

Another display that DOC is putting together is one on drought and fire-resistant plants. This will be inside the main building. Other displays will include the City Council, Forest and Bird, Banks Peninsula Conservation Trust and many more.

One of the fun activities will be flax weaving with members of Ngai Tahu. Visitors will be able to try their hand at making harakeke flowers and mats. Also find out about some of the traditions associated with harakeke, and then walk through the gardens to see where best to plant it. Or pick up the Christchurch City Council brochure on flax/harakeke to find out about traditional use and how to look after your plants.

Displays on the Day - Something for everyone

- Banks Peninsula Conservation Trust
- Christchurch City Council
- Travis Wetland Trust
- ECAN
- Scorpio Books
- Summit Road Society
- Kaupapa Kereru
- NZ Historic Places Trust
- New Zealand Ecological Restoration Trust
- Addington Bush Society
- Fern Factor
- White Flipped Penguin Trust
- Wild Places
- YHA Community Programme
- Guardians of the Styx
- Rapaki Marae
- Priscilla Queen of the Dessert (Food)



Banks Peninsula Conservation Trust

The Banks Peninsula Conservation Trust is a community organisation which promotes conservation and sustainable farm management practices on Banks Peninsula. It does this through voluntary means including landowner covenants, pest control, restoration projects, workshops and field days, education and information.

One of their projects has been a feral goat campaign operating in the Southern Bays (Peraki to Lake Forsyth and Mt Fitzgerald) area. Both DOC and Environment Canterbury are assisting with this programme. The first stage of the campaign has been completed and Frances Schmechel, coordinator, is pleased to report that 208

goats were removed by helicopter. A DOC specialist team followed up with ground hunting to eradicate a further 91 animals. "A campaign is being launched to make it more widely known how destructive goats are to native plants, their contribution to erosion, and their potential to spread gorse and other weed seeds," said Frances. Visitors to the Canterbury Conservation Day can visit the Trust's display and find out more about this programme and other work that the Trust is doing. "We will also have packs of cards on sale that feature plants endemic to Banks Peninsula," Frances added.

Feral goats – photo: Dave Hunt



Te Ngahere
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Te ngahere

Welcome to the autumn 2004 issue of Te Ngahere, the Canterbury plants and ecosystems newsletter. This newsletter is published bi-annually by the Department of Conservation's Motukarara Conservation Nursery. Your contributions and comments are welcomed. This newsletter can be viewed on the web at: <http://www.doc.govt.nz/Regional-Info/010-Canterbury/004-Conservation/Motukarara-Nursery/Te-ngahere-Newsletter/index.asp>

Nursery updates

This year will see the opening of the new Conservation Resource Centre at Canterbury Conservation Day, and the sale of over one million plants to the public.

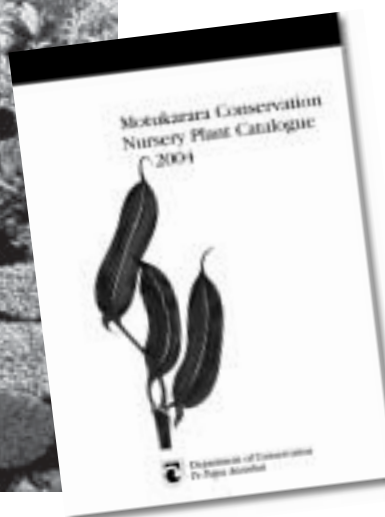
Motukarara Nursery has been operating now for 26 years. "During the initial 10 years, the nursery was supplying plants only for departmental projects," commented nursery manager Jorge Santos. "But with an increase in demand from the public and community for locally sourced and genetically pure plants, the production and supply of Canterbury native plants became one of the objectives and focus of the nursery."

The nursery has met this demand for plants, and also helped with information and advice on restoration project management, along with how to get the best out of the species planted, and the long term viability of the restored habitats and ecosystems. "The production of the catalogue, the Restoration Guide, building of the ecological gardens and the popular open days (now the Canterbury Conservation Day), has also helped meet these demands," added Jorge.

