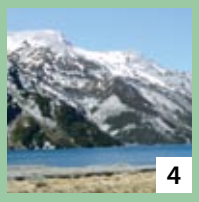
QEII National Trust
Open Space New Zealand
Ngā Kairauhī Papa

Open Space™

$7.50 MAGAZINE OF THE QUEEN ELIZABETH II NATIONAL TRUST ISSUE 80 | MARCH 2011

Big picture covenants | Focus on Kapiti Coast | International Year of Forests | Rat control

Contents



With thanks for contributions from: Brian Molloy, Graeme Watson, Janet Gregory (Landcare Trust), Peter Ettema, Loralee Hyde (MWH), Tom Barber, Mark Sutton, Trevor Thompson, Troy Duncan, Rob Smith, Landcare Research and the covenantors featured in this issue. All photos by QEII unless otherwise stated.

Helping you protect the special nature of your land

QEII National Trust
Open Space New Zealand
Ngā Kairauhī Papa

QEII Trust helps landowners to protect significant natural and cultural features on their land. Features include:

- Landscapes
- Wetlands
- Cultural sites
- Coastlines
- Archaeological sites
- Forests and bush remnants
- Tussock grasslands
- Streams
- Geological features
- Wildlife habitats

Landowners throughout New Zealand voluntarily protect nearly 95,000 hectares of their land through QEII registered covenants (or protection agreements). QEII Trust also helps by contributing funds for covenant projects and advising landowners on managing their covenants.

QEII Trust also owns 29 properties, which collectively protect 1,686 hectares of significant habitat. Most of these have been gifted to the Trust. Effective stewardship of these properties is greatly assisted by local communities and management committees.

COVER PHOTO
A sixth QEII covenant agreement was recently signed to protect wetlands on Mararoa Station near Te Anau. (see story page 6).

Photo: Mark Sutton

Open Space™ is published by the Queen Elizabeth II National Trust, PO Box 3341, Wellington 6140, New Zealand.
Level 4, FX Networks House, 138 The Terrace, Wellington
ISSN 1179-3880 (Print) ISSN 1179-3899 (Online)
Phone 04 472 6626 **Fax** 04 472 5578
From outside Wellington 0800 4 OPENSPACE (0800 467 367)
Design Toolbox Creative **Editor** Anne McLean
Email editor@openspace.org.nz **www.openspace.org.nz**

Regional Representatives

Far North Greg Blunden
Ph 09 407 1119 gblunden@openspace.org.nz

Kaipara Nick Matich
Ph 09 439 8932 nmatich@openspace.org.nz

Whangarei Nan Pullman
Ph/Fax 09 434 3457 npullman@openspace.org.nz

Auckland Dan Godoy
Ph 09 521 3208 dgodoy@openspace.org.nz

South Auckland – Waikato Lynette Benson
Ph 09 232 2898 lbenson@openspace.org.nz

Coromandel Hamish Kendal
Ph 07 866 0770 hkendal@openspace.org.nz

Waikato East – Taupo Robbie Bennett
Ph 07 824 5051 rbennett@openspace.org.nz

Waitomo – Otorohanga Malcolm Mackenzie
Ph 07 873 7728 mmackenzie@openspace.org.nz

Bay of Plenty Maggie Bayfield
Ph 07 312 5356 mbayfield@openspace.org.nz

Gisborne Malcolm Piper
Ph/Fax 06 867 0255 mpiper@openspace.org.nz

Hawke's Bay Troy Duncan
Ph 06 844 3838 tduncan@openspace.org.nz

Taranaki Neil Phillips
Ph 06 753 6433 nphillips@openspace.org.nz

Central – Manawatu John Williamson
Ph 06 328 6851 jwilliamson@openspace.org.nz

Tararua Bill Wallace
Ph 06 376 7796 bwallace@openspace.org.nz

Wairarapa Trevor Thompson
Ph 06 372 5870 tthompson@openspace.org.nz

Wellington Peter Ettema
Ph 04 970 0324 pettema@openspace.org.nz

Nelson – Tasman Philip Lissaman
Ph 03 526 6114 plissaman@openspace.org.nz

Marlborough Tom Stein
Ph 03 574 2978 tstein@openspace.org.nz

North Canterbury Miles Giller
Ph/Fax 03 313 5315 mgiller@openspace.org.nz

Christchurch Alice Shanks
Ph 03 337 1256 ashanks@openspace.org.nz

South Canterbury Rob Smith
Ph 03 689 7735 rsmith@openspace.org.nz

West Coast Mike Copeland
Ph 03 789 7709 mcopeland@openspace.org.nz

Coastal Otago Rob Campbell
Ph 03 439 4333 rcampbell@openspace.org.nz

High Country Dr Brian Molloy
Ph 03 348 1077 bmolloy@openspace.org.nz

Waiau Catchment Mark Sutton
Ph 03 249 9373 msutton@openspace.org.nz

Southland Graeme Watson
Ph 03 230 4843 gwatson@openspace.org.nz

For details of the QEII Trust regions, see CONTACT US on www.openspace.org.nz

From the Chair

As my term as Chair draws to an end (in June 2011), I have been reflecting on the experiences and impressions I have been left with over the eight years I have been with the Trust.

The opportunity to visit so many rural places (beyond the local rugby paddock) and meet with New Zealanders who love and care for their land has been an absolute privilege. I have been a farmer all my life and to observe firsthand the increasing integration of nature protection within a working farm, by hardworking farming folk, has been an inspiration.

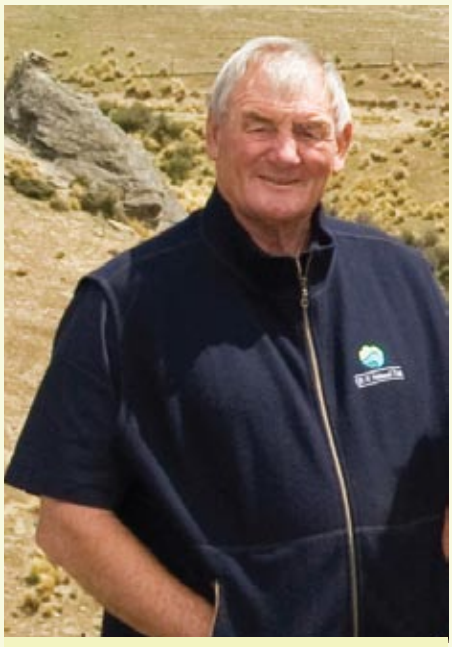
I have particularly enjoyed QEII because the model works so well. It is simple, robust and landowner driven. It is also low cost and a very practical tool for Government to achieve enduring conservation outcomes on private land. This is a very satisfying thing to be a part of. The strategic national importance of the Trust is huge and the ability to create a mosaic of protected ecological corridors across private land is invaluable for our country.

Over the years awareness of QEII's role has grown and with that has come a steady rise in the number of covenant proposals submitted. During my time alone as chair almost 1,900 open space covenants have been approved for protection.

I have tremendous admiration for the dedication and professionalism of the chief executive Margaret McKee and her staff. They carry out their work with respect for landowners, great attention to detail and resourcefulness. They are to be commended on ensuring a small budget goes a long way for the benefit of New Zealand.

Covenantors everywhere are making a huge contribution to conservation by protecting some of the country's most significant natural habitats, fragile ecosystems and spectacular landscapes. I will certainly miss meeting them on their properties and sharing in their passion and commitment.

Sir Brian Lochore
QEII Chair



Covenantors everywhere are making a huge contribution to conservation by protecting some of the country's most significant natural habitats.

Sir Brian Lochore
QEII Chairperson

Clockwise from top: 30th anniversary celebrations of QEII, with HRH Prince Andrew. Sir Brian Lochore and Jenniffer Gamble in Southland (looking for fernbirds). With QEII regional representative Brian Molloy. Covenant visit with Derek Turnbull, Winton. Sir Brian with Governor General The Honourable Anand Satyanand, Pierre and Jackie Chatelanat and Auckland Regional Council Chair Michael Lee at the opening of Atiu Creek Regional Park on the Kaipara Harbour which is protected by an 841 ha QEII covenant. The Chatelanat's gifted the land to the people of New Zealand. A few of the many gatherings around the country to meet with covenantors.

Big picture covenants

High country covenants illustrate the scope of values protected by the Queen Elizabeth the Second National Trust Act

QEII Chair Sir Brian Lochore and CEO Margaret McKee accompanied Agriculture Minister David Carter and Conservation Minister Kate Wilkinson on field trips to North Canterbury and Queenstown high country stations during 2010, where they were able to see large open space covenants working well alongside light grazing regimes.

