



Queen Elizabeth II

National Trust

For open space in New Zealand

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Nga Kairauhi Papa

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NORTH TARANAKI TREASURE

A magnificent 182 hectare forest on steep hill country has been protected by way of an open space covenant by owners, Michael Connolly and Andrea Simmonds. The forest is located at Matiere, 13 kilometres from Ohura, northwest of Taumarunui.

Regional Representative Ross Bishop notes that these narrow valley floors with steep hill slopes are typical of the finely dissected hill country on the eastern edge of the North Taranaki ecological district.

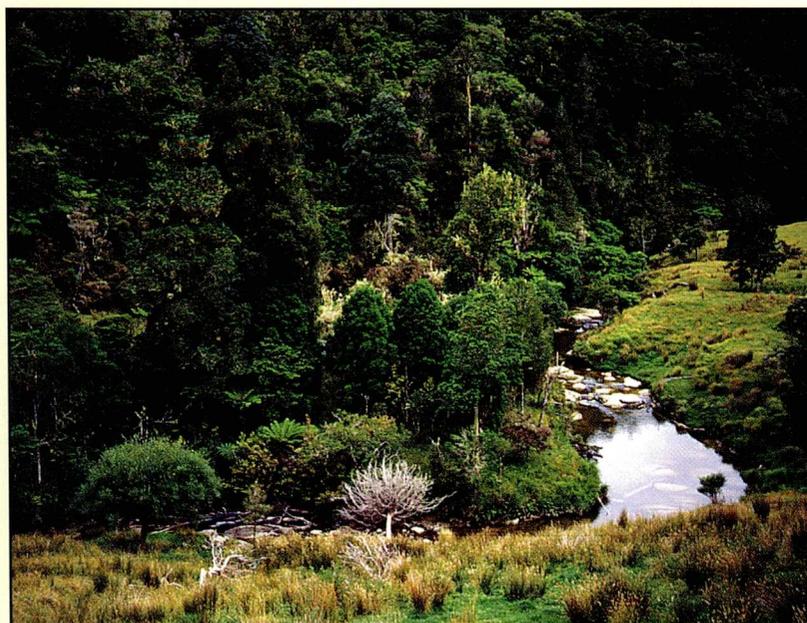
The bush is young lowland podocarp hardwood forest, predominantly tawa, with miro, rewarewa, totara, tanekaha, rimu, kamahi, hinau, pukatea and hard beech. The canopy is intact, except where slips have

occurred, and podocarps are just starting to emerge through the canopy.

"The main emergents are rewarewa and hard beech on the drier ridges and side spurs, with pukatea in the gully bottoms. Kamahi takes over from tawa as the main canopy species on the higher ridges, except for scattered pockets of hard beech," notes Ross.

"This association has an understorey of mainly mingimingi and heketara, with a sparse ground cover, except for some quite extensive areas of kidney fern. The lower, moister slopes have the greatest diversity of species, the most notable being tanekaha, which is well represented."

Ross says: "I think it's a brilliant covenant. It is



View of the southern boundary of the Connolly and Simmonds covenant.

important for its catchment values, because its steep sandstone ridges are quite erodible if they are cleared."

"There are very few large blocks like this left on private land, and so it's good to have it protected. Michael and Andrea are ardent conservationists, and they decided they didn't want any part of logging operations which have continued to cause incremental loss of native forest throughout the district."

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ENDOWMENT PLANTINGS

One of the Trust's earlier covenantors with properties in the Manawatu and Rangitikei districts, Hew McKellar, practices what he advocates.

"If we establish an open space covenant, we should also ensure we invest an area within the covenant boundary to farm forestry, ensuring that the maintenance of that covenant's fencing is also assured in perpetuity."

"Most areas retired for bush or forest remnant covenants have open gaps within the fenceline which can be planted," Hew says. "If the area is still to be fenced, then allow and include an area for the planting of a suitable and harvestable tree crop."

Hew is a man of his word, and has a range of exotic trees strategically planted on his hill country property near Hunterville.

To the purist the word exotic can conjure up all manner of resistance, but the operative words are "strategically planted".

By carefully planning the planting sites for such exotics, the view from likely vantage points need not be affected.

The use of exotic species such as Tasmanian blackwoods can appear aesthetically acceptable adjacent to indigenous species, and provided they are well managed, can provide a very good return.

FROM THE TRUST MANAGER

Election for Directors: February 1998

Early next year the Trust will be conducting the triennial election for two directors. This may be your opportunity to contribute directly to the work and the direction of the Trust. The two current elected directors, Mr Arthur Cowan and Dr Brian Molloy will both have served their maximum term of nine years on the Trust Board by then.

