Queen Elizabeth II
National Trust
Nga Kairauhi Papa

Open Space

No 53, December 2001

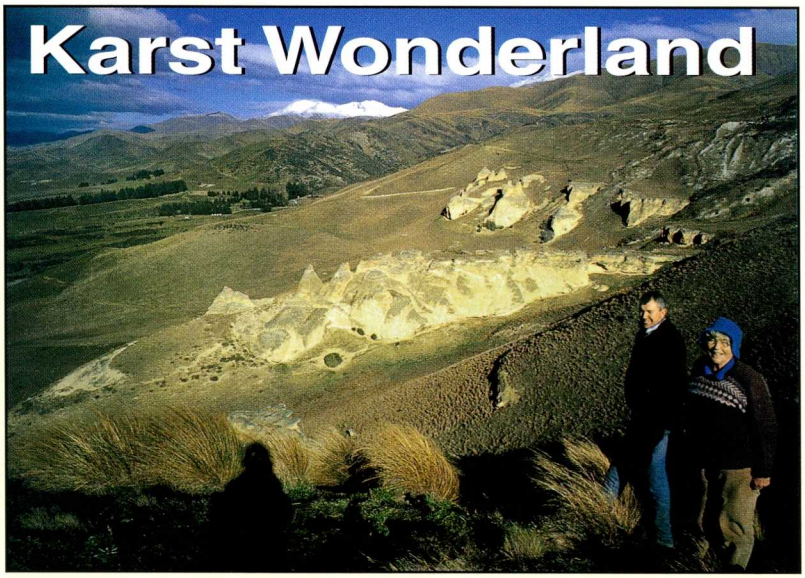
Trust active in high country.

Visitors to the South Island high country, particularly the Mackenzie Basin - stretching from Burkes Pass in the north to Lindis Pass in the south and including the upper portion of the Waitaki River Valley - cannot help but wonder at the splendour of this area of New Zealand.

Much of the high country is under Crown control, being either held within the Crown conservation estate, leased for pastoral farming purposes or used for generation of electricity.

There are, however, portions of the high country in private ownership. On two of the private landholdings, the Trust has recently completed registration of open space covenants to protect sites of ecological and landscape significance. See this and the back page for their full stories.

Karst Wonderland



Elizabeth Matheson and Noel Russell, at Awahokomo.

This covenant protects 43.2 hectares of unimproved and ungrazed limestone outcrops surrounded by topdressed short and tall tussock grasslands and shrublands.

The covenant area forms a large part of two fenced blocks on the owner company's (**Matheson Roseneath Ltd**) property at Awahokomo, west from Kurow in the upper Waitaki River Valley.

The limestone vegetation includes a rich diverse flora of native and adventive plants. A total of 143 taxa have been recorded, of which more than 50% are indigenous and 85% are herbaceous. The limestone also has a rich fossil fauna of marine animals, both macro and micro.

The main vegetation types include mixed grassland/shrubland of the central limestone tower; dispersed rupestral communities of crevices and cracks in the limestone; dense silver/fescue tussock grassland of limestone colluvial cones; sparse to depleted silver tussock grassland of surrounding slopes; seepages on slumped surfaces; grey scrub of matagouri and coprosma on slumped surfaces; and narrow-leaved snow tussock (*Chionochloa rigida*) on upper hill slopes.

Of particular interest is the number of unresolved taxa (12), several of which are regarded as distinct and recognisable species, eg *Melicytus* cf. *alpinus*. Others are regarded as species *in ascensum*, eg *Festuca*

Continued on page 2

IN THIS ISSUE

Continued from page 1

cf. *novae-zelandiae*, and others still require further investigation (Molloy et al, 1999).

At least 10 unresolved taxa, including the recently described *Poa spania* and *Ischnocarpus exilis*, are

The central tower.

known only from this karstland. Some of these occur in very low numbers and are regarded as critically endangered. To date, non-flowering plants such as lichens and mosses have not been studied.

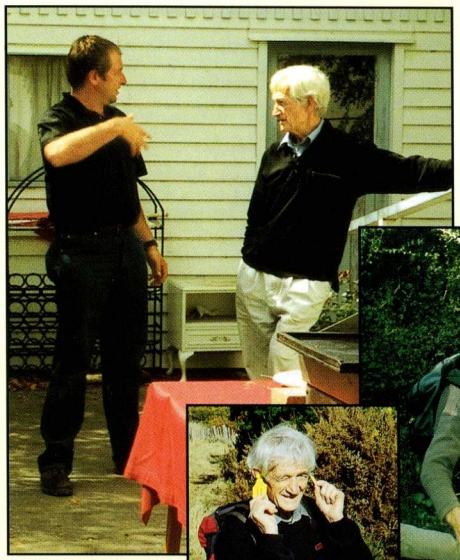
Limestone hollows form nesting sites for rock pigeons and blackbirds. Gulls, pipits and harriers also visit the site, whilst common skinks and geckos are present. A diverse invertebrate fauna is also present.

Regional Rep. Brian Molloy has no hesitation in describing this protected area as an ecological treasure of considerable national importance; perhaps the most important of its kind in the entire country. "The National Trust is particularly grateful for the commitment of Mrs Elizabeth Matheson to ensuring covenant protection for the site, and to the landholder Noel Russell for its continued judicious management", said Dr Molloy. "In addition, the Trust is deeply indebted to two donors who wish to remain anonymous who made significant cash donations towards the costs of finalising a covenant which will safeguard a living museum of nationally rare plants".

Because of the uniqueness and fragility of the habitat, only limited opportunities will exist for public access to the site, and then by formal permit. The Trust and the landowners are most concerned to ensure the highly sensitive environment for the rare plants is not disturbed through visitation by individuals or groups who do not appreciate the uniqueness of the covenanted land. Research on the flora and fauna, and management of the site, will also be strictly controlled.

The Trust is privileged and delighted to be associated with this outstanding covenant.

High Country Regional Rep. Dr Brian Molloy is multi-faceted.



Actor-turned-casting-director Brian, singularly unimpressed by Gerry Kessels' attempt at 'Swan Lake'.

Botanist Brian spots a plant.

Fashion-concious Brian demonstrates the rural version of 'dangly earrings'!

Chairperson's Christmas Message

From Sir Paul Reeves

Another extremely busy year has past, and it is pleasing to report that the National Trust continues to be the most favoured organisation for landowners to come to when they wish to protect natural features on their land.

Directors of the Trust continue to be astounded at the number of landowners wanting to put land under the protection of an open space covenant; the growth in demand continues exponentially, and future prospects are extremely positive.

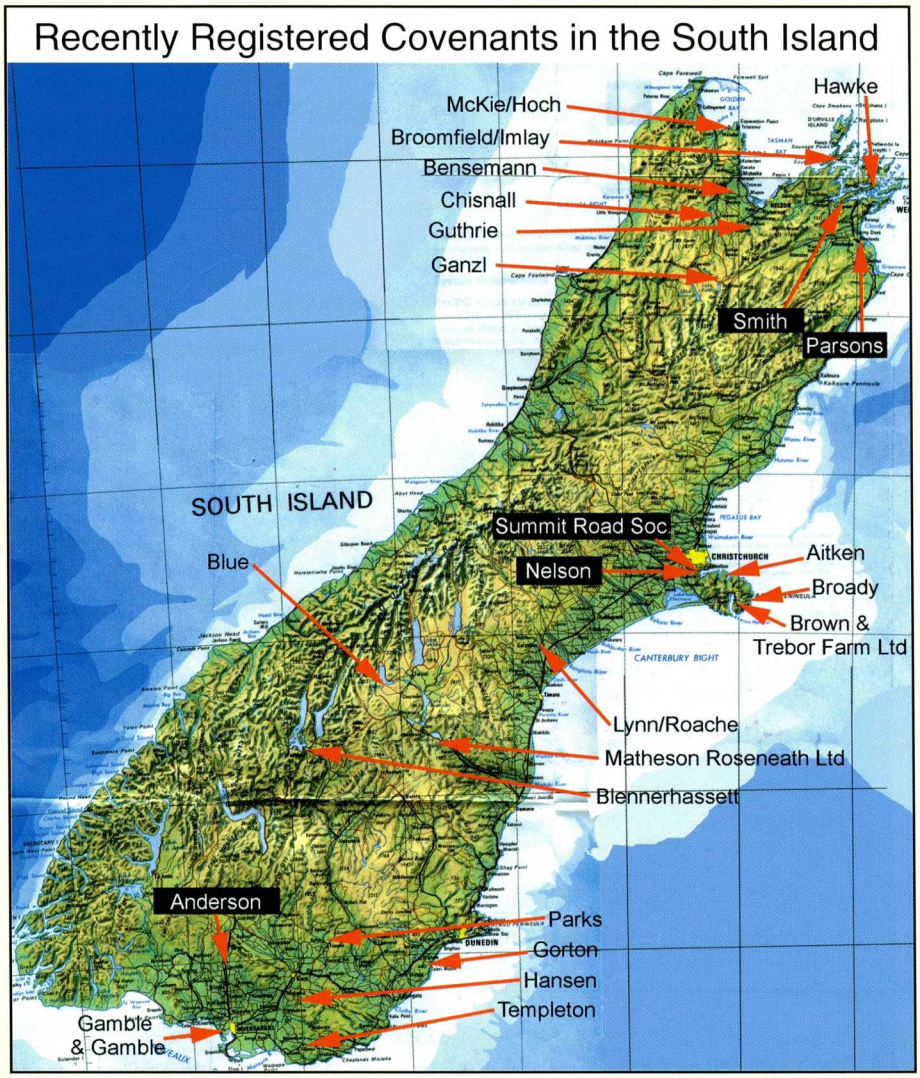
To all those landowners who continue to come forward with proposals, and to all those existing covenantors who continue to invest their time, money and resources into the ongoing management of their covenanted areas, could I take this opportunity to say thank you for your efforts over the past year. Without your commitments, the National Trust would only be a fraction of the organisation it is.

Merry Christmas and Happy New Year. The Directors and staff of the Trust look forward to working with you all in 2002.

Focus on the South Island

Featuring covenants and covenantors from Cape Farewell to Bluff.

The scenic beauty of the South Island makes it a favourite with overseas tourists, but intensive development of the more accessible areas for pastoral farming, vineyards, residential subdivisions, and infrastructure for the tourists themselves, means that much of the scenery tourists see is highly modified. Fortunately, many private landowners appreciate the importance of the remaining natural open spaces, and are taking action to protect and enhance them for the future. Several of the recently registered covenants featured below are on major tourist routes, and are therefore as important for their landscape value as for their protection of New Zealand's indigenous biodiversity.



Nelson-Marlborough

Trust Regional Rep., Martin Conway, works with a number of other local groups to protect and enhance the Nelson-Marlborough landscape.

One of these is the *Tasman Environmental Trust* (TET), of which Martin is a trustee. This independent charitable trust was established to protect and restore the natural environments of Tasman District, and it encourages the local community to donate money, provide corporate sponsorship, or get physically involved in one of its projects.

Three projects that they are now raising money for are: restoration of Pearl Creek on the Waimea Plains; protection of limestone cliffs and rata forest at Pohara Cliffs, Golden Bay; and establishment of walkways along the Wai-iti River, Brightwater. Martin became involved with this group because of concern worthwhile proposals for covenants were unable to proceed due to lack of National Trust funds. He says they have already been successful in securing money for fencing three excellent stands of forest which will add to the growing network of covenants in the Takaka Valley.

At the end of October, the Waimea River Walk was officially opened. This is the first project to be launched by TET and was Martin's brainchild. Walkers, dogs on leashes, joggers and cyclists can use the new track, which stretches along the western stopbank of the river from Livingston Road to the Appleby Bridge.

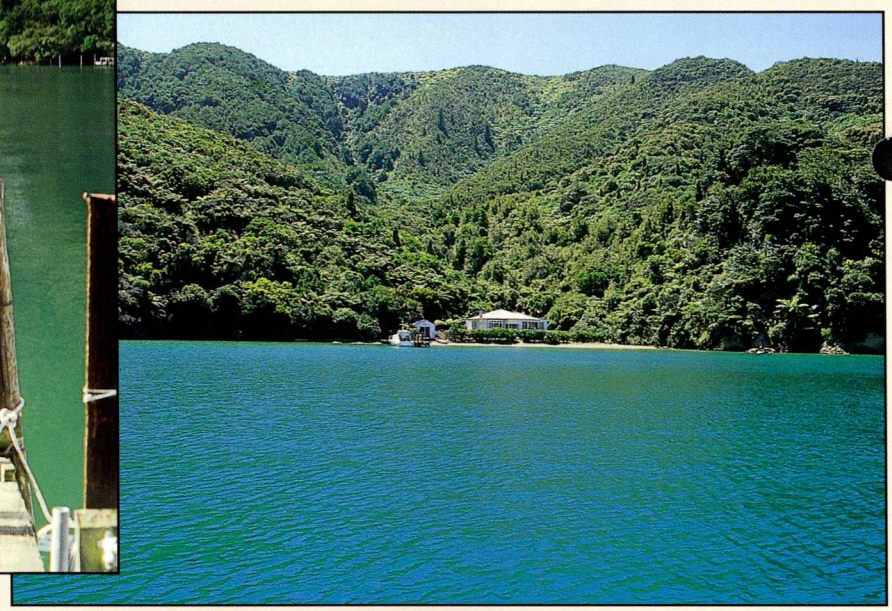
For more information about the Tasman Environmental Trust, phone 03 544 8176.

On the beaten track

The Queen Charlotte Track, a 69km walking and biking track leading from Ship Cove to Anakiwa in the Marlborough Sounds, is one of the most popular pathways in New Zealand. Managed by the Department of Conservation, the track passes through undisturbed stands of forest, around coves and inlets, and along skyline ridges.

Neale Hawke's property, at the northern end of Ruakaka Bay, is one of those traversed by the track. Neale has recently covenanted over 45 hectares of forest on his land to ensure its ecological and scenic values are permanently protected. The gullies are filled with primary forest - a profuse collection of tall podocarp and broadleaved trees, including tawa, kohekohe, pukatea, kawakawa and pigeonwood – and regeneration of the secondary forest on the faces is well advanced since farming was abandoned 40 years ago. A special feature of the forest is rewarewa, which is at its southern limit here. Wilding pines are a problem on the adjoining Ruakaka Bay Scenic Reserve, but fortunately have not spread into the covenant area in any numbers.

Neale Hawke



Neale's property from Ruakaka Bay (below).

Amongst the pines and vines of the Moutere Gravels

The *Moutere Gravel* formation consists of a great deposit (up to 500m thick) of gravel derived from the greywacke rocks of the Spenser Mountains. Glaciers and rivers transported this material northwards, and the deposit occupies an elongated depression which extends from the mountains to beyond the present coastline of Tasman Bay.

The rolling hill country of the Moutere Gravels was once covered with native forest. Since the arrival of humans, and through strong pressure for pastoral farming and exotic forestry in particular, [and more recently, vineyards] the original forest has been fragmented into the present pattern of dispersed remnants.

All of these remnants are havens for native animals, most conspicuously birds such as robins, bellbirds and pigeons, but also including the small, largely unseen, lizards and invertebrates. Some are places too for plants like the trailing *Fuchsia perscandens*, the small-leaved milk tree - *Streblus microphylla*, and *Teucridium parvifolium*, that are not common elsewhere. But perhaps most of all, they are remaining bits of primeval lowland New Zealand to be found nowhere else: scenic reminders of the landscape of this country before human arrival, and a product of the unique nature of the Moutere Gravels.

Source: "Native Bush Remnants of the Moutere Gravels, Nelson" by Geoff Walls, 1983. (Geoff was born and bred in Golden Bay, now lives in Christchurch, has been a Trust Director since 1998, and is a self-proclaimed good cook.)

In his report, Geoff presented an inventory of 298 remnants and commented that in view of the depletion of native forest and the present rate of deterioration of remnants, there is an obvious need for urgent conservation measures. The National Trust is pleased to report that, in the last 20 years, open space covenants have been put in place over 800 hectares of remnants on the Moutere Gravels. The three most recent of these covenants are described opposite.

