

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

INSIDE

President's

Comment

Botanic

Gardens

Jottings

Bits &

Pieces

Coming

Feature

Articles

**Events** 

### No 42, Autumn 2000

## **President's Comment**

I am not going to bore you with stories about what I did during the summer holidays, but there is one experience that has remained with me that I will pass on. We were fortunate to go to the Collingwood area in the Golden Bay where small estuaries merge into streams and river valleys. The surrounding hills are bush clad and rise steeply out of the valley. One plant that stands out over all others at this time is the glorious metrosideros. Pohutakawa (metrosideros excelsa) lined the estuary and road margins, its iridescent flowers a rich thick red. Then looking up to the green hills, great splotches of rust red locate the rata (metrosideros robusta). The metrosideros are, for me, one of our premier trees.

If you are in the woodland area of the Gardens don't forget to check out the new

Heritage Rose garden. The beds have been surveyed and laid out. Work has also started on the Curator's House that will be turned into a cafe/restaurant and Echo Education Centre. The Centre will aim to raise awareness of the value of a home environment and encourage enthusiasm for gardening as a recreational, productive and healthy activity.

February is going to be very busy with the *Festival of Flowers*. Our guides will be there giving evening tours and the Friends will have a stand for selling plants and giving information during the Big Day at the Christchurch Botanic Gardens.

Try not to overdose on events and have a good time.

Dennis

## **Botanic Gardens Jottings**

### Christchurch Botanic Gardens Tours

The Christchurch Tramways have taken over the running of the Botanic Garden Toastrack tours from the 1 September (1999) until the 31st of May 2000. Tours depart every 30 minutes between 10am and 4.30 p.m. Each tour takes 20-25 minutes and the toastrack may be boarded by the Peacock Fountain or outside the Information Centre within the Gardens.

Costs: Garden Tour Only Adult \$6 Child \$4 Combined Tram and Garden Tour Adult \$12 Child \$7

### Sculptures in the Gardens.

Viewing Dates 7 December 1999 to 5April 2000

Since 1993, the expansive Christchurch Botanic Gardens have provided the backdrop for Sculptures in the Gardens, a biennial event jointly presented by the Robert McDougall Art Gallery and the celebrate Botanic Gardens to contemporary New Zealand sculpture. The three artists chosen to participate in this years exhibition, Paul Cullen, Stuart Griffiths and Fiona Gunn share an intention to look beyond the Gardens as merely a setting for sculpture. They have created instead, site-specific work which plays on, and reveals, the environmental, spatial, and historical resonance of their



## Jottings continued ...

2

chosen sites, challenging the notion of "garden" itself.

Copied from Sculpture in the Gardens by Felicity Milburn, Curator. This brochure which accompanies the sculptures is available from the Information Centre.

## **Bits & Pieces**

### DEVELOPMENT OF THE AUSTRALASIAN DISPLAY GARDENS

In accordance with the policies of the Botanic Gardens Management Policy Document the Australian Display Garden (pg: 36) has two parts.

#### 1. New Zealand Cultivar Plants

This border is at present part of the camellia cultivar collection. These are to be relocated to three sites within the Gardens.

- I. Riverwalk Border for camellia species
- II. Kate Sheppard Walk for white camellias
- III. Woodlands, south of the Bandsmen's Memorial Rotunda for New Zealand bred cultivars, Heritage (pre 1910) cultivars and Yunnan reticulatas.

Any extra camellias, which do not fit into the above groups, will be relocated to garden parks within Christchurch.

The removal of camellias and replanting with New Zealand cultivars is to be carried out in stages over four years.

### 2. New Zealand Cultivar Plants

At present this border has Australian cultivars with Australian species and non-Australian plants. The aim of this collection is to display Australian cultivars, which are available within New Zealand that can be grown in Christchurch's climatic conditions. The large number of Myrtaceae family (i.e. Eucalyptus) present within the border and adjacent lawn, will be further developed concentrating on species within the family with close connections with New Zealand i.e. Leptospermum, Kunzea and Metrosideros. The addition of paths to reduce the size of the borders will give better access for viewing of plants. The development of the Australian Display Garden will give the opportunity to group New Zealand and Australian cultivars next to each other to promote a better understanding and appreciation of the large number cultivars available to the home gardens.