The six person Trust Board meets five times per year, normally for a two day meeting. The first day considers policy and strategic issues, while the second day is given over to the full consideration of applications for open space covenants. Between Board meetings directors may, from time to time, be involved in a range of activities such as field days, meetings with other organisations or even seeking support from the corporate sector.

Directors receive a modest daily allowance and have their travel and accommodation expenses covered while on Trust business.

I will be sending out nomination forms to all members later this year and the election itself will take place in February 1998.

Please give some thought to whether your skills, background and contacts would be of benefit to the Trust Board.

Congratulations

On the subject of Trust directors, two recently received awards of note:-

Dr Brian Molloy became an Officer of the New Zealand Order of Merit for services to conservation in the recent Queen's Birthday honours.

Patricia Seymour and her husband were awarded the North Island Farm Foresters of the Year by the NZ Farm Forestry Association for both the farm forestry achievements on their property north of Gisborne and wider advocacy of the merits of farm forestry.

Tim Porteous

Trust Manager

Visitors to the McKellar property are struck by the diversity of exotics grown, and the use Hew McKellar has already put the various trees to. Besides the generally accepted *Pinus radiata*, Hew has *Cupressus lusitanica* and some species of eucalyptus.

Most interesting of all is that his farm is one of two where numerous samples of poplar species and hybrids are field trialed by HortResearch's Aokautere Research Centre.

This work is spearheaded by Allan Wilkinson who has spent the past 25 years selecting stock from around the world to develop hybrids with such qualities as possum resistance, rust resistance, shelter type, timber type, soil conservation values, amenity type, and pulp and chip production.

Hew has demonstrated on his own properties the value of many exotics, and is totally convincing in his argument as

to their cost effectiveness.

"It's no use burying our head in the sand over the exotic issue. We've got to be pragmatic. Natives and exotics can make for excellent co-existence, especially if we are serious about maintaining an effective fence in perpetuity. This is an ever-increasing burden on the Trust, and surely most of us can establish a small but effective resource."

Tips and Techniques

For Forest Management and Restoration

SELECTING A REVEGETATION METHOD

In *Open Space 37*, some of the issues to be considered in planning a revegetation project were discussed. In this issue the different revegetation options are considered.

The main methods are:

- Assisting natural regeneration
- Direct seeding
- Establishing a nurse crop
- Planting.

Assisting Natural Regeneration

This method can be an effective method of converting areas to native plants.

For success this method requires:

- a) Sufficient adjacent seed sources of quick-growing colonising species.
- b) An absence of grazing animals and control of animal pests.
- c) Control of competing grasses and weeds.

Natural regeneration in healthy forest areas can

be prolific. By contrast, at the edge of a remnant or planted area a dense grass sward may prevent native trees and shrubs from germinating and establishing.

The method involves the following:

- a) Remove the dense grass sward at the site by screefing (chipping off the surface vegetation to expose the soil) or spraying with knock-down herbicide. This is best done in mid-late summer in time for the annual native seed crop. Seed can be left to drop on to the prepared site from adjacent seeding native species or can be spread by hand. Alternatively, small seed-laden branches can be brought in from other sites and laid on the area.
- b) 12 to 18 months later a mixture of weeds, grasses and native seedlings will have germinated.
- c) Select 4 to 6 of the most vigorous native seedlings

in each square metre, hand weed around them and mark their position with a small stake.

- d) While protecting these seedlings with a shield of some form (eg. a 2 litre plastic drink bottle with the bottom cut out) spray out or screef away all the other germinating plants. The surplus native seedlings can be carefully dug out for potting up and growing on.
- e) Once the area has been cleared, it can be useful to mulch the area with shredded bark, sawdust, etc. to prevent the growth of further competing vegetation and to conserve the moisture around the selected plants.
- f) The selected plants will quickly grow together, shading the ground, making it less favourable for the growth of grass and weeds, and effectively extending the forest. Other shade-tolerant plants can be introduced under the colonising species.

2. Direct Seeding

Direct seeding is a relatively cheap supplement to hand planting of native trees and shrubs.

For success this method requires:

- Sufficiently large quantities of viable seed.
- Time to do the work in the right season.
- That optimum conditions are maintained during germination.
- That competition from invading, unwanted exotic species can be controlled.

Direct seeding involves the broadcasting or placing of seed directly into a prepared site where plants will germinate and grow. Because the conditions are inevitably less suitable for germination and early growth than a nursery situation, only a small percentage of seed will 'take'.

With many seeds, especially larger ones, there is a risk of damage by insects, birds, rodents and drying out.

However, where seed is plentiful or easily brought to site, the method can be useful.