The visits highlighted the scope of the Queen Elizabeth the Second National Trust Act 1977 and the vision of its creators to establish a mechanism that would help protect special nature on private land – from small scale sites right through to the preservation of any landscape of aesthetic, archaeological, cultural, recreational, scenic, scientific, or social interest or value.

Spectacular mountain scenery forms a backdrop to Lochnagar Lake. The Lochnagar covenant is one of four on Branches Station. It surrounds the large rockslide-formed lake and includes a wide range of subalpine small trees and shrubs, tussock grasses, herbs and ferns, providing an almost continuous cover of native plants, except on the bare, sheer, schist rock faces.

Branches Station

IN NOVEMBER last year Hon Kate Wilkinson and Hon David Carter were accompanied by QEII staff on a visit to Branches Station. Branches Station is a 22,000 ha Crown Pastoral Lease in the upper catchment of the Shotover River and is one of the remotest runs in the South Island high country.

The station is leased by Branches Station Limited and operates as a tourism venture as well as running sheep and beef cattle. The station is a good example of a high country property that has been managed conservatively over many years, and the native vegetation is in very good condition.

Since 1992 four QEII covenants have been registered on the property protecting a total of 2,746 ha of native vegetation, including original ecosystems, threatened plants, large numbers of kea, and spectacular mountain scenery.

Above: Hon David Carter, QEII Deputy Chair Yvonne Sharp and CEO Margaret McKee at the Arthur Borrell covenant on Branches Station, one of four covenants registered on the property. The covenant supports one of the best examples of montane/subalpine shrublands, grasslands and herbfields on the property, together with the largest known population of the nationally threatened shrub *Leonohebe cupressioides* (pictured in front of the group).

Left: Putting a new spin on high tea, Conservation Minister Kate Wilkinson and conservation secretary Gavin Rodley enjoy a cup of tea at a musterer's hut high in the hills.

Ministerial visit to Selwyn River headwaters

HON David Carter's visit to the Rakaia Gorge in North Canterbury took in covenants on Snowdon and High Peak stations. Covenants on both properties protect the headwaters of the Selwyn River.

The Tripp family have covenanted two adjoining areas on Snowdon Station protecting around 57 ha of flaxland wetland and *Carex secta* (pukio) and *Schoenus pauciflorus* (bog rush) wetland, bordered by silver tussock, brown top grassland and old stands of matagouri. Twenty-five years of covenant management has produced beautiful clear water in their wetland, where plants, birds and aquatic life abound.

The Guilds covenanted 94 ha on High Peak Station in 1996 to protect an open space area that enfolds a braided shingle riverbed, sedgeland, tussockland and shrubland. The wide range of vegetation protected in the Guild's covenant includes the nationally threatened *Olearia lineata* (small leaved tree daisy).

The open space covenants on the stations protect diverse ecological values as well as spectacular panoramas. Importantly, they also provide a clean and continuous reservoir of water which eventually flows down to nourish the Canterbury Plains.

Members of the Tripp family gather around QEII's regional representative Dr Brian Molloy as he explains the significance of the Snowdon Station covenants to Sir Brian Lochore and Hon David Carter (second from right).

Photo: Bjorn de Groot

Numerous kea inhabit the hills and mountains of Branches Station. Kea (*Nestor notabilis*) are an endemic parrot of the South Island high country. Although kea are seen in reasonable numbers throughout the South Island, the size of the wild population is unknown – but is estimated at between 1,000 and 5,000 birds (source www.doc.govt.nz). The kea is one of the few alpine parrots in the world. They are known for their intelligence and curiosity, which they need to survive in their harsh mountain habitat. Kea can solve logical puzzles, such as pushing and pulling things in a certain order to get to food, and will work together to achieve a certain objective. They are a protected species.

Mararoa covenants benefit conservation and farming interests

A SIXTH QEII covenant agreement was recently signed to protect wetlands on Mararoa Station near Te Anau.

Mark Sutton, QEII's regional representative for Te Anau, said the new 145 ha covenant, called the Thomas Burn covenant, further extends already protected wetland areas on the station. The initiatives taken to protect the wetlands can be held up as a true blue-print for sustainable farming practices.

On Landcorp's Mararoa Station, less-productive land has been put to good use to conserve a threatened native ecosystem and enhance the health and wealth of the land. The Mararoa covenants are a great example of agencies working together to achieve complementary goals. The combined efforts of Landcorp Farming, QEII, Waiau Fisheries Trust, Meridian Energy and Environment Southland in funding and supporting the covenants exemplifies a balanced, progressive relationship between the interests of farming and conservation, and beyond. Streams are protected from potential silting from farm run-off. This benefits the native fisheries in surrounding streams and rivers, has encouraged native wildlife to the area, and ultimately benefits the operation of Meridian's power station at Manapouri, which needs clean water to operate.

The sixth covenant brings the total protected area to 335 ha of the 5400 ha Landcorp-owned station. A further three covenants pending approval will bring the total protected area on the station to over 500 ha.

Above and immediate right: Up to 100 people, including representatives from Meridian Energy, Landcorp, QEII, Waiau Fisheries and Wildlife Trust and DOC were present at the official opening of the Thomas Burn covenant.

Far right: QEII's Bernard Card (on the right) with Meridian Energy CEO Tim Lusk.

Photo: Gerry Soanes

Left: QEII director Bernard Card with Landcorp national property manager Gerry Soanes, officially open the Thomas Burn covenant.

Right: Six covenants protect wetlands areas and sweeping vistas on Mararoa Station near Te Anau.

2011 is the International Year of Forests, celebrating people's actions to raise awareness of the sustainable management and conservation of all types of forests.

Around 2730 registered QEII covenants contain forest remnants on private land, helping protect and restore the unique features of these special environments.

Covenant commitment carries on with new owners

WHEN Jean and Ernie Alspach bought their Tablelands Road property in 1987 it was riddled with blackberry and privet. Inspired by a giant puriri tree more than eight metres in girth, which they believed was some 1000 years old, they embarked on a restoration project that transformed their property into a conservation showpiece.

The Alspachs were guests of honour at a gathering held at the property last winter, attended by the QEII board members and covenantors from throughout the Bay of Plenty.

In 1989 a 14 ha remnant of primary semi-coastal forest was protected with a convenant by the Alspachs. Canopy species in the covenant include puriri, pukatea, tawa, rimu, kohekohe, miro, tanekaka, kahikatea and northern rata. Over a period spanning two decades they put a huge effort into controlling animal pests and weeds in the covenant and transplanting seedlings into open areas.

In 2004 the Alspachs received an Environmental Award from Environment Bay of Plenty in recognition of their dedication to conservation.

The current owners, Wayne O'Keefe and Wei Leong, took over the care of the covenant in 2005. With ongoing control of possums, rats and stoats supported by the regional council, the excellent health of the forest reflects the commitment of both the original and current covenantors in protecting and enhancing the bush.

Above: Original covenantors Jean and Ernie Alspach with new owner Wayne O'Keefe, Earina and Entelea O'Keefe and Sir Brian Lochore.

Below left: The giant puriri tree that inspired the Alspachs to buy the property.

Below right: Guests at the gathering learn about the history of the covenant.

Conservation projects making good progress

IN AMONG the rolling green hills of the Progress Valley and Waikawa farmlands is a community on a mission.

The area was once a busy out-post with a railway line to the nearby township of Tokanui and population enough to justify several schools around the district. People came to work in the sawmills or with deeds to land that would be cleared for farming. The railway line and schools are now gone – so too has much of the forest. But what remains is treasured and the locals are determined to protect it.

Waikawa river restoration project

The Waikawa community are banding together on a conservation project that will restore the forest and wetlands areas along the Waikawa River. Flanked by old kowhai and the only mature ribbonwood trees left in the area, the river is one of only a few remaining in Southland still left in its natural meandering state.

Waikawa River runs through a number of farms with bush remnants sheltering threatened plant species like the *Olearia fragrantissima* (fragrant tree daisy) and *Melicytus flexuosus* (interlacing mahoe). The initial discovery of these plants triggered a healthy competition amongst the local farmers to find what rare plants might exist in their own bush remnants and has sparked a community effort to protect what is considered the best known example of this rare (kowhai-ribbonwood) forest type in the Southland region.

A number of active conservation management projects are already in place alongside the river and several proposals for covenants are in the pipeline.

The project's goals of biodiversity enhancement and flood protection will add value to the surrounding land and protect a river of importance to iwi and recreational fishers as a habitat for kanakana (lamprey), tuna (eel) and koura (freshwater crayfish).