Jorge gives praise to Nicky Robb and her team who have fine-tuned the production of the plants, from the best time to harvest the seeds, when to sow, and how to get the best of their growth. "Changing the containers and implementing a rigorous quality control system has produced healthier, more hardy plants that will survive the rigours and extremes of the Canterbury weather," he said.

Plant Catalogue

This is now available from the nursery and the DOC website – go into www.doc.govt.nz, then into Regional Information, Canterbury, into Conservation (on the right-hand side) then Motukarara Nursery on the left hand menu. In there you will find lots of interesting information about plants, what and when to plant, a map of the new display gardens and much, much more. Check it out.



Department of Conservation
Te Papa Atawhai

Retail area

A new retail area has been designed as part of the overall Resource Centre. It will be officially opened on Canterbury Conservation Day, when visitors can view the new signage, layout and information panels.

Opening times will be:

Monday to Friday, 8.00am-4.00pm (all year)

Saturday, 10.00am-3.00pm (May and June)

Plants can be ordered by phone, fax or email, and collected when required.

Motukarara Nursery contact details

Phone: (03) 329 7846

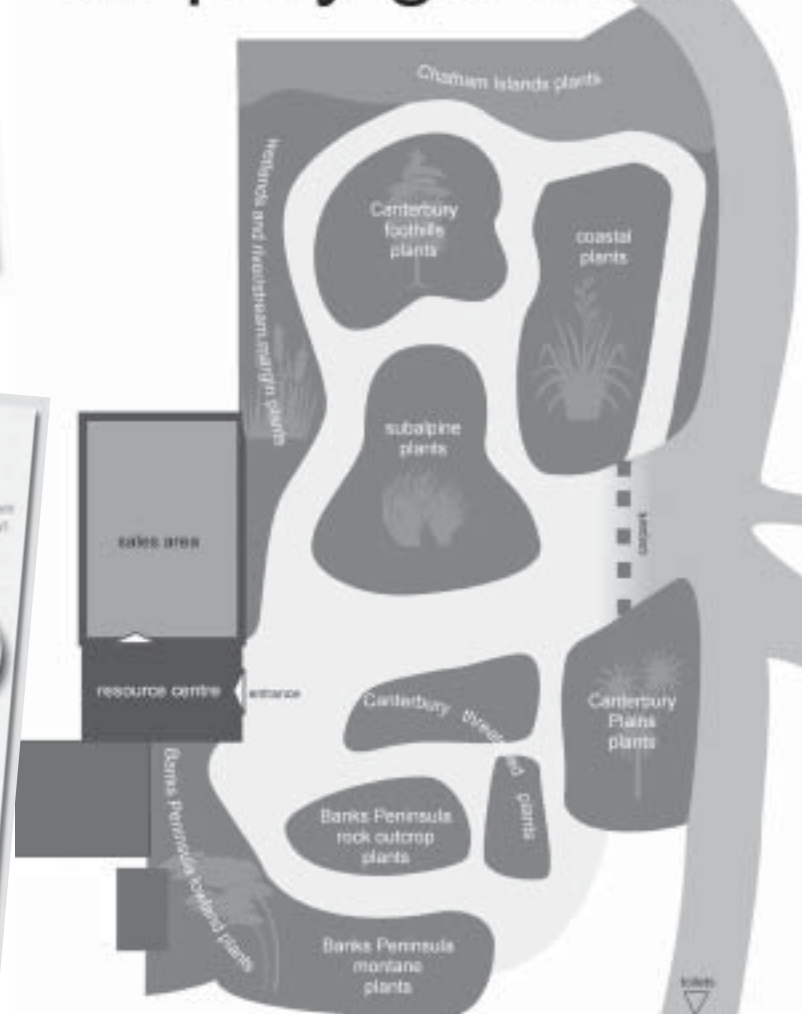
Fax: (03) 329 7041

Email: motukarara@doc.govt.nz;

jsantos@doc.govt.nz

Web: www.doc.govt.nz

display gardens



By Helen Braithwaite, DOC Technical Support Officer, Weeds.

Beggars tick – have you seen this popping up around waterways?