Eighteen months ago, **Christopher and Christine Bensemann** covenanted a 4-hectare lowland podocarp hardwood forest remnant on their Neudorf Road lifestyle block. This forest, and the nearby 10-hectare Beuke forest (covenanted in 1984), is virtually all that remains in Upper Moutere of the dense podocarp forest that once covered the whole Moutere Valley.

The Bensemann remnant has had a chequered history, suffering logging and periodic grazing, but a botanical report compiled in 1991 recorded 93 indigenous species, clearly illustrating the ability of the forest to respond to good management.

Soon after the covenant was registered, the land was sold to Brian and Linda Brough, who are now energetically attacking the possums and old man's beard in the protected area. Regional Rep. Martin Conway is delighted by Brian and Linda's commitment to the open space covenant, and expects the remnant to recover dramatically.

To the south, just west of Tadmor, **Harry and Joan Hancock** have covenanted 3 hectares of regenerating kanuka forest that includes scattered stands of black beech. Beech would have once covered the whole site, but the vegetation has been greatly modified by fire for farm development.

Harry and Joan are extremely enthusiastic about re-establishing the forest. They fenced the block at their own expense, carried out an extensive planting programme (with native plants they'd raised themselves from cuttings and seedlings), then approached the Trust for long-term legal protection.

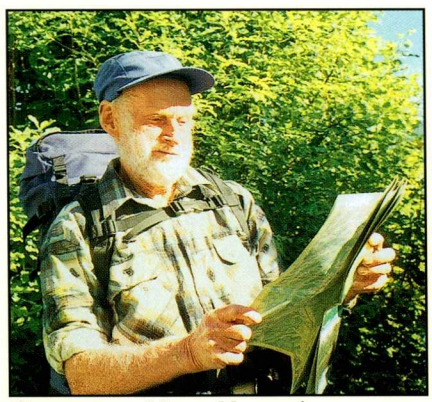


Photo courtesey of The Nelson Mail.

Covenantor Harry Hancock plans his next outing.

Seventy-four-year-old Harry is a well-known character locally due to his tramping, mountaineering and conservation achievements. Last year he fulfilled an ambition to tramp to all 55 huts in Kahurangi National Park. Other feats have included: running the Wangapeka track three times – all in one day; running the 75-kilometre Heaphy track in one day; and, biggest of all, running about 90km in one day from Mt Arthur car park, over the Tablelands, down the Leslie Karamea track and along the Wangapeka track – a journey that would take the average tramper about five to six days.

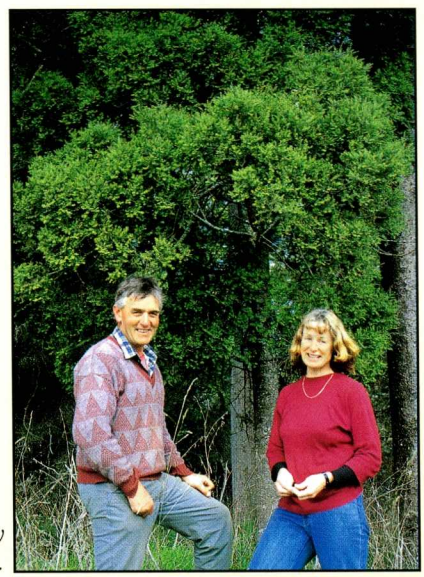
Harry and Joan's little covenanted block is visible from the Tadmor-Bushend Road.

Having an area of over 30 hectares, **Mark Chisnall**'s new covenant is one of the largest in the district. The Nelson Botanical Society visited the forest some years ago and reported, "the stand is highly significant for several reasons. It is mainly lowland, flood-terrace matai forest, a community now rare in the Motueka Valley. Secondly, it is large, and thirdly it contains at least 3 species that are now uncommon to rare. These are the nationally vulnerable shovel mint (*Scutellaria novae zelandia*), narrow-leaved ribbonwood (*Hoheria angustifolia*), and lowland ribbonwood (*Plagianthus regius*)".

The eastern edge of the Bensemann Covenant.

The block is located within the 400-hectare farm run by Mark and his wife Lynley on the alluvial terrace of Upper Stanley Brook, northeast of Tapawera. It is a mixed farm running 950 red deer, 500 sheep and 400 cattle. They also have a small plantation of pines and are enthusiastic tree planters elsewhere on the farm. The stream meanders attractively through the middle of the protected forest, and the combination of forest and water attracts abundant wildfowl as well as bush birds to the block.

The protected area is readily visible from Berryman Road.



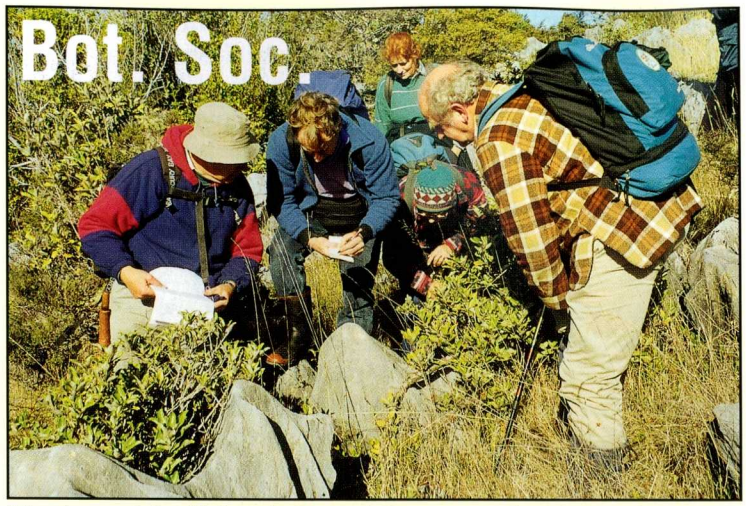
Mark and Lynley Chisnall (right).

The Chisnall forest holds back the tide of exotic forestry.

A Toast to Nelson Bot. Soc.

By Martin Conway

I would like to give recognition to the work of the Nelson Botanical Society (Bot. Soc.), whose members have carried out botanical surveys on almost 200 sites in Nelson, Marlborough and beyond, including 22 National Trust covenant areas. The comprehensive plant lists that the society provides are a great help to me, and an important addition to our knowledge of the covenant's natural resources. The society also often identifies rare or endangered species, or those at their latitudinal limits, which not only highlights the significance of the sites but helps with management decisions.



Members of the Nelson Botanical Society on the Harwood covenant, Takaka Hill.

Rising damp's a hit with the marsh orchid

The Linkwater isthmus has formed in the last 20,000 years from a series of coalescing alluvial fans derived from the surrounding schist rocks of Mt Oliver and Mt Duncan. The schist basement, which is exposed in several places on the bush-clad slopes of Mt Oliver, is impervious to water, and the alluvium derived from it is very slow draining. As a consequence, drainage water from the hillside catchments seeps to the fan surfaces in places, forming small spring bogs or infirm dome peats a metre or more deep. Even when much of the surrounding country is showing the effects of prolonged drought, the Linkwater isthmus is emerald green with lush pastures.

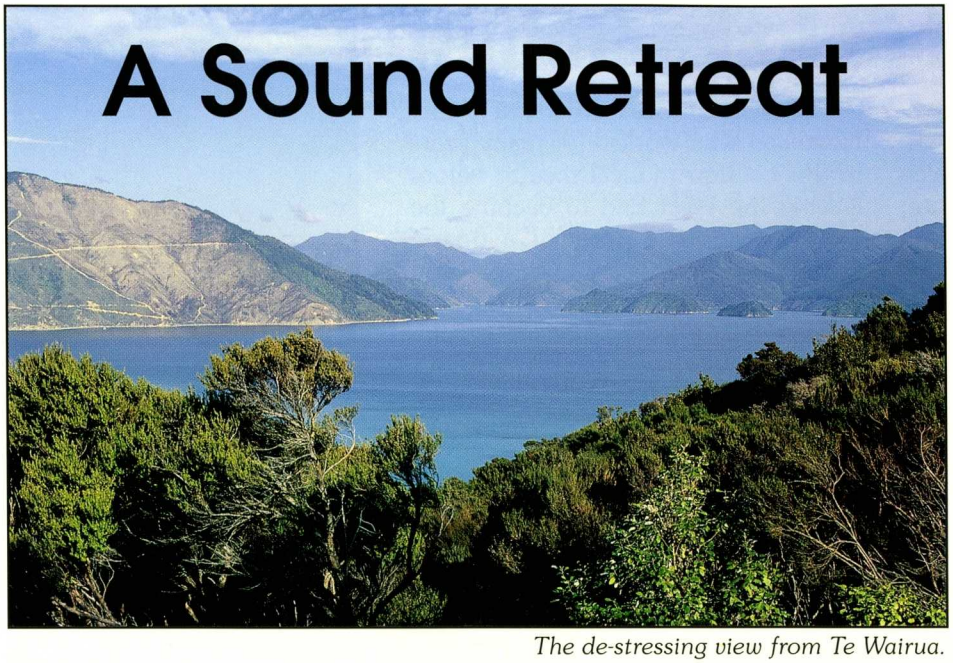
One of the particularly boggy patches occurs within **Patsy Smith**'s farm, and as botanist Dr Brian Molloy discovered, it is a haven for a number of uncommon native orchid species, especially the pink marsh orchid (*Spiranthes novae-zelandiae*). Mrs Smith has protected over 2 hectares of this bog and surrounding land with an open space covenant.

Much of the land is covered in rank growth of introduced pasture grasses, rushes and other herbs, and the main value of this area is as a protective buffer for the bog itself. However, charred stumps and half-buried stem and branch wood are evidence of the ancient forest cover, and Patsy's son Michael, who manages the farm, is a great enthusiast for the outdoors, is skilled in possum control, and is keen to re-establish some of the original forest species. He has already reintroduced swamp maire (*Syzygium maire*) to the covenant area: this tree reaches its southern limit in NZ about here and is very rare in the Marlborough Sounds.

The damp-loving Marsh Orchid, which occurs sporadically in the North Island, South Island and on Chatham Island. Its known habitats are diminishing, due to drainage and the continuing influx of taller, competitive, introduced plants.

The National Trust congratulates all new covenantors for their effort and commitment towards protecting open space in New Zealand

A Sound Retreat



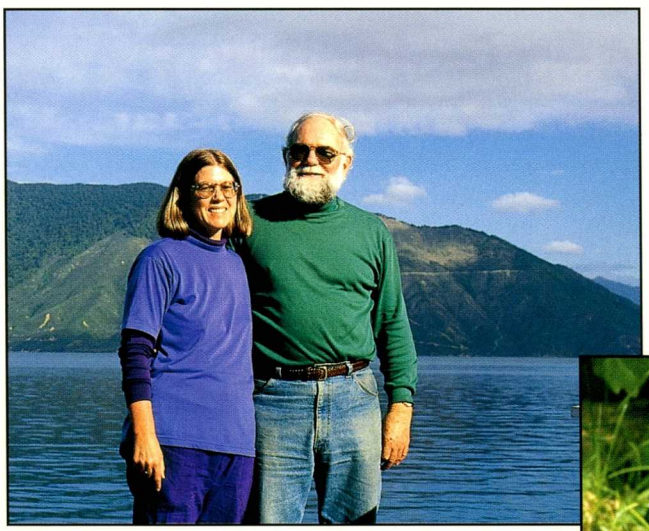
The de-stressing view from Te Wairua.

When **Jo Imlay and John Broomfield** decided to get away from it all, they meant it. Seven years ago, they found themselves a 15-hectare block of regenerating forest, way up in the northwestern Marlborough Sounds, overlooking Maud Island. They have turned it into their own private 'nature reserve' and call the property "Te Wairua" ("place of spirit").

Apart from a small area of the property where Jo and John have their home, the whole block is now protected by open space covenant.

The forest at Te Wairua is about 40 years old now, and whilst kanuka and manuka dominate the drier spurs, the moist stream edges include kamahi, wineberry, mahoe and black mamaku up to 10 metres tall, plus a wide variety of other shrubs and seedlings. Regional rep Martin Conway comments that regeneration is now advanced to a stage where it is irreversible, and the presence of tawa, titoki, rewarewa and kohekohe in the gullies shows that a tall forest will eventually emerge.

You might think that living in such an isolated spot – the nearest small city is Nelson, three hours drive away – Jo and John would not see many visitors; but they do, although they are mainly of the feathered kind. Many bush and wetland birds have found sanctuary at Te Wairua, including bellbird, morepork, kingfisher, kereru, shining cuckoo, South Island rifleman, South Island tomtit, a substantial colony of weka, and spotless crake. Sea birds such as Arctic skua, gannet, petrels and herons are also seen, and blue penguins nest at Te Wairua.



Jo Imlay and John Broomfield.

John and Jo are a fascinating couple. John was professor of Modern Indian History at the University of Michigan for twenty years, has written extensively on the impact of the modern West on non-Western peoples. He has studied shamanism and was President of the California Institute of Integral Studies from 1983 to 1990. Jo is a former award-winning journalist and is now a writer, fabric artist and avid naturalist. She combines an interest in shamanism with understandings drawn from Tibetan Buddhism, Hinduism and contemplative Christianity. John and Jo are co-directors of The Eagle Connection, which conducts small tour groups to Australia, South India and Bali-Lombok - sensitive to local environmental and cultural concerns, they try to impart a sense of the sacredness of these lands for their native peoples.

John and Jo are highly committed conservationists, and in late summer 2000 and 2001 they hosted a large group of American students from the Global Ecology study programme. The programme is the initiative of Teddy Goldsmith, husband of Northland covenantor Kathy Goldsmith. The students spend nine months visiting sites around the world, including Boston, England, India, the Philippines and Mexico, as well as New Zealand.

One of the many weka at Te Wairua.

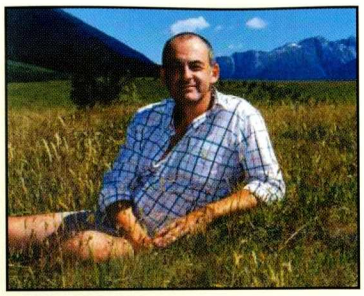
The couple is currently busy revegetating some areas of Te Wairua and eliminating invasive exotics from their garden, whilst their long-term aim is to create a corridor of protected vegetation between Te Wairua and the adjoining, extensive Mt Shewell Scenic Reserve.

On the road to Lake Rotoiti

This covenant is a first for the Rotoroa Ecological District and what an excellent starter it is. It protects in perpetuity a beautiful 4-hectare stand of red, silver, black and hard beech; and some scattered remnants of beech nearby are protected for their lifetime. The protected areas are part of a 25-hectare property at the junction of SH63 and the Korere-Tophouse Road, looking towards Mt Robert and the St Arnaud range, and are highly visible to tourists en route to the village of St Arnaud and the Nelson Lakes. A special feature of the forest is the presence of a number of strong young shrubs of *Pittosporum patulum*, which is believed to be extremely rare in the Nelson Province.

Covenantor **Kurt Gänzl** is a former Nelsonian who worked for many years in the London musical theatre before leaving the West End to become the award-winning author of a dozen theatrical reference works and biographies. He purchased the land during a visit to New Zealand some seven years ago, and contacted the National Trust in 1999. Although he had fenced stock out of the forest, he wanted to do more because he "had become increasingly worried about the long-term safety of this lovely little piece of forest land" due to "the unbelievable rate and kind of subdivision and building in this area in the past few years". The covenant therefore specifically forbids subdivision as well providing for the protection of the natural landscape values and landscape amenity.

Beech forest and ephemeral stream.



Kurt Gänzl and "His Mountains".

Photo courtesey of Cliff Riordan.

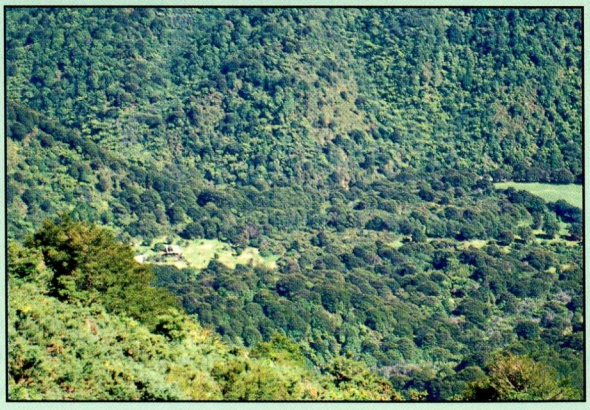
Mansons Green Golden Bay

One of the first forest remnants from Geoff Walls' inventory to be covenanted was that of East Takaka farmers Robin and Betty Manson. They covenanted 5 hectares of totara forest on their Matuku Farms Limited property back in 1983. Over the past 18 years, the couple has continued to work hard within the protected area and elsewhere on the farm, controlling weeds and planting more totara.