Photos: Janet Gregory

Top: The Waikawa River Restoration group is working together with NZ Landcare Trust, Nathan Cruickshank ES and Kunzea Consultants to restore forest and wetlands zones along the Waikawa River. Bottom left: The rare plant *Melicytus flexuosus* (interlacing mahoe) was discovered on farmland flanking the river. Bottom right: Ribbonwood and old kowhai trees grow at the river's edge.

Creating a forest corridor

The Yorkes are working towards fencing off a corridor of forest remnants on their farm.

Maurice and Meree Yorke have spent a lifetime developing their farm at Progress Valley. Bush was cleared to make way for pastureland but pockets of the podocarp and kamahi forest on the property's steeper gully slopes were left alone. The gullies follow the Falls Creek catchment from forested Maori land to the north of their property all the way through the farm and out to the sea, the final stretch running through the Te Rere yellow-eyed penguin scientific reserve managed by Southland Forest & Bird.

Having a penguin reserve on the doorstep raised the Yorkes' awareness of the unique nature of the forest on their farm and the damage browsing stock could make to the understorey. With Biodiversity Condition Funding support secured by Forest and Bird, they joined in with neighbours and Forest and Bird members to erect a fence along the boundary line between their farm and the Te Rere reserve. This project triggered an ambitious plan to extend a fence line all the way around the forest running through the farm. A huge task and an expensive one at that – the cost not discouraging them but constraining the amount of work that could be done each year.

"I realised that time was running out to get this done in my lifetime," says Maurice, "but I wanted to hurry up and get as much done as I could."

It was at this point that the Yorkes were introduced by NZ Landcare Trust to the QEII Trust and realised that financial support was available to help protect the forest. In 2008 they covenanted their first block of land and fencing began in earnest with support from DOC's Biodiversity Condition Fund and QEII. Maurice and Meree are currently working with their QEII regional representative Graeme Watson and Janet Gregory of NZ Landcare Trust to covenant and fence more areas and fulfil their vision of a protected forest corridor running through their land.

From boggy paddock to flourishing swamp forest

THE BENEFITS of developing a restoration plan with a far-sighted vision and achievable goals are clear at Mapua Wetland near Nelson where the local community is helping to turn a boggy paddock back to swamp forest.

Owned by the Beere and Mitchell families, the area was once part of the 320 ha Korepo Swamp that was cleared by settlers in the late 19th century. The families started restoring the wetland in 2004. David Mitchell says in addition to assistance from the community, a factor in the project's success has been advice from key people.

"John Preece, an ecologist, gave us a vision and guidelines," David explains. "We followed his suggestions including propagating plants for the three different soil types on the legacy of peat, hill slopes and beach gravels. Our designer, Claire Garrett, placed trees in the areas where they are best suited and in close proximity. For example, the harakeke are planted in groups while the kahikatea form a backdrop. To monitor progress, we measure the water table, soil fertility and species growth rate.

"An incorporated society is a good way to administer such a long term project. We set up *Friends of Mapua Wetland* in 2005 and our members and others in the community have planted 7,500 plants. Along with help from the Department of Conservation and Biodiversity Condition Fund, we have close associations with Tasman District Council, Fish and Game, Tiakina Te Taiao, Mapua Community Association and Titoki Nursery.

"Our president, Janet Taylor, developed an environment education programme with Mapua School and students have been involved with propagation and planting over the past four years. This is now being extended to a project in the adjacent Aranui Park.

"A primary objective of our restoration plan was to protect the wetland with QEII. A 1.1 ha covenant was put in place in June 2009 to make sure it's retained forever."

2006: Protected by plastic sleeves to help reduce weed growth, pioneer species in Mapua Wetland included harakeke swamp flax, toetoe, cabbage trees and manuka. Plantings of kahikatea, totara and black beech followed. Species now uncommon in the region including narrow-leaved maire, swamp mahoe, the rush *Baumea articulata* and the sedge *Carex fascicularis* are thriving.

2008: With a fertile site and intensive weed control and watering, the growth rate of the pioneer species has been spectacular. For their work in restoring this swamp forest, Friends of Mapua Wetland won the New Zealand Plant Conservation Network Community Award in 2009.

Rofe covenant protects podocarp forest

SINCE retiring in 2006, Russell and Catherine Rofe have worked hard to protect and restore their forest covenant 10km North of Waimate in South Canterbury.

Possums and wallabies had caused notable damage to the podocarp forest so getting effective pest control in place was a first critical step. Over 2,000 possums were caught in the 17 ha covenant in one month alone.

Russell regularly catches pigs in his pig trap and has ongoing possum control in place which also keeps wallaby numbers down. Five years of intensive pest control has seen the forest flourish and a massive improvement in birdlife numbers.

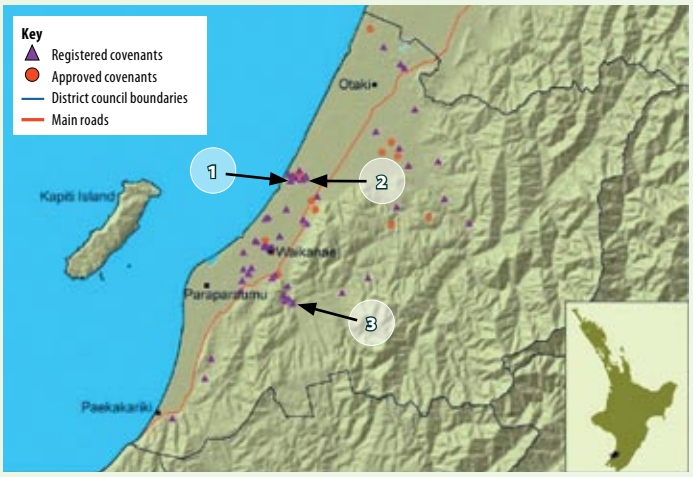
Podocarp forests were once a common sight along the Hunter foothills but are now rare with the change in land use. The Rofe's covenant is one of less than 30 in the South Canterbury region protecting this threatened environment.

After five years of pest control the Rofe's are rewarded with lush regrowth in their covenant.

Kapiti Coast

THE KAPITI Coast district stretches 30 kilometres from Paekakariki in the South to Otaki in the North and extends inland to the top of the Tararua Range. It is named for Kapiti Island, which dominates its west coast. It was once covered with a mixture of dense coastal forest and extensive wetlands, but much of this was cleared in the 19th century for dairy and sheep farming.

Kapiti Coast covenants are split equally between wetlands and forest remnants. Peter Ettema, QEII's regional representative for the area, is impressed by the level of community involvement to protect natural places in the region. At Te Hapua just north of Waikanae, for example, the community has formed an incorporated society, *The Friends of Te Hapua Dunes and Wetlands*, to protect the integrity of the swamp complex, and a number have put covenants in place to secure ongoing protection of wetland areas on their land. The Greater Wellington Regional Council and Kapiti Coast District Council both provide excellent support in establishing and managing covenanted land on the Coast.



1. **Jill Abigail and Joy Anderton**
   Semi-coastal wetland
2. **Peter and Adrienne Dale**
   Lowland primary flaxland wetland
3. **James Delaney and Caroline Girdlestone**
   Semi-coastal forest

There are 56 registered covenants in the Kapiti area covering around 310 ha. Another 13 covenants have been approved and now await the registration process. They will add another 235 ha to the total area of formally protected open space on the Kapiti Coast.

Tide turned on Kapiti Coast forest remnant

WHEN James Delaney visited the Kapiti Coast as a young man he was always fascinated by a tract of native bush just east of Waikanae. Never did he imagine that he would one day own it. As it happened the land came up for sale in 1996 – perfect timing for him - and he bought it together with his partner Caroline Girdlestone. They got straight into fencing it off and dealing to the pests that James said had had free range for far too long.

"This was an absolute priority for us. The bush was a ticking time bomb on the brink of collapse," James said. "Goats, rats, possums and sheep had completely stripped the undergrowth, leaving a crumbly rocky floor behind."

Photo: James Delaney

The regrowth in the Delaney/Girdlestone's covenant is so lush, GPS is needed to locate their bait stations.

James said the turnaround in the forest health was unbelievable once the pests and weeds had been knocked back. He said the discovery of a rare black maire (*Nestigis cunninghamii*) seedling plant was a sign that the forest was making an exciting recovery and deserved to be protected in perpetuity. In 2001 James and Caroline established a 13 ha covenant to protect the forest and with QEII funding support were able to complete their large fencing project. While undertaking that work that they were thrilled to learn that the forest harboured a nesting site for bush falcon.

Kapiti Coast District Council also provided excellent support and advice and additional funding to help fence off the waterways running through the steep gullies on the property.