Both DOC and Christchurch City Council are concerned about beggars tick (*Bidens frondosa*), a weed of the water margins. It has been establishing itself in Christchurch wetlands like Otukaikino and Travis Wetland. We have had some research carried out on this species, and want to know more. There may be other Canterbury sites where beggars tick is found, and we would like to enlist the help of plant enthusiasts to give us information about any other sightings. If there is very little of this species we may be able to eradicate it; if it is already widespread we may have to learn to live with it.

A beggars tick plant looks similar to a dahlia, but the daisy-like flowers are not showy. The stems are usually reddish in colour, and each seed has two distinctive barbed prongs.

Beggars tick is an annual plant, and grows very quickly, getting as high as two metres tall. As it is a tall and leafy plant and grows in dense patches, this plant threatens water margins by displacing and shading out lower growing native wetland plants.

We will have information sheets available at Canterbury Conservation Day in the Conservation Resource Centre, Motukarara, or you can find more information and pictures by checking out the Weed Guide in the Environment section of the Christchurch City Council website–(www.ccc.govt.nz/parks/TheEnvironment/weedguide.asp),

or ring Department of Conservation Weedbusters Team at (03) 371 3751 if you have sightings to report.

Beggars tick – photo: Kate McCombs

Canterbury in the time of the moa

Geoff Rogers is a vegetation scientist who came to DOC's Science and Research Division from Landcare Research. Based in Otago, Geoff is currently studying the history of landscapes, coupled with the effects of burning and grazing of tussock grasslands and threatened plants.

What is a divaricating shrub and what do moas have to do with them? What did the Canterbury environment look like before humans came along and settled in the region? Geoff's talk will be looking at some of these features, along with the patterns in the different plant communities and ecosystems, and the role of natural, lightning-strike fire before humans began to burn the forests. Tying into this, will be some tips on what we can aim for in trying to restore some of the vegetation and ecosystem types in Canterbury.

Conservation Day displays

Conservation Day at Motukarara wouldn't be complete without displays. This year several organizations will have displays for people to browse amongst and learn from.

NZERN (New Zealand Ecological Restoration Network) will be showcasing their "*Planter guide*" This is a web-based programme that helps people select the appropriate plants for the environment, the soils and the climate.

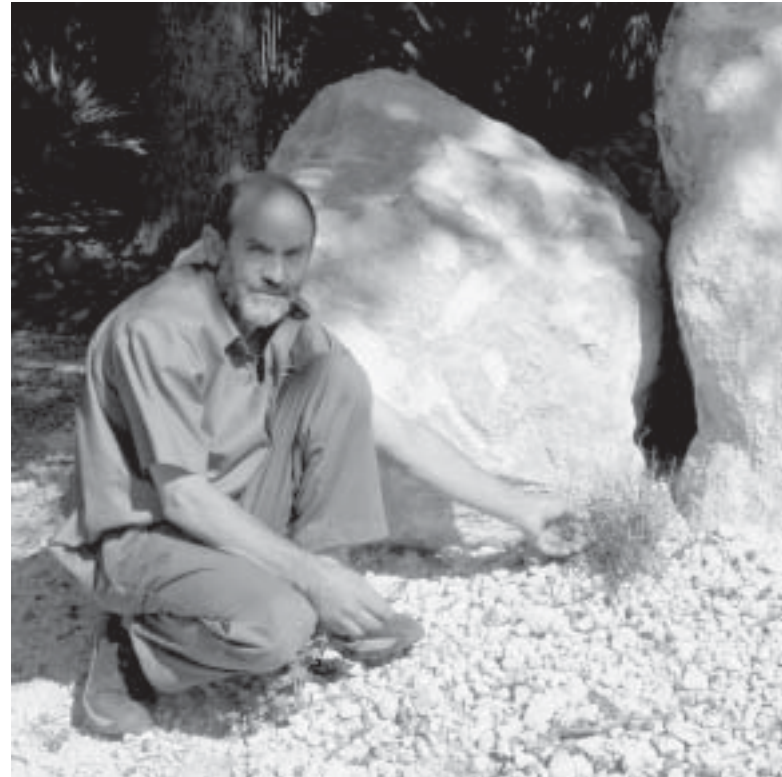
Mike Peters from NZERN will have the guide available on laptop computer for people to browse through and see what it is capable of. "We (NZERN) are planning to have the system available on a CD or DVD in late 2005. This will include video footage, interviews and other material as well," said Mike. "We are hoping that it will be available at cost, and are keen to have input from other organisations," he added.