### Bede Nottingham - Botanic Gardens Staff

### **JOINING THE GUIDING GROUP THIS YEAR!**

This group meets regularly to practise guiding and build up a resource folder for guides. There is a meeting on Wednesday 16th February 2000 at 1:30pm in the Smoko Room. Maria Adamski will discuss "The Latest Developments in the Gardens". If you do not know where the Smoko Room is, meet outside the Information Centre at 1:20pm. Any queries please phone Lyn Heaton on 355-7563.

### HERE AND THERE - A MISCELLANY OF BOTANIC GARDENS

How many of us change planes at Singapore, do some shopping yet do not realise that a short taxi ride to the city takes us to one of the world's greatest botanic gardens. Although conceived at the time of European settlement in 1819, establishment of the Singapore Botanic Gardens almost coincided with our Gardens in Christchurch. Today they occupy almost 50 hectares and rank as one of the most important of all tropical botanic gardens. The list of directors includes renowned tropical botanists such as Henry Ridley, E.J. Corner and Robert Holttum (with whom I had the privilege of working at Kew in 1974). One of the curious stories concerns the Japanese invasion when the victorious Japanese allowed Corner and Holttum to remain working at the gardens while war raged around them - such was the reputation of the Gardens and its staff. Today, a major attraction is the extensive orchid section strikingly situated on a sweep of hillside. This includes lush displays of both cultivars and wild species in one of the world's largest and most spectacular collections. The Gardens are a major contributor to new and novel orchid hybrids for the world market. Not to be missed is the dark rain forest which, like Riccarton Bush, is a remnant of original forest preserved from the times of first settlement. But this is also a garden where every turning offers something of interest and variety, from broad vistas to specialised tropical collections, from enclosed ponds and waterfalls to sweeps of palms and ferns. The spirit and work of the gardens is encapsulated in Bonnie Tinsley's exquisite book, Visions of Delight, available at the well-stocked Gardens bookshop. Appropriately she quotes a visitor as writing, "The Singapore Botanic Gardens are unique. Civilization would be the poorer if they were not maintained." - David Given

## **Coming Events**

Feb 17th	Thursday 7:00pm Information Centre	Walk	Part of the Festival of Flowers Programme.
February 20th	Sunday 10:00am to 4:00pm	Plant Sale	BIG DAY in the park. Part of the Festival of Flowers Programme.
February 22nd	<b>Tuesday 7:00pm</b> Information Centre	Walk	Part of the Festival of Flowers Programme.
February 24th	Thursday 7:00pm Information Centre	Walk	Part of the Festival of Flowers Programme.
February 26th	Saturday 1:30pm Information Centre	Walk	Perennial Borders with Maria Adamski and Max Visch.
March 3rd	Friday 2:00pm Information Centre	Talk	The Curator's House garden with Louise Morgan. (Afternoon tea will follow).
<sup>o</sup> March 7th	Tuesday 9:00am Information Centre	Walk	Special Interest Areas with Kevin Garnett.
March 15th	Wednesday 7:30pm Information Centre	Talk	New Zealand's Past Climate - Lessons from dead wood, with Dr Johnathon Palmer.
March 18th	Saturday 1:30am Information Centre	Walk	Conifers - Champions of the Plant Kingdom, with Max Visch.
April 4th	Tuesday 9:00pm Information Centre	Walk	Staff Member
April 6th	Thursday 2:00pm Information Centre	Talk	The Heritage Rose Garden - Developments, with Richard Poole (staff member). Afternoon tea to follow.
April 15th	Saturday 1:30pm Information Centre	Walk	Autumn Highlights with Adrianne Moore.
April 19th	Wednesday 7:30pm Information Centre	Meeting	"Potting Mix and Fertiliser Use for Container Grown Plants" by Merv Spurway.
May 6th	Saturday 4:00pm Information Centre	Talk	China - The Yangtze Gorges and Beyond, with Professor Bill Willmott and Diana Madgin. Light refreshments will be served.

# THE GARDEN CITY GARDEN SHOW - MONA VALE

This year between February 24th -27th, there is going to be a flower show at Mona Vale to commemorate the 150th anniversary of the Canterbury Province. The show will comprise onethird displays, one-third trade exhibits and one-third education/entertainment events. The estimate of numbers attending is 20,000 and it has been advertised locally and at a national level.

