

Newsletter

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

No 55, Winter 2003

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Coming Events

FCBG

PO Box 2553
Christchurch

Dear Friends,

By the time this reaches you the Free Fun Day in the Gardens will be over. A huge thank you to Lynne Rowe who designed the programme, found the tutors and visited endless schools and groups to find the children. This day forms the base for future programmes as our part of the KidsFest July 7-11th. Thank you to all Friends and other willing helpers, who assisted, gave their time collecting cones, bark and dried flowers and bush hut material.

The Gardens' staff had good ideas and also gave their time and support.

The "Volunteer" scheme has started and is gradually being extended with very positive feedback from staff and volunteers. Good data must be collected and used to form the basis for promoting the ways in which the Friends assist the Gardens.

The potting teams are buzzing and a lot of effort and thought has gone into improving the area and providing good information for the groups. The results are seen in the profits of plants sold at the Information Centre.

The new "toast rack" project is still in the discussion stage with the nitty gritty details to be resolved before any decisions are taken. See separate item.

Do check the programme details especially the venues for meetings.

On a personal note, Maria Adamski is currently on leave from the committee and her baby is due in early May. We hope that Peter Mahan's health improves.

Faye Fleming
President

Botanic Gardens' Birthday

On 9th July 2003, the Gardens will celebrate 140 years since its establishment on 9th July 1863. We will celebrate with a tree planting. Watch the Christchurch Star for details or phone Sue on 364 7584.

NB. Did you know that we are the second oldest Botanic Garden in New Zealand? Congratulations to Dunedin who also join us in celebrating 140 years. The Dunedin Botanic Gardens were established just six weeks ahead of us.

Sue Molloy, Botanical Resources Co-ordinator.

Support our fundraiser event. All welcome. Book now for Green Fingers Film. Sun 22 June 2003, 3:30pm Southern Ballet Theatre, Arts Centre. \$10. See Coming Events insert for booking slip.

Gardens' News

Manager's Report

The past few weeks have been a very busy period in the Botanic Gardens. Staff have been leaving to take up other roles and increase their skills and knowledge levels. Autumn has arrived, which thankfully means we can stop manually watering plants (more rain please), but it's a double-edged sword. Autumn is a beautiful time of year, the abundance of colour is astonishing, but unfortunately it all ends up on the ground, which leads to more maintenance.

The nursery ventilation system was recently upgraded at a cost of \$11,000. Greg Salton was finding the high temperature levels in the nursery were hard on both stock and workers. By purchasing a new system to increase the amount of air movement we seem to have overcome this issue.

The display of Begonias in Townend House has finally been removed. I was constantly amazed at the number of people who would come into the facility and quite literally have their breath taken away. I spoke with a number of visitors who had travelled widely, and they said it was the best display they'd ever seen. One English couple holiday in New Zealand and Australia every year (lucky them), and they time it to coincide with the display. That's a real credit to Chrissy, Frances, and Greg. The begonias have been replaced with cyclamens, primula's, streptocarpus and impatiens baskets aren't far off.

The temporary Robert McDougall Information Centre, that used to be situated next to the museum, is no more. The sponsors finally came in the night and spirited it away. Some have suggested that this is a lost opportunity, and they're right to a certain degree. However, the building was wrong for the location. We may have an opportunity to work with the visitor information staff in the Museum, in a positive and supportive way. To this end, we need to consider the future plans for the Botanic Gardens.

Anne Greenup recently appointed a contract Landscape Architect to assist the Gardens with our future plans. A meeting is to be held with a management group to discuss how the project will

begin to come together over the next few years. A member of the Friends has been invited to be an active part of the management team.

The volunteer programme is slowly progressing here. We want to walk before we run and those members, who expressed an interest, take heart you haven't been forgotten. We're mindful of getting it right and definitely do not want to disappoint best friends. The projects are starting to roll out now and more phone calls will be made to you over the coming days.

Barry Samson.

[PS Any members interested in registering for work alongside the staff in the Gardens, please contact Faye Fleming 3517 798 or Charlotte Bangma 3376610. Training will be provided.]

Botanical Resources Update. April 2003

The past six months have seen many of the Gardens' botanical resources enter a new era of technology. Much progress has been made. We have now reached a stage where it is appropriate for me to provide you with some feedback.

Plant Records

From the mid 1950's, plant records have been itemised and processed in a methodical manner. Prior to this, records were generally only itemised if a planting had been made by a dignitary or to commemorate a person, celebration and so on.

Records of the grounds' and conservatories' collections have been accommodated in the library in the form of hard copy filing cards. All the recorded data (past and present) pertaining to the grounds has been transplanted into a spreadsheet format.

From here, they will progress to a database. To date, we have processed over 25,000 accessions. However, this does not cover the entire grounds' collections, so there is more to track and capture. The conservatories records have yet to proceed in this manner.

