keep the grass low. At Hinewai Reserve where grazing animals have been excluded, natives are regenerating in the shelter of gorse, originally

introduced by the early settlers as hedging. Once through the gorse canopy, these natives will eventually block out the light and the gorse will not survive. Several old podocarps some centuries old, are features at Hinewai. There are a few other old growth forest remnants and reserves, such as the Hay Scenic reserve at Pidgeon Bay, Kaituna Reserve, Mt Herbert Scenic reserve and Price's Valley Reserve, where the best valley floor remnant can be seen. [matai (*Podocarpus spicatus*),

kahikatea (*Dacrycarpus dacrydioides*), Totara (*Podocarpus totara*) and titoki (*Alectryon excelsus* at its southernmost limit)]. Coastal forest is regenerating in pockets around Akaroa harbour. Cliff dwellers such as the daisy *Celmisia mackoyii*, have never been disturbed due to inaccessibility, just photographed by Hugh, dangling from a harness held by the mountain rescue squad, who helped out on hard-to-access sites.

Hugh's grid survey showed up nature's amazing natural distribution of plants according to altitude, rainfall and climate. The broadleaf cabbage tree (*Cordyline indivisa*), is native to Banks Peninsula and grows in the high rainfall areas only. There are pockets of the mamaku tree fern (*Cyathea medullaris*, nikau (*Rhapostylis sapida* at Hickory Bay) and red beech (*Nothofagus fusca*) which grows in an arc in one corner of the peninsula. Ancient specimens of black beech (*Nothofagus solandri*) have been discovered.

Introduced species now common are macrocarpa (*Cupressus macrocarpa*, pines mainly (*Pinus radiata*), and walnuts (*Juglans regia*), and many fruit trees.

Birds and the wind play a major part in seed dispersal and there are positive signs of the natural



Hugh Wilson
By Bruce Tulloch

regeneration of many original species. Some return remarkably quickly once pests and grazing are controlled.

With generous benefactors, more ecologically aware landowners and such knowledgeable and active people like Hugh, contributing to nature's own pattern of renewal, we can be encouraged that the impact of homo sapiens has been much more positive in recent times.

*Hinewai is a 980-hectare reserve in the Southeast corner of Banks Peninsula, 7 km from Akaroa. The Maurice White Native Forest Trust purchased the original 107 hectares in 1987. Additional land has since been purchased and the whole area is now privately managed, for the protection and restoration of native vegetation and wildlife

People are welcome as visitors and helpers. For information about visiting Hinewai contact - Hugh Wilson, Reserve Manager, Phone (03) 3048501.

Adrienne Moore.

Furcraea longaeva

Furcraea longaeva has been making an impressive sight in the Botanic Gardens this spring. A member of the Agavaceae family which includes Agaves and Yuccas, *F. longaeva* is a native of Mexico.

Most *Furcraea* are stemless rosettes, however those that form stems like *F. longaeva* can grow to 15 metres. The blue/green leaves are 1 – 1.5 m long and rough to touch. They cling to the trunk forming a dense lagging or skirt of dead leaves. They remain in this state for many years until suddenly they concentrate all their energy into producing an inflorescence that is as tall as the trunk. The Botanic Gardens specimens were planted in 1983 and had attained a height of up to 3m before growth of the inflorescence commenced.

The off white flowers of *F. longaeva* appear in late October/November. They are 3 – 4cm in diameter

and born on short pedicels (the stalk of one flower in an inflorescence or flower cluster) from the massive trunk. The inflorescence can grow as tall as the trunk forming an impressive sight.

I have been unable to find any reference to flowering cues or stimuli for *F. longaeva*. I suspect that a combination of unique climatic events this year has triggered such a spectacular display. That is the extended dry summer and autumn then a cold dry winter followed by a sudden rise of temperature in the spring. It could also be due to climatic conditions from previous seasons, such as the warmer winter we experienced last year. Although plant age and size may be another factor, some of the smaller specimens are also flowering.

Furcraea rarely set seed but frequently produce large numbers of bulbils, which root when they fall to the ground. This species is monocarpic which means it only flowers once in its lifetime then the plant dies. It is a good idea to save a few bulbils to replant, as this is the best method of propagation.

F. longaeva is best planted in a sunny position with well-drained soil. It is quite hardy in Christchurch conditions. They are a very attractive architectural specimens and look good planted en masse.

F. longaeva has also been included under the names *F. bedinghausii* and *F. roezlii*.

Dean Pendrigh

Raffle winner

Winner of the Exotic Trees book was Ailsa Morrow. Congratulations.

There are currently two other book raffles underway.