The most critical factors in direct seeding are the elimination of competing plants, especially grasses, and the maintenance of a microclimate suitable for seed germination and growth. Grasses compete for available moisture in the soil and often outgrow and smother native seedlings. The ground can be suitably prepared by spraying with knockdown-herbicide, screefing, rotary hoeing, ripping, discing or ploughing. Ploughing has the advantage of putting the surface layer of grass, etc, under the soil.

3. Establishing a Nurse Crop

Often existing vegetation on a site, whether native or exotic, is useful as shelter for

establishing plants.

Where there is no vegetation existing, it is often advisable to establish a nurse crop to provide this initial shelter especially on exposed sites.

Commonly used nurse crop species include:

- Manuka
- Tree lucerne.

Succession to tall forest can be left to proceed slowly from wind or bird dispersed seed, or can be hastened by artificial manipulation of the stand by, for instance, thinning out some of the nurse crop plants and underplanting with native species.

a) Manuka

In many parts of New Zealand the native species which most often acts as a nurse plant in natural situations is the familiar manuka (*Leptospermum scoparium*). Manuka cover provides ideal conditions for the establishment of native trees and shrubs. Plants that can tolerate shade will grow up, overtop, and eventually eliminate the light-demanding manuka.

Manuka goes through a very dense "thicket" stage, when lack of light, and excessive competition for nutrients and water limits the growth of other species. When being used as a nurse crop, the manuka stand may have to be thinned to let in more light.

Characteristics that ensure the early and rapid establishment of manuka on a wide range of sites include:

- Its wide ecological tolerance.
- Vigorous growth.
- The ability to colonise inhospitable sites, especially those of low fertility and with low temperatures.

- Prolific production of light, wind-borne seed. Whole capsules are readily entangled or water borne so that humans, animals, and rivers also carry seed.
- Manuka seed fall occurs throughout the year, with a major peak in the late winter/spring and a minor peak in the autumn.
- Seed germinates over a wide temperature range and remains visible for several years.

Manuka forms a very dense ground cover with more than 400 plants per square metre in the beginning of a succession. As the stand develops and ages, the density declines, so that when the manuka is 5m high there are about 10 to 20 plants per square metre.

The time that it takes for a stand of manuka to regenerate to forest depends on the site and individual circumstances. Successions through manuka usually take less than 100 years and on fertile sites manuka can die out within 50 years. However, on some sites succession may be prolonged indefinitely, and stands of manuka can be permanent.

i) Laying Manuka Brush

It is possible to establish high densities of manuka seedlings by laying branches of manuka laden with ripe seed (brush), which bear semi-mature seed capsules, over bare or cultivated ground. If there is other vegetation, such as grass, it should first be cleared by either cultivation, burning or spraying. The brush is laid over the cultivated ground in several layers in a criss-cross fashion. This should not be laid too densely or it will shade out the germinating manuka. On windy slopes or steep areas, brush should be pegged

down, for example with number 8 wire.

As the cut plants dry out, the semi-mature capsules split open and release large quantities of seed. The leaves from the brush fall, covering the seeds and forming an excellent germination bed. The matrix of cut stems will improve the growing environment for the young seedlings (providing shelter, increased humidity, warmth). This site improvement greatly increases the chances of both the survival of manuka seedlings and the establishment of other species.

Manuka is light-demanding and forms even-aged stands with a closed canopy and more open conditions below. The uniform canopy height means that the younger or less vigorous manuka seedlings, and seedlings of the less vigorous and light-demanding species, are quickly suppressed. These may be weeds that are undesirable anyway.

ii) Direct Seeding of Manuka

Direct seeding of manuka seed is another method of

establishing a nurse cover. Ripe seed capsules are collected from trees and scattered over the newly burnt or cultivated ground. However, this method does not offer the same improved microclimate and growing conditions as the brush method. The less fertile the site the better are the chances that manuka will germinate and survive. Without further assistance, it will take up to 50 years before broadleaved species emerge through the manuka canopy. You can hasten the development of the stand by thinning and planting under manuka or kanuka.

iii) Planting a Mixture of Manuka and Other Quick-Growing Species

The crown spread of many other quick-growing species, such as *Coprosma* and *Pittosporum* species, is potentially greater than that of manuka. Canopy closure may be attained more rapidly if a mixture of all these species is used, including manuka.

b) Tree Lucerne

Tree lucerne

(*Chamaecytisus palmensis*), an exotic species, is a short-lived legume that can establish itself on a wide range of sites although its preference is for free-draining soils. It is useful for revegetation because it is fast growing (up to 2m in the first season following planting out), not too heavily foliated, tolerant of a range of conditions, and short-lived. It may be damaged by heavy frosts. From June to September, New Zealand pigeons (kereru) eat the flowers, shoots and foliage of tree lucerne, and, along with tui and bellbirds, eat the nectar from the flowers. Tree lucerne assists in the spread of the seeds of native trees and shrubs which are excreted by the pigeon. Tree lucerne also provides bees with pollen and nectar in early spring, when such bee forage is in short supply.