In February this year, a huge forest restoration project initiated by the Mansons received a boost in the form of $25,000 from the NZ Lottery Grants Board. The money is to fund a three-year tree planting programme in Golden Bay, which will involve planting dominant species such as beech, totara, kahikatea, rimu and matai on farms in the Takaka and Aorere valleys.

The young trees will be sourced from nurseries or from people's farms – the Mansons are potting up thousands of totara seedlings from their own property – and will be planted within sight of public roads, to fulfil the conditions of the grant. The grant money cannot be spent on labour, only on fencing and trees, so any voluntary assistance from farmers and others in the Golden Bay area will be gratefully received.

Abel Tasman neighbour



Judith & John's house and surrounding forest viewed from the Awapoto Trail.

Judith Hoch and John McKie's lifestyle property at the head of the Wainui Valley is bounded to the south and east by the Abel Tasman National Park. About one-third (5 hectares) of the block is in very tall manuka with a dense understorey of mixed broadleafs, and that area is now protected with an open space covenant.

Spectacular regeneration has taken place within the block since John and Judith purchased it and removed grazing stock in 1981, and there are few weeds or pests. Kereru, bellbird and tui are regularly seen, but sadly, weka have disappeared over the past eight years.

The protected forest is visible from the Takaka to Totaranui Road, which is an important tourist route, as well as from the National Park track to Wainui Falls.

Down by the banks of the Opawa

On the Opawa River floodway, just before the Opawa River meets the Wairau, over 10 hectares of lake and surrounding land has been protected by open space covenant.

Graham Copp and Ethne Moffat initiated the wetland project back in 1993 with the support of Nelson-Marlborough Fish and Game Council. Over the last eight years, they have created a shallow freshwater lake, complete with islands and peninsulas, planted the margins with a variety of species that would provide good cover and forage for birds, and fenced out grazing stock.

The land including the lake and surrounds was recently sold to Mr **James** ("Willie") **Parsons**, who willingly finalised the covenant.

Garden Valley Totara

In the process of subdividing their Garden Valley lifestyle block, **Norman** ("John") **and Sandra Guthrie** have covenanted some 3 hectares of totara forest. The steep hillslopes of the covenant area must have been cleared about 100 years ago for pastoral farming, but are now covered in the almost pure secondary totara stand. Totara forest is atypical of the Bryant Ecological District, as is the very large white maire that is growing on the block's western boundary. When Regional Rep. Martin Conway first inspected the block in 1997, there was essentially no ground cover or regeneration due to the presence of sheep and cattle. Now that stock-proof fencing surrounds the forest, though, he expects a spectacular recovery.

Martin announces his retirement

The Trust is very sad to be saying farewell to Martin Conway, who will be resigning from his position as Regional Representative for Nelson/Marlborough and Westland at the end of 2001.

Martin has been with the National Trust for a total of ten years, during the period July 1988 to December 1991 and since February 1994. During his time with the Trust, 33 covenants, protecting 1,100 hectares of open space, have been negotiated in the Nelson/Marlborough region alone, including the 350-hectare Harwoods covenant and associated Takaka Hill walkway.

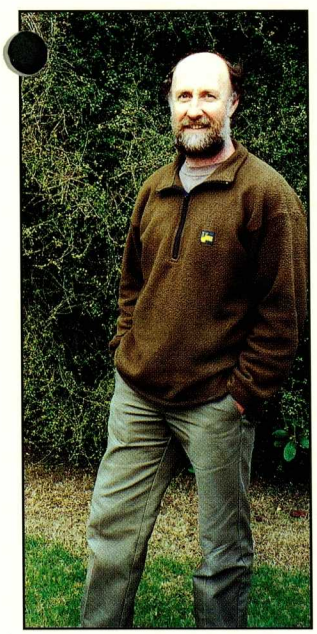
The Trust Regional Rep position is a part-time one, but like all our reps, Martin has willingly made himself available to respond to landowner enquiries and to provide advice and assistance on management issues beyond the level for which he has been paid.

Martin and Jo Conway covenanted about 1.5 hectares of their own property at Brightwater, and are undertaking an intensive ecological restoration and revegetation project. This covenant area is extensively visited and is regarded as a prime example of what can be achieved by committed individuals in the restoration and enhancement of the natural environment.

We wish Martin and Jo all the very best for the future.

Martin's successor will be announced in the next *Open Space*.

Canterbury



Canterbury Regional Rep. Miles Giller.

His job is also his passion

Introducing Canterbury's new Regional Rep. – Miles Giller

Miles Giller has taken over from David Webster as Regional Representative for Canterbury. From a sheep and cropping farm originally, Miles was a graduate from Lincoln and has a background in horticulture.

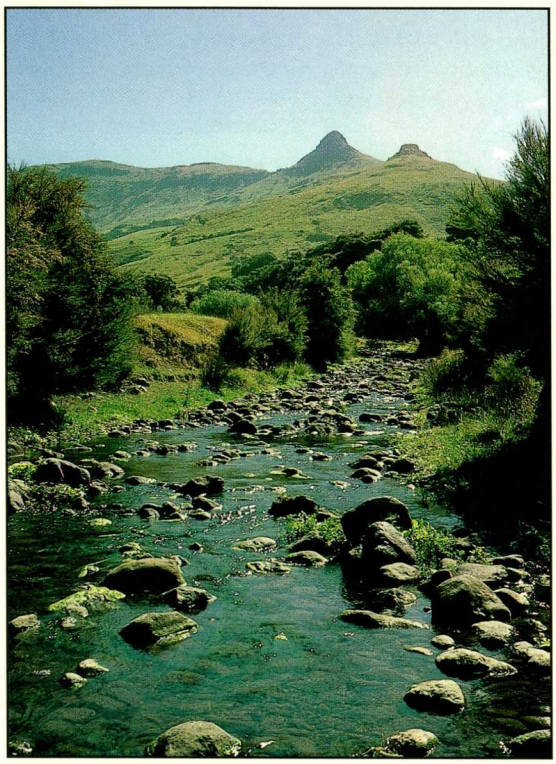
Before being appointed as Regional Rep., he had already had considerable contact with Trust covenants through visits with the local botanical society. He is also chairman of the North Canterbury branch of Farm Forestry Assn. and of an advisory group for Matawai Park, a significant local revegetation project.

He and his wife Gillian run Broadleaf Nursery, located between Rangiora and Woodend, specialising in NZ natives and deciduous hardwoods. Their home is nestled in a twenty-year-old native garden designed and managed largely according to ecological patterns and processes. A feature is the extensive use of divaricating plants, mimicking the vegetation so typical of Canterbury.

Christmas Quiz Question: Find Miles Giller amongst the Olearia fimbriata.

Banks Peninsula

Banks Peninsula was initially a volcanic island which started to emerge from the Pacific Ocean about 10-15 million years ago. In much more recent geological times, perhaps within the last 20,000 years, the island became tied to the eastern edge of the mainland as the Canterbury Plains formed. Over time, the basalt rock of the ancient lava flows has been eroded by stream action to form deep narrow valleys in a radial pattern from the centre. More recently, a mantle of fertile loess soil has softened the landscape in all but the steepest places. The South Island's largest city – Christchurch – nestles against Banks Peninsula's northwestern flank.



Te Kawa Stream, Port Levy. The sharpest peak in the background is The Monument, and the rounded summit to the left is Mount Herbert/Te Ahu Patiki, Banks Peninsula's highest ground at 920m.

An Achievable Vision

By Hugh Wilson

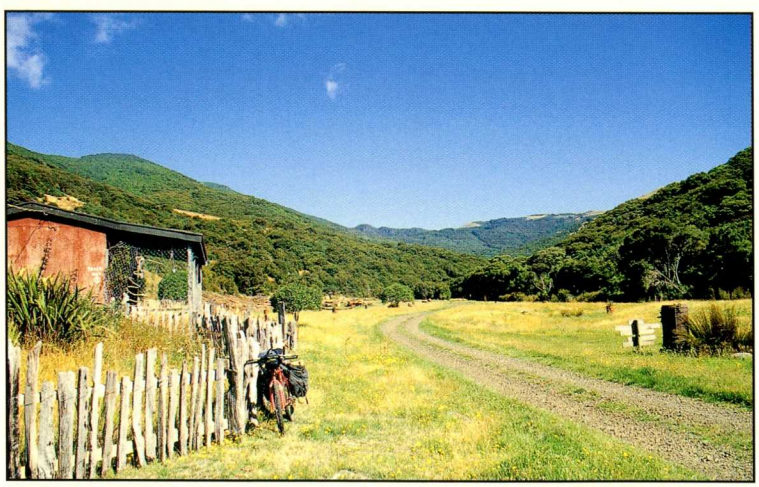
Hugh Wilson is a Banks Peninsula botanist and manager/trustee of the privately owned, publicly open, 1050-hectare Hinewai Reserve east of Akaroa. Hugh discusses here the ecological challenge facing the Peninsula and its people.

I grew up in Christchurch, and the Peninsula's grassy hills, bush fragments, rocky crags and dramatic coastlines were nearly as familiar to me as my family's suburban garden. Like many Cantabrians, I realised that the Peninsula was once different from the farmed, open, grassy place it now is. I loved it, but I also grieved for what seemed lost.

There's no denying that the native vegetation and fauna of the Peninsula have suffered a catastrophic savaging from our own come-lately species. The first human settlers, some 700 or 800 years ago, found a landscape forested from side to side and from top to bottom, alive with birds and other creatures that we can now only imagine. In the centuries between the Polynesian landfall and the arrival of Europeans, about one third of the Peninsula lost its forest cover through burning. Few, if any, plant species became extinct, but some of the fauna fared badly; about 20 out of the 100 bird species, for example, vanished. Even so, the first European arrivals found a still largely forested landscape teeming with birds. Within a century, less than 1% of the original old-growth forest remained. Another 26 bird species succumbed to the colossal destruction of habitat and the introduction of exotic predators and competitors.

That's the bad news. But all is far from lost. When I made a detailed botanical survey of the Peninsula in the 1980s, I concluded that the really amazing thing was not how much was gone, but how much had survived through all the vicissitudes of the past few centuries. Although less than 1% of old-growth forest remains- precious remnants indeed – native forest, trees and scrub have been busily regenerating against all odds since their nadir in the early 20th century. They now occupy around 15% of the Peninsula's total area of about 100,000 hectares.

Nearly all the birds that survived the combined onslaught of Maori and European settlement are now more or less flourishing



Vigorous regeneration of native forest, Otanerito Valley, Hinewai Reserve, east of Akaroa. (The author's vehicle is leaning against the totara paling fence on the left.)

Banks Peninsula coastline at Paua Bay, east of Akaroa.

(the sad exception is tui, which has declined within my lifetime to the verge of local extinction). Some native wildlife and plants have actually benefited from human settlement. Harrier, pipit, black-backed gull and kanuka, for example, are commoner now than they were. Others that were earlier known only as rare stragglers have become well-established in the changed conditions – for example, welcome swallow, spur-winged plover and white-faced heron.

None of this good news should make us too complacent. Out of a native vascular flora of around 565 species, about 20 (3.5%) appear now to be locally extinct. About 100 (17.5%) are currently rare. Even though a third of these were probably always rare, some that were once common enough now totter on the brink of local extinction. They include some conspicuous trees such as native cedar, toi, rimu and miro. Feral goats, possums, predators such as ferrets, stoats, feral cats and rats, careless burning and spraying, scrub clearance, browsing of significant vegetation by farm stock, fertiliser runoff into streams and lakes, ill-sited exotic forestry and wilding spread of pines, all contribute to degradation of native biodiversity and indigenous landscape.

The Banks Peninsula landscape. Hills above Western Valley, Little River, through a charred broadleaf/kapuka skeleton.

But there are encouraging steps forward as well, not least of which are increasing conservation initiatives on private land.

Reserves run by the Department of Conservation on the Peninsula are treasures, but small. Most of the Peninsula's land is privately owned, and private landowners inevitably have a role to play if adequate conservation goals are to be achieved. As elsewhere in New Zealand, pushing this idea has caused adverse reaction. Suggestions of coercion, rules and restrictions put a lot of landowners' backs up and generated much heated debate. Farmers especially retorted "Most of us are conservationists at heart. We will do the right things, but don't tell us what to do as if we are ignorant peasants! Consult, suggest, discuss, assist – but don't impose!"

Out of all this, something rather extraordinary seems to be taking root in the Peninsula's fertile soil. A Conservation Trust is up and running, led by landowners with Council backing. It intends to promote awareness, share information, and help conservation initiatives on private land. There are already, of course, many examples of private conservation initiatives here, with the National Trust playing a crucial role in many of them.

Dare I add one of my own heretical hopes?

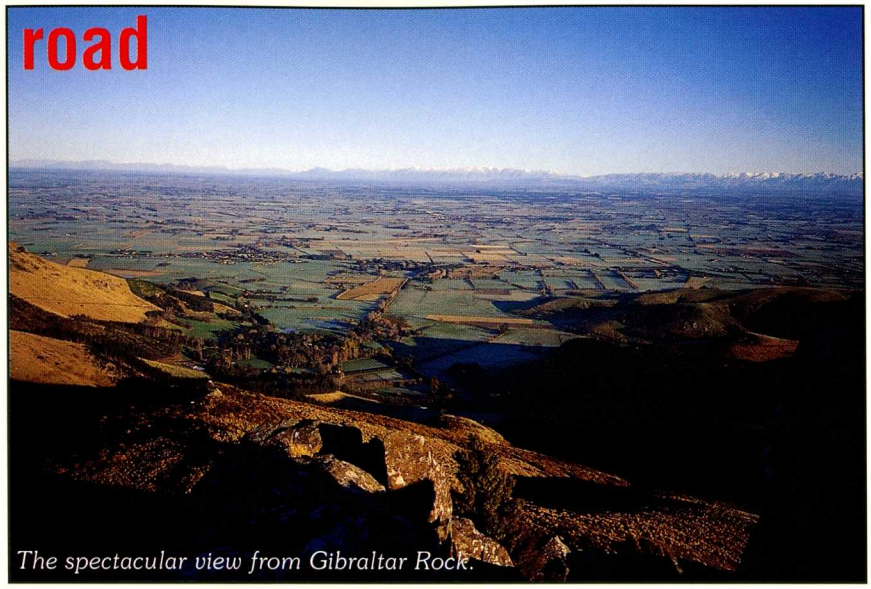
I detect a small but important shift in people's attitudes towards gorse on marginal land – a growing acceptance that in some situations it is best managed as a nurse canopy for natural forest regeneration, rather than targeted in futile and uneconomic attempts to wrest the occupied land back into pastoral farming. On such land, I see gorse not as a pernicious weed but as a scab protecting the healing going on beneath. Scabs may not look all that nice, but you don't (or shouldn't) keep picking away at them – not unless you want to prolong a suppurating sore that never heals. With a positive outcome (bush regeneration) for the least tractable gorse-infested land, farmers can direct their finite efforts against gorse where productive pasture is more readily maintained.

Significantly, Banks Peninsula people are seeing an economic return not just from farming and forestry. The Banks Peninsula Track, and nature voyages on the *Canterbury Cat*, for example, are two substantial, sustainable, nature-based players in the local economy. My own livelihood is firmly based on native biodiversity and regenerating forest.

A return to the Peninsula of 800 years ago is an unrealistic and impossible dream. But a balanced, diverse landscape where farming, forestry and native ecosystems are all robustly promoted and integrated – that is a nice vision for Banks Peninsula, and an achievable one. The challenge is that we still have some way to go.

Regeneration of red beech, mixed hardwoods and kanuka at the head of Stony Bay Stream below Stony Bay Peak/ Taraterehu, Hinewai Reserve, east of Akaroa.

Taking the high road



The spectacular view from Gibraltar Rock.

