



IN THIS ISSUE Sir Peter Elworthy • Marlborough, Nelson and Hawkes Bay Covenants

The **QE II National Trust** is an independent statutory organisation established to protect open space on private land.

The Trust helps landowners protect natural features including:

- Landscapes
- Wetlands
- Forests
- Tussock grasslands
- Cultural sites

The QE II Act provides a legal mechanism to secure protection on private land *- an open space covenant*. It preserves ownership and management. As a resource and environment management tool, the QE II solution is simple, rigorous and highly cost effective.

An open space covenant is a legally binding agreement between a landholder (Covenantor) and the Trust to maintain an area of land or water as open space in perpetuity. The landowner retains ownership and management of the land. The standard covenant document includes provision to satisfy a covenant's specific requirements. The right of public access is encouraged but is not always appropriate. The Trust, as partner, offers advice and regularly monitors the covenant to ensure that the aims and objectives are being observed.

Establishing covenants in perpetuity can attract funding assistance from the Trust and/or local government towards fencing and survey costs. Covenanted land can attract rates remission under the Local Government (Rating Powers) Act 2002.

In addition to the legal mechanism of open space covenants, QE II offers a range of assistance in the preservation, protection and enhancement of natural features on private land.

This includes:

Term covenants. Open space covenants are generally in perpetuity, though there can be a case for a variable term-

- Kawenta, on Maori land which recognises tino rangatiratanga,
- Life of the Trees covenant, where individual trees occur in a managed landscape.

Landscape Protection Agreements. The use of this type of agreement is most appropriate where land may not have title such as road reserve.

Management Statements are often prescribed within the covenant document and provide detailed policies and methods for the ongoing management of the particular values for which the area is

- Streams
- Coastlines
- Lakes
- Geological features
- Archaeological sites

protected. They may include such things as species management, pest control and/ or restoration methods.

Monitoring and ongoing support

Monitoring covenants is an important function of the Trust. Visits occur regularly, usually once every two years. The Trust offers management advice and support. Reports detail the ecological condition, trends, any threats and ensure covenant objectives are being met.

How your covenant helps New Zealand

Many plants, animals and landscapes found in New Zealand are unique to this country. Their uniqueness 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.

While there is a network of publicly owned conservation areas, the vast majority, 70%, of New Zealand's land remains in private ownership. Many habitats and features are found only in these areas. They can only be protected with the goodwill and action of landowners.

Practical land management and farm productivity

Many farmers are motivated to protect natural features because it makes good land management sense. Bush and wetlands help filter rain and runoff ensuring 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 areas not only allows the regeneration of the bush, but also helps protect stream banks, water quality and keeps stock out of hard to manage areas. Healthy bush and natural landscapes beautify and add economic value to farm properties.

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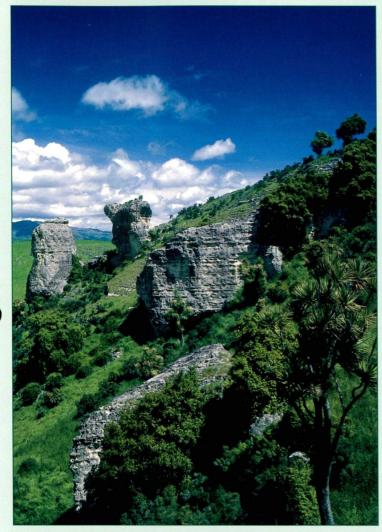
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Sir Peter Elworthy - 1935-2004



Sir Peter Elworthy's home farm, Craigmore, South Canterbury.

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hen Sir Peter Elworthy died suddenly in January this year, New Zealand lost an outstanding contributor, particularly to the agricultural community. In recognition of his contribution he was knighted in 1987, received Lincoln University's Bledisloe Medal the same year, a New Zealand Commemoration Medal in 1990, a Distinguished Fellowship of the Institute of Directors in 2001 and an Honorary Doctorate in Commerce from Lincoln University in 2002. Sir Peter was a farmer but he was once said to have 14 additional different off-farm jobs to keep him busy. Among these was his strong commitment to the QE II National Trust.

Sir Peter served QE II on the Board of Directors for six and a half years, retiring from his position as Chairperson in August 1993. The leadership demonstrated by Sir Peter, his personal interest in the work of QE II and commitment to amiable and practical resolution of difficulties were major factors enabling QE II to make significant progress during the period of his tenure.

Sir Peter believed in the commitment of private landholders to protection of natural areas and landscape features on their properties. "It is just not practical in economic terms, or acceptable politically, for a Government to purchase all those areas worthy of preservation. In these days with the popular calls for balance of efficiency, productivity and conservation, the open space covenant has proved to be a unique and at the same time cost effective method of landscape protection".

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Cover photo: Sir Peter Elworthy, Craigmore, South Canterbury.

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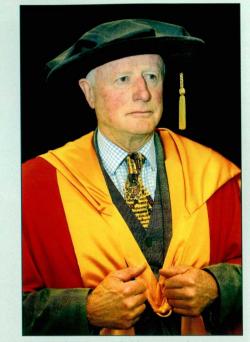
Sir Peter and his family personally demonstrated that commitment by ensuring formal protection with QE II covenants for four unique sites totalling over 87 hectares on the home farm at Craigmore in South Canterbury.

The first covenant in 1987 was a 1.67 hectare fenced block, which includes an historic Maori drawing on limestone of the ancient wedge-tailed eagle now extinct. Another covenant is an 85 hectare block including an area of valley, stream, bush and limestone cliffs which have been referred to in European times as the Valley of the Moa. It has Maori rock drawings of moa, other animals, human and supernatural figures.

The two most recent covenants protect a rare treeland of cabbage trees and a primary forest remnant of *Olearia hectori*. Sir Peter was proud that the Department of Conservation and QE II are working together at Craigmore to protect the rare tree daisy *Olearia hectori*.

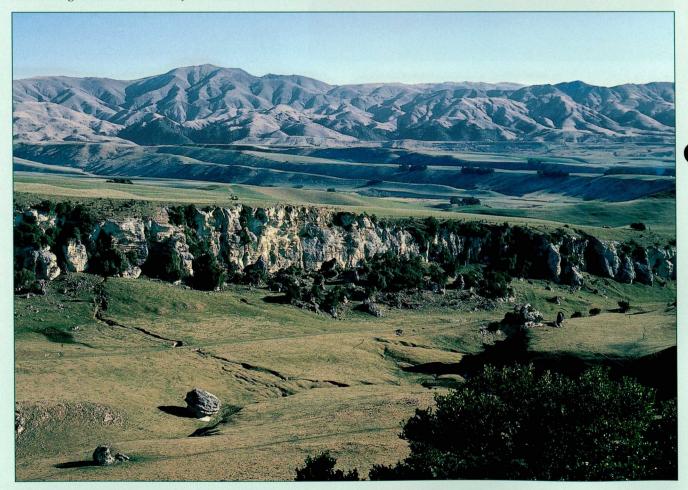
During the time he worked with QE II, Sir Peter had the opportunity to travel extensively around the country and meet many people, an aspect of the job that he enjoyed and found most rewarding. From his own experience as a farmer and covenantor he was able to relate well to other covenantors.

He will be remembered fondly by those who worked with him at QE II for his sense of humour as much as his commitment to the protection of private land by covenants.



Sir Peter being awarded honorary doctorate in commerce, Lincoln University.

Below: Craigmore, South Canterbury.



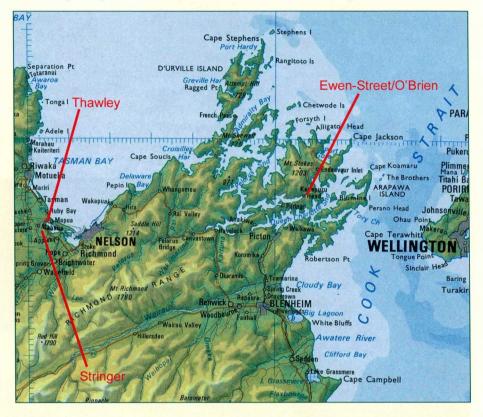
Focus on: Marlborough and Nelson

This region at the top of the South Island is paradise for botanists. It experiences extremes of climate, has a complex geology and therefore has a very diverse fauna and flora adapted to the wide range of habitats. There are many opportunities to protect these interesting and important sites.