Tree lucerne is commonly supplied from nurseries in small peat pots or root trainers ready for planting out. Seed collected directly from trees can also be hand broadcast onto prepared sites.

RECENTLY REGISTERED COVENANTS

FAR NORTH

Matthews Covenant

When the Far North branch of the Royal Forest and Bird Protection Society visited the Matthews covenant at Kaitaia last December, the forest floor was covered in such a profusion of orchids it was hard to find a place to sit for lunch.

Ian Wilson, who chairs the branch, says the 70 hectare covenant contains numerous "really, really impressive orchids." So far the species

list includes four greenhood orchids, *Pterostylis banksii*, *P. graminea*, *P. trullifolia*, and *P. alobula*, as well as three other ground orchids *Cyrtostylis oblonga*, *Corybas oblongus* and *Acianthus sinclairii*, and two epiphytic orchids *Earina mucronata* and *E. autumnalis*.

As well as the profusion of the tiny orchids, the Matthews covenant is home to wonderful stands of kauri and provides part of the natural backdrop to Kaitaia.

The covenant was begun four years ago by Theo

Matthews, who died in October 1994, before it was registered.

His wife Christobel, and family members including sons Peter and John, fulfilled his wishes by continuing with the covenanting process, and in January this year the land was gifted to Forest and Bird.

Only five minutes drive south of Kaitaia, it's on Kaiawe Road, which is a small road off Larmers Road, the main access into the Herekino forest.

"Travelling south from Kaitaia on State Highway 1 about half the bush seen on the slopes of Mt Puketutu is

the Matthews block, and it runs almost to the summit."

"The forest varies from an area of advanced regeneration to the main area which has been untouched except for removal of a few logs. It's an excellent area typical of kauri forest," Mr Wilson says.

As well as many large trees, there are numerous kauri rickers, and many interesting species such as *Corokia buddleoides*. In a brief botanical survey, 130 plant species were recorded, but Mr Wilson expects a thorough survey this June will discover even more species.

"It's a good example of kauri forest and virtually untouched, which is really good. I rank it fairly highly because of the presence of the large kauri, and some of them are probably 600 years old. It has the complete kauri ecosystem including kauri snails in reasonable numbers, as well as the usual forest birds," he says.



North East corner of the 240 hectare NZ Native Forests Restoration Trust covenant.

The covenant is now named the Herbert Bismark Matthews Memorial Bush after one of Theo Matthews' forebears.

Now Forest and Bird aims to control the possums which are doing quite a bit of damage, and clean up the few weeds around the edges of the bush.

New Zealand Native Forests Restoration Trust Covenant

Located well out of the way up Honeymoon Valley, near

Peria in the Far North, and barely visible from the road, is a 240 hectare forest bought by the Native Forests Restoration Trust especially for protection.

"It could be pine trees today if the Restoration Trust had not bought the property," says original Restoration Trust member and National Trust director Arthur Cowan.

The Restoration Trust bought the Honeymoon Valley property in 1994, after Peter Anderson, with DOC in Whangarei, alerted Arthur to the sale. The owner had approached DOC with a view to the Crown buying the very steep land, otherwise he was going to clear it and plant pine trees.

But with the Restoration Trust to the rescue, the North Island brown kiwi and pied tit habitat has been protected. "It's a valuable area to add to the protected estate, and one of the most northern areas of forest. There's nothing much north of that at all. It's showing very strong regeneration," Arthur adds.

The block fills a steep east-facing catchment, and it's all in tall broadleaf podocarp forest or regenerating secondary forest, and is only 2km from the Maungataniwha Forest.

Part of the forest was logged and cut over in 1978 with most podocarps and kauri removed, but there's been strong regeneration since, and

Open Space Covenants

As at 23 April 1997, there were 1,020 registered covenants totalling 41,979 hectares with a further 328 areas totalling 59,910 hectares approved and proceeding towards registration.

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

REGISTERED OPEN SPACE COVENANTS AS AT 23/4/97:

LAND DISTRICT	TOTAL NO.	AREA PROTECTED (HA)
North Auckland	200	3,972
South Auckland	243	6,605
Gisborne	51	8,363
Hawkes Bay	46	1,266
Taranaki	60	2,097
Wellington	175	9,588
Marlborough	4	201
Nelson	52	1,661
Westland	3	20
Canterbury	79	2,667
Otago	38	3,885
Southland	69	1,654
	<u>1,020</u>	<u>41,979</u>

the structure of the forest is intact.