### Displays

The display element, like all Canterbury Horticultural Society events will be well organised with shows from 40 Garden Clubs. Other groups and societies like Begonia, Chrysanthemum, Fuchsia and Fruit and Vegetable are putting on major displays.

3

### **Coming Events continued ...**

Mona Vale has had about 25,000 bedding plants planted in various areas with other areas such as the Rose Garden, Fuchsia, Iris gardens having their own specialised interest. There will be displays of floral art with information on new techniques.

### Trade

There are going to be 70 trade display exhibitors with major display gardens being constructed by the Christchurch Star, Athol McCully, Terra Viva, Botanic Garden Apprentices, Canterbury Landscape Guild and Living Earth.

## **Feature Articles**

## THE YUCCA

Summer has definitely arrived - as all around the city the yuccas are showing off their magnificent blooms. The strange sounding scientific name is derived from the common name of an unrelated plant from the West Indies.

The genus *Yucca* belongs to the family of the Agavaceae which also includes such garden plants as *Agave, Beschorneria Dracaena* and *Furcraea*.

Yuccas are all native to the dry, semi-desert areas of the Southern United States, Mexico and Central America. In their natural habitats, Yuccas are subjected to intense heat and often prolonged periods of drought. In May 1997 the author had the pleasure of travelling with some friends and a relative through the desert states of California, Utah, Arizona and New Mexico and noted how various species of Yucca, often in association with cacti, formed a conspicuous element in the vegetation bordering the States' highways.

Yuccas grow either in size from stemless rosettes of leaves barely 2 or 3ft tall to branched or unbranched trees up to 50ft (15m) in height. There are a small number of Yucca species that may be considered trees - and the most famous of these is the Joshua Tree - Yucca brevilolia of the Mojave desert in California. In habit, it somewhat resembles our Cabbage tree but its leaves are shorter, more rigid and sharp pointed. It got its common name from the Mormon pilgrims who on their way to Salt Lake City in Utah, passed

### Entertainment

The Entertainment programme will run throughout the show with ballet, choirs, alfresco dining and big bands playing from 10 a.m. till 10 p.m. The Education programmes listed are many and varied with speakers such as Prof. John Walker, Lyn Bishop (Landscaping), Barry Sligh (Taunton Gardens), Hamish Prebble (Texture Plants), Gina Williamson (Container Gardening) plus a potting shed where everyone can practice their skills for taking cuttings.

Kevin Garnett Horticultural Supervisor Christchurch Botanic Gardens

through groves of these trees and who felt that the crooked, gesticulating branches seemed to point the way towards the promised land.

The sword shaped leaves of Yuccas are leathery and fibrous in texture and usually end in a very sharp point - an easy way of telling Yuccas apart from other similar plants. Yucca leaves lack the marginal spines so prominent in many members of the genus *Agave* (Century Plants).

Yucca plants need to reach a certain size and maturity before they will flower. When they do, the huge panicles of flowers raised upon stalks of up to 6ft (2m) or more, is a spectacular sight. Recently, 🐛 mature specimen of 'Our Lord's Candle' Yucca whipplei in the Yucca border of the Christchurch Botanic Gardens produced an inflorescence of hundreds of creamy white flowers on a stalk over 10ft (3m) in height. Unfortunately this species is monocarpic which means that the plant dies following flowering and seed formation. In most species of Yucca the large, pendulous, bell shaped flowers rarely fully open. The colour is white or creamy white, sometimes with a tinge of purple. Of simple form, the yucca flower is made up of 6 tenals or perianth lobes, 6 stamens and a single pistil composed of an ovary, containing the ovules, and a short style with 3 stigmas on top.

> In their native lands *Yucca* flowers are pollinated by the Pronuba moth (Tegeticula), a species that has become famous for being the only

Brian Wignall 13

### A GARDENER'S TEN COMMANDMENTS

**1 Thou shalt:** keep it clean at all times even unto thy speech, when frost killeth vine and flower and insectplague doth ravage thy seedlings.

**2 Thou Shaft:** feed the soil abundantly, according to thy means. Yea, and water it, even with buckets as the law of the land, and thy conscience, doth permit.

