

Newsletter

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

No 56, Late Winter—Spring 2003

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FCBG

PO Box 2553
Christchurch

Exciting News. One of our members has been appointed as the new Curator of the Christchurch Botanic Gardens. Associate Professor David Given (part-time at Lincoln University and associated with the Isaac Centre for Nature Conservation) has accepted the position and we congratulate him on this important step for the history of the Gardens. The Friends look forward to working with David in his new position at a time when the Gardens look to the future. The current changes provide an ideal time to have a Curator with his skills and background experience especially in relation to international aspects of botanic gardens and their role in education and conservation. As a build up to taking the appointment David has recently visited a number of botanic gardens including Montreal, Chelsea Physic Gardens (London), Paris, Geneva, Goettingen and several botanic gardens in Poland.

The Christchurch Botanic Gardens are the most visited institution in Canterbury and as an icon of the Garden City, David considers that their development to bring them into the top order of botanic gardens globally is a necessity. An operational team manager is to be appointed to work with David.

Volunteer Guides. We are starting on an initiative to train new volunteers as guides to augment those who have been so helpful providing volunteer guiding services in the past. Those members who have already offered to be guides and an encouraging number of new people, will begin the course on July 30th and the following Mondays and Wednesdays (9.30 am -2.30 pm) for nine sessions. The training team will be led by Neil Fleming and include our current guides and Gardens' staff. Should anyone else decide to join the training group, please contact me urgently on 3517 798.

Tree Planting for the 140th Anniversary of the Gardens 9 July 2003. On Wednesday 9 July Christchurch Botanic Gardens celebrated its 140th anniversary. Congratulations to the Staff for all the planning and effort to make this such a memorable occasion. The Gardens were looking magnificent for the many visitors attending. The great granddaughter of Enoch Barker, (the first Government Gardener) Leonie Stewart, planted an oak tree to commemorate this event. This new oak is a progeny from the first *Quercus robor*, known as the Albert Edward oak planted on 9 July 1863.

Thank you. The Friends thank Barry Samson, who as interim manager of the Christchurch Botanic Gardens, gave the Friends large amounts of his time and helped us to focus on our future directions. Barry established the Volunteer Scheme, which the gardeners are really appreciating and the Friends enjoying. These volunteers work alongside the professional gardeners, assisting with painting, labeling, pruning and some carpentry work. This is being introduced gradually so not all volunteers have yet been called upon.

Other Activities. The Potting Shed Team swelled our funds with \$2327.60 from their efforts. This was achieved through their plants being sold at the Information Centre. We also thank the Information Centre staff for their role in selling the plants.

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Some members have been active in drafting submissions about the future use of the land on which the McDougall Art Gallery stands. Changes are embodied in draft local legislation called the Robert McDougall Gallery Land Vesting Bill. Another submission has been prepared and submitted for the Christchurch City Council's 2003-4 financial plan. Lynne Rowe has been busy bringing to fruition the planning and organisation of a Kids Fest involving the Gardens as a learning resource for children. This was successfully presented in the July school holidays.

The Annual Meeting is on Sunday 10 August, when the new Curator Dr David Given will be the guest speaker. Do not miss this opportunity to hear his vision for the Gardens.

We are always looking for keen and active members who are willing to join the Committee or Sub-committees and contribute to the exciting times ahead. (Nomination form enclosed).

Faye Fleming
President

Gardens' News

Dr David Given started work as the Curator on Monday 14 July. With his very strong botanical background and many years of experience gained by visiting Botanic Gardens around the world, he brings a wealth of knowledge and new visions for Christchurch Botanic Gardens. The new position of Operations Manager and a Curator for Section B, which includes the Herbaceous border, have been advertised. Shara Barclay from the Gardens' staff has been appointed Collection Curator and Mona Vale Co-ordinator. Three more trainees will begin in July. These people come with a background of studies in horticulture and are a welcome addition to the Staff.

The Herbaceous border is undergoing the annual 'lift and divide phase' and some reordering of the herbaceous collections is underway. Watch this space. Two volunteers help every Wednesday afternoon in the Primula garden and species rose area, doing the seasonal cleanup and mulching. Both staff and volunteers enjoy the results. The *Gordonia yunnanensis* in the new area upstream of the Primula garden is loaded with buds and the large white flowers with prominent yellow stamens will open from now on, weather permitting. The *Magnolia campbellii* near the Western Bridge must have thought spring was nearer with a very early show of flowers this year (late June) but the recent very cold weather will slow things a little. Some of the Camellias in the Kate Sheppard Walk are braving the July weather.

The roses in the main rose garden will be pruned in August. Bede is supervising the painting work of Friends' volunteers, another much appreciated

task. Work on renovations in the Cunningham house, is due to start late July. Modern technology makes planting big new trees seem easy but comes at considerable cost. The hydraulic tree spade, hired from Auckland, was recently used to plant several trees including a new *Fagus sylvatica* 'Pendula' on the Armstrong lawn, to redefine the area previously a path. The new *Quercus robur* to mark the 140th year anniversary was planted by conventional means in a special ceremony on 9 July. Look for it on the Armstrong lawn, on the left of the path leading into the BG from the Peacock Fountain. Nearby, the Ilex border has new plantings of species and cultivars to enhance the collection. Some of the Kowhai are in flower throughout the Gardens and the Hellebores are thriving in the Japanese Maple Border. The *Cornus mas* is in flower near the Iris pond. Perennials in the water garden are being lifted and divided as necessary.

Many will be sad at the loss of the group of three *Pinus pinea* (the Stone or Umbrella Pines. (See Dieter's article). These were the remaining trees from the original group of four planted on one of the original sand hills. The average number of tree rings was counted at 136 confirming a planting date in the 1860s. There are plans to replant this area next year with Stone pines from Hagley Park.

With many of the trees and shrubs in winter mode without leaves, the Gardens appear more open and provide magnificent vistas not seen in other seasons.

R Poole, D Pendrigh and A Moore.