Within QE II's Marlborough/ Nelson Region, 2,920 ha are protected by 95 open space covenants. A further 21 covenants have been approved and are being progressed towards registration, and will protect a further 328 ha.

The QE II Rep for Nelson/ Marlborough is Philip Lissaman. Philip was previously the field manager in Wellington, but now enjoys actually getting out in the field and working directly with landowners. Philip can be contacted on 03 540 3442.

Recently Registered Covenants in Marlborough



Wonderful wetlands

This 2 ha wetland is the second covenant put in place by **Ian and Rachael Stringer**. The first was a 2.4 ha coastal forest remnant easily seen from the coastal highway mid way between Richmond and Motueka. Ian and Rachael, who have had a lifetime passion for trees and involvement in



Dense harakeke flaxland (Phormium tenax) in the Stringer covenant.

farm forestry commented that wetlands also provide a valuable carbon sink – this swamp has, in some places, up to 10 feet of peaty material in the bottom.

This covenant is one of several small flax, raupo and sedge wetlands highlighted in a wetlands survey of the region by Tasman District Council. While each little remnant is not of itself of exceptional value, the combined area of these remnants is very important for birdlife, fish-life and for the health of the internationally important Waimea estuary into which it flows. Kokopu have been recently recorded in Stringer stream, which is fed by this wetland. Because of the significance of this covenant, the Tasman District Council have contributed to fencing costs.

Coastal wetland

Five years of campaigning and being a Member of Parliament, have meant **Ian Ewen-Street** has had little time to enjoy the covenant on the property he owns with **Marg O'Brien** at the head of the Kenepuru Sound in the Marlborough Sounds. However that doesn't diminish their obvious enthusiasm for the wonderful ecology Coniston offers or the 4 kilometres of fence Ian erected!

This covenant protects 15 ha of wetland and riparian margin along 2 km of river which runs the length of the farm. A wetland like this is now a rarity in the Sounds. It is partially fed by springs so the water is unusually clear, but also has the influence of river flow and at spring tide, sea water inflow. It contains a good bird and fish fauna due to a good cover of Carex, and kanuka/manuka fringes, largely undisturbed by stock for at least 10 years.

The riparian forest is mainly kanuka with increasing regeneration of broad-leaved species. Of special interest is the North Island influence with a grove of healthy mature tawa and titoki, alongside matai, rimu, miro, kahikatea, tree ferns which have still yet to reach their potential. A feature which strikes the visitor is the number and size (up to 16cm diameter) of native passion vine; almost a 'weed' where regenerating trees are struggling under a veil of vine. An abundance of tree stinging nettle gives the visitor timely reminders not to let attention wander among such beauty.

A small (0.7 hectare) area of the covenant extends into the adjoining Eatwell property which includes a beautiful swimming hole in the river, surrounded by early regeneration.



Healthy riparian forest of kanuka and manuka contributes to the high water quality in this coastal wetland.

Friends of Mangarakau Swamp – Northwest Nelson

Mangarakau Swamp, with 160 ha, is the largest remaining wetland in the Nelson Marlborough region, and is on the Dept. of Conservation's register of nationally important wetlands. It supports a diverse range of vegetation communities and includes many important wetland species such as the rare swamp orchid *Spirarithes*. It is also home to a brown mudfish which is genetically unique to Mangarakau Swamp and is found nowhere else.

Mangarakau Swamp was purchased from three private owners by the new Zealand Native Forest Restoration Trust and it is protected by a QE II open space covenant.

The Native Forest Restoration Trust also own a new house on the property which is for the use of members of the Friends of Mangarakau Swamp.

For more information on becoming a "Friend of Mangarakau Swamp" write to: Secretary, Jo-Anne Vaughan, Puponga Rd., Ferntown, R.D. 1, Collingwood 7171, Golden Bay. Or email: javn@xtra.co.nz

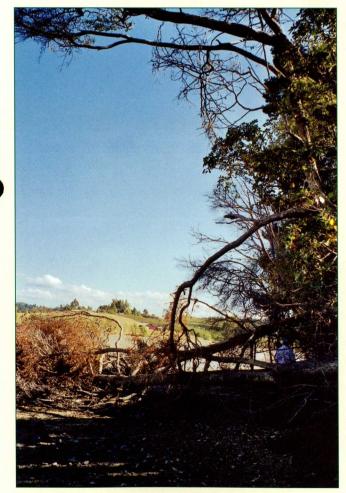


View of the Thawley covenant from Waimea Inlet.

Waimea landscape

"Someone, 150 years ago, decided to set up Cornwall Park as a farm in the middle of Auckland and seeing a programme about this on TV confirmed our previous thinking about the long term future of our farm, 'Westfylde' between Mapua and the Waimea Inlet".

This was the motive behind **Graeme and Eileen Thawley** entering into an open space covenant over their whole 28 hectare farm. While Mapua is only a small seaside village still, it has become one of the "hot spots" for residential development in NZ. The covenant protects the landscape, ensuring the farm is not subdivided in the future.

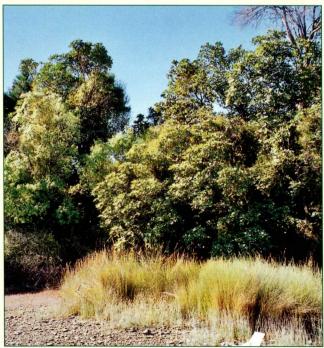


Lost beech tree. Replacement is critical if beech is to be saved along this coast.

The covenanted farmlet, in associates with 14 ha of pip fruit orchard, is used to run breeding sheep and fattens most progeny to the market. It is a summer dry property so this farming system fits well. Over the last 20 years, Graeme has had a programme of space planting trees over the property for stock shade and aesthetic reasons – giving rise to a very attractive treed landscape with colourful seasonal variation. These trees contrast with the carefully grazed and weed free pasture to give an almost unique coastal landscape, a far cry from the reverted gorse and scattered pines of the 1940's when the family purchased the farmlet.

More recently Graeme has started planting up the gullies and seepage areas with native shrubs and trees. Soon he will embark on an ambitious plan to re-fence the coastal strip and plant natives along the shoreline – a combination of slowly eroding headlands and slowly infilling tidal inlets. It is this shoreline which contributes the main biodiversity values with some of the few mature black beech and broadleaved native shrubs left around the entire Waimea Inlet, an area noted as of international importance as a wader habitat.

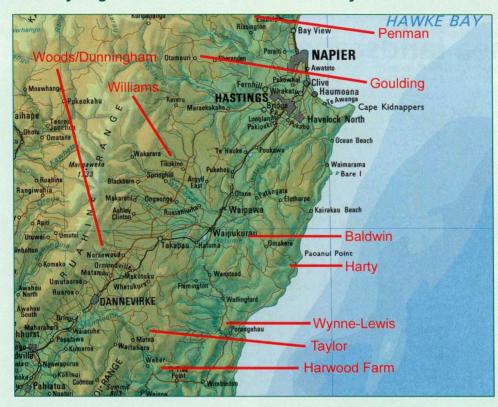
Coastal vegetation.



Focus on: Hawke's Bay

Within the QE II's Hawke's Bay region, 7080 ha are protected by 86 open space covenants, ranging in size from a hectare up to 4606 ha.

A further 50 covenants have been approved and are being processed towards registration, and will protect a further 1364 ha.



Recently Registered Covenants in Hawkes Bay

Williams Covenant

The **Williams family**, who are great supporters of the Trust, have protected a long and skinny totara filled gully and stream on their Tikokino farm.

The third on Te Maire, the newly protected 6.8 ha gully joins at its lower end onto the existing two covenants.

"We're very pleased to have it done," says Adrienne Williams, who is presently planting up a wetland in their fourth covenant, which should be registered soon.

Her second son George, who leases the farm, organised all the fencing of this covenant.

Totara make up the greatest proportion of the canopy species, but cabbage trees, kowhai and lacebark are also present on the steep sides of the stream.

As with most covenants in Hawke's Bay, the Regional Council helped with fencing and survey costs.



Totara are the dominant species in the Tikokino landscape, and the Williams farm Te Maire, with its totara covenants is one of the most picturesque in the district.

Dannevirke covenantors win award

Mary and Martin Taylor, who have 57 ha covenanted with the Trust on their Ngapaeruru farm, won a Horizons Regional Council award in 2003 for Protecting Nature.