Linda Winch botanist and covenantor found 132 different plant species in the block, about 30% more than in most forest remnants in the district. Despite a few goats, there are still large numbers of palatable species present including *Brachyglottis kirkii* (Kirk's tree daisy) and *Hymenophyllum* species, the filmy ferns.

This is the largest and most diverse area of bush remaining in Honeymoon Valley, so it's integral as a key seed source to regeneration.

Langridge Covenant

Part of the eastern flanks of the prominent Berghan Point 20km north-east of Mangonui is now protected thanks to Rod and Margaret Langridge. They have a new 67.8 hectare covenant over the coastal kauri forest on their property, part of the most northern forest remnant in the country.

Near the existing Seon covenant, this block runs down from the Whakaangi Pa at 335 metres, and includes the Taamaro Stream catchment. Facing north-east, it comprises two steep, forest-covered basins.

The Langridge covenant is part of Whakaangi Bush, a large area centred on a core of tall diverse forest, which is probably the most northern limit for pied tit, brown kiwi and hard beech, Regional Representative Fenton Hamlin says.

"The Trust has been active in the district, with the recently registered Seon open space covenant, this new covenant, two more proposals in the system, and the possibility of a further two."

Stock have been excluded from the area for more than 20 years, and the bush is good kiwi habitat. In the 1978 Northland regional wildlife

habitat survey, the bush was rated as having a high value for wildlife. Some of the highest numbers of kiwi in Northland at the time were found in the regenerating forest and shrublands, Fenton says.

Hayman Covenant

This 53 hectare covenant, off Otangaroa Road, 30 km west of Kaeo, has been protected by Paul Hayman. The covenant is over a lifestyle block which is a mixed broadleaf forest with kauri and areas of shrubland. The dominant species are taraire, totara, puriri and kohekohe.

"Some puriri trees were logged out many years ago," says Regional Representative Fenton Hamlin, "but the canopy is still largely intact and in good natural condition. A particular feature is the large number of northern rata in the forest, despite a moderately high possum population."

There's a good bird population present, with pied tit, tui, rosellas, grey warblers, fantails, shining cuckoos, woodpigeon and kingfishers. Kiwi are recorded in other parts of the Otangaroa forest, and are likely to be here too. Native trout and koura inhabit the stream.

"This is high quality, dense forest, with all the features and values associated with virgin forest. There are at least 120 indigenous vascular plant species present," he says.

Fenton explains the covenant is part of the Otangaroa Forest system, which is made up of nine scattered blocks of forest in Tangihua volcanic hill country in the Mangonui harbour catchment.

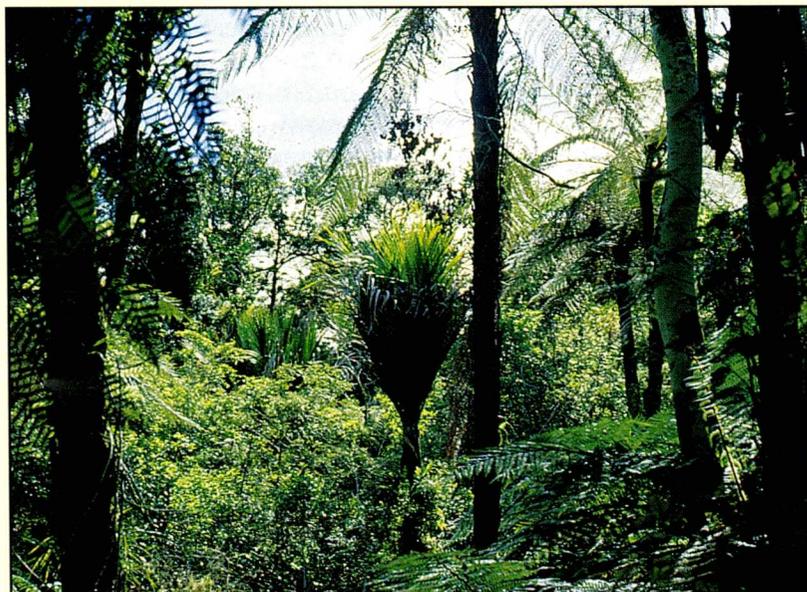
CENTRAL NORTHLAND

Jounneaux Covenant

An intriguing new covenant, a kilometre north of Kamo at Springs Flat, Whangarei, has been protected by Ray Jounneaux and his late wife Helen, who died just before the covenant was registered. Their covenant covers a dramatic limestone outcrop and associated totara-dominant bush.

The outcrop has been protected for many years by fencing, and it's featured in the book "Summer Cruise" by David Johnson, which was printed in 1988. The book describes how tourists taking a boat trip to Whangarei at the turn of the century used to walk in to view these rocks.

"Limestone outcrops in the district have been



Healthy lower canopy with numerous nikau in the Hayman covenant.