Recent Events

Plants from Bible Lands.

April 19 Guided Walk.

On Easter Saturday, Max gave us a fascinating tour of the gardens looking at plants from bible lands. He told us that those who translated the bible from Hebrew and Greek were interested in the spiritual message, not in the botany of the Middle East, so they used the familiar names of European plants and trees. The Rose of Sharon was probably not a rose, or the lily-of-the-valley the flower we know. The Jews didn't hang their harps on willows, but Linnaeus, knowing his bible, thought they did and named the weeping willow *Salix babylonica*. Probably they wept beneath narrow leafed poplars.

Botanists think that when Noah made himself an ark of Gopher wood, he built with Italian cypress; when John the Baptist fed on locusts and honey in the wilderness he was eating carob beans, fruit of the locust tree; and when Eve offered Adam a luscious fruit it was an apricot, not an apple.

A large crowd enjoyed the tour and Max's excellent talk while we wandered beneath the autumn trees looking at olives, pomegranates, tamarisks, palms and other plants that have come to our gardens from far away.
Patience Kearns

Forests are about People as well as Trees.

Euan Mason Sun 11 May

Euan, a senior lecturer in Forestry at the University of Canterbury, has had a lifelong involvement with trees, as a grower, forest manager and researcher. Trees are also his hobby and he delights in sharing this with others. He traced the history of forests in New Zealand and the changes brought about by settlers. Up to 75% of New Zealand was forested before humans arrived and clearances began. Ancient forests were made up of the ancestors of trees such as kauri, kahikatea, rimu, totara and beech. Natural events such as fires, earthquakes and volcanoes caused losses. Maori cleared around one third of the original forest and another third was removed in colonial times.

Kauri was used from the late 1700s for ships'

spars and the first shipment of logs was exported from the Coromandel in 1814. By the late 1800s timber was the largest manufacturing enterprise. Forests were seen as an impediment to progress and vast areas cleared by milling and burning. As early as 1863 the extinction of kauri was predicted and in 1896 at a conference on timber supplies, it was recognised that there were no longer adequate resources. In 1919 the Forestry Service was set up to ensure future timber supplies and plantings of exotic species in the 1920s and 30s were aimed at self-sufficiency by the 1960s.

In 1999, 50,000 hectares were planted in new trees. At present forests cover 27% of New Zealand.

The "wall of wood" (from earlier *Pinus radiata* plantations), can be seen as a wave of opportunity and harvesting is expected to double in five years. Euan explained the changes through to the present and feels with the absence of a National forest Policy, the way seems to be preservation of native forests and farming of plantations, with nothing in between. However with the introduction and spread of introduced predators, browsers, insects, plants and diseases, irreversible changes have occurred, to bird, invertebrate and native vegetation communities, making preservation of the New Zealand forests in their original form, now a practical impossibility.

If we want to preserve at least part of the biodiversity the costs will be high. Euan asked how can we influence what is happening and learn from the lessons of the past? Of the original estimate of 1.3million hectares of kauri, it is now thought that only 4 -5000ha of original forest remains. (One author suggests could be a great deal less). Good news - The Kauris planted in Otari-Wilton's Bush, Native Garden and Forest Reserve in Wellington are regenerating naturally.

Birth Notice " Pyung Gang "

In May 2002, Dean Pendrigh flew to South Korea to help with the birth of a new Botanic Garden, that was once rice paddies. The "baby's" mother, Mrs Young Ok Won is creating her 20 hectare Pyung Gang Botanical Garden, in Pochungan, two hours north east of Seoul. It is going to become a

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delightful garden that will eventually open to the public.

The owner, who often comes to Christchurch and does volunteer work in our Christchurch Botanic Gardens with the "master" Dean, considers Dean a kind mentor. In Pochungan, it's really cold in winter, (minus 30 degrees celcius), but with diesel heating in the covered glasshouse, it is only minus 10 degrees! Outside, some of the trees get ringbarked by frost.

On May 16th 2003, Dean showed us numerous slides of the young garden. Some of the sections are - the water lily ponds, wild flower garden, scree garden, alpine bog garden with its sphagnum moss, the boardwalks, a low bridge of New Zealand timber, and the rhododendron garden in the next valley.

At present, the seven staff members are developing the last part of the water garden. And so the bonny " baby " continues to grow bigger and stronger every day.
Janet Begg.

Changing Seasons Walk.

Sat 17 May

Don Bell and Friends' Guides.

Don Bell is a new member of the Friends' guide group and comes with a background of thirty years experience in local authority parks and recreation management. He trained in the Christchurch Botanic Gardens so was able to share information on many of his favorite trees and discover new ones. His book "Trees for Town and Country" (Bateman, Auckland 2001) was reviewed in our last newsletter (Issue 55). The raffle for this book was drawn at our last meeting.

Hot and Steamy Tropical House

Tue 27 May

Chris Thompson and Francis Austin.

There was a great response for this walk through Cunningham and Townend house where both Chris and Francis have worked for many years. Their obvious enthusiasm and depth of knowledge about the conservatory display plants and collections, was much appreciated.

Current Research

Recent research from Lincoln University was presented at our Meeting on 8 June 2003. Pavla Honzickova studied the tree rings in pink pine, *Halocarpus biforme* (*Dacrydium biforme*) to

reconstruct past climates. The very small samples taken from live trees by drilling with incremental bores are so tiny they fit in a drinking straw for storage. No harm is done to the trees.

Hannah Buckley travelled extensively in North America comparing the different communities of pitcher plant (*Sarracenia*) communities in widely varying climatic zones.

Cynthia Roberts completed her research on the relationship of burrow nesting seabirds with the forests on Rangatira (South East Island) in the Chatham Islands.

BG Educational and Visitor services.

Tue 17 June

This replaced the advertised talk by Sue Molloy on Botanical Resources which is rescheduled for Thursday 11 September.