Garden tours

Canterbury Conservation Day continued –

These will be run throughout the day. Experts in their field will take people around the new display gardens.

Each garden has its own interpretation panel, and supporting information brochures. The gardens have been developed so that people can see the forms that plants grow into, and how they look amongst associated plants. Those who have been to the nursery before will notice the new-look gardens and see that they have been revamped and expanded. “The Banks Peninsula garden was just lowland plants,” explained Jorge Santos. “Now this has been expanded from 65 species to 140, and includes montane and volcanic rock outcrop species.”



Jorge Santos in the new limestone plants garden

What's up with weeds?

Helen Braithwaite (DOC Weeds Officer) and Di Carter (CCC Ranger) will be on hand with examples of weeds to look out for, and to answer those tricky questions you might have about weeds and how to control them.

Di Carter is often seen striding out on the Port Hills Reserves, caring for rare species, tackling weeds and educating and working with community groups. Her energy and enthusiasm are renowned and she is always keen to be involved in environmental projects and to learn from experts, the local runanga and the community. Di has a degree in Parks and Recreation, and a background in forest and grassland management. In recent years she has been working for the Christchurch City Council based on the Port Hills Reserves.

Helen Braithwaite's interest in weeds started from an enjoyment of chopping down infestations of weedy trees and scrub in the UK. In New Zealand she has been involved in weed control for the last eight years, initially as a regional council pest plant officer, searching for, and destroying a variety of weed species. Now with the Department of Conservation, Helen's role has changed from “search and destroy” to “educate and advise”. Her ‘hands on’ weed killing is now mainly carried out doing voluntary weed control at Travis Wetlands, during her weekends.

Canterbury Conservation Day



The nursery coastal garden

Grow canterbury

Sunday 18th April 10 am–4 pm

Come out to Motukarara Nursery on the 18th April and have a fun **Grow Canterbury** day.

The theme this year is celebrating Canterbury plants and their uses.

The day starts with the official opening of the new Conservation Resource Centre. People can then take time to explore the Centre and tour the theme gardens with the experts. “This year the emphasis is on the outside gardens, not on a nursery tour,” explains Motukarara Nursery manager Jorge Santos. Before and after the garden tours, people can browse through the panels and information and discover the new retail area.

Instead of having a few speakers and a workshop, this year there is a debate, a main speaker and a workshop.

The **Grow Canterbury** great debate – *Is there a place for exotic plants in Canterbury?* should promote some lively and thought-provoking discussion, with Bob Parker (Mayor of Banks Peninsula) as the MC. The line-up of debaters includes:

Pam Richardson
Colin Meurk
Nancy Tichborne
Hugh Wilson
David Higgins

Programme

10.15 am Official opening of Conservation Resource Centre

10.30 am Canterbury Plains/limestone plants garden tour – Nick Head, DOC botanist

10.50 am Coastal plants garden tour – Rodney Chambers, CCC Coast Care

11.10 am *What's up with weeds?* – identifying and controlling weeds; questions and answers – Helen Braithwaite (DOC) and Di Carter (CCC)

12.15 pm The **Grow Canterbury** great debate. *Is there a place for exotic plants in Canterbury?* MC – Bob Parker, Mayor of Banks Peninsula

1.30 pm *Canterbury in the time of the moa* – Geoff Rogers, DOC Otago Scientific Officer

2.30 pm Banks Peninsula garden tour – Hugh Wilson, Manager Hinewai Reserve

2.50 pm Wetlands garden tour – Colin Meurk, Landcare Research/CCC ecologist

Also on offer throughout the day are native plant sales, foodstalls, book and gift stalls, displays and activities, free information, free entrance and parking, and eftpos on site.