Their prize, a \$500 voucher, was spent on trees, most of which they planted around their house.

Horizons' Grant Cooper, who has been working with the Taylors since 1994, says they have matched landuse well with landscape. "The result is a win:win for both farmers and the environment."

"The Taylors get improved management from fencing stock out of gullies, and the environment gets protection of native vegetation, less soil erosion, and improved water quality."

Along with the covenanted bush which is mainly manuka with regenerating broadleaf species, large gullies of pines and bush are fenced off to protect soil and water values.

The bush is listed as a recommended area for protection, and is quite diverse, with stands of plants such as the tree daisy *Olearia virgata*, which are now becoming rare in the region.

Their covenant features a lone northern rata tree in the pink of health, and it was visited by Project Crimson's Dr Philip Simpson as part of his research for his new book on rata.

Confirming the Taylor's decision to protect the watershed, the erosion prone nature of the



Dannevirke farmer Martin Taylor pictured with Dr Philip Simpson of Project Crimson and the lone remaining rata on the farm.

land was vividly shown during the storms of mid February.

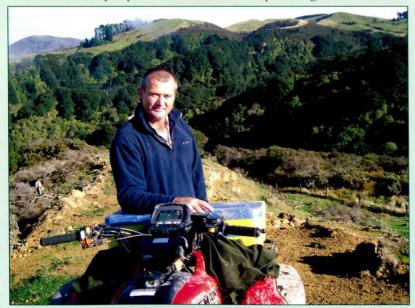
The farm received 206mm of rain in 21 hours, and while the taller bush held on to the water-sodden hills, the more juvenile scrub has moved in many places.

In total, 17 separate fences were damaged, including many around the retired bush areas.

The Taylor covenant has set a valuable precedent in the region, as more and more regenerating native vegetation of this type is either threatened with destruction through forestry or through farm development.

Harwood Farm

Harwood Farm, in the hills east of Weber, is a unique property. The late Miss Arniboldi, who taught at Pongaroa and Waipawa Schools, bought this farm to set up a private educational trust providing finance for East



Harwood farm manager Max Buckendahl pictured with the new covenant in the background.

Coast university students to obtain agricultural based tertiary education.

This farm, managed by Max Buckendahl, is almost surrounded by pine forests. It is also home to Bottom Bush Scenic Reserve, a six hectare mixed broadleaf podocarp forest which was gifted to the Crown, and a two hectare bush open space covenant registered in 1995, which includes a beautiful specimen of pukatea, now uncommon in Hawke's Bay.

But the new covenant on Harwood Farm is quite different. At 84 hectares, it covers a steep and deep gully system, with stands of black beech on the ridges and faces of regenerating secondary forest and shrubland.

High on east-facing slopes in the headwaters of the Porangahau River, the bush is regenerating strongly since fencing. Dense and lush, the covenant sports a good range of tree ferns and dense undergrowth.

Recently Max hosted the local branch of Forest and Bird, showing off the wide variety of bush areas on the farm.

Okereru Trust Covenant

Until five years ago **Brent and Sue Penman** lived in the Waitakere Ranges west of Auckland, and their property was next to the Matuku Reserve. They'd donated 12 ha to the reserve which is protected with a open space covenant. Kereru were very common, with flocks of up to 40 seen in autumn.

That's why they named their new property in Glengarry Road, 40 km west of Napier, Okereru, the place of pigeons. "The two things we missed most were the birds and the bush although we were heartened on our first morning to be woken by a bellbird. So began an obsession with planting trees, with an emphasis on what we knew would attract birds."

Once they'd settled in, they decided two small areas of kanuka forest would benefit from being fenced and left to regenerate. One was very steep and exposed, and a danger to stock.



The Okereru Trust covenant is thriving now, with strong regeneration supplemented by restoration plantings.



The delicate Gastrodia cunninghami grows under the kanuka cover of the Okereru Trust covenant

The second area was a kanuka-filled valley with springs feeding a wetland, which was ideal to close to protect the water source. "The logical upshot of these feelings led us to making enquiries to create our own small area of covenanted land here in Hawke's Bay," Brent and Sue say.

"As we were able to help the Matuku Reserve grow, we are grateful to the Forest and Bird branches down here helping us with fencing for our current covenant."

Goulding Covenant

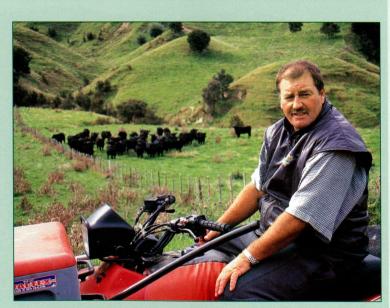
When you lean over the precipitous edge of the cliff at **John Goulding's** Otamauri farm, the only thing you can hear is birdsong.

It's no wonder birds enjoy the totara forest it's the only one for miles around. Most of the surrounding natural vegetation - like the Cregoe covenant next door - is kanuka forest in gully systems.

So this is a really special place. With sheer cliffs and mature totara trees perched on narrow ridges, the 17 ha covenant encompasses a meandering tributary of the Waikonini Stream.

Kanuka, kowhai and lacebark cling to the dramatically steep walls, as well as flax and native broom.

Luckily, old tracks made by sheep make for a relatively safe passage up and down the cliff faces, and there are plenty of trees to cling on to!



John Goulding pictured with his cattle on his Otamauri farm.

Wynne-Lewis Covenant

Tim Wynne-Lewis, who farms near Porangahau, has protected the easternmost stand of black beech in the district.

"With the moreporks up there, we wanted to protect them, and make sure their habitat is always there for future generations. Hopefully we will attract more native birds back into the area."

This is the first time in many years he and his wife Phoebe have seen woodpigeons in their garden.

Fencing off the stand of beech at the head of a steep gully had also tidied up the farm, and enabled radial fences to be built, creating smaller paddocks.

"It has always been a difficult area to muster. By retiring the area we have the benefits of protecting the bush and creating more paddocks hence movement of stock has become far more efficient."

And it's a bit of a novelty in the area to have a covenant, so Tim hopes it will encourage neighbours to do some protection work.

He's also keen to see local schools visit and explore the gully. His next



The easternmost black beech trees in the Porangahau district grace the Wynne-Lewis covenant.

project is to complete fencing the next stage of the gully, a 15 ha extension downhill of manuka scrubland.

Then he wants to build a walking and mountain bike track through the gully to enable easy access to watch the bush grow and regenerate.

Woods and Dunningham Covenant

Bordering the Manawatu River, and tucked in right against the Ruahine Forest Park is a fascinating block of beech forest and regenerating shrubland.

At 118 hectares, the covenant covers the majority of the property, from the ridge tops down through the altitudinal



The Woods and Dunningham covenant extends from exposed subalpine ridgetops down to black beech forests in the valley bottoms.

sequence to the lower valley floors of tall mature forest.

David Woods and **Roy and Marie Dunningham** and their families spend more and more time on the property, enjoying the quiet - and nailing possums.

This March they are hosting Landcare Research staff putting in transect plots for monitoring carbon production in their covenant.

The covenant certainly fits in with how they use the land, and watching it regenerate after the stock were removed four years ago is amazing, David says. "It really has thickened up even with the numbers of possums the place supports."

"That, and the obvious financial benefits of the rates relief. It's nice to know that the Councils can support covenanting," he says.

"The main thing is that our place will be mature bush one day, and hopefully it will still be our DNA that runs around the place. It is a really special place for us."

"It is an absolute retreat for all who go there, an escape, and a place to go and think and have time out."

Tamariki Bush

It would be difficult to find a more botanically spectacular covenant in Hawke's Bay than **Ken Baldwin's** four stands of bush beside the meandering Mangarouhi Stream.

A large population of the rare *Pittosporum obcordatum* is thriving in the 7.7 ha covenant, while a host of other species such as the delicate stream-side dweller *Teucridium parvifolium*, tiny mistletoe *Korthasella lindsayi*, and the unusual *Coprosma pedicellata*, ranked as vulnerable are now well into recovery.

The wider landscape in Central Hawke's Bay is largely devoid of bush on alluvial flats, so it is a real pleasure to suddenly see the mosaic of titoki, kahikatea, totara, and matai forest spread out on a terrace at the back of Ken's farm.

At fencing there were few shrub species left, so recovery in many of the blocks has been very fast.