"Once the plants started to regenerate along the waterways you could just see the water quality improving. The streams are now full of mudfish, eels, frogs and koura."

The bush is a District Council eco-site because of its high landscape and biodiversity values. Coastal flora such as nikau, kohekohe and karaka grow on the western sides of the hills and gullies and typical lowland forest plants such as rimu, tawa-titoki and honesuckles on its inland eastern side. Giant weatherbeaten matai, miro and totara stand tall on the ridge tops.

"We love going for a walk in the bush with the kids and seeing how the regeneration is coming along. The regrowth is so lush now we need to use GPS to find our bait stations!"

There are two species of koura found only in New Zealand. In the east and south of the South Island and on Stewart Island they are larger and their pincers are hairier than the North Island, Marlborough, Nelson and the West Coast of the South Island variety. Koura, or freshwater crayfish, are thought to function as a keystone species. The modifications they make upon the environment permit a greater range of species to exist than if they were not present. These crustaceans also provide an important food source for larger fish and waterfowl. Trout and shags love to eat them. All koura are non-migratory, and carry their eggs and their developing young under their tails. Small koura are released as perfect miniatures of the adult, able to fend for themselves immediately.

Natural restoration project at Te Hapua wetlands

WHEN Jill Abigail and Joy Anderton made the lifestyle decision in 1999 to move from Wellington to the Kapiti Coast they needed a project that was going to fulfil them as much as their careers had done in the city. As motivated conservationists they finally found what they were looking for – a property that included a section of the Coast's ecologically significant Te Hapua wetlands. While their wetland had been grazed and some damage was apparent, it still contained dense swathes of harakeke (swamp flax) and ferns and they were excited by the prospect of restoring it.

Joy and Jill's determination to use an organic approach whenever possible added to the challenge. That meant no weedkiller or toxins for pest control (and so a lot more backbreaking work), and eco-sourcing all their plants. They only compromised these principles a couple of times – they unfortunately needed more drastic measures for the eradication of willows, initial blackberry control and to control invasive bindweed.

In 2004 Jill and Joy were among the first of a number of landowners in the area to covenant their wetland, protecting just over 4 ha of this threatened ecosystem, more than half of their 7.3 ha property. With QEII funding support they were able to fence off the area. Additional funding from the DOC Biodiversity Condition Fund allowed them to build a boardwalk across a boggy area to carry out work deeper in the wetlands, and to plant an area of flax, toetoe and native grasses to filter nutrients seeping in from animal waste on adjacent properties.

The results of their hard work, which they say they couldn't have done without the help of many friends and volunteers, was acknowledged in 2006 with a Ballance Farm Environment Award. The award celebrates landowners who run socially, environmentally and financially sustainable projects.

Photos: Jill Abigail and Joy Anderton

From the top: Joy and Jill's wetland today.

Jill Abigail and Joy Anderton.

The wetland at the beginning of the weed control stage.

With the new plantings well established.

What is eco-sourcing?

Eco-sourcing is sourcing native plants from local seed for local use. It maintains natural plant distributions and gene pools in a given area.

Why eco-source?

Local plants are more likely to survive because they are suited to local conditions.

Sometimes plants that aren't sourced locally can become invasive.

Eco-sourcing will help preserve the distinctiveness or character of vegetation of an area. For many species in New Zealand the appearance, physiology and genetic make-up vary considerably throughout their range.

It ensures that plantings to restore native vegetation are as natural as they can be.

Where to go for help

Seek advice from your local QEII representative or other conservation experts about eco-sourcing.

The internet provides a lot of information on eco-sourcing and nurseries that can supply eco-sourced plants for your restoration project.

Pateke Lagoons

PATEKE Lagoons is a 20 ha wetland in sand dune country on the Kapiti Coast. The wetland is covenanted with QEII as a waterfowl refuge.

Drained for farmland in the 1930s, its current owners Adrienne and Peter Dale are returning the land to its original state. They have planted thousands of native trees, mostly propagated from the property, to help with the regeneration process.

When the Dales took over ownership in 1998 they put fresh energy into active management of the covenant.

"Taking care of such a large area is an ongoing project, and if you don't keep at it the pests and weeds just simply overwhelm you," the Dales said.

Supported by QEII and the Greater Wellington Regional Council they put an extensive weed control regime in place and tackled the blackberry, acacia and other weeds that had taken over. It took time and patience and good planning to avoid bird life at nesting time but slowly and surely the wetland was revitalised.

In 2006 the Dales' hard work was recognised with a Weedbusters award. Today the weeds are under control and the lagoon is flourishing.

"This year is the first time we have walked around and felt we are on top of it," Adrienne said.

"It is very exciting to see that the kahikatea and totara we planted 10 years ago are now well over our heads."

Peter added that they feel great pride when taking people around their covenant and seeing through their eyes what a magnificent place it is.

The lagoon provides secure roosting and nesting for a wide variety of native and exotic waterfowl. Shovellers, mallards, grey ducks and teal abound, as do dabchicks, heron, Canada geese, shags, paradise shelducks and pukeko. Native falcons, woodpigeons, tui and bell birds are also seen at the lagoon.

Pateke Lagoons is named after the rare brown teal, the pateke, which the Dales hope may someday take refuge there.

Photos: Peter and Adrienne Dale

Above: Pateke Lagoons provides a secure nesting site for a wide variety of waterfowl. Below: Adrienne Dale stands in front of kahikatea and totara trees planted 10 years ago.

Place to visit: Taupo Swamp, Kapiti Coast

Taupo Swamp is a 30 ha swamp protected by a QEII covenant. Harakeke, the native flax once used extensively for fibre, is a feature. Although once widespread, few wetlands remain in the region. The swamp is easily seen when travelling on State Highway 1. Taupo Swamp is bordered by a walkway and cycleway connecting the seaside settlements of Plimmerton and Pukerua Bay. Parking is available. Location: Adjacent to State Highway 1, 26km north of Wellington.

GPS improves monitoring

QEII RECENTLY introduced photopoints for monitoring covenants. Using GPS technology to establish fixed photo sites, photopoints will give better insight into the changing vegetation within QEII covenants.

Photopoints are photos that are taken over time sharing exactly the same frame. Once a photopoint site has been established and a series of photos has been taken, relatively slow processes like tree growth or understorey recovery can be tracked.

Recently fenced QEII covenants provide perfect photopoint conditions to track forest recovery as understorey recovery is often dramatic in the absence of browsing stock. That said, photopoints can be equally useful tracking more subtle changes in the vegetation of wetlands or grasslands, as small changes easily missed by the human eye can be captured in the photos.

To create a robust photopoint regime, QEII's regional representatives use GPS units to record the co-ordinates of the locations where photopoint sites have been established. Small tags are attached to a tree or post to help identify the location (and can also be used to mark the centre of the frame (the target of the photo)). Maintaining exactly the same composition in each photo is the key to taking photopoints as changes are much easier to see if solid reference points remain constant in all the photos.

Photos: Miles Giller

The processes of tree growth and understorey recovery can be tracked with photopoints.

How to create your own photopoint photos

A constant composition is a must when taking photopoint photos. Use a solid location where you take the photo from, such as a distinctive tree or fencepost.

To create your own photopoint photos there are a few simple things to keep in mind:

- **A constant composition is a must.** The easiest way to do this is to use a solid location where you take the photo from, such as a distinctive tree or fencepost. Make sure you mark this somehow or note down its location so it can be easily remembered and found.
- **Framing your photos:** Select a frame which you think will show something notable; possibly a shot of the forest edge, the understorey or even a significant tree of interest. Make sure it's a frame which is easy to repeat in future; centring the photo on a substantial object is the simplest way to do this. Try to select a frame which will enable perspective to be maintained over the years. Including a path, stream or open area within the photo is the best way to do this.
- **Timing is everything:** Do you want to monitor the change in abundance of rata flowers every summer? the yearly growth of your understorey? or even the weekly growth of your grass? You will have much more freedom to choose your timing than QEII regional representatives who may not be able to schedule monitoring visits at the same time of the year each time. Make sure your photos are clearly dated.
- **Retaking photos:** When it comes to repeating your photopoint photo, a good tip is to take a copy of your last one with you. If you can't do that, a small sketch of the composition or some simple notes will help you maintain a constant composition. This is simpler if you set up a good frame the first time with long-term reference points.

If you do take your own photopoint photos and would like to share them, QEII would appreciate being able to add them to its records as part of the history of your covenant.

Research: Why birds are important in forests

An update from the Landcare Research *Sustaining and Restoring Biodiversity* programme now funded by the New Zealand Ministry of Science and Innovation.