**3 Thou shalt:** Sow and plant according to experience and the word of experts and not on the say-so of sidewalk superintendents, who have less understanding of thy problems.

4 Thou shalt: prune thy trees and the branches thereof; yea, and the roses and shrubs in their season. Cut them not back in the wrong month, lest ye be deprived of their full fruiting and flowering.

**5 Thou shalt:** Spray constantly, but with. caution, remembering that a fool sprayeth in the heat of noon When the bee visiteth the flowers. Neither shall thou use the -pump in a high wind, lest thou spread the poison on thyself and others.

6 Thou shalt: Gather the fruit of thy toil when it matureth, not waiting until it be over-ripe. A fool wasteth, but a wise gardener subsidiseth not his greengrocer.

7 Thou shalt: share the garden crop with thy neighbours. Yea, verily, the tight-fisted gardener is an abomination to his fellows (also they remember him not in the hour of their abundance).

**8 Thou shalt NOT:** envy thy neighbour, even though he winneth the Show Championship and his pumpkins are mightier than thine.

**9 Thou shalt NOT:** abandon thy tools to the elements, by day or by night, lest thou expose them to rust and rot. and set thy neighbour's feet on the path of temptation.

10 Thou shalt NOT: leave thy plot untended for many days, while relaxing in slothful ease in a place of holiday. Rather thou shouldst help thy neighbour in the months before so that he returneth the favour in thine hour of need.

Thou shalt keep these Commandments - and thy fingers crossed - lest thy garden perish. Yea, verily, and thou thyself become a byword and without honour in the eyes of thy neighbours.

(Amen) Elizabeth Pack

## Feature Articles continued ...

known insect that deliberately pollinates flowers to ensure that her offspring will have enough to eat to reach maturity.

The Pronuba's life history was discovered by an early American entomologist by the name of Charles Riley. With the aid of an old fashioned lantern, Riley spent many hours at night observing the strange behaviour of the moth. He found that after mating, the female moth gathers large amounts of pollen from the anthers of a Yucca flower, rolls these into a ball and flies off to another Yucca plant of that species. Here, she first lays a small number of her eggs into the young green ovary inside the flower, then runs up the pistil to the stigmas on top and rubs the ball of pollen all over the female receptive surface of the stigma. This seemingly purposeful act ensures that the ovules inside the ovary will become fertilised and develop into seeds. The eggs laid earlier by the moth will meanwhile hatch into tiny caterpillars that will gain their nourishment from eating the developing seeds. As more seeds will be produced than the caterpillars can eat, plenty of seeds will be left to safeguard the survival of the Yucca species. Although it might seem harmful, both moth and the *Yucca* gain advantage from this relationship. The flowers are ensured of pollination and seed formation, and the caterpillars are guaranteed a reliable food supply.

In New Zealand, suitable pollinators are absent and seed is generally not produced, unless pollen is artificially transferred by hand, in which case there should be no problem. How successfully this can be done is shown by the many hybrids, plant breeders have raised.

Many species of Yucca played an important part in the life of the native Indians in earlier days. It has been said that the only part the southwestern Indians did not use of the Palmilla *Yucca elata* was the dry, woody seed pods. The Vitamin C rich flowers provided food, the leaves supplied fibre for baskets, sandals and nets, and the roots, which are rich in

### Feature Articles continued ...

saponins, were used to wash clothing and shampoo their hair.

Yuccas are superb plants as garden features. They need to be given plenty of space to grow and to be seen to advantage and must be kept well away from any pathways on account of the very sharp tips to their leaves. Once established, yuccas are very

drought-tolerant and provided drainage is good, prefer a sandy soil in a sunny position. They are ideal plants for low maintenance gardens and will grow well in the same position for many years.



200

The main garden species in New Zealand is *Yucca filamentosa* or Adam's Needle - a stemless sort with long curly threads coming of the leaf margin. *Yucca gloriosa* - the Spanish Dagger has a short trunk and is a much taller plant. For those that prefer to grow their yuccas in containers there is *Yucca elephantipes* - which is popular with gardeners as its leaves lack the sharp points and because it grows well in tubs.