Ken's aim is to return the bush to its natural state. "I think the National Trust is quite important for conserving our native heritage. Farmers think they will lose control, and in a sense while it is restricting, it is for the greater good. I am quite pleased with the process, and feel the bush is moving forward."



Young kahikatea are common throughout the Baldwin covenant, which is home to many rare plant species.



Ken Baldwin with a good specimen of Pittosporum obcordatum, a plant now ranked as threatened throughout New Zealand.

This covenant, like most in Hawke's Bay, was a joint project with fencing costs shared between Ken, the Trust and the Hawke's Bay Regional Council.

Now the Council is also helping with possum control in the covenant as part of a wider self-help possum control project in the district.

Harty Covenant

Doc and Marion Harty's covenant at Pourerere Station 33km east of Waipawa has been looking pretty good until lately.

In mid February 140mm of rain caused a slip of about a hectare to come down in the centre of the semi-coastal forest.

Trees on almost vertical faces slipped, leaving a big bare clay patch, but the fences survived. The soils have been quite wet all summer, with a few slumps occurring. It will be interesting to see how the bare face regenerates over time.

Regeneration under the canopy, particularly of rangiora, has been phenomenal, Doc says. "The titoki and karaka are going ballistic, but there's still not a lot of regeneration in the grass areas where the young plants get smothered."

"When I was knee-high to a grasshopper the big old trees were enormous. We are still looking at them now." Now Doc and Marion's children love to go camping in the bush.

Doc is keen to see woodpigeons nesting back in the covenant, and plans to control rats to help reduce predation, particularly during the breeding season.



Looking northeast over the Harty covenant towards Pourerere Beach.

South Westland's special totara-matai forests

The foresight of early farming settlers in South Westland has kept a few notable patches of a very distinctive forest type: totara-matai forests.

Before the land was cleared last century there was around 43,000 ha of totara-matai forest in South Westland. Now there is less than 600 ha, or 1.4 % remaining. These patches shelter homesteads from easterly gales and isolated trees provide shelter and shade for stock.

Now very rare, they have remarkably high and unique biodiversity values. Old families still speak of the thousands of pigeons that grazed the first pastures sown last century. These birds were simply following their age-old instinct of using the totara-matai forest in late winter

Levetts bush - lush understory, with grazing stock excluded.

and spring, a time when there is little food elsewhere. Kereru, tui and korimako still flock to these forests, especially those well cared for.

The totara itself, named *Podocarpus totara var. waihoensis*, is of hybrid origin. At first glance "waihoensis" looks like the familiar "true" totara (*P. totara*) but it is quite distinct with shorter stature, narrower leaves and thinner bark. It is confined to the west coast of the South Island where it occurs on alluvial valley flats from the Grey Valley south to Cascade.

The theory is that waihoensis totara developed when primary forest re-established on the river flats left behind as glaciers retreated 10,000 years ago. The shrub totara (*P. acutifolius*) arrived early from seed sources nearby where it would have survived glacial conditions. Trees of true totara came later from seed carried by birds from further afield. The pollen from these first totara trees was overwhelmed by shrub totara pollen and thus a hybrid developed. This hybrid then stabilized forming the true breeding tree now known as waihoensis totara. Matai trees became established later as river silt and loess deepened the original stony riverbed soils and grow mixed with the totara.

Most of the totara-matai forests of South Westland are quite young, usually less than 300 years old. Recent geological research suggests massive gravel deposits inundated the valleys

> following a large earthquake along the alpine fault line around 1717, with totaramatai forests establishing on these. Older totara-matai forests may have established on surfaces that originated from an earlier earthquake in the 15th century.

> It is not only the presence of waihoensis totara that make these forests distinct. The understorey has a unique assemblage of plants compared to the adjoining rimu-kamahi-rata hill forests and kahikatea wetland forests. The differences must have been remarkable to the early explorers such as Thomas Brunner, Julius von Haast and Charlie Douglas.

> Local landowners have a vital role in maintaining these distinctive totara-matai forests. With a little permanent fencing to exclude stock, plus control of the possums, stoats and rats, farmers will be rewarded with vibrant forest loaded with native birds.



Cattle trampled understory.

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Photopoints for Farmers

Photographs are an easy way to monitor what is happening in your covenant over time.

It's a cost-effective method of recording vegetation change and provides valuable records. Photographs are objective, and can be freshly analysed each time.

Photo-points or set camera positions give the best comparisons from year to year. They are easy to set up, and come back to.

Setting up photo-points

Before setting up photo-points you need:

- A camera
- A tripod to reduce camera movement
- A compass (and for the technically-minded a GPS), or
- A topographic map of the site or
- An aerial photo to record exact locations of each photopoint.

The best time of year for taking photographs of vegetation changes is the end of summer. Leaf growth on most trees has generally stopped by mid summer. Large differences in vegetation growth can be noticed between seasons, which can be misleading when analysing the photos. The best photographs are taken on overcast days when shadows are minimal.

Choose the location and subject of your photo-points. Choose sites which will be easy to locate in future, and which will not become obscured by vegetation growth. Use:

- Marker pegs, or waratahs set in the ground and numbered
- Tag trees with aluminium tags
- Sketch the photo-points on a map or aerial photo, or
- Spray-paint or mark fence posts

Photographs can be taken of re-vegetation plantings and regenerating areas of forest showing growth of new plants and seedlings. Weeds can be photographed to give a visual record of infestation and rate of distribution. The most common photo-points for covenanted areas are of indigenous forest, usually of the canopy. These are used to show and determine foliage change over a period of time.

Below are the three main types of photograph:

- Up-looking: photographs taken looking verticall, upwards at the forest canopy from the forest floor.
- Side view of single tree/ emergent: photographs showing the entire crown of a single tree which is usually emergent above the forest canopy, for example northern rata. These photographs are taken from a side view looking across at the tree emerging from the surrounding canopy.
- Panorama: a photograph of an area of forest canopy viewed from the outside of the forest from a good vantage-point eg an elevated site. Often a series of photographs can be taken to form a panorama.
- Side view of understory. Changes pre and post stock removal can be very dramatic.



January 1989



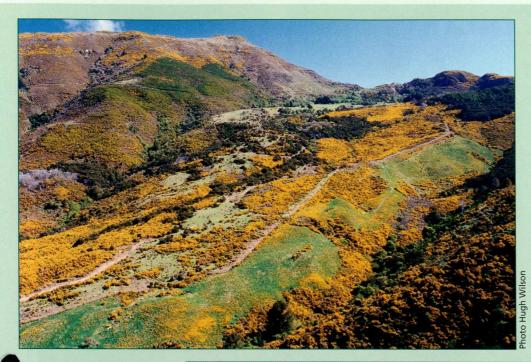
January 1992



January 1994

Otanerito Valley, Hinewai Reserve, Banks Peninsula.

Natural Regeneration of shade-tolerant native forest species under 15–19 year old gorse, following the removal of browsing mammals in 1988. Plot 3 at 230m alt.,



Left: October 1988 Below: October 2000

Hinewai's changing face following the change from struggling marginal farming to active conservation management under a policy of minimum interference and natural succession. Gorse canopy returns on to temporarily cleared land, and begins to be submerged by shade-tolerant native forest regeneration, and in places pre-empted by lightdemanding native kanuka. Photopoint 3c, Hinewai Reserve, Banks Peninsula.



Taking the photo and recording the detail

Once you have chosen a suitable site, take the photograph and record the following information:

- Date and time
- The name of the place (farm, paddock)
- The location (address, grid reference on the relevant NZMS 260 series map)
- The subject (QEII covenant area stand of mature kahikatea)
- Direction of view (compass bearing)
- Film type and camera details such as focal length and aperture setting if using a manual camera.

Several photographs (called photo-frames) can be taken at each photo-point. Each of these should be labelled and identified individually. If possible record the compass bearings which define the boundaries of the photo-frame. Select a feature such as a tree at the edge of the photo and take its compass bearing. It's a good idea to take at least two photos at each photo-frame location.

Re-measurement

When re-measuring photo-points take the photographs at the same time of year and at exactly the same location as previous photo-points. All variables such as film and lighting should be closely replicated if possible.

Photo-points re-measured each year quickly become a valuable resource to analyse visual changes occurring to the vegetation in your covenanted area. You might be surprised to see some of the changes taking place!

Happy photography!