The Herbarium

All information retained on the individual herbarium vouchers (specimen sheets), have also been transplanted to a spreadsheet.

Like the plant records, they too will progress to a database and link to the plant records.

We have over 3000 herbarium specimens with 300 requiring partial translation from Bulgarian. In the late 1950s we were fed consignments of vouchers from Sofia, Bulgaria.

The Library

In the New Year of 2003, the capturing of bibliographical data (title/author) pertaining to our library's accessions commenced. This has been in collaboration with the Canterbury Public Library, which has provided staff to assist us.

All accessions are being bar-coded and incorporated onto the libraries' network, but information will be screened from the public. Friends will be able to access information from the PC in the Library.

The number of accessions is not known at this point but estimated at 2,500. What is now known,

is that 75% of our collection is not held in any other Council Library – a graphic indication of the privilege it is to be guardians of this unique resource.

Running concurrently with this, is the itemisation of the journal collection. These collections will also link to the plant records and herbarium databases.

Thank you.

Finally on behalf to the Gardens' staff, I would like to thank the Friends again for their annual library grant of \$1000. This has now been generously increased to \$1250.

Our Botanic Gardens' resources have taken a massive step forward. I look forward to keeping you all posted.

Sue Molloy, Botanical Resources Co-ordinator.

Recent Events

Plant Art

Elisabeth Sherras Clark, a visiting English botanical illustrator, held a painting Master Class entitled "Looking into Flowers" at the Avis Hill Art Centre, Memorial Ave, 14-16 February.

This was followed by an extremely interesting lecture at "Our City" on the Monday evening 17 February. Elisabeth is an international botanical illustrator, flower painter and textile designer who divides her time between teaching art in England and Australia, where she is closely associated with Friends of the Australian Botanic Garden in Canberra. Elisabeth spoke briefly of her art training until eventually becoming very involved in flower portraiture. We were all fascinated to hear of her 'intrepid journeys' accompanying Kew Gardens' teams, as a botanical artist to central West Africa and the Amazon region.

Those of us who attended the three day course found Elisabeth an excellent teacher who inspired the nine participants, some of whom came from as far as away as Dunedin. We would all I am sure, like to thank Friends' member Dianne Smith who did such an excellent job organising both the course and the lecture to coincide with the Festival of Flowers. Dianne and Jo Ewing also a

Friends' member, exhibited some of their own paintings during the Festival.

It is hoped that the Christchurch Botanic Gardens will support similar courses in the future, as well as holding displays or exhibitions of botanical art, as is the case with many Botanic Gardens overseas.

Irene McBryde

The evening walks with **Friends' guides** and **Max Visch's** walk discussing the Origin of our Perennials, offered during the Flower Festival in February, drew an encouraging number of out of town visitors and first time local visitors as well as members.

One of the largest crowds ever, came to hear **Rob Martin** from the Herbal Dispensary speak early in March, on the Medicinal uses of Herbs. He has a vast knowledge about this ancient practice and had a very attentive audience. **John Morton**, Landscape Architect and plantsman, entertained members who visited his peaceful hideaway on March 15th. Hints and ideas on many aspects of gardening, flowed thick and fast. Some members of the group were treated to a demonstration of his own specialised computer programmes used in his design work.

4 FRIENDS OF THE CHRISTCHURCH BOTANIC GARDENS

Also in March, **Ryan Young** the recipient of the 2002 Friends' Staff development award spoke on Dwarfs and Giants. He shared his experiences and slides from the National Bonsai Convention and his time amongst the giant Kauris in Trounson Kauri Park in Northland. This was the first of the Department of Conservation's 'mainland island' projects which is an area set aside to recreate a secure environment for Native flora and fauna.

Farmland surrounds Trounson, a forest island, which is the home of several threatened species including North Island brown Kiwi, NZ pigeon and bats and kauri snails. The mainland island project has developed since 1995, targeting the removal of pests, recording native forest animals, monitoring the flowering, fruiting and general health of the forest and supporting research projects. The increase in native pigeons is already noticeable. (Although he has now left the Gardens, Ryan returned to share his love of birds and native vegetation with the children on the recent fun day. As they walked in the Native section they came upon three Kereru (native pigeons) sitting on a branch, much to the delight of all. These large colourful birds are seen regularly in our Botanic Gardens and the distinctive whoosh of their wings gives away their presence as they swoop low around the Gardens in search of food.)

Bede Nottingham and **Angus Allan** discussed the new spring bedding schemes on the March monthly walk with the staff, then Bede followed with 'data on the Dahlias', (another genus that has dwarfs and giants). Watch out for the tree Dahlias, *Dahlia imperialis* at the back of the dahlia border, against the yew hedge by the Central rose garden. These normally flower just before the frosts.