The main route onto Banks Peninsula is along the flats via State Highway 75, but if speed is not of the essence, a popular, more scenic option is to take the Summit Road, over the Port Hills. The road winds across an impressive landscape of steep volcanic bluffs and ridges, with a mixture of native forest and grasslands, and the views over Lyttelton Harbour are well worth a stop at one of the convenient lookout points.

The **Summit Road Society Inc** has been active in the area for over 50 years (see *Open Space* #34) protecting and enhancing the natural character of the landscape. Last year the society covenanted a further 33 hectares of land, bringing the total protected by them to 138 hectares.

Wind-sculpted shrubs by Summit Road.

The latest addition means there is now an uninterrupted block of protected land on the eastern side of Summit Road between Cass Peak and Worsleys Road. A network of walking tracks, including Farrells Track and the Crater Rim Walkway, provides good public access to this series of covenanted areas.

About 7km further south along Summit Road, a highly visible basalt prominence known as Gibraltar Rock has been covenanted by some other long-time conservationists and friends of the National Trust - **Grant and Marilyn Nelson** (see *Open Space* #46). The Nelsons purchased and covenanted this 5-ha section of Gibraltar Fa[illegible] to protect and enhance the landscape amenity of the rock outcrop and surrounding tussock grassland and shrubland, and to allow public access for recreation. The land adjoins the 78-hectare Omahu Bush, which is protected by open space covenant and is also now owned and managed by the Nelsons. There are walking tracks through Omahu Bush and the new covenant area to allow public enjoyment of the land.

The lost ecosystem of Canterbury

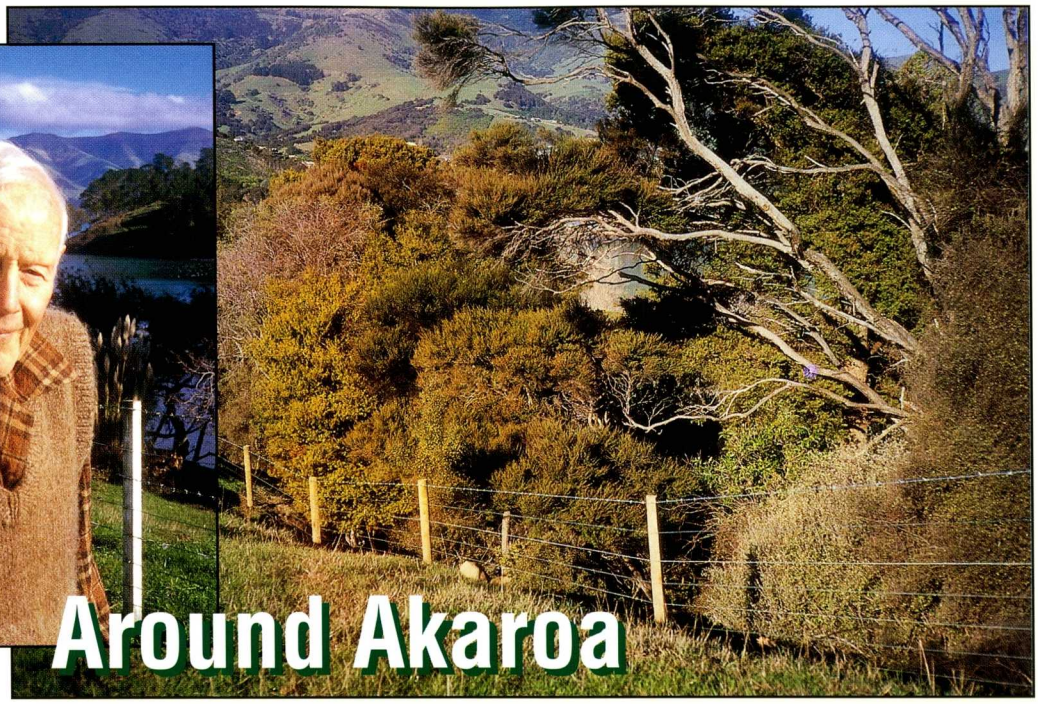
In August 1998, **Edward Aitken** invited the National Trust to visit the property he and his wife Penny farm on the western side of Pigeon Bay, Banks Peninsula. Edward had heard Dr Brian Molloy (then Trust Director) speak at a Federated Farmers meeting, and hoped the Trust would assist him in protecting two blocks of forest on his land.

Putting his botanist's hat on, Brian accompanied then Regional Rep. David Webster to see the forests, and the rest, as they say, is history. A total of over 9 hectares of forest is now covenanted, in two separate areas.

In his report, Brian commented that the more northerly stand (RAP H21 in the Banks Ecological Region survey report) is a small but valuable example of a "lost ecosystem" of Canterbury. The remnant of mid-altitude mixed conifer/hardwood forest, dominated by matai as the chief emergent, is a relict of a former widespread forest type in the eastern sector of Banks Peninsula. Matai specimens within this block are up to 1.25m dbh, and are probably in excess of 500 years old. The other, smaller, stand is similar in composition but supports more lowland totara and kowhai, reflecting better moisture conditions and less exposure. Although separated by nearly a kilometre, the two areas are complementary and a free exchange of seed is expected.

One of the Aitken forest blocks.

Bob Masefield.



Around Akaroa

The newly fenced bush.

The history of the old French settlement, the attractive harbour and surrounding landscape make Akaroa village a focus for most visitors to Banks Peninsula.

A sizeable tract of land close to Akaroa has been owned and farmed by the Masefield family for many generations, in fact since V.V. Masefield first settled on Banks Peninsula in 1862. In 1992, Bob and Pat Masefield (under their company name, **Trebor Farm Ltd**) covenanted 33 hectares of pasture and trees on the slopes overlooking Childrens Bay to preserve the attractive scenic values as seen from the village and nearby roads.

Sadly, Pat passed away a few years ago, and Bob's now in his 90s, but the Masefield conservation ethic is still strong.

A couple of years ago, motivated by his good friend Brian Bremner, Bob got together with neighbours **Robert and Jeanette Brown** to secure a small, bush-filled gully which was bisected by their boundary. Brian got busy with the fencing, and now the block of just over one hectare is protected by open space covenants.

The vegetation within the gully is highly representative of what was once widespread on Banks Peninsula: a rich variety of trees and shrubs, including kowhai, totara, ngaio, and large kanuka. Possums were prevalent in the gully when then Regional Rep. David Webster first inspected the block in 1998, but he was confident that once the stock were removed and the possums controlled, recovery of the ground cover and understorey would be rapid.

A continuing commitment

Another covenant on Masefield land is that registered by Dick (Bob's brother) and Paulle Masefield in 1988. Dick and Paulle had fenced the 1.8-hectare block of fine mixed rain forest on their Gough's Bay farm thirty years earlier, at the express wish of Dick and Bob's late father, Thomas. The kahikatea-rich forest was thriving under their care, and the National Trust was pleased to protect its high ecological values in perpetuity by way of the open space covenant.

The farm is now owned and run by Dick and Paulle's son, Robert, who is continuing the family commitment to watching over this fine little forest. Pushy cattle and rampant rabbits are the main threats, but thanks to Robert's quiet dedication to pest control and fence maintenance, former Regional Rep. David Webster was always impressed with the richness, density and vigour of the forest when he visited.

Kapuka Bush

Six kilometres east of Akaroa, on Long Bay Road, **Paul Broady** has covenanted the whole title (16.2 hectares) of his land known as Kapuka Bush. The land is next to Hinewai Reserve's northern boundary and Paul purchased it last year with the sole purpose of conservation. The vegetation on the block is currently highly modified, thanks to unsuccessful attempts by previous owners to farm the land in conjunction with other land, on its own, or as farm forestry with cattle.

Paul is a close friend of Hinewai, and his management of Kapuka Bush will be integrated with that of the reserve. He has already made some dramatic (and to some people, controversial) moves towards restoring an indigenous forest cover to the land. Stock have been removed from the pasture, the assortment of exotic trees planted over the years are being chopped down, and Paul has begun an attractive planting of native trees, especially lacebark, kowhai, ribbonwood and cabbage trees.

Pure water cuts the mustard

Highest-quality, clean, fresh water, and plenty of it. That's the key ingredient of this newly covenanted complex of wetlands northwest of Geraldine.

Simon Lynn, together with his partner **Elizabeth Roache**, and his parents **Vivian and Eric Lynn**, has protected over 7 hectares of open water and swamp vegetation on the family farm.

Although the wetland is adjacent to the Hae Hae Te Moana River, it is believed the water source is a myriad of springs. Wherever it comes from, the quality of the water is so high that Simon is considering cultivating wasabi (Japanese mustard), a very fastidious aquatic plant, on a part of the wetland beyond the covenanted area.

Lynn wetlands northwest of Geraldine.

Simon was the driving force behind the wetland protection, and he is keen to see the dry land within the protected area revegetated and restored to native forest representative of what would have been there originally. As former Regional Rep David Webster commented in his original report, wetlands are extremely rare in the Canterbury region, and it was a pleasure to meet and work with Simon on this project, because of his understanding of the wetlands' intrinsic values and his enthusiasm to protect and enhance them. The Trust is grateful to Dr Colin Muerk, formerly of Landcare, who carried out the initial botanical survey and provided valuable guidance on appropriate enrichment plantings and management.

The wetlands can be seen from Te Moana Road and Woodside Road.

Environment Canterbury's new Environment Enhancement Fund

In June, Environment Canterbury launched this fund to recognise, encourage and assist voluntary projects that protect and enhance Canterbury's indigenous biodiversity.

Anyone can apply to the Environment Enhancement Fund – individuals, landowners, community and conservation groups, schools and recreational groups. Projects to be funded should protect, enhance or restore biodiversity, for example; waterways, wetlands, coastal dunes, or native vegetation or habitat. The contestable fund totals $100,000, with grants of up to $5000 available annually for any one project.

The Environment Enhancement Fund will re-open for applications in June 2002, and close on 31 July.

For more information, please contact Environment Canterbury's Customer Services Section on (03) 365 3828 or 0800 EC INFO (0800 32 4636).

Murderers Gully, The Walnuts & Fantail Falls

These are just some of the places to explore at Hinewai Reserve, Banks Peninsula.

Discover a fascinating assembly of friendly birds, rare plants, drinkable streams, magic waterfalls, and outstanding views amongst over one thousand hectares of regenerating forest. A loop track offers visitors a circular route of several hours duration, with various side tracks for additional foray opportunities.

Silvereyes love the fuchsia flowers at Hinewai.

Accessible from Long Bay Road, about 7km east of Akaroa.

Volunteer workers are also always welcome. Contact the Maurice White Native Forest Trust, RD 3, Akaroa 8161, for more information.

A TRIP TO THE SOUTH

By Tim Cossar, CEO

I have recently returned from a thoroughly absorbing three-day visit to Southland and Otago where I visited a range of covenants and other interesting natural sites with regional representatives Gay Munro and Helen Clarke.

Southern hospitality is famous, but so is the Invercargill climate. When I got off the plane in Invercargill, a rather harsh 'Antarctic' wind greeted me with all its force – great. I am pleased to say that things did get much better the next day and the thermals stayed in the bag!!

Gay Munro took me on a tour that involved visiting a range of fantastic covenants throughout Southland. A highlight was a visit to the Riverton Estuary where Robert Guyton and Ross Dutton of the Riverton Estuary Care Society took us on a guided walk of a wonderful estuary revegetation and restoration project. We ended the day at Environment Southland's O'Neills forest covenant close to the Mataura River mouth. At this covenant, Richard Bowman, Scott Crawford and Nick Rosewarne from Environment Southland accompanied Gay and me. In recent time this covenant has been a trial area for signage, weed control and pest eradication. Through careful and consistent analysis more effective methods of weed and pest control are being developed for the region – something Gay and the Regional Council are passionate about.

One experience I wanted to have in the south was to drive to Dunedin via the Catlins. I had always heard that this part of New Zealand was spectacular; having now been there I would say that it is everything and more – it is a must for all New Zealanders – the natural landscape is outstanding and a treasure. Only pity was that I was passing through and was not able to stop and head down the smaller tracks.

Gay Munro had pre-booked covenantors Fergus and Mary Sutherland at Papatowai for a meet-the-locals and a meal on my journey to Dunedin. The guided walk of Shanks Bush (adjacent to the main road) is a must see for any passer by – the interpretation of the bush, the walkways and the whole way the bush is presented is a model of how simple things can be done effectively. The blind trail, the crawl trail (incorporating magnifying glasses for children to look at the insects and vegetation through) are fantastic - the overall sense of small community involvement in this covenant and restoration project was great. My visit to Shanks Bush was followed by an evening meal with Fergus and Mary, accompanied by Albert Jenks (soon-to-be covenantor) and local conservation stalwart Mabel Roy. The company was great, the food was great and what had intended to be a 6.30 p.m. departure ended up a reluctant 8.00 p.m. farewell – I could have easily stayed on. Fergus and Mary run an award winning eco-tours operation. Their product is highly rated – look them up at www.catlins-ecotours.co.nz

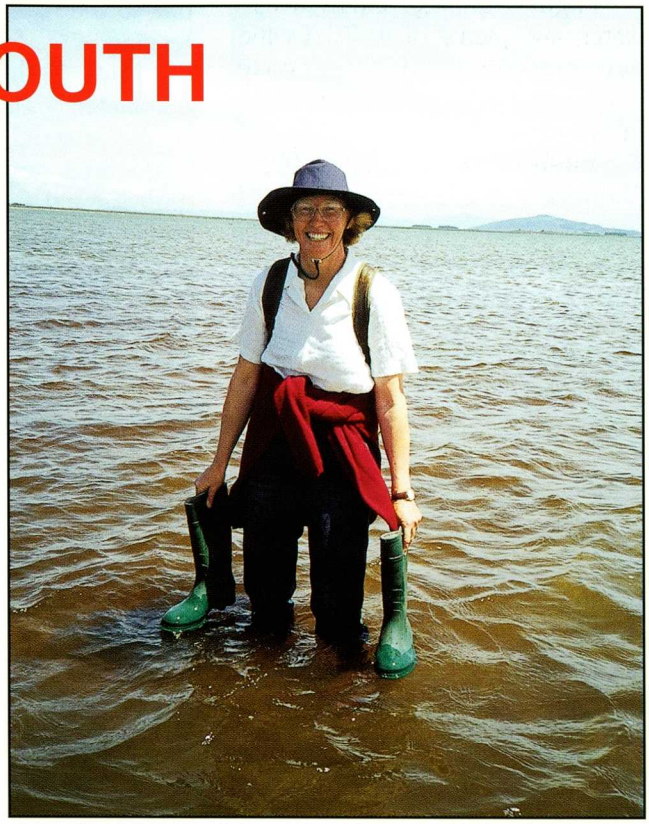


Photo courtesy of Chris Rance

Southland Regional Rep. Gay Munro cools her heels in Waituna Lagoon, Invercargill.

Otago Regional Rep. Helen Clarke caught up with me in Dunedin and immediately promised me a trip around some outstanding covenants. I would not be disappointed. From a visit to the Banks and Cleveland covenants in the early part of the day, to the McGrouther covenant at dusk, I was struck by the diversity and spirit of the covenantors.

Howard McGrouther took Helen and myself on a personally escorted tour of his covenant. The native bush blocks and revegetation work are first class, but the yellow-eyed penguin colony experience is something that I will never forget. Getting so close to the penguins without disturbing them during daily routines was incredible; educational and a tribute to the McGrouther clan who, through inventiveness, dedication and perseverance, have developed what I believe to be one of the best visitor attractions I have ever been to. In offering this experience, Howard and his family have benefited the protection of this endangered species – their Kiwi 'can do' attitude, along with a sense of protecting the future, is a model many in the conservation field should take more notice of.

It was difficult to leave the south. I felt I had just arrived – the people, the places and the overall experience that this region can offer are a national treasure. Perhaps distance keeps New Zealanders from not experiencing more of this unique part of New Zealand. I am definitely going back and this time I will take my family to experience what touched me on this too short a visit. I also hope that an increasing number of landowners protect the unique biodiversity that remains. If what I saw is any indication, I am sure they will.

Sparkling silver beech

On the low hill country north of Tapanui township, one of the few silver beech remnants of the Gore Ecological District has been covenanted, thanks to landowners **Michael and Marianne Parks**. Mention should also be made of previous landowners Allan and Debra Murray, who stock-proofed the forest with electric fence and approached the Trust to covenant the forest in 1992, but had to defer due to the high cost of permanent fencing.