Kevin Garnett and Brian Appleton guide many of the visiting tour groups, local clubs and school parties who come to our Gardens. Around 8,000 people were shown through the Gardens last year by the Staff. The Friends' are training new guides to be able to offer regular introductory tours for visitors to the Gardens, as well as continuing our programme of walks for local and overseas groups.

Greenfingers Film.

Sun 22 June

Many thanks to those who supported our fundraising event especially to the kind anonymous member who made a donation.

Conservation or Extinction

Tue 24 June

Mark Davis

Mark Davis started working in the Gardens in the 1970s and is one of the longest serving staff members. He has an encyclopaedic knowledge of New Zealand Native plants, which he shared with keen members. There are many endangered species in the Gardens and some of the original native plants from the nearby area are gradually being incorporated into the collections - e.g. Kahikatea from Riccarton Bush.

Visit to the Studio of Tim Main

Wednesday 3 September, at 2 pm.

We have been invited to visit the Studio of Tim Main, a prominent young designer of fabrics with a Native Plant theme, some of which are on display in the new Art Gallery. Tim is also a sculptor. This will not be a bus trip, so get together with your friends and fill a car for

Flax-harakeke

Simon Rutherford, Kate Rutherford, Linda Moore
and Chris Woods
Sunday 13 July 2003

"The first Maori settlers found harakeke growing plentifully in the swampy land. Certain varieties were chosen for their special properties and pa harakeke (flax gardens) were planted. Next to food, harakeke was the most important thing in their lives. Captain Cook when he came in 1769-70 saw Maori using the fibre and he called the plant New Zealand flax because it reminded him of the linen flax from his homeland. Ropes made from harakeke fibre used on sailing ships lasted twice as long as ropes made in Europe. Flax mills were quickly set up by the European settlers, the fibre extracted and then exported in great quantities."

Extracts reproduced with permission from the brochure "Flax-harakeke" prepared with assistance of Cath Brown and Ngai Tahu for the Water Services Unit, Christchurch City Council.

Simon Rutherford is passionate about harakeke. He trained with Cath Brown of Ngai Tahu in the traditional Maori methods and has gradually developed his own new ways of using harakeke for practical and decorative purposes. Simon and his son helped with the City Council plantings of flax in the Janet Stewart Reserve in Christchurch. His natural talent for teaching and his love of harakeke as a medium and garden plant, have drawn in others keen to learn. While Simon spoke of the traditions and methods of trimming, harvesting, preparing and weaving, Kate and Linda worked on and completed a large basket and Chris continued work on her kete.

A harakeke bush growing outside the hall was used to demonstrate the correct trimming method and Simon recommended the very clear instructions in the CCC brochure for the care of harakeke. Learning about the culture and use stimulates a deeper interest in the harakeke plant itself and an appreciation for the unique beauty of plants when cared for properly. Simon's stories and the weaving achieved during the afternoon were of such interest that this was one of our longest meetings. The National collection of harakeke (*Phormium tenax*) is held by Sue Scheele of Landcare at Lincoln. Copies of the Flax-harakeke brochure are available at the BG Information Centre.

The Aging Tree Population

The script for Dieter's presentation on The Aging Tree Population is available from the Editor, email hazelbrook@xtra.co.nz and the following letter from Dieter and extracts from his talk, will be of interest. The full report containing maps, graphs, plant index and organised replacement periods, is held in the Botanic Gardens' Library.

Report from Dieter Steinegg

The Aging Tree Population, based on the recent survey of Trees on the Central City Riverbank.

"It was a great pleasure to talk to you about the 'Aging Tree Population' in Christchurch on Wednesday 16 April 2003 at the CHS. This article will reach you after one of our finest tree feature in the Gardens, a group of three stone pines, located on Section G is removed, but hopefully replaced with some semi-mature specimens.

You all remember this majestic group of pines, especially the one on a dramatic lean. This particular tree collapsed on Monday 21 April at 12:05 am, sharp. You might ask, how do you know the exact time, who on earth would walk through the Gardens just after midnight!! (Please ask Barry Samson where he was just 12 hours prior.) The impact of the fallen tree was recorded by seismographic equipment in the ranger's hut, and thanks to Sue Molloy who contacted the Institute of Geological & Nuclear Sciences in Wellington, a hard copy of the activity, that took about four seconds before the tree crashed, is held in the library. This is a very interesting story indeed, but the loss of these trees had a big impact on the Gardens tree infrastructure....

Currently a further survey of trees within the Botanic Gardens is underway and this report will be available from Dieter once the survey is completed.

"Because many of our exotic and now mature trees in Christchurch had been planted from the 1850 onwards, it appears that hundreds have reached the point of over maturity. Christchurch's Garden City image is substantiated largely from its more than 680 parks, private gardens, green corridors and a great number of trees found throughout the City. The urban environment is made up of 5,436 hectares of green space and 348 kilometres of open waterways. Furthermore, the City Plan protects some 1800 notable and Heritage trees and

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also more than 1500 trees protected as a condition of land development.

Early tree plantings along the Avon go back to the 1860s, when under the guidance of the Christchurch Town Council's chairman, John Hall, willows and other trees were planted along the Oxford Terrace riverbank. The planting of oriental plane trees along Cambridge Terrace between Montreal and Cashel Street bridges are dated back to 1878. Some dramatic plantings such as the weeping willows along Park Terrace and Lombardy poplars along Oxford Terrace are the result of continuous plantings more than 60-100 years ago. The forming of the Beautifying Association in 1897 led to organized efforts and outstanding horticultural achievements that developed parallel to the urban development in Christchurch.

Today, more than ever before tree-lined streetscapes have an enormous impact on the quality of life for those who live or work in the city. Trees can increase people's enjoyment and the aesthetic appearance in the urban environment, creating the senses of identity, community and space, with the ability to transform a barren construction into a potential recreation area. Benefits of trees especially in the city are manifold. Their ability to absorb carbon dioxide and filter toxins from the air, to name a few, are urgently needed in the city, to assure a more healthy and more vibrant environment, that contributes to the general well being of the community.