New members' morning tea and 'Behind the Scenes' visit:

A very warm welcome was given to recent new members who met on a wet Saturday morning (29th of March), for a tour of the propagation and plant growing facilities at the Botanic Gardens. As a new Friends' member and having recently returned to Christchurch to live after an absence of 36 years, I certainly found some big changes to these facilities, which I haven't viewed for many years. As we toured around the potting shed area and glasshouse complex I recalled the early days of my horticultural training at the Gardens over 40 years ago, when facilities were pretty basic compared with today.

For example, there were no mist propagation units or a herbarium room. Heating of the glasshouses was by the use of coal and if the auger to the furnace failed to work, hand shovelling to clear it was often required.

A somewhat hazardous operation back in those days to fumigate glasshouses of insect pests, was to use the very poisonous liquid nicotine sulphate, set on top of small burners. No gas masks or OSH regulations in those days! DDT was a common insecticide and very liberally used as well.

Cold frames, covered each evening in winter with heavy hessian, were used for over wintering or growing many plants. Today there is only one used for this purpose.

Times change, and it is great to see how the Botanic Gardens and horticultural industry has adapted and improved the way in which we can now grow and propagate plants. Many of the new Friends were very impressed with the modern propagation and plant growing facilities that are now in place at the Gardens.

Don Bell

CHILDREN'S HOLIDAY FUN DAY IN THE GARDENS

On Saturday 12 April members of the Friends, with assistance from Gardens' staff and final year teacher trainees from the Christchurch College of Education and the New Zealand College of Early Childhood Education, held a free "Children's Holiday Fun Discovery Day" in the Botanic Gardens. This was a trial for possible future educational activities.

The morning programme involved a detective hunt for 70 children with parents and caregivers following self-guided maps and clues. Many caregivers commented on their delight at finding fun children's activities they could do together as a family group, in such beautiful surroundings. Small trees generously donated by Wai-ora Trust were available for children who took part and spot prizes of free passes from Orana Park, QE II Pools, Southern Encounter, and the Gondola added to the day.

The afternoon "Workshops" for 50 children included making a bush camp, tracking songbirds, making the smelliest herbal mixture, learning how to pot up small boot gardens, make cuttings and turn autumn leaves, nuts and cones into art-craft.

Lynne Rowe, a Committee Member was responsible for initiating and organising this successful day. The following accounts illustrate the enjoyment of the children who took part.

Bush Camp at the Gardens



♥ On Saturday I went
 ♥ to the Gardens and we
 ♥ got into a club of
 ♥ night. We went on a
 ♥ nature walk to a spot
 ♥ native birds then we
 ♥ had 30 minutes to
 ♥ a hut out of leaves to make
 ♥ and flax. It was so cool.
 ♥ Abby marriott. love

Abby Marriot⁹. Aged 6

* * * * * I went
 * On Saturday and my
 * Grandma took me there. We
 * went on a nature walk
 * We saw a native wood
 * pigeon it was fun as.
 * As well as that we made
 * huts we had 30 minutes to
 * make it then we had to
 * see if it was water
 * proof.
 * The day was so, so,
 * so, so, so cool it was
 * the best day in
 * my life.

Courtney Jane
 Clyne

Courtney Jane Clyne⁹. Aged 7

As you may have seen in Monday's paper (Press 14 April), there were several pictures on the TV page. The top picture showed our team's Bivouac that we made on Saturday in the Botanic Gardens. When we got there we found three tents from where we were provided with piles of branches, leaves, flax, corn plant, fern, and old sailcloth, (tarpaulin). We were told that we were pioneers whose ship had crashed on rocks, we had managed to get to an island and that we had to provide shelters for ourselves to avoid the harsh elements for a couple of nights.

The organisers then split us into two groups. Our group was faced with the dilemma of deciding on a design. A platform with walls and a roof? A small, comfy wigwam or a big one? We decided to go for the big one. It had to be big enough for two sleepy children. So we started constructing a skeleton, which we smothered with leaves and other greenery. Well, well, well, what a lot of work! At last our shelter was finished! It was big enough for two! It looked great. We had cut strips of flax, and tied them to make string. With this, we had knotted the whole thing together. Then we went to have a look at the other team's one. They had woven a small canopy of flax, and made one wall out of that along with other leaves and branches. It looked good too. It was a very enjoyable afternoon.

Simon and Lydia Moore

Bring-a-Plant meeting, Petanque Rooms. Wed 2 April

Our Bring-a-Plant meetings are very popular with members and a great way to learn. We bring something to "show and tell" or just come to learn. One of the gardeners comes with plants of seasonal interest in the Gardens. Do join us next time.

A new member reports. We were invited to bring a plant to discuss and as a new Friend I was keen to participate. My inspiration came from within our home in the form of some very unusual and quite special dried flowers, now seedheads. They survived being passed around and will continue to give me pleasure in the winter months ahead.