Landcare Research
Manaaki Whenua

In issue 72 of *Open Spaces*, Dave Kelly from Canterbury University discussed the consequences of reduced bird numbers on the pollination of scarlet mistletoe, tree fuchsia and kowhai. More recent research has looked at the effect that lower bird pollinator numbers have had on the northern shrub *Rhabdothamnus solandri* (New Zealand gloxinia).

Rhabdothamnus solandri is a small under canopy shrub that occurs from north of Taupo. It has showy orange tubular flowers containing copious amounts of nectar that attracts birds. There are three birds species that visit and pollinate its flowers; tui, bellbird and hihi, with the latter two being the most important. Silvereyes also visit the flowers but they rob the nectar only without pollinating the flowers.

Researchers were able to use *Rhabdothamnus solandri* populations to look at the effect that lower pollinator numbers (in particular bellbird and hihi) have on the health of the plant's population because it grows on the mainland, where bird numbers are now much lower than they once were, and on offshore islands, where bird numbers are high. The offshore island sites used for the research are predator free reserves where there are abundant tui, bellbird and hihi. At the mainland sites only tui were present.

Several methods were used to investigate if the mainland and island *Rhabdothamnus solandri* populations had effective pollination and plant regeneration. These included looking at flower visitation, pollination and seed set rates (the number seeds formed after successful pollination) and seedling establishment and survival numbers.

It is possible to see if the flowers of *R. solandri* have been visited and pollinated by birds as the anther disk at the top of the flower tube has a ridged pattern which is flattened if it has been rubbed by a bird's head. About 80% of the monitored flowers on the offshore islands were visited by birds, compared to just 25% of flowers at the mainland sites.

To test seed set rates, flowers were bagged, so that birds couldn't visit them, or were hand-pollinated. These tests were compared with unmanipulated flowers. A very low seed set was found in the bagged tests showing that it is vital that birds move the pollen to the stigma for seed set to occur. The same result was found in a test that allowed in insects but excluded birds – unfortunately bees cannot substitute birds in this plant species. Seed set in the hand pollinated flowers was high. This indicates that once the pollen is delivered to the stigma seeds will form.

Photo: Matt Walters, University of Canterbury.

Side view of the *Rhabdothamnus solandri* (NZ gloxinia) flower.

Photo: Abe Borker, Landcare Research

Summary

The experiments have led to the conclusion that *Rhabdothamnus solandri* is struggling to replace its populations on the mainland, because its two most important pollinators (bellbirds and hihi) are locally extinct. This is a striking example of what can happen to a plant species when its pollinating bird species decline, even if the bird species are not globally extinct. This shows the mechanism driving a slow and gradual decline in the plant population, possibly leading to local extinction, and emphasises the importance of focusing on the maintenance of biological mutualisms between native plants and native birds.

QEII covenants benefit native plants and native birds, especially where pest control is carried out. Thus, covenants often improve bird densities which can boost the pollination of many bird-visited native plants. However, in the specific case of *R. solandri*, remediation is difficult because bellbirds, and hihi especially, are very sensitive to mammalian predators. Maintaining large populations of both species really requires a predator-proof fence, like that at Mangatautari in the Waikato, which supports a reintroduced population of hihi, or at Tawharanui Peninsula near Warkworth where a breeding population of bellbirds has re-established inside the fence.

This work has recently been published (online publication 3 February 2011) in the international scientific magazine Science *(www.sciencemagazine.org).*

Left: A bellbird pollinating the native tree *Dysoxylum spectabile*.

On the islands the natural seed set rate was high and about the same as that for the hand-pollinated flowers. At the mainland sites natural seed set was reduced by two-thirds compared to the hand-pollinated flowers, indicating that the mainland sites are not getting enough bird visitation to set seeds.

Not only was there lower natural seed set happening at the mainland sites but the seed pods that were developing had fewer seeds per fruit because of the lower levels of pollen being transferred to the stigma. Combining these two effects, mainland sites produced just 37 seeds per flower compared to an average of 232 seeds per flower on the offshore islands, a reduction of 84%.

If seed production has reduced by 84% over the 140 years since bellbirds and hihi vanished from the upper North Island (after ship rats and stoats were released on the North Island around 1860), one would expect to see less plant regeneration. On investigating this assumption it was found that in mainland and offshore field plots containing the same number of adult *R. Solandri* there were significantly lower densities of juveniles on the mainland sites (a reduction of 55%). This suggests regeneration failure is occurring on the mainland. In a seed planting experiment on a mainland site to see if adding extra seed would boost the number of seedlings, results showed that five years after sowing, there were more seedlings in the planted plots than the unplanted plots. This shows that there isn't enough seed being produced naturally because of pollination failure.

Photo: Dave Kelly, University of Canterbury.

Hihi (stitchbird) on Tiritiri Matangi Island (one of the research sites).

Pest control:
Repressing rats in your forest covenant

AS we know, New Zealand's biodiversity evolved in isolation over a very long period of time, insulated by the ocean and with an almost complete absence of carnivorous mammals.

Humans caused dramatic change in a very short space of time. Early Maori brought dogs and kiore and some plants with them. Kiore are thought to have wiped out some mainland invertebrate populations, such as giant weta, reduced tuatara populations on the mainland to a fraction, caused the extinction of a number of endemic bird species, and, most importantly, to have caused the collapse of the mainland seabird colonies that played a vital role as top-dressers providing nutrients for the great forests of old.

European colonisers brought in another raft of plants and animals - not from tropical Polynesia but from much more challenging northern hemisphere ecosystems where climate and intense competition in a mammal-dominated system ensured that only tough and adaptable species survived.

Purposely introduced animals were many and varied: deer, wallabies, goats, cats, rabbits, stoats, weasels, ferrets (to kill the rabbits), blackbirds, trout , brushtail possums, the list goes on – but it was the accidental introduction of ship rats (*Rattus rattus*) that could be said to have caused the most dramatic biodiversity decline in recent times, with their ability to climb the tallest tree to the tip of the smallest branch, be excellent swimmers, breed prolifically (one pair and offspring of offspring can theoretically produce 34,000 offspring in 12 months) and eat a wide range of food, from seeds to adult birds.

Ship rats have caused the extinction or serious decline of many bird and some reptile and invertebrate species, and are likely to have indirectly caused plant extinctions (see the Landcare Research article on pages 14 and 15).

Case study

WHEN Murray and Juliet McKee purchased their property near Greytown last year it came with a QEII covenant. As new owners they are very enthusiastic about wanting to care for their newly acquired covenant.

With the breeding season for native fauna fast approaching their most pressing issue was pest control, specifically rat control, to get numbers well down before breeding started.

Armed with bait stations supplied by Wellington Regional Council, Murray and QEII regional representative Trevor Thompson set to work placing the stations at 100 metre intervals in a pattern they had marked up on an aerial plan of the area. Murray filled the stations regularly using Possum pindone. It soon became apparent that the toxin was being eaten up far too fast for rats – clearly possums were getting in first and cleaning up. Timms traps from the Regional Council and friendly neighbours were then set to target the possums. Over eight weeks 13 possums were caught and the amount of toxin taken from bait stations dropped dramatically.

A rat monitoring line (where rats and/or mice are channelled to walk over an ink saturated fabric so their track prints can be captured on paper strips) was then used to check if numbers were low enough to be of true benefit to the native fauna. The rat control had been successful – not a single rat or mouse track was recorded.

Murray McKee topping up a bait station in his covenant. Underfoot the invasive weed Tradescantia has been sprayed and is dying off.

"This shows that rat numbers can be reduced quickly and cost-effectively at that crucial time of the year," said Trevor. "Now that everything is set up at the McKees' covenant, seasonal control will be easier to carry out each year, giving the native fauna a fighting chance."

Murray and Juliet are among a growing number of covenant owners carrying out this effective method of pest control in the Wairarapa region.

Controlling rats

High rat populations will prevent forest covenants reaching their potential. Uncontrolled forests may have seven or more rats per hectare, each eating seeds, eggs, chicks, geckos, skinks and invertebrates. They are hard to spot but a lack of birds may well be an obvious sign of high rat numbers.

Trapping can be used in smaller areas (less than one hectare), but is not recommended for larger covenants as the amount of traps needed and the time required to check them is unworkable. For large areas, set bait stations on trees at eye height. Use a grid formation with stations spaced 100 metres apart to ensure adequate coverage.

Full time control

Full time control takes up more time and toxin than seasonal control but will keep rat numbers low year round. Bait stations need to be constantly filled with a suitable toxin. Bait stations can be topped up monthly once you have achieved a significant reduction in rat numbers.