Max Visch

### LLEWELLYN MITCHELL

Llewellyn reminisces on a walk in the Christchurch Botanic Gardens 1 July 1999, with Adrianne Moore of Friends of the Gardens.

#### Supplementary information within square brackets i.e.[]

#### **Continued from Newsletter No.40**

Under James Young, the present Bog garden was developed and Walter Brockie or "Wattie" was in charge of this area. Islands in the shape of a map of New Zealand had been planted up with New Zealand plants in the small pond nearest the river. Celmisias were a feature. The students waded across to work there but it was later removed.

In the 1930s, part of the present Pinetum area was a dump and horse paddock. Plants such as azaleas, hebes, hydrangeas and maples, were also grown on here. Wallflowers were planted out at 1" high in the open ground and grown into big bushy plants for the borders. Two draught horses were used for work around the Gardens and were kept in two areas, the present Pinetum and where the heath and heather gardens now are planted across from the rockery. The horses were used to pull the mowers on the Archery Lawn and were fitted with special soft shoes so their hooves did not cut up the grass. Horse manure was not used on the garden beds.

Sometimes cannabis has been found in recent times growing around the ponds, but in Llewellyn's time it was cultivated as Indian Hemp and on display in the Cuningham House as one of the plants of economic use to mankind. Llewellyn planted up, under direction of his foreman Fred Thorne, the conifer garden between Beswick's walk and the present rock garden. Some years later when he was between jobs he was engaged again to help Walter Brockie finish the first part of the new rock garden. Rocks had been brought in from the Port Hills. Alf Tomes was also working on the Rock garden and a small tractor was used to help place the rocks. The soil for the rockery was brought in from Hagley Park. An old poplar has recently been removed from the Harper Lawn near the Rhododendron border by the River path and this area was used in Llewellyn's time as a woodpile.

Across the river in the woodland Llewellyn remembers the aviaries and fish ponds that were in the far corner behind what is now the Nurses' home. The first three floors of the Nurses Home were built in 1931 on land previously used by the Acclimatisation Society.] He recalls seeing about five hundred unemployed men including many from the professions, being harangued by a Mr. Fournier, speaking from the Band Rotunda. These unemployed were receiving 12/6 for 2 days work when students in the Gardens received £ 1 per week. Students Ivor, John and Llewellyn planted the very first daffodils in the woodland area. Some of the holes had been dug previously. They were cut a spade square and five or seven of the bulbs were to be carefully spaced in these holes. Once the foreman left them to it, the students just planted up the bags of bulbs by the handful to get the job done as fast as possible.

Crocuses were planted under the *Pinus maritima* near the Cherry mound. Unemployed stone masons made the steps here around 1934/5. The two bowls at each side of the steps were originally in the rose garden.

The Maritime or cluster pines, *Pinus pinaster*, (*Pinus maritima*) on the pine mound near the Armstrong Lawn were declared unsafe in 1931 when this was a site under discussion for the Art Gallery. These Pines are now regarded 68 years later, as one of the important features in the Gardens. The present site of the Gallery was eventually chosen as it had more suitable access from Rolleston Avenue for

6

### FRIENDS OF THE CHRISTCHURCH BOTANIC GARDENS

### Feature Articles continued ...

evening functions. A very large *Pinus canariensis* was removed from beside Christ's College buildings to clear space for the Art Gallery. The Prince of Wales Kauri was about 6 feet tall in Llewellyn's time and seemed to grow very slowly.

The Peacock Fountain was in the Archery Lawn pond. It was supplied with water piped from the Avon River near the workshop area until about 1933, when the Gardens were connected to the Town supply. Insufficient staff were available to service the fountain and it therefore caused problems. In recent times Llewellyn was involved with the Beautifying Association to have the fountain restored and replaced in the Gardens.

nes McPherson established the conifer garden on the river side of the Curator's house, and when plantings there were renewed in later years, some if the new conifers were supplied by Llewellyn's son Laurence Mitchell.

The fence along the Rolleston Avenue frontage was a holly hedge. Within this, a ribbon border was a major feature. This colourful border extended from the entrance at the Museum along to the Curator's house and was 10' wide. Seven rows were planted up with plants grown from seeds and cuttings. They were spaced from 9-12" apart and some of the plants used were Madam Salroi, Harry Hiover, Soldier's Tunic and Rev Atkinson geraniums, ageratum, centaurea, white alyssum and lobelia. [The holly hedge had been there for ninety-nine years and was replaced as part of the Gardens Centenary celebrations in 1963. The generosity of Mr. W. S. MacGibbon provided for the stone and wrought iron fence now in place.]