My personal gardening treat last year was to purchase a variety of *Allium* bulbs (part of the onion family.) These were procured by mail order from Bannockburn Floriculture.

The seed heads I presented were as follows:

Allium christophi: This has a large flowering globular head up to 20cm. These are produced on stout 40cm stems in December. The head is composed of very fine silver purple stars held out on 7-10cm stalks. The bulbs are large and require a hot dry spot.

Allium sphaerocephalon: Deep reddish purple balls on 80cm strong stems. They have neat heads the size of a ping-pong ball which begin green in colour from the top. Those I cut at their peak dried with colour intact and looked wonderful with two of my roses – 'Ripples' and 'Blueberry Hill'.

Allium siculum: Has green bells with pink inside, that hang from 80-90cm stems. Flowers dry upright to a deep cream and are prized for floral arrangements. This bulb can be planted in semi-shade or full sun.

Allium karataviense – Has spectacular wide striated blue green leaves, which show off an ivory pink ball. This is a collector's delight. It grows with a shorter stem with a flower 10-20cm in diameter.

The meeting was well attended and began with a very interesting presentation by Shara Barclay, one of the Botanic Gardens' Staff. The majority of those attending discussed their plants and with such an interesting variety shown, it is a wonderful way to learn. Max Visch from the Friends' propa-

gating team brought along many plants that he described in detail and offered for sale.

I was fortunate to purchase the plant I admired and desired – *Abelia schumannii*

Thank you Friends for contributing and making this such an interesting way to spend an afternoon.

Robyn Gordon

Editor's note: *Abelia schumannii* (Caprifoliaceae) is from Western China and was introduced to Britain by Ernest Wilson in 1910. It has received the Royal Horticultural Society Award of Garden Merit in 1984. Abelias were named for Dr Clarke Abel (1780-1826) who "at the suggestion of Sir Joseph Banks, accompanied Lord Amherst on his embassy to Peking (1816-17) as botanist." Stearn, W.T. (1996). "Stearn's Dictionary of Plant Names of Gardeners." London: Cassell Publishers. Few of his collected specimens survived a shipwreck on the way home to Kew.

Volunteer News

*** means volunteer opportunity and contact.

BOTANIC GARDENS ELECTRIC VEHICLE DRIVER/GUIDES

The City Council is currently considering a proposal for re-establishment of the type of service previously known as the "Toast Rack" which took paying visitors for excursions with a knowledgeable commentary, around the Gardens. This new proposal envisages an up to date service with two purpose built electric vehicles that comfortably seat 10 visitors with a seat for the driver. The commentary will be come from a small cone speaker behind each passenger. With this arrangement and the quiet electric engines, there will be minimum noise to affect other visitors in Gardens.

The Friends of the Gardens have been given the opportunity to run this project which could become a potential earner of income that Friends would then apply for the benefit of the Gardens.

If the Friends accept this proposal, an advertising campaign would be necessary to attract persons who will become expert volunteer driver/guides for the electric vehicles. In overseas Botanic Gardens these people are known as "docents". Before any a final decision is taken and advertising is done, those members of the Friends who would like to*** become docents are invited to register their interest, by giving their names to Faye Fleming, Ph 3517 798, or Jim Crook, Ph 3585 845.

REPORT FROM THE PROPAGATING TEAMS

Teams:

Perennials & annuals:	Max Visch,	338-2273
Alpines & bulbs:	Jane McArthur	384-2170
Succulents & Cacti:	Jim Dunn	338-9538
Trees shrubs & natives:	Neil O'Brien	384-6090
Co-ordinator:	Helen Constable	332-1212

New members will be very welcome; 9 new workers have recently joined us. We hope to set up a Team to propagate Herbs, but at present these will be grown by the Perennials & Annuals Team and the Trees shrubs & natives Team.

Over the summer, our main concern has been to keep the growing plants watered. Sales from the Trolley outside the Information Centre have been steady and we have solved the problem of drying-out overnight by standing the pots in polystyrene bins. A plastic tray is being made to fit the trolley. But we should appreciate a helper to oversee the Sales Trolley, to keep the plants looking their best. ***The ideal person would be someone living close to the gardens, and the duty could be shared. ***Ring 3321 212 if interested.

The Big Day in the Park, 23 February, was very well attended and sales from our three tables excellent. Friends also offered raffles (* See below for winners) and membership information. There was no shortage of willing helpers and the weather was great. Once again it was evident that buyers appreciate information about their purchases. Knowledgeable salespeople are appreciated and we all share our areas of expertise. Thank you to everyone who helped.