Seasonal

Seasonal control is when bait stations are only used just prior to the breeding time for birds, reptiles and invertebrates. Generally speaking, baiting should start mid to late September so that numbers are very low by the beginning of November. Having low rat numbers at this time allows the vast majority of birds and other native species to have a successful breeding season. Rat numbers will build up again but seasonal control suppresses their numbers when native species are at their most vulnerable.

Results can often be achieved with only two or three bait station fills of approximately 200 gms of toxin – less effort and toxin, and big biodiversity gains.

Possums

For effective rat control, possums numbers need to be at low levels otherwise they, rather than the rats, will take the toxin. If possum numbers are high, deal to them first, using a Brodifacoum-based toxin, or, if possible, by trapping. Once possum control is done, a lower toxicity bait with minimum secondary poisoning risk (such as Possum pindone) can be used to deal with the rats.

Some toxin choices that do not require licensing

Name	Brand names	Notes
Brodifacoum	Pestoff®, Storm®, Talon®	Good for rats and possums. Can remain in fatty tissues of non-lethally dosed animals for extended periods of time e.g. wild pigs or dogs that have eaten a poisoned possum. One feed will be all that is required for possum/rat control.
Diphasinone	RatAbate®	Little risk of secondary poisoning, very palatable to rats. Rats need to eat larger quantities before control is achieved. Frequent bait station top-ups needed.
Cholecalciferol	Feracol®	Little risk of secondary poisoning. Effective for both possums and rats. May require frequent toxin checks if rat numbers are high. Bait shyness can occur if animals have eaten non-lethal doses.
Pivalyn, potassium sorbate	Possum pindone®	Little risk of secondary poisoning, palatable. Will not control high possum densities. A cost effective toxin for rat control with low or moderate possum numbers present.


Photo: Jenny Doring


Photo: David Mudge


Photo: DOC

Left: *Rattus rattus* or the common ship rat. Centre: Ship rat dining on the contents of a fantail's nest. Right: The kiore rat is now found only in Fiordland, Stewart Island and some off-shore islands.

Useful website: Landcare Research have recently developed a useful tool to help with decision making around pest control. Visit it at this URL address – http://pestdss.landcareresearch.co.nz

Bringing Back Birds

OVER the past eight years MWH New Zealand has donated funds to support a range of conservation projects. As part of its Bringing Back Birds project, MWH has committed $15,000 to QEII this year to sponsor initiatives throughout the country that protect our native birds and plants.

Our 2011 Bringing Back Birds sponsorship projects are:

Whangarei Maungatapere Mountain – Kukupa Central Signage. Four QEII covenants on this mountain protect habitat of kukupa (woodpigeon, kereru). To help increase awareness, the project will produce interpretive signs to place on public walking tracks.

Waikato Rangitoto Station Reserve Predator Control. Protected by a QEII covenant since 1991, this 427 ha forest near Otorohanga is home to a range of birds including falcons, kaka and fernbirds. This project will help to establish and maintain a pest control network.

Hawke's Bay Heretaunga Covenants Predator Control. Two wetlands and a forest remnant protected by three QEII covenants are habitat for bitterns and spotless crakes as well as tui, bellbirds and kereru. The project will assist with a mustelid and feral cat control programme.

Kapiti Coast Te Harakiki Revegetation. There has already been extensive weed and pest control at this 44 ha wetland QEII covenant near Waikanae. Home to New Zealand dabchicks, bitterns, spotless crakes and fernbirds, the project will revegetate the wetland with native plants.

Christchurch More Yellow-Eyes in Red Bay. A 24 ha QEII covenant protects the coastal habitat of the yellow-eyed penguin or hoiho at Red Bay on Banks Peninsula. The project will help to target pests including stoats, ferrets, weasels, feral cats and hedgehogs.

Manapouri Redcliff Wetland Predator Control. With a diverse range of birds including fernbirds, falcons, marsh crakes and New Zealand scaup, this 109 ha QEII covenant is of high ecological value. This project will assist with controlling stoats, ferrets and hedgehogs.

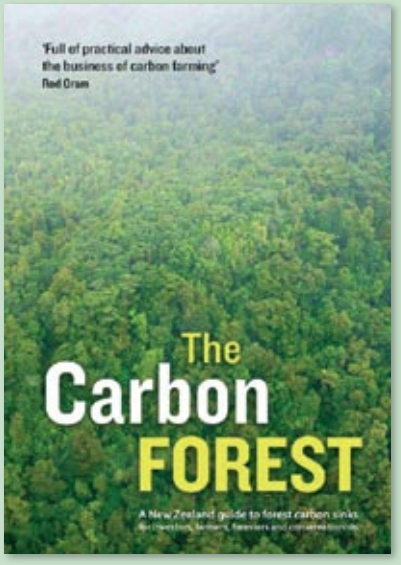
MWH specialises in planning, designing, building and managing infrastructure and natural resource projects with the purpose of "building a better world". For more about Bringing Back Birds visit www.mwhsponsorships.co.nz

Photos: Tui – Steven Hall, NZ falcon – Nick Hamilton, woodpigeon – Malcolm Pullman, South Island robin – Driftwood Ecotours

MWH.
BUILDING A BETTER WORLD

Making a bequest or gift

The Trust is helped greatly by money or assets gifted in people's wills or in their lifetime. Bequests and donations are a vital component of QEII funding. Funds go into the QEII investment portfolio, the dividends from which provide an important contribution towards its work – for example, evaluating new covenant proposals, fencing approved covenants and maintaining properties owned by QEII. Visit www.openspace.org.nz for more information or contact CEO Margaret McKee on 04 474 1683 (or 0800 4 OPENSPACE – 0800 467367) to discuss any aspect of contributing to QEII by bequest or gift.



The Carbon Forest
by Kennett Brothers publishers

If you have ever wondered about climate change, carbon trading and where carbon sinks fit into the picture, then the Kennett Brothers' new publication *The Carbon Forest* may be just what you are looking for.

This guide pulls together the latest information on turning a piece of land into a viable carbon forest. Written in plain English it simplifies the complex subject of how forests can be used to improve the economic and environmental performance of land.

The book explains how forest carbon sinks work, the benefits and pitfalls, and how you can manage and protect your own forest sink. A key feature of forest sinks is the need for the stored carbon to stay stored. QEII covenanting is given a mention as one way of ensuring trees remain untouched.

The Carbon Forest discusses the practical, financial and legal aspects of carbon capture and includes case studies profiling carbon sink forests in New Zealand. The Carbon Forest is available from independent bookstores, and can be purchased at www.kennett.co.nz for a recommended retail price of $29.90. Even more details at:

http://www.kennett.co.nz/index.php/Books/TheCarbonForest

Carbon credits

The Ministry of Agriculture and Forestry Sustainable Programmes Indigenous Forestry Unit is responsible for the implementation of the Permanent Forest Sink Initiative (PFSI).

Information on this initiative can be found at http://www.maf.govt.nz/forestry/pfsi/

QEII is not involved.

Landowner enquiries

All enquiries from landowners about PSFI should go to Sustainable Programmes at MAF.

For a contact visit http://www.maf.govt.nz/forestry/contacts.htm

Landcare: A Practical Guide
by NZ Landcare Trust

NZ Landcare Trust has launched a guide highlighting areas that can potentially make a big difference to the long-term sustainability of a farm. Aimed primarily at farmers and landowners, *Landcare: A Practical Guide* provides practical, useful information for people who are interested in sustainable land management.

A key section in the guide is devoted to eight case studies, where farmers and landowners share their motivations, challenges and successes, demonstrating how profitable farming can coexist with sustainable land management.

A digital version of the guide can be accessed directly from www.landcare.org.nz or a printed copy can be sent directly to you. To request a printed copy of the guide simply email James Barnett at NZ Landcare Trust (james.barnett@landcare.org.nz).

Loder Cup

The Loder Cup honours outstanding achievements in flora conservation work. Gerald Loder loved our "incomparable flora" and donated the Loder Cup in 1926 to "encourage and honour New Zealanders who work to investigate, promote, retain and cherish our indigenous flora". The Minister of Conservation awards the Loder Cup to a person or group of people who best represent the objectives of the award, to celebrate their outstanding conservation work in New Zealand. Nominations can be made through a number of nominating bodies listed on the Department of Conservation's website www.doc.govt.nz (search under Loder Cup). If you think you know of someone worthy of being nominated for this prestigious award, visit DOC's website for more details and guidance on how to submit a nomination. The nominations period closes at 5pm on 31 May 2011.

OPEN SPACE – reader survey

It has been a while since we have surveyed *Open Space*'s readership to test if the publication is meeting its objectives and your needs. We would welcome your responses to the following questions and any other feedback you might like to supply. Your responses can be sent to editor@openspace.org.nz or faxed to 04 472 5578.