The Eveleyn Cousins memorial wall beside the Pine mound was erected in memory of the sister of Mayor Andrews. She acted as his Mayoress.

Until quite recently, a *Colletia paradoxa* previously known as *Colletia cruciata* (Anchor plant) was growing in the northeastern tip of the archery lawn beside the main pathway. The students were very careful when pruning the spiky bush and left the cuttings on the path. The foreman reprimanded them for not cutting the prunings into more manageable pieces to be loaded onto the rubbish truck. [This plant was named after Philibert Collet a French Botanist 1643-1718, and cruciata means- in the form of the cross.]

When the propagator Miss Campbell became sick, Llewellyn as senior student, took over and worked for two years as the Propagator. Miss Cull the typist also helped with the Glasshouse work.

Employers made contact with the Curator to seek out students so Mr. McPherson was able to help them find work at the end of their five year apprenticeship.

Llewellyn was accepted for training at Kew Gardens and was booked to sail for Britain in September 1939. War was declared and took this opportunity from him, which was an enormous disappointment.

In between other jobs, Llewellyn returned several times in later years to work in the Gardens. He remembers Huia Gilpin planting the *Metasequoia* glyptostroboides (Dawn Redwood) outside the Cuningham house. Mr. M. J. Barnett who gave him the plant, told him to find a place for it. Huia Gilpin also planted the *Fagus sylvatica heterophylla* 'Laciniata', (Cutleaf or fernleaf beech) on the Armstrong Lawn.

Those who started in the Gardens together, remained firm friends. Over the years when they scattered throughout New Zealand, there was much cooperation between them. Plants were exchanged and every help given to build up their various collections. Men trained under David Tannock (from Dunedin) and other Kew - trained people, received the very best horticultural education.

Llewellyn used the skills he learnt with bedding plants in the Gardens when he first started his own nursery in Jeffreys Road Fendalton. Over the years he has trained many students there and some of these later went on to Lincoln College and University. The nursery in Jeffreys Road was operated by Llewellyn and his wife Molly. He paid a lovely tribute to Molly for her devotion and support over many years when bringing up four children, as she worked alongside him in the nursery. Many of the plants were grown and still grow on their Hawkins Road land. Their son Laurence now runs the business with backup from his parents. Llewellyn's hard work, enthusiasm and dedication to work with plants, has enabled him with Molly, to provide for their family and give them opportunities for further education.

Over more than 60 years Llewellyn has been a wholehearted supporter of the Gardens and helps still when historical matters are queried or special plants are required. His willingness to walk with me for two and half-hours on a cold winter day to reminisce, is proof of his generous support.

Thank you Llewellyn. Adrianne Moore

### 8 FRIENDS OF THE CHRISTCHURCH BOTANIC GARDENS

354-1550

### **Contact Numbers**

PresidentDennis PrestoImmediate Past PresidentFaye FlemingTreasurerColin NealMembership SecretaryJim CrookMinutes SecretaryJim CrookCommittee MembersMaria Adamsl

#### **Dennis** Preston 351-4131 351-7798 Colin Neal 359-8080 Ruby Coleman 355-8811 Jim Crook 358-5845 Maria Adamski 366-1701 **Tony Burnett** 384-1381 Brenda Childs 382-2451 Roy Edwards 338-5969 David Given 351-6069

Peter Mahan

Newsletter

Committee cont'd 366-1701 Susan Molloy Valva Pavluk 388-5755 Cullen Pope 338-2528 Max Visch 338-2273 **Ex Officio** Warwick Scadden 371-1637 Kevin Garnett 366-1701 Richard Doyle 371-1782 Helpers **Bill Sykes** 366-3844 Sally Jebson 352-6363 Chris O'Sullivan 332-8565 385-5114 Janet Begg

Lyn Heaton

355-7563

#### Afternoon Programme:

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

Friends of the Christchurch Botanic Gardens Inc PO Box 237 Christchurch New Zealand