Wilding Conifers - Prediction and Prevention

wenty years ago, few of us would have heard of the word 'wilding'. Today the unchecked spread of wilding exotic conifers can pose a real risk to the landscape, biodiversity and pastoral values.

In parts of NZ where the unchecked spread of conifers has occurred over many decades there is now a very significant problem. These trees are now past the stage of easy elimination, and control will cost many millions of dollars. (eg Mackenzie Basin, Mid Dome in northern Southland). However these worst-case examples do not represent the norm. There are factors which make the prevention and control of wilding pine spread much more manageable than most other serious weeds such as the extensive spread of gorse and broom.

Many of the worst-case examples involve species such as contorta, Scots and Corsican pine, and European larch and Douglas fir. All were planted widely early last century. Of these five species only Douglas fir is still planted commercially today. Knowledge of how to minimise the risk of unwanted spread from new plantations is increasingly



Lodgepole pine (Pinus contorta) spreading near Lake Pukaki.

promoted and operational guidelines are freely available

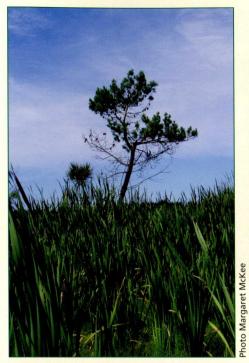
Wilding pine spread is very predictable, where and when it will occur. Factors include:

- Seed is wind spread, so the majority of wildings appear downwind of the seed source. Usually seedlings will occur adjacent to the parent tree (termed fringe spread) though very strong winds can carry some seed from exposed trees for long distances.
- Most conifer seedlings are palatable, and only establish readily where sheep grazing is light or absent
- Conifers establish most strongly in open sites where there is sparse vegetation or relatively bare soil. They do not establish strongly through rank grass.
- Most conifers are intolerant of shade, and will not invade healthy scrub or forest communities (Douglas-fir is an exception).
- The propensity of different conifer species to spread varies considerably. Many of the most spread-prone species are now seldom planted.
- The age of seed production is predictable. Few conifer species produce appreciable numbers of seeds before 10 years of age. At this stage the coning trees are meters tall, very visible, but still relatively easy to eliminate.
- Seed does not last in the soil for more than a few years, and most germinates during the first 3 seasons after dissemination.

Almost by definition, if a process is predictable, then it should be much



Pine reaching maturity in regenerating indigenous forest, Whareratas, Gisborne.



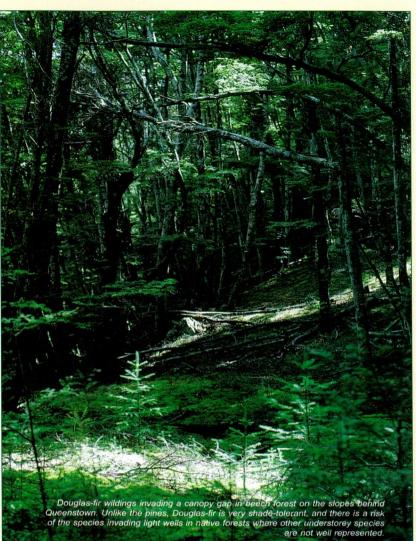
Mature seeding pine in wetland, Opoutama, Hawkes Bay.

more readily intercepted and controlled. A saying often used in wilding control is 'a stitch in time saves nine'. Failure to act creates a much bigger problem. All too often, a lone conifer out on a hill is allowed to grow to coning age (ten years plus). During this time it could have been easily eliminated in minutes. However, if left to seed and parent wildings, many hours or days will be needed to control subsequent spread.

Some guidelines when removing conifers,

- · 'leave no green needles'.
- Pull small seedlings
- Trees should be cut down so that no branches with green needles remain attached to the stump.
- Ringbarking is slow and unreliable, though results can be improved by applying poison (50:50 diesel/ glyphosate) to the freshly cut surfaces.

With improved awareness and management the invasive spread of wilding pines can be very manageable.



Douglas-fir wildings invading a canopy gap in beech forest on the slopes behind Queenstown. Unlike the pines, Douglas-fir is very shade-tolerant, and there is a risk of the species invading light wells in native forests where other understorey species are not well represented.



Wilding eradication is only successful if ALL green foliage is removed. An axe is used to remove ground level branches from wildings near Lake Coleridge.

For more information.

'Wilding Prevention' by Nick Ledgard and Lisa Langer is available from Forest Research, Box 29237, Christchurch. This publication deals with assessing the risk of spread from new plantations onto surrounding high-country land.

Pohutukawa and Rata The iron-hearted trees

Pohutukawa and rata are known as New Zealand's native Christmas tree because of the bright red blooms that decorate the trees during the Christmas/summer season. They trigger memories of long summer days and holidays spent with friends and family in, on, around and under these magnificent trees.

Pohutukawa and rata belong to the myrtle family (Myrtaceae) which is made up of about 3000 different tropical and warm temperate trees, shrubs and vines. In New Zealand myrtles are represented by some of our best known plants: kanuka, manuka and some less familiar, but significant species like swamp maire and ramarama.

Both pohutukawa and rata belong to the genus Metrosideros, the iron-hearted myrtles, referring to their hard, very heavy, dark red heartwood. There are two native pohutukawa (mainland and Kermadec) and six species of rata vine, a shrub and three tree rata (- Northern, Southern and Bartlett's).

Pohutukawa (*Metrosideros excelsa*) naturally only grow north of New Plymouth and Gisborne, while Northern rata (*Metrosideros robusta*) is well known throughout the North Island's coastal to lower montane forests and as far south as Hokitika. Northern rata requires plenty of light and it usually



Pohutukawa

begins life as an epiphyte (a perching plant), high in the canopy of a suitable host tree. However, it can also grow from the ground, and is one of New Zealand's tallest flowering trees, growing to a height of 25 to 30 m.

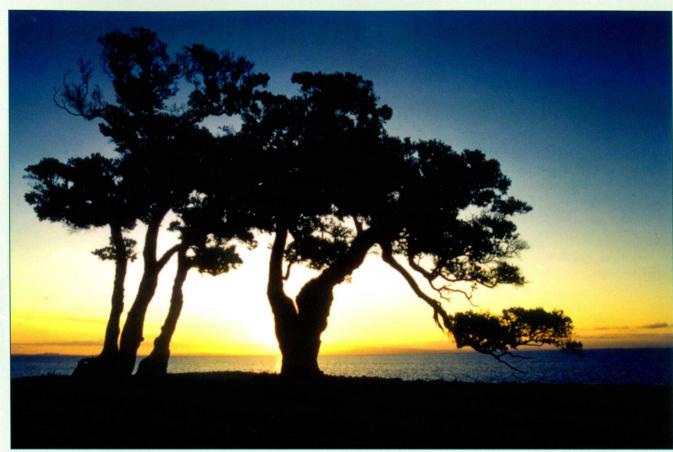
Best suited to cooler, higher rainfall regions, Southern rata (*Metrosideros umbellata*) grows throughout New Zealand, but most predominantly in the South Island on the West Coast. Southern rata ranges from small trees on high Northland outcrops, to the sub-Antarctic islands where it forms the country's southernmost forests.

The critically threatened Bartlett's rata (Metrosideros



Yellow eyed penguins in rata forest, Fiordland

hoto Louise Chilver



Pohutukawa on Great Barrier Island, Hauraki Gulf.

bartlettii) grows at the very tip of the North Island, with only 30 adult trees remaining of this species.

Philip Simpson's new book "Iron-hearted Trees" will feature a detailed account of the natural history of pohutukawa and rata, including their origin and relationships, ecology and structural adaptations, as well as their importance to both Maori and Pakeha in practical, spiritual and aesthetic ways.



Philip Simpson and Hamish Crosse (QE II covenantor), of Kelvin Grove south of Dannevirke, together admire an old dray made of Northern rata on the Crosse family farm.

As a botanist for the Department of Conservation, Philip co-ordinated multi-agency research into the cabbage tree disease Sudden Decline.

^hhoto Brian Chudleigh

The Project Crimson Trust, was established 13 years ago, supported by Carter Holt Harvey in partnership with the Department of Conservation to protect these iconic trees. Project Crimson concentrates on the mainland pohutukawa and the tree rata – Northern, Southern and Barlett's - as these are the most threatened by possums and people.