Current objectives of *Open Space*

- To promote nature protection on private land
- To inspire landowners and provide educational material that is helpful
- To promote the work and role of the QEII National Trust.

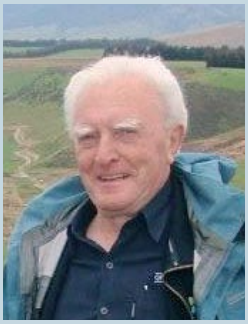
Your feedback (please number your responses to correspond with the questions below)

1. Do you think the *Open Space* magazine meets its current objectives? Yes/No
2. Please provide any feedback you have on the general tone and content of the magazine.
3. What do you like about *Open Space*?
4. Tell us about other content you might like to see in the magazine.
5. Tell us about any improvements you think we should make to the magazine.
6. We welcome any other comments you would like to make about *Open Space*.

Many thanks for your feedback.

Honours list – Bernard Card MNZM

The QEII National Trust extends its warmest congratulations to its Board of Directors member Bernard Card on receiving his MNZM honour in January this year. The honour was awarded in recognition of Bernard's services to agriculture.



An agriculturist and business manager for 36 years, Bernard held various roles at the Department of Lands and Survey from 1969 to 1987. Involved in establishing Landcorp, Bernard was General Manager since incorporation in 1987 until his recent retirement. He has had a lifetime of involvement in land management from farming to conservation, with experience in landscape, native vegetation and wetland protection. He is a member of the NZ Ornithological Society and a trustee of the Pauatahanui Inlet Community Trust.

Bernard was appointed to the QEII National Trust Board by the Minister of Conservation in 2007.

Dr Brian Molloy elected Companion of the Royal Society of New Zealand

QEII congratulates Dr Brian Molloy on being elected a Companion of the Royal Society of New Zealand at a special function held by the Society in February.

The title of Companion of the Royal Society of New Zealand recognises outstanding leadership in science, and contributions to the promotion and advancement of science and technology in New Zealand.

The President of the Royal Society of New Zealand, Dr Garth Carnaby, said the election of Brian Molloy was formal acknowledgement of the outstanding service he had given to botany and ecology in New Zealand and his willingness to share his knowledge.

Brian has served on the Riccarton Bush Trust for the past 36 years. He was a QEII director from 1989-1998 and is currently its South Island High Country regional representative. He began his career as a research scientist in agriculture later specialising in the conservation and ecology of native plants. Although retired, he continues to work as a botanical and conservation consultant and as a research associate with Landcare Research.

In recognition of his stature, he has had two native plants named after him, the Cook Strait kowhai (*Sophora molloyi* in 2001) and the leafless orchid (*Molloybas cryptanthus* in 2002).

Alice Shanks – Regional Representative

Alice has been appointed as QEII's regional representative for the Christchurch region.

After leading Protected Natural Area surveys of Cass, Craigieburn and Coleridge and then Mt Hutt and Mathias Ecological Areas in the 1980s, Alice fitted short-term botanical fieldwork contracts around the demands of a family and the family business in outdoor equipment.

She is now keen to bring her botanical skills to QEII. Alice is an active caver and has spent a lot of time under Mt Owen marble and the Charleston limestone.

Anne McLean – Communications Officer

Anne McLean is QEII's new communications officer. She comes to us from the Animal Health Board where she worked as national communications advisor on its TB control programme. Prior to that she worked at the Department of Conservation in its Head Office communications and marketing division. She is looking forward to drawing on both experiences to share and promote the work of the Trust.

Our hearts go out to the people of Christchurch and to everyone around the country affected by February's devastating earthquake

Recently registered covenants

A summary of covenants registered from 1 June 2010 to 31 January 2011

District Council	Name	Area (ha)	Main open space type
Ashburton	CD & EM Jaine Ltd	2.6	W, Tu
Carterton	Doring	7.6	F
Christchurch	Brocherie	1.5	A
Clutha	Sinclair	40.2	F, W
Clutha	Hodgson & Kennedy	1.99	W
Dunedin	Lloyd & Lee	12.7	F
Dunedin	Noone & Cook Allan Gibson Trustee	58	F, S, G, W
Far North	Campbell & Scott	11.3	F
Far North	Cookson & Walker	7	F
Far North	Donny Charitable Trust	6.6	F, S
Far North	Saward	10	F
Far North	Landcorp-Te Aiorua Creek	25	W
Franklin	Stuckey	2.9	F, W
Franklin	Meikle	22	F
Franklin	Rutherfurd	27.5	F, S, A
Franklin	Khan	0.6	F
Franklin	Danes	0.5	F
Franklin	Warren & Gollan	1.3	F, W
Franklin	McDowall	0.5	F
Franklin	DP & LJ Ramsey Ltd	25.5	F
Franklin	Fox	7.1	F
Gisborne	Eastham	8.9	F
Gisborne	Rau	7	F
Grey	Landcorp-Ruru Farm	59.8	F, W
Grey	Landcorp-Blairs	126.9	F, W
Hastings	Beamish	13.5	F, T
Hastings	Nessvale Farm Ltd	10	F, Ge
Hurunui	Alexdale Farm Ltd	8	S
Hurunui	Wilding	4.5	F
Kaipara	Hollands, Anderson & Williams	4	F
Kaipara	Vuletic	3.5	F, Ge
Kaipara	Northland Fish & Game-Flaxmill Wetlands	44.3	R, W
Kapiti Coast	Sanft	1.2	W
Marlborough	Stronsay Farms Ltd	67.9	F
Marlborough	Gray	1.1	W, T, S
Marlborough	Wilson	1	F
Marlborough	Neame	1.8	F, S
Marlborough	Cowan	3	W
Marlborough	Stirling Brook Ltd	27.9	F, S
Masterton	Wingate & Gawith Trustees Ltd	14.8	F
Nelson	Fern	4.5	F
Nelson	Williams & Ryan	8.6	F
New Plymouth	Hellier	0.5	F
New Plymouth	Reinfeld	14.6	F
New Plymouth	Sutherland & Latter	0.8	F
New Plymouth	Belton & NKS Trustees	15.3	F
New Plymouth	Mataitawa Farms Ltd	6.2	F, W
New Plymouth	Clinch Estate Ltd	1.8	F
Otorohanga	Connolly & Wooster	0.6	F
Otorohanga	Bolwell	1.8	F, S
Porirua	Pikarere Farm Ltd	7.2	F, S
Rodney	Straka	2.5	S, W
Rodney	Lambert Farms Ltd	4.6	F, W
Rodney	Chapman	3.9	F, S, W
Rotorua	McLeay	3.4	F
South Taranaki	Pentelow & Harvey	2.8	F
South Taranaki	Armstrong	4.7	F
South Taranaki	Whelan, Dobbin & Brown	19.1	F
South Waikato	Aubrey	7.6	F
South Wairarapa	Baigent, Goulter & Silver	22.4	F
South Wairarapa	Doyle	0.3	S
Southland	Landcorp-Simon's Gully	5.2	S
Southland	Landcorp-Rocky Knoll Centre Hill	3.6	S
Southland	Landcorp-Roger's Bush	6.5	F, Tu, R
Southland	Landcorp-One Tree Wetland	16.7	Tu
Southland	Landcorp-Thomas Burn	148	Tu, S
Southland	Landcorp-Dale Burn Trib	17.2	S
Southland	Landcorp-Cricket Ground	40.3	F, S, G
Southland	Landcorp-Dale Farm Kit's Bog Pine	3.9	S, W
Southland	Landcorp-Gordon's Gully	11.9	S, W
Southland	Landcorp-Fred Burn	14.3	F
Southland	Landcorp-Schaumanns Wetland No 2	1.07	S
Southland	Small	3.3	S, W
Southland	McPhail & Cleland	9.3	W, Tu
Southland	Island Bush Farms Ltd	4.3	F
Stratford	Lobb & Eden	16.4	F
Tararua	Hooper Smith & Speedy	11.8	F
Tararua	Jackson	6.1	F
Tararua	Lee	10.8	F
Tasman	Nyce & Pearson	9.4	F, L
Tasman	Hopper & McLachlan	1.6	F
Tasman	Caird & Batten	8.4	F
Tasman	Anglesey & Jorgensen	1.8	W
Tasman	Dovedale Grazing Ltd	4.4	F
Tauranga	Tauranga CC	16.4	W
Thames-Coromandel	Percival	5	W, S, F
Thames-Coromandel	Tapuaetahi Bay Trustee Ltd	2.6	F, W
Timaru	Woods & NZ Trustee Svs Ltd	2.5	F, T
Upper Hutt	Moody	9.8	F, W, S
Waimakariri	Gill & Tait	2.9	F
Waipa	Burgenridge Ltd	3.5	F
Wairoa	Brownlie	15.3	F
Waitomo	Reinhardt	3.1	F
Waitomo	Stubbs & Brown	8	F, W
Western Bay Of Plenty	Stephens	21.7	F
Westland	Davidson	6.7	F
Whangarei	Heenan & Pevats	23.9	F, S, W
Whangarei	Rudgley	10.6	F, S
Whangarei	Flynn	5.2	F
Whangarei	Ringer	0.6	F
Total Area Covenanted		**1308.76**	