We recently took the Sales Trolley over to the Petanque Rooms - (April 2 Plant Share Meeting and bring-and-buy) where our stock generated a lot of interest. We hope to propagate more and different plants this autumn and if anyone has seen anything particularly desirable in the Botanic Gardens, ask us about it. We

may be able to take cuttings or collect seed, or we may already have it in stock. Many plants take several years to reach saleable size; for instance we had good success with some Junipers a year or so ago but of course they are still small. Of course, we can only propagate Botanic Gardens stock.

Many people have been showing interest in Succulents & Cacti and we recently offered a Sales Trolley full of them. There will be more so watch out for them. Autumn is the best time to plant Shrubs and Natives so we shall be offering our stock in this area very soon. It is the end of the season for Perennials so you may think our stock looks tired but plant them now for a good start next Spring. And the Bulbs, of course, are not showing much - but under that gravel - the work goes on. Buy them now and just wait!

Your spare pots are still very welcome. Tie them up in a plastic bag and leave them at the Information Centre. Clean, please, and yes, the small ones as well! We think we have solved the plastic plant tray problem (replacement for the mushroom boxes that are fast breaking up), but we should like your help in this. Some supermarkets have ***recycling policies (NW for sure) and will save polystyrene boxes for a collector. Let me know if you are able to help here. Double whammy with this, we reduce the landfill mountain Phone Helen, 332-1212. ***Friends are encouraged to share information on any new catalogues you may have and can recommend. Please bring your unwanted copies of garden magazines to donate to the sales table.

*** Ring Helen if you can help

Raffle results at Big Day in the Park in February.

Propagation of NZ Native plants

Winner new member Tony Cooper

A-Z Garden Plants

Winner Alison Fox

Thank you to those who donated prizes and those who bought tickets.

Guiding group.

Over the summer Friends' guides have continued to show American tour groups through the Gardens, mostly at weekends. Thank you to Chris O'Sullivan who arranges this with Lincoln University. Our monthly themed walks require research and we are grateful to those who give many hours preparing these walks, enjoyed by increasing numbers. The contributions received are a helpful source of income for our Society.

Guide Training. Thank you to those who have already offered to become guides. More ***Friends willing to train as guides will be welcome. We will soon be offering training for all guides. You will be contacted before long. ***Contributions of stories about plants and the Botanic Gardens' collections and history, will be appreciated from anyone, preferably already typed up. Is there a ***volunteer willing to help index/collate such contributions and reference material?

***Please contact Adrienne 3515 915

The next National Conference for Volunteer Guides in Botanic Gardens will be held at Kings Park, Perth, W. Australia, from 29 Sept to 3 Oct 2003. This is the wildflower season in Western Australia. For further details contact Adrienne 3515 915.



Snippets

In September 2002 the Friends' visited Elizabeth Wolff's extensive garden at Thornbank near Rangiora. We are delighted to hear the following happy story from Elizabeth.

Postscript on a Visit to Thornbank.

Twenty-five years ago John and I exchanged a lifestyle on 700 acres for just seven acres, modernizing an old house and continuing the garden begun in 1879.

Over the twenty-five years many visitors have come and gone, local 'good works' have borrowed us and those of a 'horticultural bent' have come in invitation in the spring, when the garden is at its best.

Just as important as the garden, is the history of the people who have lived here, and their appreciation of the property. We have met many of the descendents of Mr. and Mrs. John Leech and our immediate predecessor Mrs. Monica Dunlop lives locally and is now aged 94.

However the first family, the Howarths, had eluded us, until the Friends came to visit and a report of the successful day out, appeared on the Internet.

What excitement when the phone rang and a voice announced "I'm Brian Howarth, at Kati Kati and my great-grandfather built and lived in your house, but we didn't call it Thornbank instead it was 'Harcroft' after the family mansion in Douglas on the Isle of Man." Since then photographs and history have been exchanged to the pleasure and satisfaction of all.

So thank you "Friends" for the helping hand. When I move out on 20 June, I will leave behind a completed history of Harcroft/Thornbank, for the incoming owners and a note of what a happy place it has been, for all generations.

Botanic Gardens' Information Centre**Displays.**

May	Autumn
June	Bugs and Children's Art
July-August	Statues etc in the Botanic Gardens and Celebrating 140 years.

Articles

Plants with Winter Interest

The tantalising scents and precious flowers of the winter flowering plants in our Botanic Gardens are a feature in the colder months.

One such plant (to be found behind the seat, mid-way along the BG herbaceous border) is *Daphne bholua* or tree daphne, which comes from the Himalaya and is from the group known as 'paper-daphnes'. The stringy bark was used to make paper and in the traditional manufacture of rope. Most *D. bholua* are evergreen but can look bedraggled until they shed their old leaves as new growth develops after flowering. Some cultivars are completely deciduous.

Fay Clayton in her book "Deities in my Garden" (ETY Publications, Paraparaumu, 1995.) tells the Daphne legend which is included here with her permission.