In Hawke's Bay, Project Crimson has funded a small restoration project to replant 500 northern rata trees back into covenants. The Taupo Native Plant Nursery collected eco-sourced seed, and has been growing the trees, which will be planted this autumn and winter - including into the Crosse covenant

"Iron-hearted Trees" will be a large-format book in full colour and is to be published by Te Papa Press, in association with the Project Crimson Trust in the latter part of this year.

For more information on Project Crimson, pohutukawa and rata, visit <u>www.projectcrimson.org.nz</u>

Invasive species in New Zealand

David Norton, School of Forestry, University of Canterbury

ost would agree that invasive species are the single biggest threat to New Zealand's native biodiversity. The impacts of carnivores like stoats and cats on native birds, herbivores like goats and possums on native vegetation, and plants such as old mans beard and wandering willie on native forest remnants are widely recognized and form a major component of conservation management. But invasive exotic species include more than these well-known species; an increasing number of fish; a large suite of birds; an unknown but undoubtedly substantial number of insects; and an even less understood but probably also large number of fungi and microorganisms.

There is often some confusion over what is meant by words like exotic, naturalized and invasive. The word **exotic** is usually used to refer to any species that has reached New Zealand directly or indirectly as a result of human activities. **Naturalized** species are those exotic species that maintain themselves in the wild independent of direct human intervention. In contrast cultivated plants like azaleas and domesticated animals like hamsters, which are also exotic, are not naturalized as they do not maintain self-



Whistling frogs were introduced from Australia and now occur widely throughout New Zealand, although their impacts on wetland ecosystems are poorly understood.

forest remnants).

sustaining populations in the wild (yet!). Species regarded as animal or plant pests (including weeds) depends on the context. From a conservation perspective, these are species that directly threaten indigenous biodiversity, but there are other pests that threaten agriculture and forestry. Some species (e.g., Douglas fir) can be desirable in some situations (plantation forestry) and a pest in others (biodiversity conservation). Pest species are almost always naturalized, although some native plants are considered weeds in some situations (e.g., pohuehue in



Several hawkweed species have invaded drier areas of New Zealand (as seen here in Arthur's Pass National Park) where they occur in forest, shrubland and especially tussock grassland.

Invasive simply refers to species that have spread into or invaded areas where they did not previously occur. By definition, all naturalized species are invasive, but then much of New Zealand's indigenous biota is also invasive as it has come from elsewhere. A good example of this is the pukeko and two takahe species (one now extinct). Their ancestors "invaded" New Zealand at different times in the past from Australia, with the pukeko being the most recent. Such natural invasions are ongoing, with the silvereye reaching New Zealand in the last few hundred years (its Maori name "tauhou" means "stranger"). However, the key distinction for conservation is between the regular but small number of natural invaders and the large number of exotic species that have and continue to arrive here through human actions, and especially those that then successfully naturalize into the wild and threatening our indigenous biodiversity.

Interestingly some exotic species that have invaded New Zealand are threatened in their original environment. Examples include the Parma wallaby, which is close to extinction in Australia but common on Kawau Island, and the small peppercress *Lepidium hyssopifolium* which is endangered in Australia but a common weed in parts of New Zealand.

Our knowledge of the number of naturalized species in New Zealand is excellent for groups such as birds, mammals and flowering plants, but poor for others (e.g., insects and fungi). We do know that for plants and terrestrial birds, naturalized exotic species make up about half of the total number of wild species in New Zealand. But we also know for plants that the total number of exotic species in cultivation, but not yet naturalized, is much higher, with one recent estimate suggesting that this is likely to be in excess of 18,000 species.

The question that arises is then why and how did these species reach New Zealand? There are three main reasons: some arrived accidentally, some were deliberately introduced because they were useful, and some were brought here because they had aesthetic values. Accidental invaders include stowaways on ships (e.g., rats and insects) and contaminants in seed (e.g., many common weeds). Deliberate introductions include possums, stoats, gorse and conifers, while species that were brought here because they had aesthetic value included the song thrush and horticultural plants like ginger and banana passion vine.

While accidental introductions still threaten a range of values in New Zealand (e.g., insects like the painted apple moth and the varroa bee mite), many of the immediate potential threats to biodiversity conservation come from species that are already present here but have yet to naturalize. Horticultural plants represent one of the biggest threats to small remnants of indigenous vegetation, with one study in the Auckland region suggesting that, on average, a new species naturalizes every 86 days and recent analyses suggesting that the rate of naturalization is increasing. In the same way, many animal species deliberately brought into New Zealand have subsequently escaped or been released into the wild and become naturalized. Recent examples include the rainbow lorikeet and koi carp.



The Chilean flame creeper, although attractive, is becoming an increasingly serious weed in native forest remnants.

How many exotic species are there in New Zealand?

Taxonomic group	estimated number native species	estimated number naturalised species
Fungi (including lichens)	22,000	2,000
Algae (including seaweeds)	4,000	10+
Plants		
- mosses & liverworts	1,100	13
- ferns & fern allies	200	26
- conifers	20	28
- angiosperms	2,100	1,842
Invertebrate animals		
- insects & spiders	24,600	1,160
- land & freshwater mollusc	1,300	33
- marine molluscs	3,500	6+
- worms	17,500	980
- others	5,300	?
Vertebrate animals		
- marine fish	1,200	?
- freshwater fish	35	20
- frogs & reptiles	65	4
- land & freshwater birds	88	34
- marine birds	61	0
- terrestrial mammals	2	34
- marine mammals	41	0

(Source: 'The State of New Zealand's Environment', MfE, 1997)

What's in a name?!

Common or vernacular names reflect people's interaction with plants and animals. They are often very descriptive and colourful. They reflect the cultures they come from and the uses the organisms have/had. They are part of our cultural heritage, and we should encourage their use. Many Pakeha tree names for example are woodsmen's names, while Maori names often symbolise stories of legends. Regional differences are common with Maori names- for example, 'kukupa' is commonly used in Northland and 'kereru' elsewhere for the New Zealand wood pigeon. Olearia colensoi is known

as 'leatherwood' in the North Island and 'tupare' to at least some Maori, while in the Marlborough Sounds it is known as 'stoppy-stop', a truly wonderful descriptive name. *Leptospermum scoparium* is 'manuka' to most of us, but 'kahikatoa' in the Far North.

Using Maori names can be quite complicated at times – for example, mingimingi is the Maori name for three separate species from different genuses: *Cyathodes juniperina, Leucopogon fasciculatus*, and *Coprosma propinqua*.

'A Dictionary of Maori Plant Names' written by James Beever is available through the Auckland Botanical Society (Paperback, 75 pages, 1991. \$7.50 incl p&p). Most of the Maori plant names in this book have been found in the lists compiled by explorers, missionaries, botanists and others during their work among the Maori people in the 19th century and earlier. The names are mainly traditional but there are also more recent words that arose from the introduction of exotic plants, especially the food plants such as potato, turnip, cabbage and better yielding forms of kumara.

Copies can be ordered through: Auckland Botanical Society, c/- Kerry Bodmin, PO Box 60 316, Titirangi, Auckland

European and maori names for some New Zealand birds

Australasian gannet - takapu Australasian harrier (harrier hawk) - kahu Banded dotterel - tuturiwhata Banded rail - mohopereru Bellbird - korimako Black-billed and red-billed gulls - tarapunga Black-fronted and white-fronted tern - tara Black petrel - taiko Black shag - kawau Black stilt - kaki Blue duck - whio Brown teal - pateke Bush wren - matuhi Caspian tern - taranui Dabchick - weweia Diving petrel - kuaka Fairy prion - titi-wainui Fantail - piwakawaka Fernbird - matata Godwit - kuaka Grey duck - parera Grey teal - tete Grey warbler - riroriro Kaka - no English name Kakapo (translation 'night parrot') - no English name Kea - no English name Kereru - NZ wood pigeon Kingfisher - kotare Kiwi - no English name Kukupa - NZ wood pigeon (Northland Maori name)

Little blue penguin - korora Little shag - kawaupaka Long-tailed cuckoo - koekoea Morepork - ruru New Zealand falcon - karearea New Zealand shoveler duck - kuruwhengi Pied shag - karuhiruhi Pied stilt - poaka Pukeko - swamp hen Red-crowned parakeet - kakariki (translation 'green') Rifleman - titipounamu Robin - toutouwai Royal albatross - toroa Saddleback - tieke Silvereye - tauhou Shining cuckoo - pipiwharauroa Sooty and Hutton's shearwaters - titi South Island oystercatcher - torea Stitchbird - hihi Takahe - no English name Tomtit - miromiro Tui - sometimes known as 'parson's bird' Variable oystercatcher - torea-pango Weka - sometimes known as 'wood hen' Whitehead - popokatea White heron - kotuku Wrybill - ngutu-parore Yellow-crowned parakeet - kakariki (translation 'green') Yellow-eyed penguin - hoiho Yellowhead - mohua

Fungal Incursions – An insidious, creeping plague

Fungi are everywhere!