The 11-hectare forest is dominated by silver beech, but there is also a good representation of podocarps, and the presence of mistletoe and narrow-leaved lacebark makes it extra special. This very attractive stand can be readily seen from the Kelso-Tapanui Road, State Highway 90 and Wooded Hill Road.

Lending a neighbourly hand

One of the first covenanting inquiries that the National Trust ever received was from Bob and Janet Hopkins of Waiarikiki, Southland. They had extensive kamahi and southern rata forest on their land that they wanted to protect legally. In 1988, some 44 hectares of this forest (in two areas) was secured by open space covenant. However, parts of the northerly forest remnant extended onto the neighbouring property, and they remained partly unfenced and vulnerable to stock intrusion – until now.

After **Jorgen and Helen Hansen** moved in next door in 1991, Bob got talking to them about the forest and the open space covenant and they were soon persuaded to protect their corners of the forest in the same way. With Bob's help, Jorgen built a first-rate netting and barbed wire fence, and a further 4 hectares of the forest is now covenanted.

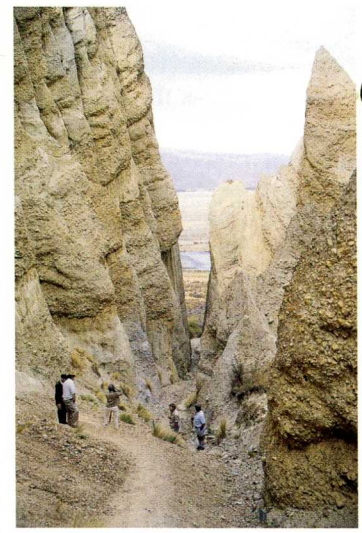
One section in particular of the newly covenanted area shows the benefits of letting nature take its course. An area that had once been cleared or burnt had become a big gorse patch, but now the gorse cover has reached maturity, and there is excellent regeneration of peppertree, wineberry, fuchsia and other shrubs coming up through it.

Native seedlings emerging through "old man" gorse.

Always gain permission from the landowner before entering an area protected by open space covenant.

VISIT CLAY CLIFFS

A spectacular natural example of "badland" erosion, and a dramatic backdrop to the wide flood plain of the Ahuriri River. The Clay Cliffs are protected by open space covenant.



Clay Cliffs are at Paritea, 10km west of Omarama. They are visible from the Lindis Pass highway (SH8).

Visitors:

The Clay Cliffs are on the private property of the Croft family, Omarama (ph 03-438 9780).

A signboard on the access road indicates whether the cliffs are open to members of the public.

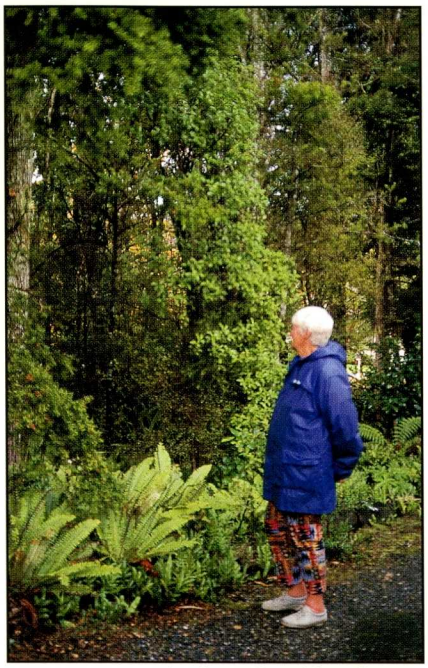
Shooting, camping and dogs are not permitted on the protected area.

The latest Otatara covenants – All in the Family.

By Gay Munro

It was a number of years ago that **Ian and Jenny Gamble** purchased the already covenanted property of Holvey's at Bushy Point, Otatara. Since then they have developed within the covenant a well known educational walkway, with a track running from podocarp forest to manuka shrubland and out in to estuarine marsh. They offer the public a look at a very unique and special vegetation sequence here, along with the opportunity to view (or at least hear) the endangered fernbird, which commonly nests within the marsh's jointed rush. And now they have furthered the protection of the nationally significant podocarp forest established here on sand dunes, with a covenant over a section on the west of Otatara. Although small, this area is important as it lies near the larger Invercargill City Council Parnell Reserve, acting as a buffer zone for the reserve.

However it is all too obvious where Ian gets his conservation values from, with his mother, **Audrey Gamble**, always a stalwart of the local Forest & Bird, being the other most recent covenantor in Otatara. Once again Audrey's section is small, but with the neighbouring Scott property also under an open space covenant, this makes it a well worth while addition to the jigsaw of covenant protection that is ensuring the longer term survival of this important forest remnant.

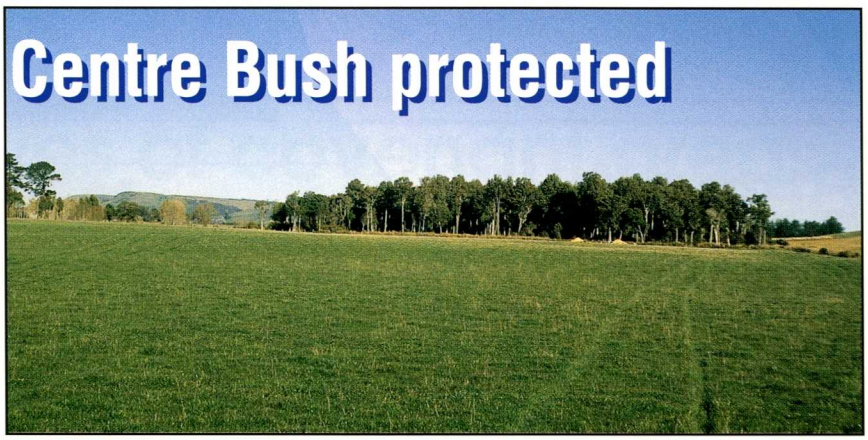


Audrey Gamble admires her patch of bush.

A wee piece of Centre Bush protected

By Gay Munro

It was the Department of Conservation Rural Advocate, Megan Smith, who picked up on 'Where have the bushes of Southland gone?' There are over sixteen districts that have Bush after their name, and for a lot of them you're hard pressed to find a skerrick of their namesake! However near Centre Bush, there is a 4-hectare remnant that will survive as a landmark of what once was, with **Gwilym Anderson** having ensured its protection through an open space covenant. For Gwilym and his wife, Shirley, their days of farming were ended, and with the leasing of the farm, Gwilym could see that future landowners might not look after his patch of bush as he had. From being quite open underneath, over the ten years he had owned it, he had seen the undergrowth regenerate with the stock having been kept out. With covenant protection now in place, the Andersons have ensured the long-term survival of a piece that could well have become history.



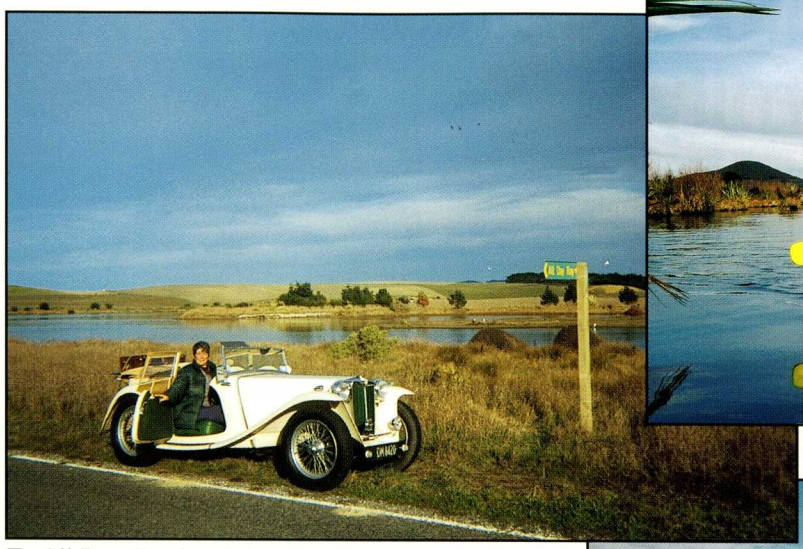
The Anderson forest – one of the few survivors.

A first for Tokanui

George ("Toby") **and Glenda Templeton**'s sheep and beef farm at Quarry Hills, north of Tokanui, includes the only protected lowland podocarp forest remnants in the locality.

Brian Rance (Department of Conservation) visited Toby and Glenda's forest blocks in 1998, at their invitation, and was impressed by the good regeneration of podocarp species, especially rimu and miro, which are rarely seen now in Southland. He recommended the Templetons approach the National Trust for assistance in securing the remnants, and an open space covenant now covers over 8 hectares of forest, in two stands.

Toby's brother, Fergus Templeton, has had two areas on his property just up the road approved for covenants, and these are moving towards registration.



To All Day Bay by vintage car.

Around Sinclair Wetlands by canoe.

Helen Clarke demonstrates the varied and unusual means of transport she uses in her activities as Coastal Otago Regional Rep.

Across the Tuapeka mouth by punt.

Beautiful broadleaves

Allan Gorton & his broadleaved forest.

This new covenant area, on **Allan Gorton**'s farm, is covered in a beautiful array of coastal broadleaf trees, including silver beech, rata, and kamahi, making it an important remnant.

Allan farms sheep and beef on his rolling coastal hill country property just south of the mouth of the Taieri River, and he sees protection of this remarkably intact forest remnant as an integral part of farm development. He also undertakes frequent possum eradication programmes as part of normal farming practice. Local naturalists from the small seaside community of Taieri Mouth enjoy the area and have supported Allan's efforts to protect it. Regeneration of the undergrowth should be strong now the forest is fenced off and sheep have been excluded.

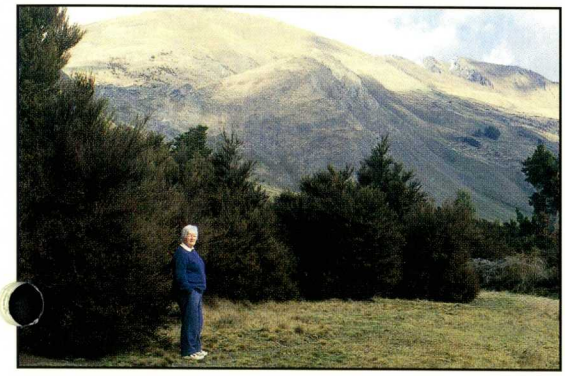
The 13-hectare block is adjacent to Coutts Gully Road. Allan allows access to visitors interested in the forest, but ask his permission first.

Kanuka woodland on the edge of Lake Wanaka

By Helen Clarke

In most areas of New Zealand, kanuka forest is a temporary type of woodland, usually providing nursery conditions for emergent broadleaf or podocarp forest. However, in the dry Central Otago landscape, kanuka forms the climax vegetation and seems to remain as open woodland.

Situated on the edge of Lake Wanaka and with Mt Roy forming a backdrop, the landscape surrounding the covenant area is spectacular.



Jill Blennerhassett beside kanuka trees, Mt Roy in background.

It will be interesting to observe this process on **Jill Blennerhassett**'s recently registered covenant over a 2.4-ha remnant of kanuka woodland on the edge of Lake Wanaka. Dr Peter Johnson from Landcare Research visited the site and commented that the spacing and density of the plants is determined by the limitations of soil moisture. He is uncertain how tall or dense the kanuka will grow or what other "dry plants" will naturally invade and possibly replace the kanuka in the future.

The kanuka in this district is under threat from subdivision and development so this covenant is important and it is hoped will set a good example to other local landowners.

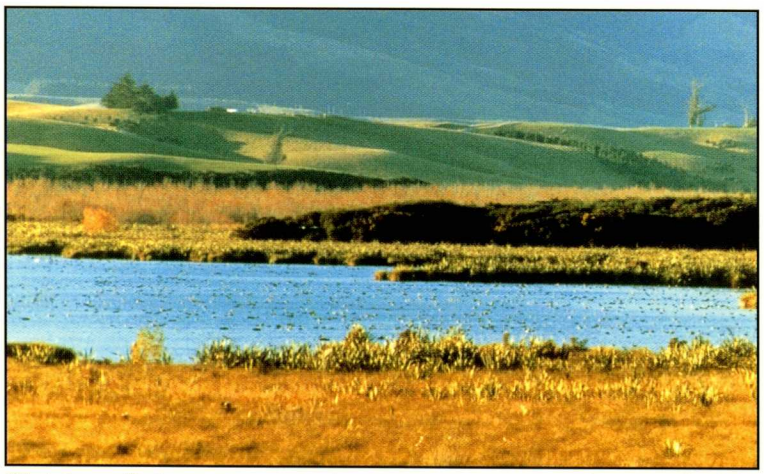
The protected woodland can be viewed from the popular walking/mountain biking track that runs along the northern boundary, linking the Lake Wanaka foreshore and the recently upgraded waterfall creek track.

The secret lives of covenant areas

To most of us humans, a rotten log doesn't hold much appeal, but for the peculiar and secretive peripatus, it's *home sweet home*. Featured previously in *Open Space* #49, this intriguing creature – like a caterpillar with many fat stumpy legs - is considered by some to be the "missing link" between worms and arthropods. There are over 30 species of peripatus in New Zealand, but they tend to be quite localised in distribution and only five are named.

In August, there was great excitement at the Saddle Hill covenant area of Orr/McIntosh when Anthony Harris of Otago Museum discovered about 60 peripatus within a decayed pine log in the regenerating forest. In addition to the peripatus, the log also supported many other creatures -including oedemerid beetle larvae, an undescribed species of native cockroach, big fat slug-like cranefly larvae, *Dimergonus* millipedes, amphipods, and isopods – many of which the carnivorous peripatus would describe succinctly as "lunch". Although the Saddle Hill peripatuses were a richer shade of brown than others in the Dunedin area, they have since been identified as being of the same widespread "Dunedin" species. However, this was still a thrilling find.

Meanwhile, at Sinclair Wetlands, rumours persist about the presence of otters. But, as



Christmas Quiz question – is there an otter amongst the waterbirds?

elusive as the legendary Loch Ness Monster, the existence of these European mammals in New Zealand waters remains unproven. Ever since Captain Cook first visited the South Island, accounts of mysterious splashes and sightings of small, four-footed, mouse-coloured animals have persisted. The late Horrie Sinclair himself was adamant that otters were there, and other locals have discounted the notion that they could have mistaken a young seal for an otter. A Christchurch man, G.A. Pollock, gathered vast amounts of material on the animals and maintained that the Maori stories of brown furry, egg-laying animals kept as pets supported the otter's existence. He mounted several expeditions to find them, but was unsuccessful.

So, the next time you're visiting the Waipori-Waihola wetland areas, take your camera and keep your eyes peeled – you could become famous.

A fresh approach to weed control

Like many of the weed species competing with our native bush, control of Darwin's barberry is a challenge to say the least. However, on Stewart Island, Department of Conservation (DoC) staff are tackling the weed with the aggressiveness that it demands using herbicide gel as a main method of control.

Darwin's barberry (*Berberis darwinii*) is an evergreen, spiny, woody shrub that has become extensively naturalised around Wellington, the Wairarapa, and from Canterbury to Stewart Island. As a weed it is very hardy. A mature plant grows to four metres and forms dense canopies that prevent adequate light penetration for the germination of other species. The threat to native bush is high.

When DoC surveyed the extent of infestation of Darwin's barberry on Stewart Island in 2000 with the intention of eradicating the species from the island, they realised they had a major problem on their hands. According to DoC project leader, Rebecca Gibson, there is one area of approximately 200 hectares that is very heavily infested with the barberry and this is considered to be the seed source. There have also been reports of infestations 24 kilometres from the seed source in native bush. "The general plan of attack is to start at the outlying plants and to work our way back to the source", says Rebecca, "We are working on private property, so the method of control is important".

A team of four, who have been employed on a 6 month contract, are making use of new herbicide gel technology as a key method of control for the barberry.