Daphne "Garland Flower", "Spurge Laurel" (Thymeleaceae)

Before we approach this legend we must realise that daphne was the Greek word for laurel, for the sweet bay tree. Mentally see and smell those scented leaves. The mythology surrounding daphne throbs with humanity. She was a nymph, born of two waterways, living in the mountains, knowing nothing of men. One day Apollo saw her, and overcome with her beauty and charm, began pursuing her... Daphne terrified, ran... and unable to get away prayed that her father or the earth would save her. That prayer was granted. She was turned into a tree. Thereafter Apollo, invincible male, wore a laurel wreath around his head. Athletic visitors in ancient Greece followed suit, contest winners wreathing themselves in this manner. It has not stopped there. Nowadays we sometimes rest on our laurels. Very early on 'to laureate' was to confer honour upon, particularly a degree at University. We are now all familiar with the office of Poet Laureate. Zoology, almost with a poet's mind, named *daphnia*, in the nineteenth century. That small freshwater crustacean, a water flea, swims with a jerking motion – like a frightened girl running."

Another plant most noticeable in winter is *Garrya elliptica* (Catkin or Silk tassel bush) near the above *Daphne bholua*. This shrub is named after Nicholas Garry, Secretary of the Hudson's Bay Company, who between 1820-30 assisted David

Douglas, (Scottish plant hunter and explorer, of Douglas fir fame) in his explorations of the Pacific Northwest of North America. *Garrya elliptica* comes from W. USA and is an evergreen shrub, which in winter has attractive pendent grey-green catkins with yellow anthers.

Some more plants flowering from now on are *Nerine*, *Camellia sasanqua*, *Sarcococca* (winter box), *Viburnum*, *Lonicera* (honeysuckles), *Hamelis*, (witch hazels), *Chimonanthus* (Winter sweet). Ask at the Information Centre for directions or just follow your nose.

Our Guided walk on 16 August will explore some of these and more.

TREES for NEW ZEALAND TOWN and COUNTRY:

by Don C. Bell: publishers David Bateman Ltd., Auckland.

This book is essentially a practical guide for the home gardener and those with an interest in trees, amenity horticulture, conservation, farming and lifestyle blocks.

The main aim of the book is to assist in helping people to avoid some of the pitfalls associated with planting and growing trees. It also outlines the amenity value, benefits and the practical use of trees.

It stresses the importance about choosing the appropriate tree species for different conditions and situations, and explains how to plant, grow, protect, preserve and care for trees.

A ready reference section provides brief descriptions of over 400 commercially available tree genera, species and cultivars, giving botanical and common names, approximate height at ten years and maturity, whether the tree is quick or slow growing, its tolerance to frost, growing requirements, main uses and propagation techniques. Over 300 photographs and diagrams, extensive tables, lists of sources for trees in New Zealand, legal aspects and regulations about planting and growing trees, and a discussion on trees for public spaces rounds out this practical and detailed book.

Camellia Flower Blight

Since the early 1990s camellias in New Zealand have been gradually affected by the camellia flower blight caused by the sclerotial-forming fungus *Ciborinia camelliae*.

Ron van Toor, (Scientist, Crop Protection, New Zealand Institute for Crop and Food Research Ltd. Lincoln), with assistance from the New Zealand Camellia Society Memorial Trust, has developed an integrated approach to controlling camellia flower blight in his recent thesis.

The following notes have been supplied by Julie Browne of the Canterbury Branch of the N.Z. Camellia Society, from talks given by Ron van Toor to their members.

“Ron has looked at developing bio-control methods for Camellia Blight caused by *Ciborinia amel-liae*. It has a one-year cycle - sclerotia in the soil, apothecia, which release asko spores on to the petals and new sclerotial formation showing a white ring around the base of flower petals. Botrytis, another fungal disease that can be confused with petal blight, turns the petals a greeny, mushy, brown and does not have a white ring of fungus at the base of the petals.

Methods of Control are to burn infected flowers, provide a dry environment under the bushes, trimming the lower branches off and covering the ground with polythene or pine needles. The spread of the disease to other areas, can be restricted by bare rooting plants, (when shifting plants) and making sure they are free of flowers. Sprays of products containing cyproconazole or fluzinam to the soil have been helpful. Alto is one used.

Disease Spreads

1919 Japan, 1938 California to most of USA, 1993 NZ, 1999 England & W. Europe

Biological Strategies

1. To enhance plants defences.
 2. Microbial antagonists to flowers to prevent infection and to soil to control sclerotia.
- Soil amendments were used to stimulate parasitism by existing micro antagonists in the soil to prevent apothecial production.
- C. camelliae* mycelium travelled 6cm into stems but there was no infection in the leaves.

It takes - 6hrs for spore to land on flower and go into tissue, 18hrs for spore to infect flower, 72hrs when breakdown of cells occurs and Ron tested a wide range of control agents sprayed on to petals and on bushes. They found some micro parasites showed some control and these will be used for further study.