Key:

A	Archaeological feature	**C**	Cushionfield	**D**	Duneland
F	Forest	**Fl**	Flaxland	**G**	Grassland
Ga	Garden / arboretum	**Ge**	Geological feature	**L**	Landscape
P	Predator-proof area	**R**	Rushland	**S**	Shrubland
T	Treeland	**Tu**	Tussockland	**W**	Wetland

All covenants by Regional Council as at 31 January 2011

Regional Council	Approved count	No. of registered covenants	Total area registered & approved (ha)	Largest registered covenant in region	Average covenant size (ha)
Auckland	29	242	3998.8	840.8	11.5
Bay Of Plenty	11	163	9467.8	6563.5	53.0
Canterbury	48	217	13990.4	1679.4	44.0
Gisborne	21	112	4972.7	1103.8	27.1
Hawkes Bay	24	203	10257.3	4606.0	43.2
Horizons	31	292	7453.9	306.0	19.5
Marlborough	7	59	2966.2	181.7	28.0
Nelson	0	13	300.8	139.5	23.1
Northland	55	572	9539.8	417.4	13.8
Otago	22	152	10604.5	2735.0	59.2
Southland	23	240	6190.5	214.2	18.8
Taranaki	52	231	4939.3	333.7	12.2
Tasman	15	125	2204.8	640.8	15.2
Waikato	67	515	15981.0	644.9	23.0
Wellington	41	270	5959.3	824.3	17.6
West Coast	17	47	2477.5	619.1	31.8
Totals	**463**	**3453**	**111304.3**	**6563.5**	**24.6**

QEII Trust: Help us to protect our natural features

Protecting natural features helps New Zealand

- Many of our plants, animals and landscapes are unique to New Zealand. This helps set us apart and define us as a nation.
- Unfortunately, many of these species and features are under threat. The decreasing diversity of our indigenous flora and fauna is regarded as one of our biggest environmental problems.
- New Zealand has a network of publicly owned conservation areas. However, 70% of land is in private ownership. Many habitats and features are found only on privately owned land and can be protected only with the goodwill and action of landowners.

Practical land management and farm productivity

- Many farmers protect natural features because it makes good land management sense.
- Bush and wetlands help to filter rain and runoff ensuring improved water quality. They encourage recycling of nutrients and reduce soil erosion.
- Forest remnants reduce wind and provide shelter and shade, enhancing stock management and production.
- Fencing allows regeneration of bush, helps to protect stream banks and water quality, and keeps stock out of hard to manage areas.
- Healthy bush and natural landscapes beautify and add economic value to farm properties.

Remuremu *Selliera radicans*.

QEII is always in need of greater financial and moral support for its work. You can help by becoming a QEII Trust member.

Your benefits as a QEII Trust member

- Two issues of *Open Space*™ magazine a year.
- Free or discounted entrance to properties owned or administered by the National Trust (UK), National Trust for Scotland, National Trust of Australia (all States), Barbados National Trust, Bermuda National Trust, National Trust for Fiji, Georgia Trust for Historic Preservation, Gibraltar Heritage Trust, Japan National Trust and National Trust for Zimbabwe.
- Entitlement to nominate and vote two members onto the QEII National Trust Board of Directors.*

Financial members must have a residential address in New Zealand. QEII covenantors automatically become members.

To join QEII Trust: post the membership application to QEII National Trust, PO Box 3341, Wellington 6140, email info@openspace.org.nz or phone 04 472 6626, or from outside Wellington 0800 4 OPENSPACE (0800 467 367).

QEII National Trust Membership Application

Title ..... Name .....

Address .....

Postcode ..... Phone (0) ..... Email .....

Membership Type (please tick)

❍ Individual $30 ❍ Family $45 ❍ Life $550

❍ Corporate – business $75

❍ Corporate – non profit organisation $50

Subscriptions include GST. Financial members must have a residential address in New Zealand.

Donation (optional)

Donations over $5.00 are tax deductible.

❍ $100 ❍ $50 ❍ $20 ❍ Other $.....

Method of payment ❍ Cheque ❍ MasterCard ❍ Visa

CREDIT CARD DETAILS

Number:

Cardholder name ..... Expiry date..... Signature .....

Total $..... ❍ Please send a receipt

For direct debit option, please email info@openspace.org.nz

Please send me more information on:

❍ Making a bequest to QEII ❍ Open Space Covenants

Gift Membership

Gift to: Name & address.....

.....

Send next year's gift renewal to me ❍ or to the recipient ❍

* To be eligible to nominate and vote members onto the QEII National Trust Board of Directors, membership must be current at 31 December of the year preceding elections (voting papers are sent out in December) and not expire before 31 March of the election year itself. Elections are held every three years. Next elections will be held in 2013.

QEII Trust: Helping you protect the special nature of your land

What is a QEII open space covenant?

A covenant is a legally binding protection agreement which is registered on the title to the land. It is voluntary but once in place binds the current and all subsequent landowners.

Private property rights are not jeopardised – the landowner retains ownership and management of the land. Visitor access is available only with the landowner's prior permission. Some covenants allow unrestricted access as agreed in the protection document.

Each covenant is unique. It can apply to the whole property or just part of the property. There can be different management areas within a covenant with varying applicable conditions. Conditions can be stringent where rare or vulnerable natural features or habitats are being protected.

Open space covenants are generally in perpetuity although there are variable term covenants. These include **Kawenata** on Māori land which recognises tino rangatiratanga, and **Life of the Trees** where individual trees occur in a situation where they may not be self-generating. **Landscape protection agreements** are used where the land does not have title such as roadside areas.

Managing a QEII open space covenant

QEII helps landowners with ongoing management advice and support. A management plan may be prepared with the landowner when a covenant is established, which sets out ongoing management objectives and provides guidance on aspects such as species management, pest control and restoration methods.

Each covenant is visited regularly (usually every two years) to monitor its condition and trends, identify and address any threats, and advise the owner about how to meet the covenant objectives.

How to covenant your special area

To protect a special area on your property, these steps are typically needed to gain a QEII open space covenant.

- **Enquiry** Ask your region's QEII representative (see page 2) to visit your property.
- **Evaluation** The QEII representative will evaluate your special area against a wide range of criteria including ecological and biodiversity values, naturalness, sustainability, existing or potential value as an ecological corridor, wildlife, geological features, landscape values, and cultural and heritage values. There will also be practical considerations including management needs, threats to site values, your motivation and potential sources of funding.
- **Approval** The QEII Trust Board will consider the evaluation, and approve the covenant if it meets the criteria. You will then be asked to sign a covenant agreement.
- **Fencing** If required, the covenant will have to be fenced next.
- **Survey** An accurate survey plan or aerial photodiagram of the covenant area will be prepared, which you will need to check and sign.
- **Registration** The covenant will then be formally registered on the title to your land with Land Information New Zealand. QEII will lodge all the necessary documentation.

Funding assistance

Your QEII open space covenant may be non-rateable. See *QEII Covenants and Local Government Rates – Best Practice Recommendation* under *Resources/ Publications* on www.openspace.org.nz

You may also be eligible for assistance with funding for items such as fencing, weed and pest control, and restoration planting. Your QEII representative will be able to advise you about possible funding sources.

Many unique natural features are found on privately owned land

The Lattey and Gallen covenants in Hawke's Bay are among New Zealand's earliest QEII covenants, the first registered five years after QEII was established by the Queen Elizabeth the Second National Trust Act in 1977.

Two covenant blocks cover around 42 ha of lowland forest which harbours some very old trees, including an ancient totara estimated to be over 2,000 years old.

Ed Saathof of Pan Pac Forest Products Ltd stands under the ancient totara on one of the Lattey/ Gallen covenants.

2011 – United Nations International Year of Forests

Convinced that concerted efforts should focus on raising awareness at all levels to strengthen the sustainable management, conservation and sustainable development of all types of forests for the benefit of current and future generations, the United Nations General Assembly has declared 2011 the Year of Forests (UN General Assembly resolution).

Photo: Neil Phillips