The herbicide gel, Vigilant, was developed by HortResearch in response to the need for a non-spray alternative to control weeds in ecologically sensitive situations. In recent trials on Stewart Island, in conjunction with DoC, HortResearch showed that Darwin's barberry could be effectively controlled with a herbicide gel. Vigilant was applied directly to either the cut stem of shrubby plants or into wedges or blazes cut in the trunk of the whole tree. In the cut stem trial, small to moderate sized barberry bushes were cut to 50 millimetres above ground level and then treated with a gel applied directly from a brush bottle. Twelve months later (February 2001), between 94 and 100 percent of the plants treated with herbicide gel were either completely dead or else showed no regrowth.

Vigilant gel is best used in fine weather as it is not totally rainfast and some runoff may occur. On Stewart Island, where high rainfall can be an issue the team are covering the treated stumps if rain is a possibility within the 24 hours after treatment. "While this may create more work, it is worthwhile if the team don't need to return to the site", Rebecca comments.

"We have only just started our "attack" phase, but so far Vigilant gel has been ideal", says Rebecca Gibson. "The fact that it is easy to apply and it's non toxic is a definite advantage".

Vigilant is currently registered for use on old man's beard, climbing spindleberry, Japanese honeysuckle and grey willow. This registration is currently been extended to include cotoneaster, Darwin's barberry, elaeagnus, kahili ginger, gorse, wandering jew, agapanthus and woolly nightshade following on from successful field trials on these species. For more information see: www.hortresearch.co.nz/products/vigilant.

Vigilant herbicide gel on cut stump of Darwin's barberry (above).

Attacking the Darwin's barberry infestation on Stewart Island (below).

Photos courtesy of Department of Conservation.

Contact:
BioEngineering Technologies
HortResearch
Private Bag 3123 Hamilton
Phone 07 858 4742
Fax 07 858 4705
Email hpercy@hortresearch.co.nz

The Barberry clearance programme on Stewart Island is a joint initiative between Environment Southland, Southland District Council and DoC.

BEATING *around the bush*

tips and techniques for native ecosystem management

Festive Season Weed Control

By Tim Park

Following a suggestion from Trust member Patrick McGloin of Rangiora, I have decided to go with a Christmas theme and work through the different methods for controlling Holly (*Ilex aquifolium*) and Ivy (*Hedera helix*) on your property. (Harvesting for festive season decorations is not an effective control technique!) Little reliable information is known about the most effective control techniques for these two introduced evergreen species; often the environmental conditions of the site and extent of invasion determine the best method for control.

Ivy is a climber with shoots up to 30 metres long. It tolerates low light levels and can therefore invade remnants and replace native ground cover plants. It competes strongly with native plants for light, nutrients, and soil, and can smother or strangle even mature trees that it grows over. A dominance of ivy results in an "ivy desert", with a loss of native biodiversity and reduced animal feeding habitats.

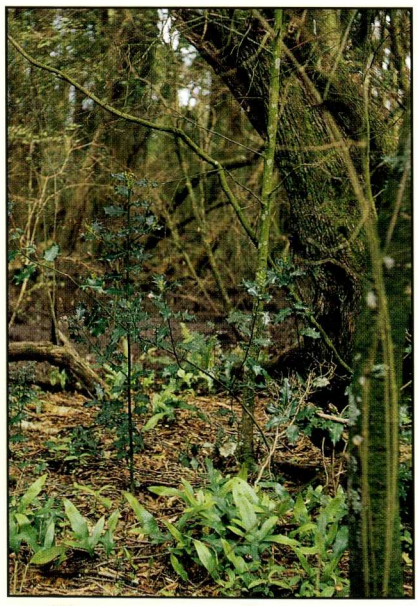
Presently, there is little published information on treatment methods for ivy, although it is increasingly recognised as a threat to restoration efforts and native plant communities. Its ability to spread adventitiously and be easily dispersed by birds causes concern when the plant is used as an amenity planting close to natural forest or riparian areas.

The technique that is most cost effective for smaller infestations is to pull or dig out and then mulch or compost the green waste. For larger infestations, cut the main stems of the plant and immediately (within 15 minutes) liberally paint both cut surfaces with Escort at a rate of 5g per 1 litre water.

The waxy surface layer on ivy's leaves and stems gives it a high resistance to herbicide uptake. Spraying herbicide on ivy is therefore only suggested with reservations. The sprays suggested by the Department of Conservation include: Tordon BK (for spraying at a rate of 60ml per 10 litre with 10 ml of penetrant); Escort (at 5g per 10L water plus 10ml Pulse when using a knapsack, or at 35g per 100L water plus 100ml Pulse when using a handgun); or glyphosate (Roundup or similar at 1% plus surfactant).

Please, be aware that some chemicals are particularly nasty if used without caution, and spraying at higher concentrations than those suggested tends to burn off the leaves rather than translocating throughout the plant. The best time to spray ivy is at flowering. Spraying will need to be repeated.

Holly is a prickly tree which may grow up to 10 metres tall. It can invade forest margins and prevent natural regeneration. It tolerates both sun and shade: although semi-shade is preferable in midsummer, the more light it has the denser its foliage will be.



The most cost-effective control method is herbicide injection. Drill holes at regular intervals around the tree using a cordless drill, brace and bit or chainsaw driven auger. The holes should slope down into the sapwood. As each hole is drilled, squirt 1.5ml of undiluted Tordon Brushkiller or 20% glyphosate (2 parts glyphosate to 8 parts water) into the hole using a sheep drench pack with gun. If necessary, wait until the liquid subsides then apply the remainder. The best results are achieved during spring/summer, when the plants are growing most rapidly.

Another technique for controlling holly is to cut across the base of the plant with a straight flat cut and painting the stump with herbicide. The cut must be horizontal so that the herbicide rests on the cut area while being absorbed. Immediately apply a mixture of either 20% glyphosate or 20% Tordon Brushkiller to the cut stump using a paintbrush, eyedropper or small squeeze bottle.

Alternatively, the plant can be controlled by "frilling". With a sharp chisel or axe, make deep cuts into the sapwood at regular intervals around the base of the tree, taking care not to ring-bark the plant. Immediately apply 1.5ml of undiluted Tordon Brushkiller or Roundup to each cut using a paintbrush or a squeeze bottle.

I must highlight the need to be very careful when applying herbicides within covenanted areas as some herbicides, such as Tordon, are "broad spectrum" and will wipe out most natives, especially podocarps, that they touch.

Some information provided is Crown Copyright; Department of Conservation. Other sources include:

Porteous, T; 1993; Native Forest Restoration; QEII National Trust.

Morisawa, T. 1999. "Weed Notes: *Hedera helix L.*" The Nature Conservancy; Wildlands Weeds Management and Research <http://tncweeds.ucdavis.edu> 30 June1999

Dealing with Unwanted Australian Refugees
(Magpies, that is)

By Gerry Kessels

Are Magpies Really That Bad?

Magpies receive plenty of bad press for their nasty habit of dive-bombing people and for being noisy Australians. There is anecdotal evidence of magpies happily living side by side with natives but the overwhelming pattern seen is a drop in native bird numbers as magpie populations increase. The problem is that although a striking bird, with a lovely dawn chorus, magpies have no natural predators in New Zealand. This means they increase in population to such an extent where they claim vast areas of habitat as theirs and theirs alone. Magpies appear to be extremely intolerant of any relatively large birds (such as kereru or tui) within 'their' territory at any time.

Magpies are seldom seen attacking native birds (ignoring their constant sparring with harrier hawks). There are occasional accounts of magpies chasing a kereru (native wood pigeon) until it collides with a tree or is directly hit and killed by the pursuing magpie. Aggressive behaviour to native birds is usually more subtle and not as lethal, but still results in the natives getting the hint and moving away. Just like school ground bullying, it happens out of sight and over an extended period of time.

Magpies also displace other birds by stopping them from breeding. Magpies have been seen methodically pulling apart the nests of herons as quickly as they were built. And in a similar vein, Indian mynah birds go around raiding other birds' nests during springtime and tip out their eggs. An avian version of "ethnic cleansing".

How magpies treat other birds will vary with the time of year. During the breeding season, nesting pairs of magpies become extremely territorial and much more likely to attack. Large mobile flocks of magpies will not be so interested in defending a territory. Aggressiveness will also vary from bird to bird. And anyone handling magpies will find them just as varied in temperament as other animals (some individuals are much more aggressive than others).

However, native birds are not only threatened by magpies. Cats, possums, rats, dogs and stoats all make their own contribution. No pest should receive all the blame, and each has unique behaviours which threaten native birds. Possums and stoats raid nests and eat their eggs. Rats deprive them of food by eating seeds and fruit from native trees. Cats eat them and magpies finish off by chasing the remaining birds away.

The Research Project

Landcare Research is co-ordinating a four-year study examining the effects of magpies on other birds in rural areas. The field work is being undertaken by regional councils in five areas: Northland/Auckland; Waikato; Bay of Plenty; Wellington and Southland. Each region has two study blocks covering several hundred hectares: one where magpies were killed, and another where they were not killed. All types of birds were counted in all blocks in late 1999 before magpie control started, then again in late 2000 after several months of magpie control.

Preliminary analyses of bird-counts show that numbers of kereru and three introduced birds (blackbird, skylark and song thrush) increased in nearly all magpie kill blocks. Tui, mynahs and spur-wing plovers also increased in most kill blocks, although more data is required to confidently attribute those increases to magpie control.

Landcare Research pest ecologist John Innes says the results are based on bird counts after just one year of magpie control, and two further annual counts are planned. "If the increases noted so far are real ecological effects due to fewer magpies, then even bigger differences between the kill blocks and the non-kill blocks should emerge. The interim results should not yet be taken as a scientific mandate for destroying magpies, but they do suggest that some benefits of magpie control are likely".

For more information on this project, contact John Innes, Landcare Research, Hamilton, tel. 07 858 3700, email: InnesJ@landcare.cri.nz

Controlling Magpies

The three main methods of controlling magpies are shooting, poisoning, and trapping, although in my experience, the many covenantors in the Waikato who control magpies tell me that trapping is the most effective method and, if used wisely, will not result in trap-shy magpies.

The traditional trap used is the "Larsen" trap, which has two traps in one cage and works best when using a captive magpie as a call-bird. Local magpies will try to attack the call-bird and be caught when they stumble into the adjacent trap compartment. Limitations with the Larsen trap are its cumbersome size and that you have to find the time to make one. Also, most importantly, you must ensure your call bird is fed and watered every day and that the trap is placed in a cool, shady spot during the summer, but kept warm and sheltered at night. To work best you will also need to use a foreign magpie from outside your area as the call-bird. A neighbour of mine, Graeme Cairns, has perfected a type of home-made Larsen Trap which seems to work very well. Graeme has kindly provided instructions on how to make this – copies are available on the Trust's web site or from Tim Park at the Wellington office.

An easier way to trap magpies is by enticing them into a trap with food. Magpies eat a wide range of food baits like beef dripping, butter, dog roll, bread, bacon and cat food. The food and the trap need to be placed in an area of open ground where magpies already feed. It usually does not take long for them to discover the free grub. The trapped magpies can be killed by wringing their necks. Although magpies look fearsome they are actually easy to handle when captured. It is important to not kill them while other magpies are watching (otherwise they can become trap-shy). Clear the trap in the evening or, if during the day, out of sight of remaining birds.

An alternative to the traditional Larsen trap is the "Magpie Trip-Trap" manufactured by Neale Blaymires from Te Puke. It is more compact and lighter than a Larsen Trap, being only a little larger than a possum cage trap. It is well made and completely galvanised, so will last a lifetime. The trap uses food as a bait and does not require a call bird. I have one myself, which I have found to work very well. These traps were developed a few years ago and there are more than a thousand in use around New Zealand. Neale Blaymires can be contacted by phoning 07 573 4157 for information on trapping magpies and for more info about his traps. One more way of getting a magpie into a trap is by hanging a mirror on the rear wall. They see their reflection and walk in to check it out. Magpies are smart birds, but not quite smart enough. Now for my next unwanted refugee control project - the Indian mynah!

ASSET OR LIABILITY?

Getting the Best from your Covenant Fencing

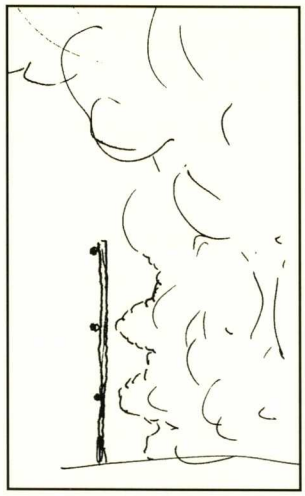
Part 3: Electric Fences

By Philip Lissaman

Despite the overwhelming distrust of electric fences by many people who are involved with the protection of forest, they can have a place and are used very successfully by some covenant owners. Electric fences can be particularly effective on dairy farms. However, the Trust's experience is that, where a less-than-enthusiastic subsequent owner comes along, the covenant fence may not get upgraded if stock enter the covenant area.

Maintenance and stock training are the keys to success: if either of these is missing, problems with stock entry will occur.

The maintenance programme needs to include not just keeping the fence wires, posts and connections in good condition, but also regularly checking the voltage along the fence and keeping vegetation off the wires by spraying or slashing. The last of these is vital, as overgrown wires mean short-outs. This is the expensive 'extra' to an otherwise 'cheap' fence.



Hungry but well-trained cattle can do a good job of keeping vegetation off electric fences.

Stock training: An electric fence is unlikely to be successful with older animals that have never experienced one before and are used to pressuring fences. Introduce stock to electric fencing when they're young and they'll soon learn a healthy respect for all fences.

Fewer wires (eg 2-3) allow stock to trim the vegetation through the fence, thus reducing shorting out problems.

From Tree to Fence Post – a do-it-yourselfer's guide

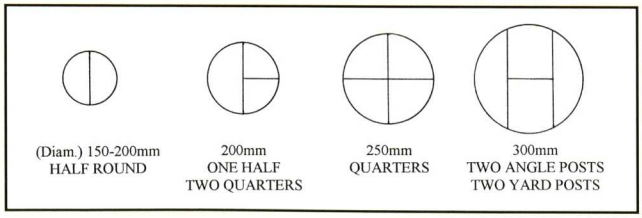
As maturing exotic woodlots become more common on farms (some as covenant endowment blocks), the "do-it-yourself" option for turning the trees into fence posts and battens is increasingly popular. Hew McKellar - farmer, forester, and double covenantor - has submitted the following advice.

If you have pine trees over about eight years of age you can make your own posts; with trees over 15 years you can make battens.

Because the wood quickly gets sticky and difficult to work with, it is much better to process a tree from felling to peeled and stacked post in the same day rather than cut down several trees and process them over a longer period.

- Before taking out the chainsaw, plan what type of posts or battens to cut from which part of your trees. See the sketches below for a guide. The hardest piece to find is for stays: the ideal is a double trunked tree to have a piece small enough yet mature enough. Do not waste your time with round posts at the top of the tree, the wood is too young and the staples will fall out. The posts from a larger tree with three cut sides make good posts for stockyards or for railings. The wide slab posts are good for angle posts or in unstable ground. For battens, pruned butts (the length of timber above the tree stump) make the best option, but be ruthless in discarding poor pieces with knots etc.; the cost doubles from milling a piece to having it treated.
- After felling a tree, mark it off into post lengths, taking care to avoid knots in the middle of the post lengths even if this means cutting out a block to waste. Don't be too fussy if a post butt is not straight (nobody is going to see it and it helps the post from twisting). If the tree is a comfortable cutting height above the ground you can rip* it at this stage, otherwise cut the post lengths and take them to a place where you can lift them clear of the ground for ripping. (* ripping means cutting along the grain of the wood.)
- When ripping, always cut with the chainsaw blade as perpendicular as possible to the wood (ripping with the saw at a low angle to the trunk will result in long slivers of wood quickly clogging up the saw). You may wish to nail a board along the cut line to get it straight but after a while you will not need this provided you always cut straight downwards and not at an angle.
- Stand the post up against something and peel the bark off with a good sharp axe.
- Stack the posts immediately, as within a few minutes they get sticky to handle.
- Dry the posts, either by air-drying on site or at a treatment plant. Carry out this test on a few posts to see if you can air-dry on site: if air-drying posts develop a white fungus on them they have failed the test, as this is the fruiting part of the fungus and by then it has passed through the wood. If you are in an area where you can air dry, spray them with anti sap stain (get it from a sawmill) but be sure to have an open stack and use dry wood over 50mm thick as fillets to separate the drying posts. Here, at Hunterville, we are not able to air dry wood over 50mm thick, so have to take the posts to a treatment plant to be dried (adds about $1 per post to total cost). Battens should always be treated H4. Posts cost about $3 each to treat, including transportation.