Orange Pore Fungus Favolaschia calocera.

ost fungi produce hundreds of thousands of lightweight spores, and some (those with thick, dark-coloured walls) can survive being carried vast distances on global air currents.

Thus, some New Zealand native fungi belong to the global village.

However, the winds have not stopped blowing, and with every passing year new fungal species are blown here – commonly rust fungi, which have only recently been both in Australia then, New Zealand.

Since the 1960s an average of one new rust species per year has been found here, with several newly introduced species recorded annually.

Although less spectacular than a snake or spider, fungal incursions can be an insidious, creeping plague.

In Australia, for example, introducing the fungus *Phytophthora* into disturbed indigenous forests led to plant communities destroyed and endangered species lost.

Both New Zealand's native forests and agricultural economy cannot afford the possible devastation some fungal parasites could cause.

Our legislation governing biosecurity and quarantine is designed to ensure the surveillance and inspection required to keep out unwanted fungi, amongst other organisms.

In addition to airborne arrivals, fungal spores can enter New Zealand attached to clothing, containers, pallets, cars or machinery.

Fungi can also be introduced in association with legally or illegally imported plant material, for example shamrock leaves, sent from Ireland for St Patrick's Day celebrations in the 1960s, may have been the source of a new clover disease in New Zealand.

The attractive, orange pore fungus (*Favolaschia calocera*) is especially common on fallen dead twigs and branches in our native bush, and sometimes on dead wood in backyards. It does not cause a disease, but rather is a wood decay fungus.

However, it does not belong here, and was probably introduced from Madagascar in the 1960s. Unfortunately, it is now well established and has rapidly expanded its distribution and is potentially displacing New Zealand's native fungi.

The fly agaric (*Amanita muscaria*) is another fungus slowly invading our native forests. This mycorrhizal mushroom is normally closely associated with the roots of a wide range of introduced broadleaved trees and conifers, assisting in nutrient uptake for the trees. Although first reported in New Zealand in the 1880s, since the 1950s it has spread into beech forest where it appears to be growing at the expense of native mycorrhizal fungi.

Fungi are held by Manaaki Whenua in two national collections - dried, dead specimens, and a culture collection of living fungi - constituting a wealth of information on the approximately 6,500 fungi species known from this country.

Access to much of this information is available via the Landcare Research, New Zealand Fungal Database (www.nzfungi.LandcareResearch.co.nz) website.

Source: Landcare Research New Zealand



Amanita muscaria in beech forest.

Recently registered covenants

A summary of covenants registered between 21st October 2003 and 1st March 2004 that have not yet been reported in Open Space.

Covenantor	Area (ha)	Open space type	District Council
Baxter	14.8865	Forest remnant.	Far North
Frater	1.905	Coastal regenerating forest.	Far North
Macpherson	8.36	lowland primary podocarp/hardwood forest remnant	Far North
Walker	1.3051	Coastal foreshore hardwood shrubland.	Far North
Cherry	3.5916	Regenerating or secondary lowland forest/landscape.	Whangarei
Currie	33.95	Semi coastal kauri and podocarp forest forest remnant.	Whangarei
Telfer	18.3	Semi coastal grasslands; forest and landscape.	Whangarei
Maugham	1.53	Lowland - volcanic podocarp forest.	Whangarei
Bollen	5.69	Regenerating primary podocarp - hardwood forest.	Whangarei
Scott	1.392	Lowland secondary forest and scrub.	Whangarei
Lyons	8.435	Lowland podocarp forest remnant	Franklin
Nicholson	0.1738	Semi-coastal secondary kauri/manuka forest.	Waitakere
Waitakere Ranges Protection	0.244	Lowland secondary kauri/manuka forest.	Waitakere
Nielsen	9.1	Lowland podocarp forest remnant	Waipa
Sutherland	4.5	Lowland modified primary swamp maire forest wetland.	Waitomo
Vivian	25.73	Lowland modified primary beech and tawa forest.	Western Bay of Plenty
Jex-Blake	2.656	Lowland modified primary and secondary forest remnants.	Gisborne
Johnson	27.69	Lowland primary podocarp forest. Landscape. River system.	Gisborne
White	9.21	Secondary forest with wildlife habitat.	Gisborne
Jex-Blake	9.22	Lowland modified primary and secondary forest remnants.	Gisborne
Kay	26.37	Lowland riparian secondary hardwood forest	Hastings
Wright	36.96	Lowland riparian secondary hardwood forest	Hastings
Oteka Land Company	7.3365	Semi coastal tawa karaka titoki kahikatea forest remnant.	Central Hawkes Bay
Bremner	21.655	Semi coastal modified primary podocarp-broadleaf forest.	Wairoa
Hindmarsh	10.758	lowland secondary hardwood forest remnants	Wairoa
Woodger	0.75	Lowland wetland and forest remnant.	New Plymouth
Rawlinson	2.75	Modified primary tawa-kahikatea/tawa forest remnant.	Stratford
Johnston	9	Coastal foreshore dune system.	South Taranaki
Western Farms	2.1	Lowland modified primary titoki-tawa forest remnant.	Wanganui
Hobbs	1.1	Lowland secondary totara forest remnant	Kapiti Coast
Bryant	3.8	Semi-coastal flaxland swamp and kahikatea treeland.	Kapiti Coast
Booth	8.18	Lowland lake and wetlands, with an area of scrub.	Kapiti Coast
Stern	0.6347	Revegetated conifer-broadleaved forest and wetland.	Horowhenua
Woods	20.263	Regenerating secondary forest and scrub, landscape.	Timaru
Craigmore Farming Company	0.609	Lowland primary Olearia hectori forest remnant.	Waimate
Dunavan	757.9957	Semi coastal secondary kanuka-kowhai shrubland.	Waitaki
Inskip	4.16	Semi coastal lowland kanuka /broadleaf/ podocarp forest.	Dunedin
Day	0.561	Wildlife habitat; shrubland.	Southland
Horton	6.8573	Lowland modified primary podocarp forest and wetland.	Southland
Landcorp Farms Limited	67.798	Peat bog wetland.	Southland
Landcorp Farming Ltd	31.4915	Lowland wire rushland wetland and ponds.	Southland

Covenants Update

As at 3 March 2004, there were 1837 open space covenants totalling 65,808 hectares. The regional breakdown, based on Regional Council boundaries, is as follows:

Region	No. of Covenants	Area Protected (ha)
Northland	267	5478
Auckland	150	1400
Waikato	296	9585
Bay of Plenty	115	8471
Hawke's Bay	100	7452
Gisborne	69	2328
Tarankai	91	1457
Horizons	185	3675
Wellington	147	4650
Nelson	8	400
Marlborough	21	749
Tasman	66	1497
West Coast	13	557
Canterbury	130	8624
Otago	71	7113
Southland	108	2373
TOTAL:	1837	65,808



TRUST PEOPLE

Science and technology

Dr Richard Allibone has been appointed to the position of National Services Manager with QE II. His role is to overview the science and technology functions of the Trust and the development of management programmes for covenants.

Richard has a doctorate in zoology (freshwater fisheries) from Otago University. In his previous roles with NIWA and DoC Richard has gained a national perspective on freshwater issues, including threatened species management and land management practices that impact on water. Having grown up on a farm Richard is looking forward to working with landowners and their goals for management of these areas.



Richard Allibone assessing whitebait fishery at Mokau River.

Central Otago

Helen Clarke leaves the Trust after more than 11 years of dedicated work for QE II in Coastal Otago. Helen is widely respected for her knowledge of the Otago Region and particularly her hands on involvement in revegetation projects.

Rebecca Reid, the new QE II Rep for this area, has a strong background in conservation and heritage management. She holds a Diploma in Parks, Recreation and Tourism Management from Lincoln University.

Rebecca has been the Otago/Southland Area Co-ordinator for NZ Historic Places Trust for the past four years and will continue that work in a part time role.