Dramatic limestone outcrop in the Jounneaux covenant.

systematically decimated by quarrying," says Regional Representative Murray Tapp.

This new covenant also protects the rock outcrops from rock hounds and geologists taking samples, which has been a problem in the past.

The bush here has been fenced for more than 15 years, and it is home to a native snail, *Microloama unicolorata*, found in only three other areas - Waro, Raumanga and at Waipu Caves.

Thanks to local conservationist Margie Maddren, from the Whangarei Native Forest and Bird Protection Society, who was also keen to see this outcrop protected, the Society paid the survey costs of this covenant.

Johnsen Covenant

Arapohue dairy farmers Bill and Judy Johnsen farm 16km southeast of Dargaville. They have recently protected a good stand of kauri forest, which also includes totara, taraire, tanekaha, maire, kohekohe, puriri, rimu and nikau.

Borck Covenant

This delightful bush remnant, known as Pretty Bush, right by SH 1 at Brynderwyn, just before the turn-off to Maungaturoto, is highly valued by the local community. Graham and

Jenny Borck own the 4.2 hectare remnant, which is on rolling land and is one of the most attractive bush areas next to State Highway 1, north of Auckland. Pretty Bush is a well-known landmark.

Millable kauri and rimu are present in good numbers, as well as tanekaha, kahikatea and taraire. There's a very good lower canopy and ground cover as stock have been kept out for many years.

AUCKLAND

Waikauri Bay Reserve Ltd Covenant

The steep land on the coast of the Tawharanui Peninsula is home to a new covenant.

The 4.9 hectare covenant is a good example of mixed coastal forest, and it's a prominent feature of this coastline. Tairare is the dominant species, but there are many puriri, and totara, kahikatea, rimu and rewarewa, as well as a few medium sized kauri on the higher ridges.

John Wylie, who chairs the Waikauri Bay Reserve Company, says the bush is the backdrop to 25 holiday homes. The company started off in 1960, when the weekend homes would more correctly be called baches, and he says it's a great area for holidays. The bay is 22 kilometres northeast of Warkworth.

"It was land we didn't want to see broken up or sold off, and really it is put to its best use now, protecting the environment," he says. "We all feel very comfortable about our covenant, which protects the area."

WAIKATO

Humphrey Covenant

A small area of considerable ecological diversity has been protected alongside the northern part of the Raglan Harbour by Lawrence and Elizabeth Humphrey.

Their covenant covers the whole 3.4 hectares of their lifestyle property, including its forest remnants and manuka and kanuka succession.

The covenant protects and maintains the open space values of the forest-covered foreshore as viewed across the Whaingaroa Harbour from Raglan, and protects the puriri and kowhai forest, which is an important habitat for local kereru.

Six species of native orchid exist in the covenant, as well as the shore spurge *Ophismensus undulatifolius* which is classified as threatened. *Carmichaelia aligera* is also present.

Regional Representative Tim Oliver hopes the Humphrey covenant will become a catalyst for more protection nearby.

Haggas Covenant

Three valuable forest remnants have been added to the extensive areas of bush protected in the Waitomo Caves catchment.

Linda and James Haggas, 9km along Te Anga Road from the Waitomo Caves, have recently protected a total of 34 hectares on the northwest and southern boundaries of their farm. Two larger areas along the eastern boundary of their

farm are being protected too.

Their rolling hill country is home of the famous Haggas Honking Holes tourism venture. Linda and James also graze sheep and cattle, and the hills are a backdrop for tall tawa, pukatea and podocarp forest on a steep sidling. The second area is a verge of bush skirted by Te Anga Road. The third, mainly tawa, rimu, rewarewa, mangeao and pukatea, sits on a steep sidling at the back of the farm.

J R Oliver Trust Covenant

In the upper reaches of the Waipa River, at the southern end of the Rangitoto Range, John and Sarah Oliver farm sheep and cattle on a large property. Feeding into the Waipa River is the steep-sided Tanawae Stream, and 94 hectares of forest on the stream's banks have been protected by the Olivers with the National Trust.

This pristine, unlogged forest protects a sensitive catchment and is rich in birdlife. Kokako nest in the covenant and are heard regularly. Kiwi may also be present. The forest is made up of tall rimu, matai and totara, with tawa, mangeao, pukatea, rata and mamaku.

The new covenant is adjacent to the Department of Conservation's Cowan Wildlife Reserve. The Olivers are very supportive of the Trust and have helped start several other important covenants.

BAY OF PLENTY

Royal Forest and Bird Protection Society Covenant

This new covenant is in the middle of a complex of eight podocarp forest remnants in the Waitekauri Valley, nine

kilometres northwest of Waihi.

Dense podocarp forest of the type found on alluvial terraces, the remnants make up the Waitekauri Valley Recommended Area for Protection, which is close to the Coromandel Forest Park.