Cost savings are not major when labour is taken into account. However, making your own fence posts utilises timber that would otherwise be thinned to waste.



Fire !!!

FIRE FIGHTING

Offering some practical fire fighting tips is Bay of Plenty Regional Rep. Stephen Parr. Stephen has been a forest fire officer for about 20 years and also studied fire control methods in USA and Australia under a travel scholarship some years ago.

We usually associate fire fighting with water, but in many cases this is not available and we have to turn to other means. In the absence of readily available water, a small fire can often be controlled directly with hand tools, while a larger fire may have to be controlled by a firebreak and allowed to burn out.

One of the best fire fighting tools is the long handled shovel. The shovel can be used to beat out flames near ground level such as in grass fires, (where it is safe to do so). It is also very useful for digging and throwing dirt to "knock down" flames either in grass fires or burning shrubs.

A fire creeping along the ground can be often be controlled by a narrow firebreak made using shovels.

Back to water. It is amazing how effective a small amount of water can be when applied as a fine mist or spray from a backpack sprayer. Many farms have an old sprayer lurking about, and this could be turned into a highly effective piece of fire fighting equipment. Water in larger quantities can be used by helicopter buckets, refilling water tankers, and for the lightweight Wajax pumps used in rural fire fighters to feed hose lines.

When a rural fire crew arrives at a fire it can be very useful to be met with information about the location and volume of local water supply.

Fire fighting should always be carried out in a group where members look after each other's safety as well as fighting the fire. Personal safety is extremely important. It is better to watch a fire burning than to feel yourself burning.

There are many traps for the unwary and it is better to leave fire fighting to the experts unless you are absolutely sure of your own safety. Your time may be better spent using your local knowledge to prepare for the arrival of the fire-fighting unit. Work out how the fire fighter can best get to the fire. Work out which way the fire is heading and if there are any useful features ahead that can be used as a natural fire break. Do not get lost in the smoke.

If you consider that your property may be at general or special risk from a fire in the future, there are some basic things you could consider.

1. Find out about your local fire-fighting unit. Its location and how to contact them.
2. Consider volunteering as extra manpower in case of major fire.
3. Be aware of the location and access to water points near you. If necessary, clear or construct access to the best water filling points.
4. Know what fire fighting tools you have and keep them handy. Shovels, slashers, and backpack sprayers are best.
5. If you do get involved in fire fighting wear safe clothing. Keep away from synthetic clothing. Cotton overalls and leather boots are best. A cap is essential to keep sparks out of your hair.
6. Take water to drink.
7. Keep a first aid kit handy and know what to do treat burns.

Attention Covenantors:

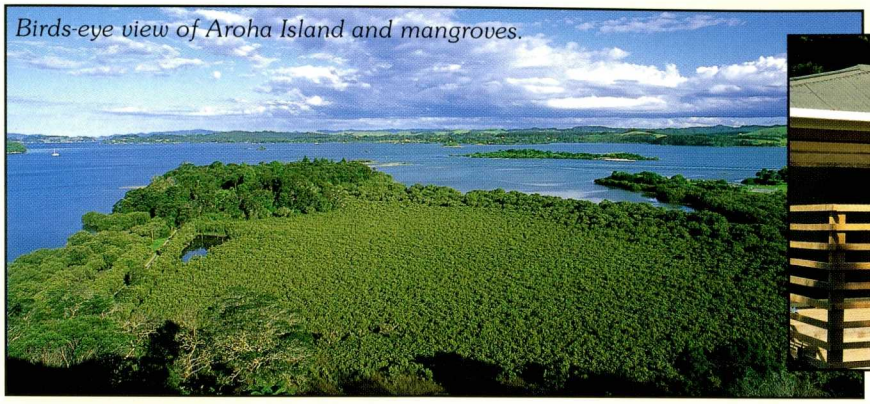
Under the Forest & Rural Fires Act (1977), the National Rural Fire Authority (consisting of members from territorial authorities, Ministry of Defence and Department of Conservation) is required to collect information on 'Conservation Areas', for the purposes of fire fighting.

We wish to make covenantors aware that the National Trust is obliged to supply the National Rural Fire Authority with information regarding the boundaries of covenants and properties – so that 'conservation sensitive' fire practices can be utilised, where appropriate.

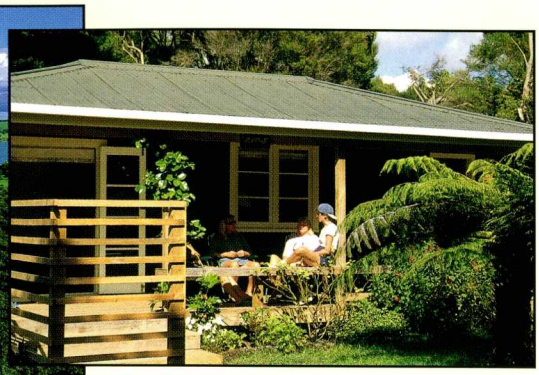
If you have any objections to, or comments on, the use of this information, please contact the Trust.

In instances where land is occupied for farming purposes, or is 'specially protected property', the National Rural Fire Authority is obliged to "ensure that the interests of landholders and other persons having rights in or over such land or property are represented on the committee".

To find out more about the National Rural Fire Authority, visit: http://nrfa.fire.org.nz/



Birds-eye view of Aroha Island and mangroves.



Cottage accommodation.

Aroha – the island of Love

By Stuart Chambers

The highlight of a visit north earlier this year was a stay on the National Trust property of Aroha Island in the Bay of Islands. This was a place we knew well several years ago when the ecological centre there was being established, but to which we had not returned for over two years. It is located on the north side of the Kerikeri Inlet about 12 km from the famous Stone Store, and is accessed by a causeway through the mangroves.

The road to it from Kerikeri was still the same mix of Northland roughness with yellow clay banks, manuka verges, kikuyu grass and paspalum seed-head, intermingled here and there with the blue of the Kerikeri Inlet. Only the white, painted kiwis on the tarmac were different.

Upon arrival on the causeway the island, too, shared the northern roughness with its mangrove verges and the rather dull green of the distant kanuka tops.

However at the Aroha Island Ecological Centre, the island's feel suddenly returned. Here there was an excitement, not only that of the person returning home, but of a peacefulness and restfulness which quickly overwhelmed you. It felt good to be back.

The Centre, with its cottage nearby, is set among low shrubs of coprosma, kanuka, kohekohe and matipo, plus a sprinkling of exotic trees, and it is immediately peaceful. Here and there, tui fly to sugar water feeders, quail wander off the drive with families of chicks, and barbary doves, reminiscent of Africa, call from nearby trees. Had we stayed at the road gate and decided not to enter, this is the atmosphere we would have missed.

Inside the Centre itself the same peacefulness pervaded. One could take a short time out to watch a video on a range of subjects - including the problems confronting the national icon, the kiwi, or wander among a range of displays which provide information of the local area, the kiwi, and the work of the National Trust. Then to sit on the verandah and watch the grey warblers in the trees, while listening to the cicada singing, added another bonus.

The centre is popular with school groups.

On top of all of this pleasant atmosphere was the hospitality of our hosts Gay and Greg Blunden, plus a good sighting of a kiwi from the track just behind the cottage where we stayed the night.

This island, and its Centre concept, is a great National Trust asset.

Unlike the British National Trust, the New Zealand equivalent has very little in the way of a physical appearance. It has a role of the protection of natural assets via a covenanting process. Perhaps unfortunately, covenants (which are agreements with landowners) are virtually invisible to the public at large and generally go unnoticed.

It was therefore great to view a physical side of the work of the Trust and to watch the general public coming and going and spending time reading and learning about its work and about conservation generally. And people did learn. It was not just a cursory glance and a toilet stop at this Centre. People appeared reluctant to leave. The place seemed to absorb them, and there was so much to see, all of which was displayed in an easy and enjoyable manner in a pleasant and restful atmosphere.

To the outsider looking in after a considerable time lapse, this Centre seemed to demonstrate how different the public view of the National Trust might be if its forefathers had set off in another direction, on a path similar to that of the British National Trust with its huge membership and its very many assets by way of land and buildings.

That is not to say that the National Trust's work in covenanting has not been valuable. It has. But judging by two nights on Aroha Island, with the public coming and going, we got the feeling that whereas a covenant might save a seedling, the Aroha Island Ecological Centre was catering to a wide ranging and uninitiated public while providing a taste of what conservation, and kiwi conservation in particular, was really all about.

I came away thinking that New Zealand was not too small to have many more Aroha Islands scattered about a National Trust based more on the British model and with a popularity to match.

The following article comes from The Economist's website. I think it demonstrates that private land protection is a vital component in the worldwide need to protect rare and endangered species. It illustrates that, with a little support, private landholders are adding significant value throughout the world and that voluntary efforts must be supported as one method of enhancing and protecting much of what endemic biodiversity remains.

Tim Cossar CEO.

Private nature reserves
Freelance conservationists

Private parks are springing up all around the world. If conservationists are to achieve their goals, therefore, they must work with the private sector.

Photo courtesy of C.E. Barwell

Photo courtesy of C.E. Barwell

Yellow-eyed penguin (above) and fernbird (below) – 2 examples of NZ species protected on covenanted land.

In the days of Captain Cook, Hawaii's native goose, the nene (pronounced neh-neh), was abundant. By the 1950s it was almost extinct. What nearly cooked this particular goose was not, however, the Hawaiian habit of baking it in underground ovens for supper, but the loss of its habitat – most of which has become farmland. Today, successful captive breeding programmes have produced hundreds of nene, but that is only half the battle. If the goose is to prosper, it must be returned to the wild. That means restoring its habitat. And that, in turn, means dealing with the private landowners on the island of Molokai whose property is the most suitable for nenes to live on.

According to researchers at a meeting of the Society for Conservation Biology held in Hilo, on Hawaii, earlier this month [August 2001], the nene is not alone. Many conservationists see government-run national parks as the key to the survival of endangered species. In America, however, between a third and a half of such species are believed to live only on privately owned land. And in many other countries the role of private reserves is even more crucial. The national parks in impoverished tropical countries are often poorly protected or even poached with the connivance of corrupt officials – and some exist only on paper. In these places, private parks may actually offer better protection to wildlife than their publicly owned counterparts. Governments that care (or wish to be seen to care) about wildlife conservation would thus do well to encourage the growth of private reserves.

Money isn't everything

As Jeffrey Langholz, a researcher in international environmental policy at the Monterey Institute of International Studies, in California, told the conference, private reserves already constitute about an eighth of the total amount of land on which wildlife is protected around the world. And in some countries, notably Brazil, Chile, Colombia, Kenya and South Africa, their area is growing fast.

Unfortunately, while many governments would like to encourage private conservation, they often have little idea how to do it. That, in turn, is due to a misunderstanding about why people have set up such reserves in the first place. For example, Dr Langholz has surveyed the owners of many private reserves in Costa Rica, where they protect some 640km^2 of land. He found that government offerings to these owners – in the form of tax breaks, protection against occupation by squatters and access to technical assistance – had little incentive value.

That was because the majority of owners are not motivated primarily by money. Only 30% of them rely on their reserves for steady stream of income, in the form of revenue from "ecotourists". (This may be abnormally low: a wide-ranging survey of private reserves in Africa and Latin America suggests that 59% of those that host ecotourism are profitable.) Most owners say they are more concerned about threats to biodiversity, and what they see as the failure of governments to promote conservation. One, who prefers to remain anonymous, used to run one of the largest logging operations in the Amazon. Now he is dedicated to protecting his private reserve of 10km^2 of Costa Rican forest in penance for his earlier career.

Even profitable reserves

frequently have their revenue devoted to conservation, rather than the owner's bank balance. Some idea of the economics involved can be gathered from the example of a Costa Rican reserve that made profits of more than $3m in its first six years of operation. The owners used $1.2m of that to pay off the loan for the original land purchase. But, instead of spending the rest on champagne and cruises, they invested another $1.1m in an endowment fund that is intended to pay for the reserve's protection in perpetuity.

Costa Rica is not alone in this potential misunderstanding between governments and landowners, though the details differ from place to place. In the United States, for example, landowners' perceptions are often that the government is doing too much for conservation, not too little.

A few years ago a scheme for registering natural landmarks, including the habitats of endangered species, in America, backfired because it failed to take account of the country's strong tradition of property rights. Even today, after the scheme has been made voluntary (it was originally compulsory) it is still regarded by some landowners as part of a conspiracy by the government to acquire control of their property. A similar problem was encountered with the Endangered Species Act. Initially, this had the perverse effect of making it harder to persuade people to agree to promote habitat conservation on their land. The fear was that the arrival of a rare species would restrict the use an owner could make of that land in the future. An experimental scheme is now trying to get round this, granting exemptions from such restrictions for those who "invite" rare species on to their property.

Not all American landowners feel the same way. In Hawaii, regarded by some as the "world capital" of extinction because of the number of unique species it has lost since it was first settled by people, the largest private landowner in the state is prepared to compromise profit for conservation. Kamehameha Schools is a trust that owns 1,500km^2 of land (originally a legacy from one of Hawaii's last princesses). The trust's income is used to run schools for Hawaiian children. Most of this income, though, comes from investments rather than land exploitation. As a result, half of the trust's land is kept for conservation purposes and generates no revenue at all.

Many private owners favour conservation over profit

This apparent contradiction of the trust's official purpose is justified, according to Peter Simmons, its senior land manager, because, as Hawaiian landowners, the trustees "care spiritually, and in some cases religiously, about the land". This, he says, is connected to the belief that livelihood and quality of life are directly related to the quality and life of the land.

Noble sentiments. And ones that seem to motivate many custodians of private reserves in other countries, too. Whether they will be enough to re-establish the nene, remains to be seen.

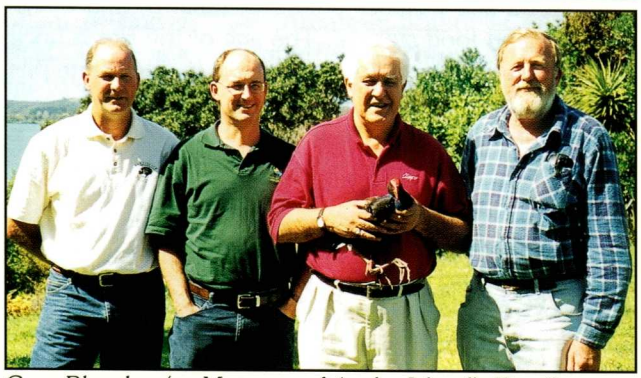
Chairperson and CEO visit Northland

By Greg Blunden

Chairperson of the National Trust, Sir Paul Reeves, and Chief Executive Officer, Tim Cossar, spent two days in Northland in September. The purpose of the visit was to experience at first hand the recent developments at Aroha Island and to visit a range of open space covenants and meet covenantors.

Their overnight stay at Aroha included listening to and spotting North Island brown kiwi, inspecting the partly revamped walking tracks around the island, the revegetation project and associated nurseries, as well as the recently built injured bird enclosure. Sir Paul described Aroha as "the jewel in the National Trust crown" in an article in the local paper, *The Chronicle*. Discussions were also held about two upcoming projects, additions to the ablution block to facilitate school environmental camps, which have become a key activity at Aroha, and an observation platform in the mangroves for visitors during the day and kiwi listening at night.

As well as co-managing Aroha with his wife Gay, Greg Blunden is now the Far North National Trust Regional Rep. Greg introduced Sir Paul, Tim Cossar and Dick Ryan



Greg Blunden (co-Manager of Aroha Island), Tim Cossar, Sir Paul Reeves (holding Pookie the pukeko), and Director Dick Ryan on the front lawn at Aroha.

to Neil and Marie Driver, at Matauri Bay, who guided the group through the new covenant at Lonsdale Park. Neil and Marie are long-time covenantors as well as being on the Lonsdale Park Trust Board. This new covenant is interesting not only because of the quality of the protected bush but also because there is a public use area for those staying at Lonsdale Park, primarily youth and school groups.