Helen Clarke beside one of her favourite QE II projects, Stoney Creek Lagoon, Coastal North Otago, one of a series of ephemeral lagoon systems along the east coast. A covenant protects the south edge and includes the sand dune system and a salt marsh area. A revegetation and broom control programme has been underway for the last eight years. There is public access through the area to a beach.

Election results for Directors for QE II National Trust

Bill Garland and Geoff Walls have both been reelected by the membership of the Trust as Directors for a further three year term.

Bill Garland farms a 420 ha sheep and beef property on the slopes of Maungatautari, Cambridge. He is a QE II covenantor.

Geoff Walls is a freelance ecologist from Christchurch

and is also a QE II covenantor.

"Both Bill and Geoff's wealth of experience in conservation and practical land management has been recognised by their re-election." comments Sir Brian Lochore.

The 2004 election had a 48 percent return compared to 30 percent in the 2001 election.

FRAGMENTS

QE II Swanndri® Vest

If you would like to purchase a Swanndri[®], merino wool vest, embroidered with the QE II logo please complete the form below and post with payment to QE II National Trust, PO Box 3341 Wellington or Fax to 04 472 5578 or Phone 04 472 6626



Price: \$165 including GST and postage (Navy only)

Sizes available:	S	Μ	L	XL	2XL	3XL
Chest (cm)	94	99	104	114	124	134
Waist (cm)	80	85	90	100	110	120
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Restoring resilience to the landscape A new publication – "Bush Vitality"

This visual assessment kit is an important information source for anyone looking after native bush patches.

It offers easy-to-use and robust techniques to:

- Assess and diagnose their ecological health
- Manage and restore native bush to long-term resilience
- Develop protective and productive sustainable enterprises, and
- Integrate native bush into the wider landscape to create a more sustainable environment

Bush Vitality is an essential tool if you are committed to sustainable land management and ready to revitalise native bush to maintain our valuable native biodiversity.



For info on the Balance Farm Environment Awards visit **www.ballance.co.nz/fea.html** or phone 04 385 4488

Useful reference websites:

www.bush.org.nz

- for information about ecological restoration

www.nzflora.landcareresearch.co.nz

- for information on native plants

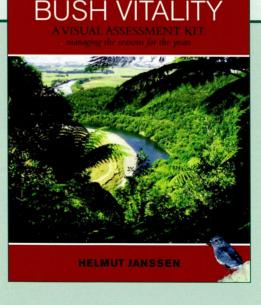
www.biodiversity.govt.nz/land/nzbs/land/ condition.html

- for funding information

www.maf.govt.nz/mafnet/rural-nz/people-andtheir-issues/access – access information

www.wwf.org.nz/conservation/ habitat_protection_fund.cfm - for further info about funding opportunities

www.nzpcn.org.nz
– New Zealand plant conservation network



The kit is a joint project between Horizons Regional Council and The Greater Wellington Regional Council. It is available from either council or email: helmut.janssen@horizons.govt.nz

Steps in Progressing a QE II Open Space Covenant

Enquiry. Landowners interested in protecting special natural features on their property should contact the Trust and arrange for a QE II representative to visit.

Evaluation. Potential covenants are evaluated on a wide range of criteria including; the sites ecological importance, biodiversity values, naturalness, sustainability, linkages to other protected areas creating ecological corridors, wildlife, special features, cultural and heritage values, landscape values, management needs, threats, landowner motivation and sources of funding available.

Approval. The QE II Board of Directors formally considers individual assessment reports for all proposed covenants. Following approval, covenant documents are prepared and forwarded to landowner to sign.

Fencing. If required, this usually begins after the documents have been signed.

Survey. On completion of satisfactory fencing (where required), a covenant plan is prepared. LINZ may require a survey plan or aerial photodiagram. Once the plan is finalised and signed by the landowner, formal registration commences.

Registration. Covenants are registered on the title of the land with Land Information New Zealand. The Trust lodges the covenant document for registration with LINZ, when the legal description of the land and the area to be covenanted are complete and consent from all parties registered on the certificate of title have been obtained.

Establishing covenants in perpetuity can attract funding assistance from QE II and/or local government towards fencing and survey costs. Covenanted land can attract rates remission under the Local Government (Rating Powers) Act 2002.

Ideal Gift QE II National Trust Membership

The QE II National Trust is an independent statutory organisation established to protect natural features on private land for the benefit of New Zealand. QE II helps landowners to protect features including landscapes, streams, wetlands, coastlines, forests, lakes, tussock grasslands, geological features and cultural and archaeological sites.

QE II is always in need of greater financial and moral support for its work, you can help by joining as a member.

In return for your membership you will receive the following benefits:

- A year's subscription to our magazine Open Space – three issues a year.
- Free entrance to properties owned or administered by the following organisations: 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, National Trust for Zimbabwe.
- Entitlement to nominate and vote two members onto the QE II National Trust Board of Directors.

Please fill out this membership application form and send it to:

QE II National Trust, PO Box 3341, Wellington or Free-phone 0508 732 878.

Name
Address
Telephone Email
Membership Type– tick appropriate categoryIndividual \$30Individual \$30Family \$45Individual \$30Life \$550Individual \$30
Donation - optional (tick box): 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 \$Image: Please send a receipt
Please send me information on: Making a bequest to the Trust Open Space Covenants
Gift Membership
Gift to: name & address
Send next year's renewal to me to the recipient

A place to visit: Waitomo Wonderland

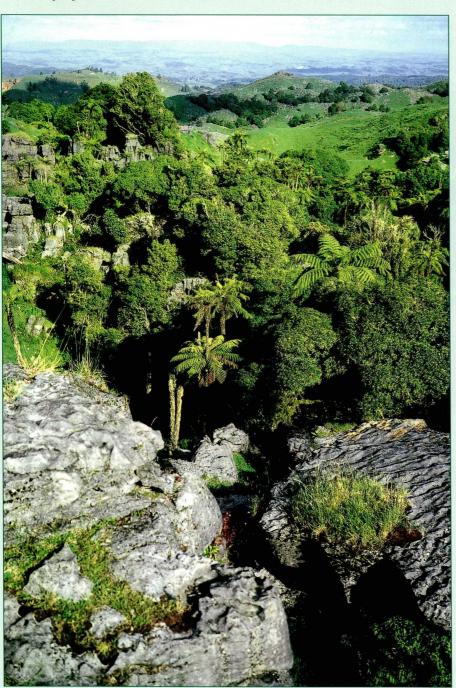
Just up the road from the famous Waitomo Caves a dense native forest with extensive limestone outcrops, tomos, underground streams and caves is protected by two QE II National Trust open space covenants totalling 213 ha.

Alister, Ann and Antony Stubbs first covenanted with QE II in 1987 and again in October 1996. This second covenant was the 1000th National Trust open space covenant, commemorated by a ceremony on their farm attended by over 400 people.



Whitehead (popokatea).

Glow-worms and numerous cave wetas live within the underground cave network on Awatiro, the Stubbs' farm. Moa and other subfossil bird bones have been found on the 672ha



Extensive limestone outcrops, tomos and dense native bush on the Stubbs covenant.

farm and are held in the Waitomo Caves Museum for safe-keeping.

Many species of ground and perching orchids are within the forest, dominated by tawa, hinau, pukatea, mangeao and podocarps. Extensive curtains of the climbing rata *Metrosideros colensoi* cloak many limestone rock walls. The Stubbs covenants are home to a wide variety of native birds including the New Zealand falcon (karearea), whitehead (popokatea), wood pigeon (kereru), tui, bellbird (korimako), fantail (piwakawaka) and tomtit (miromiro).

A manuka/raupo wetland lined with tree fuchsia on the farm protects the Waitomo Stream headwaters, and has been covenanted with the National Trust helped by the Waitomo Landcare Trust.

Alister and Ann's son and daughter-in-law, Angus and Rachel take guided abseiling trips in the covenant. School groups often visit the Stubbs' farm, and have a wonderful experience - walking the forest tracks, exploring the caves and impressive rock features that include giant oyster shells and scallops found in the layered limestone.

Visitors are welcome all year around with prior approval but call Alister and Ann first on 07 878 8594 or email <u>annandalister@hotmail.com</u>

Location:

Marakopa Road off Waitomo Caves - Te Anga Road, 9.7 km west of the Waitomo Caves.