Chatham Islands

Situated 860km east of Banks Peninsula, the Chatham Islands are home to 42 species and sub-species of plants that are endemic to the area – that is, they don't grow naturally anywhere else in the world. Most visitors to the area notice that the scenery is quite unlike anywhere else in New Zealand. A thick mantle of peat, formed by the gradual accumulation of dead plant matter over thousands of years, overlays much of the land. Coupled with this are wetlands, cliffs and sand dunes supporting plant and animal communities that are unique to the Chatham Islands.

Many species present on the island are similar to those on the main islands of New Zealand, but as the Chatham Islands probably never had a land connection with the rest of New Zealand, the plants and animals that evolved are descended from those few species that managed to cross the formidable water barrier. This means there were no kiwi, moa or kakapo, or podocarps, beech trees or rata. Farming practices over the years have resulted in the clearance of much of the original vegetation.

The Department of Conservation works with landowners and the community to achieve protection of the places where populations of endemic species occur. Important also to the survival of those species is ensuring the ecological processes within their plant communities continue uninterrupted. Some tasks that are undertaken to achieve endemic plant protection include legal and physical protection, such as fencing, weeding and possum control. For some species, planting has been undertaken to establish or re-establish populations at secure sites. (Crisp, Miskelly & Sawyer, 2000)

Restoring dunes to help the Chatham Island oystercatcher

By Peter Moore (Science & Research Unit, Wellington) and Alison Davis (Chatham Island Area Office)

Despite their isolation, the Chatham Islands were largely cleared and marram (*Ammophila arenaria*) was introduced to protect farms from destabilising dunes. Unfortunately, marram virtually replaced the native dune plant communities. Being an efficient binder of sand, it caused the formation of tall dunes with steep fronts, which are maintained by storm waves cutting into them.

This is bad news for the endangered Chatham Island oystercatcher, as in many areas they can now only nest in the narrow zone between high tide and the tall dune front, where they are vulnerable to storm seas.

DOC is currently helping the oystercatcher rear their eggs and chicks by controlling feral cats in managed areas. This has been a great success, and in five years the population has increased from 140 to 250 birds. The next step is to restore the coastal ecology so that the population is better able to maintain itself.

With this in mind, DOC is restoring two trial areas. We hoped to remove marram, provide a bigger nesting area and clothe a more gently-sloping foredune with native plants. The Motukarara Nursery has been an integral part of the trial, propagating thousands of Chatham Island plants.

In 2001, we killed marram with herbicide in two small areas of foredune. Later we cut away the dead material and planted out the first pingao (*Desmoschoenus spiralis*), and herbs such as Chatham Island forget-me-not (*Mysosotidium hortensia*). In 2002 we expanded sideways and re-sprayed the marram re-growth in our core area – it doesn't give up its strangle-hold easily! Behind this we planted a hedge of Chatham Island akeake (*Olearia traversii*) seedlings, to ultimately shade out the marram, stifle any sand movement, and complete the succession from beach to coastal forest.

By April 2003 we had planted 2500 pingao, 4500 akeake, and smaller numbers of herbs and shrubs, such as 230 Chatham Island forget-me-nots and 375 *Corokia macrocarpa*. Flax (*Phormium aff. tenax*) was transplanted from nearby sites and we also sowed seeds such as Chatham Island sowthistle (*Embergeria grandifolia*).

The results? We quickly transformed the trial areas and halted the march of marram down towards the water's edge. The oystercatchers responded by nesting at the edge of the restored areas, where formerly there were thickets of marram, rather than near the high tide mark. With a relatively small amount of effort, we showed there were positive benefits for threatened dune plant and bird communities alike.

Building on this success DOC is expanding the work to a step-wise restoration of further sections of dunes, on the northern coast of the Chatham Islands. Perhaps in years to come they can be restored to their former glory.

Restoration planting



Mysosotidium hortensia

For more information on Chatham Island plants refer to: *Endemic plants of the Chatham Islands* by Crisp, Miskelly & Sawyer, DOC, 2000