For this urban tree environment to function to its highest potential, sustainable tree management strategies are required, to ensure overall vitality, and to maximise the aesthetic significance of the collection for future generations."

A Central City Riverbank Tree Replacement Strategy was prepared for Garry Moore's central city revitalisation team. "The purpose of this strategic plan is to lay the basis for the development of a comprehensive urban tree replacement program. The plan provides an 8-18 year outline for achieving urban tree management goals. It gives citizens, the mayoral forum, staff and the parks, gardens and waterways committee, a set of prioritised recommendations to accomplish these goals.

Proactive management decisions need to be

made to prevent 'big gaps' in the urban landscape and prevent costly and unpleasant crisis management? This strategy has been prompted by the absence of a clear tree management plan for future plantings. A major component of the Central City's identity and heritage is likely to be compromised over time if these shortcomings are not rectified. The aim of this particular strategy is to promote a long term vision to ensure that the collection of trees in the central city is maintained, replaced and increased in a condition that supports the growing city as a venue for many cultural and business activities alike."

Dieter showed graphs of the number of tree replacements required, spoke of "Why trees die", and gave recommendations and costs. Prices (estimated cost as of June 2002) "for the removal of trees vary depending on size, location, and services above and below ground and other circumstances. The average cost for the removal of one, for example mature weeping willow, is valued at \$1800.00 including the removal of the stump. The price for transplanting semi-mature trees at a minimum of 10 years of age, from Harewood Nursery to the central city, employing a hydraulic tree spade, is valued at approximately \$980.00 per tree, excluding aftercare."

"Re-Evaluation Of Strategy. This strategy will need to be reviewed on a regular basis. An annual review will assess implementation and overall performance. A review after approximately 5 years will be necessary to allow for some planning issues to be updated, this would include the reviewing and updating of the plan and consider a possible change of priorities or staff...."

The Christchurch City Council has procedures in place to monitor all trees on public land on a regular basis to ensure that the collection of trees is maintained and replaced whenever necessary. If a tree must be removed a replacement tree is usually scheduled for replanting during the same or the next planting season.

For more information, especially on earlier tree surveys of trees in the Gardens and Hagley Park, or simply a harmless chat about trees in general, (I prefer that) please contact me on 941 8683 or e-mail dieter.steinegg@ccc.govt.nz

Thank you very much for your interest and your continuous effort to improve our Garden City. See you in the Gardens, Dieter"

Articles

Pinus pinea The Mediterranean Stone Pine.

By Philip Tomlinson

Originally published in Friends of Wellington Botanic Garden Newsletter May 03 and reproduced with permission of the author and their editor.

The Mediterranean Stone Pine also known in older publications as the umbrella pine (obsolete). It is two needled. It is found from Portugal to Syria, although originally is thought to have come from the Iberian Peninsula, the only area where it is found away from the main trade routes, being introduced into many areas by primitive man. Pine cones were incorporated into the designs of many ancient amulets, and had a phallic meaning. They were regarded as symbols of fertility, and even now the tops of wooden bedposts are often embellished with carved pinecones, many of which can be identified as being based on *Pinus pinea*. There is a large Roman fountain in the shape of the giant bronze pinecone cast in the first century AD believed to be of this species. It is now in the Vatican Museum in the Cortile della Pigna the courtyard of the pinecone. *P. pinea* pinecones are featured in paintings and sculpture and in mosaics in the ruins of Pompeii and Herculaneum.

Pinus pinea was the first pine used and cultivated by man, its edible seeds having been harvested for perhaps half a million years or more. Its seeds have been used for food by prehistoric man, shells being found at many prehistoric sites, and are believed to have been widely traded. In ancient Rome a wine was made from the nuts and evidence from Pompeii indicated it was widely used in cooking. The Romans referred to it as the 'Domestic Pine'. More than 4000 years ago the Egyptians wrote about trees being transported with a ball of soil around their roots, some specimens being moved 2400 kilometres by boat.

The tree has been cultivated for well over 6000 years, and possibly for 12,000 to 15,000 years. It is commonly found along the old trade routes. It continues to be widely cultivated through the Mediterranean area, the richly flavoured seeds essential for many Portuguese, Spanish and Italian recipes. Its timber is used occasionally, but the trees are normally reserved for their value as a

food source. The protein content of some pine nuts exceeds that of all other commercial nuts except the cashews, and is comparable to that of beefsteak. The protein quality is also very high.

Each cone produces approximately 50 nuts, and a pure stand will produce 500 kg cones per hectare per year, which will give around 100 kg of nuts. The nuts are protected by a very hard shell, but can be released by placing them in a warm oven where they will split open. The tree has an interesting and distinctive flattened crown like an umbrella, and a straight though often leaning trunk. It can cope with extremes of heat and drought, though it is often stunted in the wild. Its globe-like cones are shiny brown. The bark is reddish-grey and furrowed. It can reach a height of 25m (80 feet).

Book Review

The Story of Dunedin Botanic Garden. By Eric Dunlop. 2002. Published by the Friends of Dunedin Botanic Garden. Available from P.O. Box 124, Dunedin (Cost \$59.95 plus \$5 P&P if sent in New Zealand.)

"This story explores the first turbulent years of establishment, the vagaries of its administration and contributions of its gardeners and curators over 140 years. The year 2003 marks the 100th anniversary of the arrival of David Tannock, the first Superintendent of Parks and Reserves, a major figure in the development of the Garden. Not only was his influence and impact on the shape of the Garden extensive, but his contribution to horticulture and public gardens throughout New Zealand was outstanding."

The author Eric Dunlop has a Masters degree in History from the University of Otago and was principal of Middleton Grange School in Christchurch for 16 years prior to moving to Dunedin. Eric "has been closely involved with the Dunedin Botanic Garden since 1987 as an active member of the 'Friends'. Gardening has been a lifelong interest and Eric with his wife Norma have established a garden in Dunedin which is open to the public." (These notes from text supplied by the Publisher.)