Greg then guided Sir Paul and Tim through the covenant at Waiaua Bay Farm to see the c.700 year old kauri (see *Open Space* #51). The party was also shown around the Lodge at Kauri Cliffs Golf Course on the property by the Manager Hendrick Wassenaar.

Just out of interest:

The theme for Fieldays 2002 at Mystery Creek is "Landcare – Action on the Ground", with the sub-theme "Our Land, our Future".

The NZ Landcare Trust, who many of our readers will be familiar with, is working closely with the National Fieldays Society towards this event.

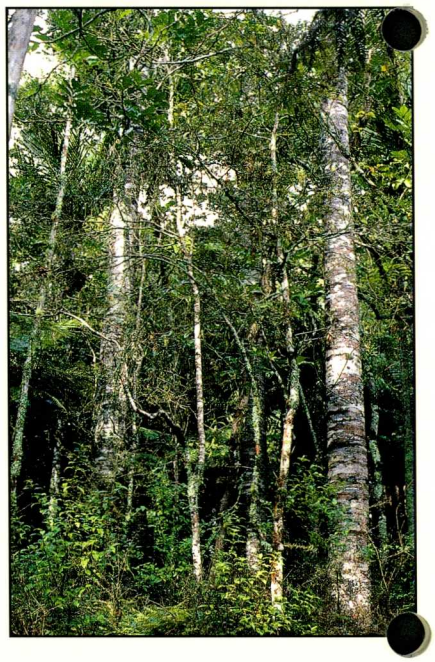
The Landcare Trust was established in 1996 and is focused on sustainable land management and on promoting biodiversity. The Trust has seven trustees representing interests in agricultural production, the environment, and outdoor recreation, who oversee the direction of the Trust. It also has a team of co-ordinators throughout the country working directly with groups, facilitating and helping them to source resources.

The Fieldays theme embraces environmental, economic and sustainable land management practices and aims to help secure the future of farming in New Zealand. Our clean and green image is worth billions of dollars in export sales and is a major overseas marketing tool. More work is needed, however, to ensure that the reality fits the image. Fieldays 2002 will feature landcare in action, and give practical examples and ideas about how agribusiness can embrace sustainable land management practices.

For further information about Mystery Creek, email fieldays2002@landcare.org.nz

Walk into history at Paparoa Pa Site.

There is something new to visit at Paparoa, on the north Kaipara Harbour coast.



The Paparoa Lions Club has developed a walking track that leads from the township car park, over a bridge, through native forest, over another bridge, through more native forest, to an historic and well-preserved Pa site.

The Pa site and second block of forest that the track leads through - 8 hectares of mixed podocarp forest, with mature kauri, rimu and kahikatea - was covenanted by Tom and Kathy Pow of Wiremu Farm Limited in 1989. Theodor and Anita Mathis covenanted the first block of forest that the trail traverses – 2.5 hectares of totara and other podocarps - in 1993. Dr and Mrs Sherwin now own both properties.

The Pa site includes defensive ditches, and open pits associated with buildings and food storage. The age of the site is uncertain, but a count of tree rings from a large totara growing in one of the pits has shown it is over 250 years old.

The first section of the trail, to the foot of the pa, is an easy 20 minutes walk. The second section climbs at a moderate grade and takes a further 30 minutes.

LICKFOLD BEQUEST

By John Bishop

A substantial bequest has been received by the Trust from the estate of the late Mona "Bonnie" Lickfold.

Bonnie and Alf Lickfold settled on a 285-hectare property on White Pine Bush Road, south from Whakatane, in 1946. Mr Lickfold died in 1990, and Mrs Lickfold in tragic circumstances in 1997.

In her Will, Bonnie Lickfold provided for the principal beneficiaries of her estate to be the Cancer Society and the Trust.

"Receipt of this bequest was an unexpected but very welcome surprise", said Trust Chairperson, Sir Paul Reeves. "The bequest moneys are now held as part of the Trust Reserve Fund, and are known as the Mona Lickfold Memorial Fund, to be applied by the Trust for the protection of indigenous forest."

GIFTS AND BEQUESTS

The National Trust is naturally always grateful for cash gifts or bequests, as these assist the Trust in its work.

If you are contemplating making a gift or leaving a bequest to the National Trust, or you would like to talk about possibilities, contact me any time at either the Trust Office, Wellington, or by way of my home telephone (04) 970 7496.

John Bishop, Estate Manager

Trust People

CEO Moves On

After two years with the Trust, Chief Executive Officer Tim Cossar is moving on. He is due to finish at the Trust on December 31st. In the New Year, he takes up the position of CEO at Totally Wellington.

Calling all Honorary Covenantors*

By Susan Halse (Trust Secretary)

**Not sure if you're an Honorary Covenantor? See the simple 3-point checklist at the bottom of this item to find out.*

Do you still own the property which entitled you to Honorary Covenant membership? If so, please check your National Trust membership card to see the expiry date. If your card shows an expiry date up to 31 March 2001, I would like to hear from you. Also, if you are an Honorary Covenantor and have never received a card, I would like to hear from you, too.

My email is shalse@qe2nattrust.org.nz or you can telephone me on freephone 0508 732 878.

Checklist

- Do you own a property?
- Is there a QEII National Trust open space covenant recorded on the property title?
- Was the open space covenant already on the title before you purchased the property?

If you answered "Yes" to each of these questions, then, congratulations, you are an Honorary Covenantor!

Please note - your honorary covenant membership expires when you transfer your property to another owner.

Obituaries

The Trust notes with sadness the recent deaths of Barbara Kay and Ron Hartree, and the death of Tom Goldie earlier this year.

Tom Goldie from Algies Bay died in February. Mr Goldie, together with co-owners Theresa and Stewart Brock of Manurewa, was responsible for one of the first Kawenata Maori registered by the Trust.

The kawenata (covenant) protects a 110ha block of Maori freehold land at Whanarua Bay, northeast from Opotiki. The protected area comprises a complete altitudinal vegetation sequence from coastal pohutukawa forest to montane hard beech, tawari, kamahi, quintinia forest.

Mr Goldie demonstrated total determination, over a ten year period, in his endeavours to put the kawenata in place.

The Waimapihi Wetland, a small but ecologically important wetland at Pukerua Bay, near Wellington, is a permanent memorial to **Barbara Kay** who died in August.

Waimapihi Wetland at Pukerua Bay.

Barbara was passionate about the need to preserve the area. She and her husband, Richard, completed registration of a covenant over the wetland in December 2000, thus ensuring it will be protected as intensification of urbanisation in the locality occurs.

The death during September of **Ron Hartree** of Patoka (inland from Napier) severed a unique association he had with the Trust.

Members of the Hartree family, including Ron, are co-owners of a 213-hectare block of podocarp-beach forest at Puketitiri. The Hartree family maintains a close and committed involvement and interest in the protective management of Hartree Forest.

Trust staff remember well the clear objectives Ron Hartree expressed for the protection of not only this particular forest block but for trees in general. On his own property, "Mahoe", he was instrumental in establishing a substantial and impressive arboretum of non-indigenous tree species.

Ron Hartree brought to discussions with the Trust on management issues a forthright approach and determination to ensure appropriate action was taken for the long-term well being of Hartree Forest. His foresight, commitment and contribution will be remembered.

By John Bishop

Congratulations

Amateur botanists and Trust supporters **Barbara Mitcalfe** and **Chris Horne** were awarded a regional Conservation Award by Conservation Minister Sandra Lee at Parliament in August. The Wellington duo have a real passion for plants, and they have been active members of the Wellington Botanical Society for over 20 years. Barbara and Chris have been involved in restoration of Karori Wildlife Sanctuary and Otari-Wilton's Bush Reserve, they lead walks through the Botanic Gardens and the Town Belt, and Barbara also leads glow-worm tours at night through Otari.

Barbara is a key trustee of the Wellington Natural Heritage Trust (Inc), which is working towards covenanting a large block of regenerating bush adjacent to the Karori Wildlife Sanctuary.

VISIT AROHA ISLAND

While in Northland, a "must visit" is the Aroha Island Ecological Centre.

During the summer holiday period, opening hours are generally 8.30 am to 6.00pm daily.

The following Trust covenantors were successful at the recent local body elections:

Clutha District	Bruce Vollweiller	*Gisborne District*	Gary Hope and Patricia Seymour
Central Hawkes Bay District	James Hunter	*Hawke's Bay Regional*	Adrienne Williams
Environment Canterbury	Robert Johnston	*Kaipara District*	Richard Alspach
Far North District	John Klaricich	*Waipa District*	Alan Livingston (Mayor)

Covenants Update

As at 31 October 2001, there were 1512 registered Open Space Covenants totalling 55597 hectares.

The breakdown by Land District (which differs from our Regional Rep. boundaries) is as follows:

Region	**No. of Covenants**	**Area Protected** (ha)
North Auckland	332	6142
South Auckland	329	10246
Gisborne	75	8987
Hawkes Bay	82	2514
Taranaki	93	2486
Wellington	251	11739
Marlborough	15	691
Nelson	75	2170
Westland	6	180
Canterbury	111	3258
Otago	56	5348
Southland	87	1836
TOTAL	**1512**	**55597**

A further 286 covenants, covering over 16,000 hectares, have been approved by the Board and are moving towards registration.

Reciprocal Arrangements

Thinking of heading overseas? The Trust is pleased to advise that reciprocal arrangements to visit National Trust properties overseas are still in place with the following countries or cities:

England
Scotland
Australia (all States)
Barbados
Atlanta, Georgia
Japan
Fiji
Zimbabwe

We are still waiting to hear from Bermuda and Gibraltar. When advice comes in from these countries we will let you know.

These reciprocal arrangements entitle QEII National Trust members to free or reduced cost entry to National Trust properties in these countries or cities.

TRUST BOARD ACTIVITIES

National Trust Directors nominated for Biodiversity Contestable Funds Committee

The National Trust has nominated Directors Bill Garland and Geoff Walls to be members of the committee that will allocate Government funds approved for a Biodiversity Advisory Service and improving the condition of biodiversity on private lands.

The funding programme was outlined at the launch of the Government's New Zealand Biodiversity Strategy (see Open Space #51). Funding in Year 1 (2001/02) is: Advisory Service - $404,000 and Improvement Fund - $250,000.

At the time of writing, confirmation as to the make up of the committee had not been received.

Tim Cossar
Chief Executive Officer

Board Meeting dates

Proposed Board meeting dates for 2002 are as follows:- 19th & 20th February, 7th & 8th May, 16th & 17th July, 17th & 18th September, and 12th and 13th November. Any changes to these dates we will advise accordingly.

Director Appointment

The position on the Trust Board of incumbent Director Patricia Seymour came up for appointment on 30 September 2001.

This position on the Board is a Ministerial appointment (by the Minister of Conservation). In making the appointment, the Minister is required to have due regard to the interests of rural landowners and is required to consult with Federated Farmers of New Zealand and the Minister of Agriculture.

In early August, the pending Director position was advertised and 22 nominations were received for the position. These nominations have been forwarded to the Minister of Conservation for consideration. Mrs Seymour remains a Director pending a decision by the Minister.

Annual Report

The National Trust's Annual Report to Parliament for the year ending 30 June 2001 has been published.

Key points are:

- The Trust's open space covenant mechanism continues to be the protection method most frequently chosen by private landholders.
- The Trust's working relationship with territorial authorities continues to develop, and is a strategic objective.
- The Trust received an additional $400,000 (incl. GST) of NZ Biodiversity Strategy Funding in the year.
- There were 116 covenant projects approved covering 7928 hectares during the year.
- The Minister of Conservation appointed Sir Paul Reeves as Chairperson, and Dick Ryan and Lorraine Stephenson as Directors of the Trust Board.
- Membership elections resulted in incumbent Directors Bill Garland and Geoff Walls being re-elected.

For a full copy of the report, visit www.nationaltrust.org.nz or phone 0508 QE2 TRUST (732 878).

National Trust

Board of Directors

Sir Paul Reeves, GCMG, GCVO, QSO, Chairperson;
Patricia Seymour, OBE;
Bill Garland; **Geoff Walls**;
Dick Ryan;
Lorraine Stephenson

Chief Executive Officer
Tim Cossar

Regional Representatives

Far North
Greg Blunden Tel: 09 407 5243
Central Northland
Nan Pullman Tel/Fax 09 4343 457
Auckland
Rex Smith Tel: 09 622 2303
Waikato & King Country
Gerry Kessels Tel: 07 825 9025
Bay of Plenty
Stephen Parr Tel: 07 544 4733
Gisborne
Malcolm Piper Tel/Fax: 06 867 0255
Hawkes Bay
Marie Taylor Tel: 06 836 7018
Taranaki
Neil Phillips Tel: 06 762 2773
Manawatu/Wanganui/ National Park/Taupo
Bruce Kirk Tel/Fax: 06 325 8723
Wairarapa
John Kirby Tel: 06 378 7458
Wellington
Tel: 04 472 6626
Freephone: 0508 732 878
Nelson/Marlborough/West Coast
Martin Conway Tel/Fax: 03 542 3712
Canterbury
Miles Giller Tel/Fax: 03 313 5315
Coastal Otago
Helen Clarke Tel: 03 454 3320
South Island High Country
Dr Brian Molloy Tel: 03 348 1077
Southland
Gay Munro Tel: 03 239 5827
www.converge.org.nz/ntsth

Aroha Ecological Centre
Tel: 09 407 5243

Open Space is published by the Queen Elizabeth II National Trust, P O Box 3341, Wellington, NZ
St. Laurence House, Level 4, 138 The Terrace, Wellington.

Telephone: 04 472 6626
Fax: 04 472 5578

Freephone: 0508 (QE2TRUST) 732 878

E-mail: qe2@qe2nattrust.org.nz

Website: www.nationaltrust.org.nz

OHAU AWESOME

Nested kettle hole tarns.

On the 5149-hectare Ohau Downs Station, **John Blue** has covenanted 1185 hectares of tarn, wetland, shrubland and tussock grassland communities.

The protected area includes classic ice-derived kettlehole depressions supporting permanent tarns (Raupo and Swan Lagoons) and ephemeral ponds with characteristic short turfy vegetation. There is extensive mixed grey scrub (*Discaria*, *Coprosma*) on the terminal moraines of Lake Ohau, and scattered cassinia shrubland on older moraines. Turf vegetation, rich in species, on pond and tarn margins, and significant aquatic and semi-aquatic communities are special features. Another feature of the protected area is the shoreline shrubland (on the southern edge of Lake Ohau) with vigorous native broom – *Carmichaelia betriei* - and the local *Coprosma intertexta*, and a rich fauna of widespread and endemic species. A large part of the covenanted area was identified as an RAP in the Mackenzie Ecological Region PNA survey (1984).

Wetlands within the covenant are an important breeding and loafing area for waterfowl and waders including duck, swan, Canada geese, terns, oystercatcher, and pied and black stilt. There are native fish in permanent ponds and streams, and endemic invertebrates and the rare Otago skink are present in stony shrublands.

Shrubland on glacial moraine deposits.

Regional Rep. Brian Molloy advises that the area has retained its distinctive landscape character because the owner, John Blue, and his father before him, have demonstrated a good understanding of natural processes and limitations particular to the land. Pastoral farming of the land will continue in terms of the past and current management practices, which are considered to be largely responsible for the present diversity and condition of the vegetation.

"However, to ensure that the objectives of the covenant are being achieved, the protected area will be monitored, using approved methods, to confirm the appropriateness of management", said Dr Molloy. "The initial focus of monitoring will cover the tarn/pond margins and surrounding well-drained lands, but this may be extended or modified, depending on the assessment of the results of monitoring, or should significant changes of farm practice be contemplated."

The Ohau Downs Station covenant is an area of outstanding visual appeal, readily seen by the travelling public passing through it en route to Lake Ohau. It is also a wildlife habitat of regional and national importance, and is regarded as one of the best wetlands of its kind in the country.

The commitment of present owner John Blue to the protection and sustainable management of these values over such an extensive area within a farming operation is acknowledged. Achievement of the objectives of the covenant is a challenging and exciting prospect for both the owner and the Trust.

Lake Ohau.

For more information about the National Trust and its work,
visit our website - www.nationaltrust.org.nz