8 FRIENDS OF THE CHRISTCHURCH BOTANIC GARDEN

Contact Numbers

| | | | | | |
|--------------------------|----------------|----------|---------------------|--------------------|----------|
| President | Dennis Preston | 351-4131 | | Janet Begg | 385-5114 |
| Immediate Past President | | | Ex Officio | Craig Oliver | 366-1701 |
| Treasurer | Colin Neal | 359-8080 | | Kevin Garnett | 366-1701 |
| Membership Secretary | Ruby Coleman | 355-8811 | Helpers | | |
| Minutes Secretary | Jim Crook | 358-5845 | Plant Sale | Helen Constable | 332-1212 |
| Committee Members | Tony & Janette | | | Gcon@xtra.co.nz | |
| | Burnett | 384-1381 | Newsletter mail out | Sally Jebson | 352-6363 |
| | Amelia Childs | 382-2451 | Guide Coordinator | Sylvia Meek | 326-6167 |
| | David Given | 351-6069 | Botanist | Bill Sykes | 366-3844 |
| | Joan Bower | 326-5312 | Walks | Max Visch | 338-2273 |
| Newsletter | Peter Mahan | 354-1550 | Enquiries | | |
| N. Assistant | Maria Adamski | 325-2330 | Afternoon Programme | Information Centre | 364-7590 |
| Outings/trips | Alison Fox | 385-4933 | | Adrienne Moore | 351-5915 |

Friends of the Christchurch Botanic Gardens Inc
PO Box 2553
Christchurch
New Zealand

Coming Events 2001/2002

| | | | |
|---------------------|------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| December 4th | Tuesday 9 am Information Centre | Walk | <i>Gong Bush: A look at the Native Collection</i> with Mark Davis |
| December 7th | Friday 5.30 pm Townend House | Social | Christmas Celebration Please bring a plate of finger food |
| December 15th | Saturday 1.30 pm Information Centre | Walk | <i>Rock and Alpine plants in the Botanic Gardens</i> with Peter Mahan and Max Visch |
| December to January | Information Centre | Exhibition | 100 year anniversary of Sir Robert Scott's involvement with the Gardens Magnetic Observatory. |
| January 19th 2002 | Saturday 1.30 pm Information Centre | Walk | <i>Perennials for shady situations</i> with Max Visch |
| February 5th | Tuesday 9 am Information Centre | Walk | <i>The seed exchange programme</i> with Susan Molloy |
| February 13th | Wednesday 2 pm Petanque Club Rooms | | <i>Bring a plant.</i> Group plant discussion Afternoon teas |
| February 14th | Thursday 7 pm Information Centre | Guided Walks | In conjunction with the Floral Festival. Please bring your friends and neighbours. Donations welcome |
| February 16th | Saturday 1.30 pm Information Centre | Walk | <i>Poisonous Plants and how to live with them</i> with Max Visch |
| February 19th | Thursday 7 pm Information Centre | Guided Walks | In conjunction with the Floral Festival. Please bring your friends and neighbours. Donations welcome |
| February 21st | Thursday 7 pm Information Centre | Guided Walks | In conjunction with the Floral Festival. Please bring your friends and neighbours. Donations welcome |
| February 24th | Sunday 10 am to 4 pm | Big Day in the Park | A day for the whole family and visitors to enjoy |
| March 14th | Thursday 12.45 pm to 4 pm, meet in Armagh St Car park outside Petanque Club rooms. | Bus Outing | Visit to Addington Bush, Trees for Canterbury and CCC Linwood Nursery. Afternoon tea included. Bring own mug. Cost \$10 Please book in with Alison Fox Ph 385 4933 |
| March 16th | Saturday 1.30 pm Information Centre | Walk | <i>Native trees and Shrubs suitable for small gardens</i> with Neil O'Brien |

NOTE: The Petanque Club rooms is the two storey building on Hagley park side of Armagh St Botanic Garden Car park.

Coming Events 2002

Christmas Social

Friday 7th December
Townend Display House
5.30 pm

Please bring a plate of finger food
The first drink is free then gold coin
donation



Townend Display House

Coming Attractions

Celosia and *Pentas* will feature as part of the display until mid January. During December a special Christmas display is to be staged incorporating *Poinsettias* and Christmas decorations.

From mid January until the end of March the ever popular *Begonia's* will be on display.

Volunteer sought

We are currently seeking a volunteer to help with the administration of the Friends membership. The person would be required to act as a back up person to job share and preferably be computer literate. The main duties involve collecting mail, processing memberships and keeping the records up-to-date and accurate. There is also the opportunity to assist with the Plant Sale labels that are produced in August/September.

The hours vary being mainly 2 hours per fortnight but from June – October it is about 2 hours per week.

If you are able to help please contact Sylvia Meek on 326 6167.