Tree mulches of bark chips attracted the fungus gnat, which ate apothecia and suppressed the sclerotinia production. It reduced the number of soil borne fungi but not the infection in fallen flowers. White-rot fungi (as seen in rotting sawdust), secrete an enzyme, which degrades melanin, (like the brown in our skin) in the rind of the apothecia and opens it up to being broken down.

Control Strategies

Short Term - Dust Calcium cyanamide around the bushes (50g/sq. metre) or Potassium or ammonium bicarbonate.

Long Term - Add nitrogen to the soil. Urea can also be used to stimulate natural soil microbes. The effect could compound over time. The application of urea would just be a oncer before the laying of 100mm of tree mulch, amended with white-rot fungi, applied in February.

Recommendations are subject to field-testing, but showed high results in his trial. He mentioned a blend of bark chips / tree mulch and sawdust as mulch. Leaf litter was not advised. You can buy white-rot fungi plugs to put in mulch around plants. Every 5 years or so put on more bark chips. The white-rot fungi produce vegetative mycelium and stays in the bark area.

Although Ron has concluded his Thesis at this point, it appears that he may be able to continue with some of the Field tests in conjunction with his present job so we look forward to further results. It would be great if we could lessen the effects of this Blight in our gardens even if it can't be eradicated.”

For further information contact Julie by email on browne.mvb@xtra.co.nz

HOPE, FAITH ... AND MAYBE SOME CHARITY - FOR PLANTS

We share the world with perhaps as many as 30 million organisms of about 235,000 are flowering plants and about 325,000 are the non-flowering algae, lichens, mosses and fungi. Although outnumbered by such animal groups as the insects, it is plants that provide the vital links that allows life as we know it to exist on Earth. They are the primary converters of the sun's energy to forms that can be used by animals. In a real sense, "all flesh is grass".

"If you like to breathe and you like to eat, you should care more about plants." is the answer that David Brackett, Chair of IUCN's species Survival Commission gives to those who doubt the need for plant conservation.

Yet, plants are in big trouble. Recent estimates of threatened plant numbers by the IUCN's Red Listing process suggest at least 34,000 plant species world-wide are at risk. Peter Raven (Director of the Missouri Botanical Garden) has suggested that without global action "two-thirds of plant species could be gone by 2100" and Stephen Blackmore (Regius Keeper Royal Botanic Garden Edinburgh) notes that, "the current estimate is that at least a third of all plant species are threatened with extinction by the end of the century. Some people think that could be as many as 100,000 species.

New Zealand is no exception with 511 of its plant species (80% native only to New Zealand) being uncommon and 167 threatened or declining. Canterbury is a focal point with 132 of these species found in the region. Of these, several such as the pygmy button daisy (*Leptinella nana*) and shrubby pohuehue (*Muehlenbeckia astonii*) are critically endangered.

The UN Convention on Biological Diversity (CBD), enacted in 1992 is the world's most widely accepted international agreement with 187 signatories including New Zealand. The CBD is based on three principles: knowledge, benefit sharing, and conservation. It requires national Biodiversity Action Plans (or in NZ's case a national Biodiversity Strategy). Its seemingly bureaucratic conferences and technical meetings have forged programmes

for agricultural biodiversity, forests, wetlands and traditional benefits - and most recently the first Global Strategy for Plant Conservation.

Is this relevant to the Christchurch Botanic Gardens? The answer must be a clear "yes"! For the first time plants are in focus on the global map, organizations large and small are starting to work together, and countries including New Zealand are called to conserve and wisely use plants. The strategy has 16 targets to be reached by 2010 including one that calls for 60% of threatened species to be in safe off-site collections. Other targets deal with education, recovery programmes, trade, wild protection and risk assessment. The strategy will only work if everyone works together. In this, the place of botanic gardens is vitally important - "the task for botanic gardens is raising awareness of the importance of plants and their current status; and contributing to hands-on conservation" (Stephen Blackmore, in Levin 2002).

References and further information: www.redlist.org <<http://www.redlist.org>> (for information on global threat); www.biodiv.org <<http://www.biodiv.org>> (the Biodiversity Convention); Given, D. 1998: Practical plant conservation - what can botanic gardens hope to achieve? In, Touchell, D.H. and K.W. Dixon (eds), Conservation into the 21st Century. Proceedings of the 4th International Botanic Gardens Conservation Congress. Kings Park, Perth; Given, D. 2002: Global challenges for New Zealand biodiversity research and management. NZ Science Review 59: 17-20 (summary of the CBD Global Plant Conservation Strategy and NZ implications); Head, N. and D. Given 2001: Threatened Plants of Canterbury, Canterbury Botanical Society Journal 35: 5-14; Levin, A. 2002: Red tape to real hope. The Botanics 10: 4-6.