Eric concludes with, "The only way we can guarantee that the Garden will have a future is if we

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are watchful in conserving what has been achieved and if we persist with the spirit of enterprise needed to bring about new developments. These aims will be best accomplished by curators, administrators and supporters who have an enduring passion for plants in all their wonderful variety and their ability to feed and nurture the spirit." We congratulate Eric Dunlop and The 'Friends' in Dunedin for this fine record of the History of their Botanic Garden. A copy of this book is held in our BG library.

A South African Delight

Rhodohypoxis is a delightful little plant, introduced from South Africa towards the end of the 19th Century. After being collected from the Drakensburg Mountains, it appears to have been grown in England and New Zealand before it became known in its own country. The original species, *R. bauri*, was rose-red to crimson. A pure white form, *R. platypetala* was also collected and these two have been used to produce the wide range of pinks, reds and white flowers tipped and edged with pink.

Many plants have been given varietal or cultivar names: *R. 'Margaret Rose'* has larger flowers of rich pink and like all *Rhodohypoxis* the flowers have six petals which are arranged in two overlapping sets of three. *R. 'Margaret Rose'* is often sold under its name. Thirty years ago *Rhodohypoxis* were sold with the cultivar names on the label; however, varieties became so mixed that it was not possible to be certain which were true to name.

If named varieties are correct they are best kept in a pot. *Rhodohypoxis 'Fred Broome'*, *R. 'Stella'*, *R. 'Dawn'*, *R. 'Pictus'*, *R. 'Knockdolian Red'* and others soon become confusing if grown together. This problem is best overcome by using a long terra cotta or plastic trough. Plant the reds at one end, the whites at the other end and the pinks in the centre.

Rhodohypoxis grows well in a sunny, well-drained soil but will not tolerate winter damp. It dislikes lime and can be propagated from seed in September. It is best grown however by careful division carried out when active growth has begun, but take care the corms used have some roots attached.

These plants are untroubled by pests and

diseases. Coming as they do from the summer rainfall area of South Africa it is important that they have ample moisture at their roots. If you grow these delicate plants continue to enjoy them, if not, begin at once. They will be in good supply in spring at the nurseries.

Peter Mahan

Rhodohypoxis will be available at the Annual Plant Sale in October.

Christchurch Botanic Gardens - Looking back and looking forward.

1863 Christchurch, in European terms, was a settlement in its infancy still calling England - The Motherland and Home. In June of that year, news finally reached Christchurch of the marriage between Queen Victoria's eldest son the Prince of Wales Albert Edward, to the King of Denmark's daughter Princess Alexandra. July the 9th was to be the day of celebration. Although the notice was short the people of Christchurch were determined to "have the business done properly and they soon determined not to be behind other Englishmen in their display of loyalty".* The Provincial Council held a snap meeting, announced the day as a public holiday, and organised a formal procession with representatives from the City's trades, businesses and organisations. This was to be huge!!

The days preceding the event poured with rain. On the morning of the 9th at 10:00 the sun finally appeared. The City was ablaze with colourful red and white ribbons, Union Jacks and Danish flag. The procession started at Papanui and marched in order of town hierarchy, led by the officers of the Provincial Government with children under 8 years at the tail. The destination was the south-east corner of the Town Belt (somewhere on Ferry Road) where two oak trees were planted, one for Prince Albert and the other for Princess Alexandra. Addresses and formal speeches were given and between plantings a band played God Save the Queen and Rule Britannia.

On the same day and for the same reason, a third oak was planted in a more humble atmosphere. This occurred in our Botanic Gardens with the spadework being carried out by Enoch Barker the first Government Gardener. The planting of this commemorative oak is considered to be the commencement date of the Gardens.

On 9 July 2003 the Gardens celebrated 140 years. Staff, former staff, Friends and City Councillors attended the celebration. Councillor Carole Anderton made the opening address and introduced Leonie Stewart, a descendant of Enoch Barker, who planted an oak near the Peacock Fountain. Dieter Steinegg had grafted the tree from the commemorative oak Barker planted in 1863.

We then made our way to the Gardens' Cafe for afternoon tea. Along the course of the journey I pointed out some historical features assisted by Kevin Garnett. We stopped to admire the magnificent old oak, which looked particularly majestic, as we had hung, on two limbs left and right of the trunk, the full sized flags of Denmark and Great Britain.

Judging by the amount of talking over tea, the afternoon appeared to have been very much enjoyed by those who attended. Thank you to those Friends who supported this historical event.

Sue Molloy, Botanical Resources Co-ordinator.

*Quote from The Lyttelton Times 11 July 1863

Work began on the Dunedin Botanic Garden in January 1863, with the official establishment date being 30 June 1863. This was just a few days before the first tree planting in July 1863, which marks the official establishment of Christchurch Botanic Gardens. Enoch Barker was appointed as the first Government Gardener in Christchurch and began work in early in 1859. See below.

Enoch Barker

Extracts from Now and Then by Lee Stewart, 2002. Reproduced with permission.

Some copies are available from the author at 66A Ivory St Rangiora.

"Enoch Barker (1830-1892) was born at Pontefract Yorkshire and was trained as a gardener under the care of Sir Joseph Paxton at the Duke of Devonshire's estate "Chatsworth". Deciding to immigrate to New Zealand with his wife and family he applied for passage on the "Strathallan" and as assisted emigrants were to be pioneer settlers in Timaru. He paid £36 of the total fare, which was £51. Mrs Barker died a few weeks into the voyage and was buried at sea. She was thirty-six. Enoch was left with two small children, Emily Jane, aged

2 and Sara Ann aged 5. Enoch was in despair with two small children. On board was Amelia Foster, a nurse aged twenty-seven and her mother Elizabeth, both from Middlesex. They were travelling to Lyttelton to join Mr Foster. Amelia was sorry for the motherless children and offered to help Enoch with their care.... Her help was most welcome but Enoch was daunted by the prospect of landing in a strange new place alone with his daughters. As Amelia was refusing to make the return trip he asked her to marry him. She agreed so when the ship arrived in Timaru neither Enoch nor Amelia disembarked there but continued on to Lyttelton.... Enoch and Amelia married soon afterwards on February 14th at the Holy Trinity Church, Lyttelton. The newlyweds purchased land at Burwood and built one of the first houses in the area.