The covenant covers the whole title of the 13 hectare property, which was gifted to Forest and Bird by Mr and Mrs Morgan.

The podocarp remnant covers 2.5 ha in the middle of the property, and has a tawa canopy, with medium sized kauri scattered through it. Titoki and pukatea are also present.

Although a relatively small block, it represents a forest and landform of which little is already protected. An impressive landscape plan has been put together, and Forest and Bird members have already started infill planting around the edges of the podocarp remnant.

Skilton Covenant

"Part of a narrow belt of puriri and mixed broadleaf forest which originally ran across the coastal slopes of the Kaimai Range, the Skilton covenant protects one of the few remaining isolated stands," says Regional Representative Stephen Parr.

The covenant covers three hectares of tawa-dominant bush on Ross Road, 20km from Tauranga via Whakamarama Road. There are four other small stands nearby, including the Lowe (ex Ferrabee) and Davies covenants.

The bush is on easy land, with kamahi, puriri, kohekohe and rewarewa, and had already been fenced by Marion and Dennis Skilton when the Trust started helping them protect legally. The Skilton covenant, and other nearby bush, supports a rich birdlife.

GISBORNE

Charteris Covenant

Rob and Marg Charteris have a small farm on easy hill country at Te Karaka, a few kilometres from Gisborne on Kanakanaia Road.

There is very little native vegetation remaining in the Turanga ecological district. Remnants tend to be isolated, small, restricted to steep hillsides and largely consist of secondary forest dominated by kanuka.

Their new one hectare covenant of secondary regenerating forest is next to a larger recommended area for protection - the Nikau Bush which is mainly secondary kanuka forest and a block of tawa forest.

The Charteris covenant, which has been fenced for more than 20 years, contains a mix of species including cabbage trees, kanuka, kahikatea, tawa, rimu, and matai. Regeneration is very prolific, and there's a dense understorey of ferns, flax, supplejack and kohekohe.

The Charteris' have been planting in gaps, using plants they've grown from seedlings sourced within the bush area. The Holdsworth and Kirkpatrick covenants are nearby.

HAWKES BAY

Haliburton Family Covenant

Just a little south of Kotemaori, on Haliburton Road, Ross and Margaret Haliburton and their family have a new 39 hectare covenant over tawa-filled gullies on steep land.

A branch of the Anaura Stream, a tributary of the Waikare River, starts in their marvellous covenant.

The bush contains a wide diversity of species: tawa,

which is dominant, rewarewa, rimu, kahikatea, hinau, titoki and kowhai. Pigeonwood, ngaio, putaputaweta, cabbage trees, lacebark, nikau, white maire, karamu and many smaller shrubs are also found in the covenant.

"Curtains of passion vine and many epiphytes grow in the bush," Margaret says.

Fencing this covenant was a major task for the Haliburtons, as it took a total of two kilometres of new fence on very steep land.

Ross says: "I find the bush exciting because it is always interesting to walk through, and discover the regrowth taking place. It is encouraging, for instance in one place there are 10 or 15 cabbage trees just growing up in a small area."

"We've been encouraged to see the way the smaller leaved divaricating shrubs are regenerating. These had been eaten out when animals had access to it."

Margaret says they've done what they can to ensure the bush remains protected for future generations. "As the bush regenerates you start to see what it once was like, but not completely. You see the beauty of New Zealand - and the bird life - as it once was in your area. We're seeing a lot more birds come back over the past two years, including a kaka which has visited the bush."

The Haliburtons have an excellent nursery, and have been planting up open patches within the covenant area as fast as they can.

TARANAKI

Snowdon Covenant

Many small areas of forest remain in the Lepperton district, but few are protected. One of those newly protected areas is owned by Mark and Denise Snowdon, who now

have a covenant over 2.4 hectares of semi-coastal forest.

Predominantly tawa, pukatea and kohekohe, the bush also has pigeonwood, kahikatea, mahoe and karaka present. It's at the bottom of a gully, and well sheltered from the prevailing westerly winds.

"The Snowdons organised periodic detention labour to fence the bush, and the PD workers did an excellent job, making a well-constructed fence," says Regional Representative Bill Messenger. They used netting because the Snowdons have milking goats

They also used PD labour to plant 1,600 shrubs, mainly *Coprosma robusta*, which were grown at the New Plymouth Prison.

"The Snowdons are very enthusiastic about their covenant, which is regenerating around the edges already with kawakawa, while the canopy species are also starting to come away," Bill says.

MANAWATU/ WANGANUI

McKnight Covenant

Herbert and Betty McKnight of Waitotara, north of Wanganui, now have their second covenant. This 4.6 hectare covenant, on a fairly steep sidling, joins a 14.5 hectare block of secondary bush already protected on another part of their farm.