To be continued

David R. Given

Vice President Friends of Christchurch Botanic Gardens

12 FRIENDS OF THE CHRISTCHURCH BOTANIC GARDEN

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	Joan Bower	326-5312	Walks	Max Visch	338-2273
Outings/trips	Alison Fox	942-4989	Enquiries	Information Centre	941-7591

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

Coming Events 2003

- Sun 11 May 2.00pm Canterbury Horticultural Society, (CHS) 57 Riccarton Ave.
Euan Mason, Silviculturalist, School of Forestry, University of Canterbury. Illustrated talk on "Forestry is about People as well as Trees."
Contribution \$2 includes afternoon tea

- Fri 16 May 2.00pm Petanque rooms. In BG Armagh St Carpark
Illustrated talk by Dean Pendrigh, BG Staff member. "A new Botanic Garden and vision for the Future at Pyung-gang, South Korea".
Contribution \$2 includes afternoon tea.

- Sat 17 May 1.30pm From BG Information Centre. Guided Walk.
The Changing Season - with Friends' Guides. Contribution \$2

- Tue 27 May 10.00am. Meet at BG Library for morning tea with the Staff
10.15am Guided Walk - Hot and Steamy Tropical house with Chris Thompson and Francis Austin, (BG Conservatory Staff members)

- Sun 8 June 2.00pm at Canterbury Horticultural Society. 57 Riccarton Ave
Three short presentations on recent research from Lincoln University.
Pavla Honzickova: Using pink pine tree rings to reconstruct past climates.
Cynthia Roberts: Forests of Rangatira (South East) Island, Chatham Islands and the relationship with burrow nesting seabirds.
Hannah Buckley: Pitcher plant communities of North America.
Contribution \$2 includes afternoon tea.

- Tue 17 June 2.00pm in BG Staff room. Sue Molloy on Botanical Resources.
Followed by afternoon tea.

- Sun 22 June 3.30pm at the Southern Ballet Theatre in the Arts Centre Quad. **Greenfingers film** about a young prison 'lifer' who becomes hooked on horticulture. **Cost \$10.**
For seats, please send slip below to The Treasurer, by Fri 13 June 03. After this, phone Alison Fox, 9424989 to check if seats available. **As no tickets will be issued, please be at the theatre by 3.15pm.** This is a fund raising event and we encourage you to bring friends and family. (98 seats available)

Film booking slipcut here.....

Friends of Christchurch Botanic Gardens Greenfingers Film 3.30pm Sun 22 June

NamesTelephone no.....

Number of seats at \$10 each.Amount enclosed

Please send cheque made out to Friends of Christchurch Botanic Gardens Inc. to P.O. Box 2553, Christchurch by 13 June. Booking enquiries after this ph. Alison 9424989.

FRIENDS OF THE CHRISTCHURCH BOTANIC GARDENS

- Tue 24 Jun 10.00am meet at BG library for morning tea with the Staff
10.15am Guided Walk, Conservation or Extinction with Mark Davis, Curator, Native Garden
- Mon 7-Fri 11 July KidsFest. 10.00am - 12 noon Christchurch Botanic Gardens.
Cost \$5. Friends of the Botanic Gardens - Fun Discovery Workshop.
Details in forthcoming CCC brochure. Bookings through Ticketek.
- Wed 9 July BG 140th anniversary. Tree planting. Details to come see Newspapers.
- Sun 13 July 2.00pm at Canterbury Horticultural Society, 57 Riccarton Ave
Talk and demonstration. An introduction to cutting and using Flax - Harakeke (*Phormium tenax*) with Simon Rutherford
Contribution \$2 includes afternoon tea
- Sat 19 July 1.30pm Guided Walk from BG Information Centre with Max Visch on Popular Pricklies.
Contribution \$2
- Tue 22 July 10.00am meet at BG library for morning tea with the Staff
10.15am "For your Information" visit to Information Centre with Anne Dobbs and Leigh-Ann O'Brien
- Sun 10 Aug 2.0pm at Canterbury Horticultural Society, 57 Riccarton Ave
Annual General Meeting, Speaker to be advised. Followed by afternoon tea.
- Sat 16 Aug 1.30pm Guided Walk from BG Information Centre. Winter flowering plants with Friends' Guides. Contribution \$2

Advance notice

- Sat 20 Sept 11.00am Plant Sale, Spring bulbs and early flowering perennials, outside BG Information Centre, followed by Picnic lunch (bring your own food and drinks) then 1.30pm Guided Walk from Information Centre to Woodland area, with Friends' Guides.
- Sat 18 Oct Plant Sale 10.00am on Hall lawn

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

Phone Contacts:	President	Faye Fleming	351 7798
	Programme	Adrienne Moore	351 5915
	Membership	Ruby Coleman	355 8811