Proposals for public landscape in Canterbury were made early in March 1850. A Botanical Garden topped the list followed by Latimer, Cranmer Square and Market Square (now known as Victoria Square). Hagley Park and public space along both banks of the river Avon were under consideration. Records of votes of finance for public landscape are found in 1858 when £200 was voted for planting Hagley Park and a further £250 for planting and fencing Cathedral Square. £150 was allocated for a "Gardener, Public Plantations." That gardener was to be Enoch Barker, who had been trained at Chatsworth by Sir Joseph Paxton in its famous gardens and was a welcome candidate for the position of Provincial Gardener. He commenced work in Christchurch Domain, now the Botanical Gardens and Hagley Park early in 1859 and began the development of Canterbury's first public landscapes. In the absence of a Municipal Council until 1862 the control of much city planning was dealt with by the Provincial Council.

Enoch was to spend eight years establishing one of the major delights of Christchurch. Not only trees, flowers and shrubs within the confines of the garden but establishing both North and South Hagley Parks where once cattle had grazed freely. After fencing built with palings from van Dieman's Land (now Tasmania) these were to become not paddocks but large open spaces shaded by many avenues of trees for the city's citizens to enjoy. Now they offer ongoing pleasure to sportsmen, dog walkers and keep fit types, while tourists delight in what they see. Much work was required, the land where the Museum now stands was one of many sand dunes, which had to be leveled and sown down before any planting could take place. What is

10 FRIENDS OF THE CHRISTCHURCH BOTANIC GARDEN

now the front entrance of the gardens was gravel, tussocks and rubbish. Enoch negotiated with the local authorities to remove the shingle for surfacing the city streets. The tussocks were cleared from the Gardens' site, also from Christ's College playing field as they made the surface uneven and the boys were inclined to pull them up and throw them amongst the players during matches.

The soil of the Domain was far from satisfactory and much preparation was required before planting was commenced. Slowly the garden was established. £30 spent on native plants from Akaroa and seeds were solicited from overseas gardens. The first tree planted in 1863 was to commemorate an important event - the marriage of Edward the seventh to Princess Alexandra. Many more plantings followed. At the time of writing ancient pines stand like tired old sentinels on the mound now well over one hundred years old.

Enoch was employed by the Provincial Council, with whom he communicated via the secretary. Here are copies of some of the letters obtained from the Archives. I found their wording delightfully gracious. The secretary writes on 16-01-1860:

"In the absence of the Superintendent I shall be obliged by your putting yourself into communication with Arch Deacon Mathias who has charge of a certain public plantation near the Scotch Church, with a view to arranging with him the best way to securely repair a portion of the fence at the said plantation. I will cause you to be indemnified in an outlay of under £2 sterling. But I think the repairs might be effected for less."

In June 1863 Enoch reports the first instance of garden vandalism, alas not the last. "I report the theft of two ornamental cypresses, one Chinese Aborviloe, (sic) two upright cypresses from the nursery grounds, Hagley Park and the Government buildings garden. It has been suggested that I offer a reward of £20 for their return."

This letter was undated but written around the beginning of 1864:

"I have the honour to send you the probable expenditure of my department for the year ending 30-06-64. It is proposed to plant round Hagley Park from the end of the present plantation in Maori reserve, an area of 99 chains in length and

which contains about 21 acres. This will considerably increase the expenditure of the past years. I have also rated in such estimate my salary at an advance of £30 per year and trust the government upon consideration will think this a fair remuneration for the increasing duties likely to be entailed upon me during the next twelve months." Following this request his salary was raised to £180 per annum on September 2, 1863.

Two months later he wrote that 20 acres of the park had been planted with strong English forest trees: Oaks, horse chestnut, walnut, sycamores, maple, hornbeam, elms and ash. Also a row of weeping willows and laburnums. Openings had been left for gums and pinasters in the proper season. (Pinaster is a Mediterranean pine, which grows rapidly to 100 feet with oval brown cones which remain on the tree for years.)

An old newspaper cutting states that during the depression of the sixties Enoch had about 400 unemployed men planting the thirty one acres with thirty thousand trees. Further planting was anticipated both in the parks and the avenues so the nursery grew layers and root cuttings in readiness for planting. Enoch was expected to tackle many tasks that were required by properties under the control of the Provincial Council." One of these was supervising the growing of potatoes at the Lunatic Asylum.

Enoch resigned from the Gardens in 1867. In eight years he had created gardens and parks which would give pleasure to the citizens of Christchurch one hopes forever. He felt the gardens were well established and it was time to follow his inclinations. His eight children were growing up and would soon be making their own decisions. He had always taken an active interest in local affairs and was a member of several organisations in Burwood, also Clerk of the Course at Burwood Racecourse and director of the Pier Company. A nursery for trees and plants for sale to the gardens of many Christchurch settlers was his first project. He also grew vegetables for a local pickle factory and seemed satisfied with his home based occupations. His children were expected to help with work in the gardens."

Enoch Barker died in 1892 after a fall near a tidal creek in Burwood.

Note: The author Leonie (Lee) Stewart is the great granddaughter of Enoch Barker.

A Winter's Day

One of my pleasures, along with a bus ride to the Sumner Estuary to have a cuppa by the mudflats, is to spend some time by the pond in the Botanic Gardens near the Information Centre where the big pine tree grows. From here I can watch large numbers of white-throated shags in their nests, hard at work satisfying the voracious appetites of their chicks, with young fish from Victoria Lake. While the winter rains and frosts bring worms to the surface, blackbirds and thrushes dine out on the bountiful supply of food in all corners of the Gardens. Small flocks of silvereyes, fantails and finches of many kinds, move among the beds of Azaleas feeding on insects and winter hardened seeds. These are the things we all enjoy in the Gardens, along with the changing scenes of trees and plants.

William Staniforth.

Snippets

Propagators in Winter.

We continue to care for our charges and note that for New Zealand and Australian natives, this is an active time. *Correas* hang out their pretty pink bells, *Fuschia procumbens* carries large red fruit, some Hebes are flowering and many native shrubs are best planted in Autumn or early Spring. By contrast, European shrubs are firmly dormant and should not be woken by unseasonable warmth. June was very dry so we spent time watering, re-potting, weeding and clearing off the flower-debris dropped on the pots by the *Plagianthus* overhead, as well as taking cuttings for next year.

July and August promise wet and cold, however some early bulbs are up and flowering. Jane McArthur's Alpines & Bulbs team have the newly painted Sale Trolley full of flowering miniature *Narcissi*, on offer at \$4.00 for a pot of 5 or 6 bulbs. A real bargain and an ideal winter treat or gift. The main Sale of Bulbs, (Potted) Alpines & Early Perennial plants will be held on Saturday, September 20 this year, between 11am and 2 pm. This is a very popular sale so come promptly. It will be followed by a Picnic Lunch (BYO) and a Guided Walk to the Woodland Area at 1.30 pm. Perennials are in winter recess but will be produced in the Spring in time for the Annual Plant Sale on Sat 18th October (10.00am till 1.00pm).

Meantime, check out the Sale Trolley outside the Information Centre for any items that are ready for planting now.

We have two propagation pits full of cuttings ready for the new season and plans to extend our herb offerings next summer. Anyone who feels inclined to help, will be welcome and all spare pots should be recycled through us. Please leave pots, (preferably washed) in bags at the Information Centre. Helpers for the annual plant sale on 18 October please phone Helen Constable 980 9358

Raffle Winner

Don Bell's book: Trees for New Zealand. Town and Country was won by Georgie Moore.

Lavender Downs and The Kitchen Garden

Sat 22 November 2003

Lavender Downs is both the business and hobby of Virginia McNaughton and her husband, Dennis Matthews. Virginia is well known for her expertise in lavender, as well as the books she has written. The garden is beautifully laid out, with companion plants of many varieties, and is also the home of the National Lavender Collection. There is a shop where Virginia's books and various lavender-based products are available.

Bring your own picnic (food and drink) for lunch on the lawn at Lavender Downs.

The Kitchen Garden

The Kitchen Garden at West Melton is the project of Diane Leighton. Here she grows an amazing variety of unusual herbs, gourmet vegetables and fruit. As we tour Diane's garden, she will answer questions about her plantings. While there, we can also enjoy viewing her home and landscaped grounds.

A Warm Welcome to the following New Members

D. & C. Campbell, A. McDonald, A. Low, P. Groom, J. Scholes, J. Fisher, C. Webster, I. Van Florenstein Mulder, J. Holland, E. Li, L. O'Brien, F.W. Whitmore.

12 FRIENDS OF THE CHRISTCHURCH BOTANIC GARDEN

Contact Numbers

President	Faye Fleming	351-7798	Newsletter/Programme	Adrienne Moore	351-5915
Vice President				Dave Moyle	358-8914
Immediate Past President	Dennis Preston	351-4131		Ingrid Platt	358-5197
Treasurer	Alison Fox	942-4989		Lynne Rowe	358-8412
Membership Secretary	Ruby Coleman	355-8811	Ex Officio	David Given	941-7583
Minutes Secretary	Jim Crook	358-5845	Helpers		
Committee Members			Plant Sale	Helen Constable	980-9358
N. Assistant	Maria Adamski	325-2330	Newsletter mail out	Sally Jebson	352-6363
	Charlotte Bangma	337-6610	Guide Coordinator	Chris O'Sullivan	332 8565
	Janet Begg	385-5114	Botanist	Bill Sykes	366-3844
	Joan Bower	384-5304	Walks	Max Visch	338-2273
Outings/trips	Alison Fox	942-4989	Enquiries	Information Centre	941-7591
Newsletter	Peter Mahan	354-1550	Typing	Fay Jackson	

We need you.

There are four vacancies on the Committee.

Volunteer opportunities. Many Jobs. Few people. We need new Committee people and also new volunteers to support the committee and help run our activities. E.g., teas/suppers, phoning, plant sale rosters etc. Please phone Faye Fleming on 3517 798 if you can offer time to share the workload.

Volunteers for Visitor Survey Work.

We seek expressions of interest from members who have time to assist with a proposed series of seasonal surveys of visitors to the Botanic Gardens, starting in September. These will be for one day a month for a year. Please reply to Thea Langdale-Hunt BG Staff on 9417585 or email thea.langdale-hunt@ccc.govt.nz

Subscription Time Again

Our financial year runs from 1 July to 30 June each year. At the AGM last year, a small increase in the subscription rate was approved for 2003-4 with Single membership now at \$14, Family/ Partner at \$20, Students at \$8 and Affiliates at \$14. We appreciate early payment of subs so please renew as soon as possible and update your offers of help on the renewal form. Post to: The Treasurer P.O. Box 2553 Christchurch. To ensure future copies of our newsletter, please renew before 30 November 03.

Email/Fax addresses. Please include your email and/or fax address so we can develop a quicker way of letting members know about events. Sometimes new opportunities come in between newsletters and we would like to be able to communicate these to members without the cost of a special mailout. If you do not have email or fax but would like to be phoned about special events, please mark your renewal with "Please phone for special events." If you are willing to help with phoning, please indicate on the offers of help column on the renewal form.

Information Centre Displays

A reminder, wheel chairs are available at the Information Centre, free of charge for use within the Botanic Gardens. Enquiries to Information Centre phone 9417591

July-August	Botanic Gardens' Ornaments.
September	Sally Mason Spring Photographs
October	Pollinators and Pollen Haters.
December	Trees including the New Zealand Christmas Tree.

Silva Dell Daffodils

Saturday 4 October 2003.

Silva Dell have 1000 different daffodils on a 1km easy walking track, as well as a formal garden display. Over half of the daffodils are unique, as they have been raised by hybridising on site. David and Carolyn will give us a talk on our arrival. There will be seating available and free tea or coffee. Cut daffodils will be for sale and orders can be taken for bulbs, which will be available from February. See Coming Events insert for details.

Friends of Christchurch Botanic Gardens Insert- Issue 56 Coming Events Aug - Dec 2003

- By popular request we have included several outings. Enquiries to Alison Fox 9424989
- Sun 10 Aug 2.0pm at Canterbury Horticultural Society, 57 Riccarton Ave
Annual General Meeting. Guest speaker *Dr David Given*, the new Curator. Followed by afternoon tea.
- Sat 16 Aug 1.30pm Guided Walk from BG Information Centre. *Winter flowering plants* with Friends' Guides. Contribution \$2
- Tue 26 Aug 10.00am Meet at BG Library for morning tea with Staff
 10.15am Guided walk *Alpine Delight* with Malcolm Shirlaw
- Wed 3 Sep 2.00pm *Visit to studio of Tim Main*, prominent young designer of fabric with a New Zealand native plant theme. Travel by car. Donation \$3 members, \$4 non-members. To book please phone Alison 9424989 by 1 September.
- Thu 11 Sep 2.00pm BG Staff room. *Botanical Resources* including library, plant records and herbarium, with Sue Molloy. Members only due to space restrictions.
- Wed 17 Sep 7.30pm *Team Quiz*. Light-hearted team event with prizes. Petanque Club. Contribution \$2
- Sat 20 Sept 11.00am-2.00pm *Spring Plant Sale* outside BG Information Centre. Rare and unusual potted bulbs and early flowering perennials.
 12.45pm meet at Info Centre with own lunch for a picnic together before
 1.30pm Guided Walk from Info Centre to Woodland area. (Friends' Guides.)
- Tue 23 Sep 10.00am Meet at BG Library for morning tea with the Staff
 10.15am *Spring is sprung the grass is riz*. Guided walk to Primula garden and surrounds with Richard Poole
- Sat 4 Oct Bus trip to *Silva Dell Daffodils*. Meet at 12.45pm in BG Carpark outside Petanque Club. Bus departs 1.00pm returns 4.00pm. Members \$6 non-members \$8. Book on slip enclosed by 26 Sep. Enquiries to Alison 9424989.
- Wed 15 Oct 7.30pm at Canterbury Horticultural Society. 57 Riccarton Ave. *Travels along the Silk Rd in China* with Prof. Bill Willmott. Contribution \$2. Supper
- Sat 18 Oct 10.00am-1.00pm. The *Annual Plant Sale*. Near Kiosk Bridge. Follow the signs.
- Wed 22 Oct 7.30pm Auditorium Girls' High. Royal New Zealand Institute of Horticulture conference-Banks Lecture. Colin Meurk; *Cities are Cultural and Ecological Keys to Biodiversity Futures*. Free entry. Enquiries David Moyle 3588914

Friends of Christchurch Botanic Gardens. Bus Trip Silva Dell Daffodils Sat 4 October 03

Names.....
 Telephone no.....
 Number of seats: members @ \$6.....non-members @ \$8.....
 Amount enclosed.....
 Please send cheque made out to A.M.Fox to 77 Golf Links Rd Christchurch 8006 by 26 Sep

Friends of Christchurch Botanic Gardens. Bus Trip Lavender Downs and Kitchen Garden Sat 22 Nov 03

Names.....
 Telephone no.....
 Number of seats: Members... @ \$20.....Non-members @ \$24.....
 Amount enclosed.....
 Please send cheque made out to A.M. Fox to 77 Golf Links Rd Christchurch 8006 by 14 Nov

- Tue 28 Oct 10.00am meet at Meet at BG Library for morning tea with the staff
10.15am *Colour your world with annuals*. Walk with Louise Morgan.
- Tue 4 Nov 7.00pm. 57 Riccarton Ave. CHS All about Gardening. 8.15pm *Derek Fell*, American photographer author and plantsman. CHS Members \$2 Visitors \$6
- Wed 5 Nov 9.45am CHS event as above. Derek Fell speaks at 11.00am
- Sat 15 Nov 1.30pm from Information Centre *Walk and Taste. Plants we can drink?*
With Lynne Rowe and helpers. Contribution \$2. Bring own cup.
- Wed 19 Nov 7.30pm at Canterbury Horticultural Society, *Raoul Island. The Northern Border*. Life, Flora and Fauna, with Barry Samson. Contribution \$2. Supper.
- Sat 22 Nov Bus trip to *Lavender Downs & the Kitchen Garden*. Meet at 9.45am in BG Carpark outside Petanque Club. Bus departs at 10.00am returns 4.00pm.
Cost members \$20 non-members \$24. Please send reservation slip enclosed to Alison Fox by 14 Nov. BYO picnic lunch and drink. Enquiries 9424989
- Tue 25 Nov 10.00am Meet at BG Library for morning tea with the staff
10.15am *What's up Doc? Pests and diseases* with Kevin Garnett
- Sat 6 Dec Christmas function. Details later
- Sat 20 Dec 1.30pm from Information Centre Guided Walk. *Forests and Birds* with Neil O'Brien. Contribution \$2
- Tue 24 Feb 04 10.00am meet at Meet at BG Library for morning tea with the staff
10.15am *Ducks, Kids and other things*. Angus Allan.

RIVER TRIPS.

I have had a number of people asking about another Avon River bus trip, and we have yet to explore the interesting features of the Heathcote and Styx rivers. I will be happy to organise such trips if there is sufficient interest. It would help if interested members ring me on 9424989 Alison Fox

Friends' Phone Contacts:

President Faye Fleming 351 7798

Programme Adrienne Moore 351 5915

Membership Ruby Coleman 355 8811

Friends of Christchurch Botanic Gardens Inc P.O. Box 2553 Christchurch

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