The new covenant is over south-facing secondary bush, which is tawa dominant, and has many tree ferns. "It's pretty rough country," Mr McKnight says. "I think it's good now it's protected, especially the first one which is a nice piece of bush. You can look at it, but it's too steep to walk through it," he says.

Their first covenant used to have kiwi living in it, but Mr

McKnight is not sure there are any left after a neighbouring block of bush was cleared and burnt.

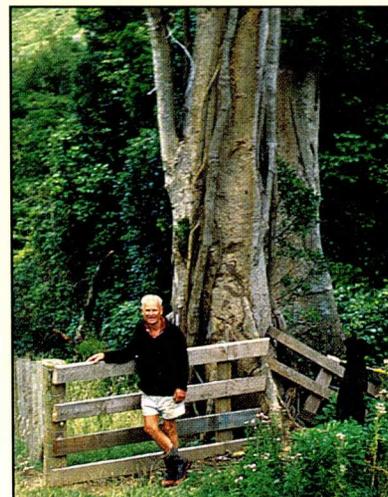
P N Jones Family Trust Covenant

Peter Jones, along with his daughter Anne, is a highly respected Romney breeder on Waikupa Road, Okoia, and they rate highly as National Trust covenantors says Regional Representative Bruce Kirk.

Peter and Anne have just registered their fifth open space covenant of some 3.9 hectares. Their first was approved in 1979, only two years after the Trust began operating.

"The Jones farm is situated on the remains of a high level plain which is heavily dissected by steep gullies," Bruce says. "The fine soil is prone to slipping in steep areas. This latest covenant is found on a steep, south-facing slope which has been fenced off for some time, but gets its fair share of the elements," he says.

Whilst not in the same category as the covenants Peter and Anne have on their flats, this new area does present a reasonably representative range for the local area. Tawa, titoki, matai, kahikatea, rimu, mahoe,



Peter Jones is dwarfed by a giant pukatea in the P N Jones Family Trust covenant.

pukatea, nikau, ngaio, karaka, kanuka, lancewood, rewarewa and a range of ferns including ponga are all represented. Rata vines are well established towards the top.

"In the true Jones style, Peter has methodically attacked the possum population which was present and had left its mark. A combination of periodic shooting and systematic positioning of bait stations has resulted in a vastly improved and healthy-looking canopy recently," notes Bruce.

"A good proportion of Peter and Anne Jones' first covenant was established by an on-going revegetation programme. Some 18 years after this covenant reveals excellent establishment, and shows just what can be done with a little assistance."

Stevenson Covenant

Seven hectares of bush perched on a very steep slope above the Wangaehu River have been protected by Robin Stevenson.

The bush, 30km from Fordell at Mangamahu on the Wangaehu Valley Road, is on soft sandstone country facing southeast.

Kowhai is dominant at the south end of the bush, along with manuka and kanuka. Taller trees of tawa, titoki, rewarewa, kahikatea, miro, matai and hinau, as well as black beech and rimu, are common at the northern end.

This covenant can be seen easily from Wangaehu Valley Road, and it's close to three scenic reserves as well as the McKellar and Collins covenants.

McGrath Covenant

Howard and Marise McGrath were self-confessed "city slickers" spending most of their family-raising years in Auckland.

"Howard's lifetime desire to go farming was realised a few years ago when the McGraths purchased property adjacent to the Newcombe covenant on the eastern terraces of the Rangitikei River at Rewa," says Regional Representative Bruce Kirk.

These covenants are not far from the Vinegar Hill Reserve, known to travellers who elect to take the more picturesque SH 54 route rather than stay on SH 1.

The McGrath covenant in fact runs right from SH 54 back along a gorge which dissects the terraces and contains the Mangapipi Stream which itself drains into the Rangitikei River.

The Mangapipi Stream and resulting gorge have cut through soft alluvial sedimentary deposits and left fairly sheer sides on which cling coprosmas, manuka and kanuka, cabbage tree, pseudopanax, rewarewa, ponga, rangiora, matipo, kawakawa, titoki and tawa.

"The McGrath covenant adjoins the Newcombe covenant further east from SH 54 and now effectively ensures that the majority of the Mangipipi Stream Gorge is protected," Bruce says.

Back in the 1960s, the Catchment Board of the day encouraged soil conservation in such areas by the planting of exotics. "These have done a good job stabilising the area, and allowing the indigenous life lower down to stabilise



Howard and Marise McGrath.

and recover, providing a sanctuary for native bird life with tuis, fantails and grey warblers being particularly well established," he says.

The covenant area is easily accessible by foot straight off Highway 54. However, it is more comprehensively viewed from the terraces on the McGrath farmland.

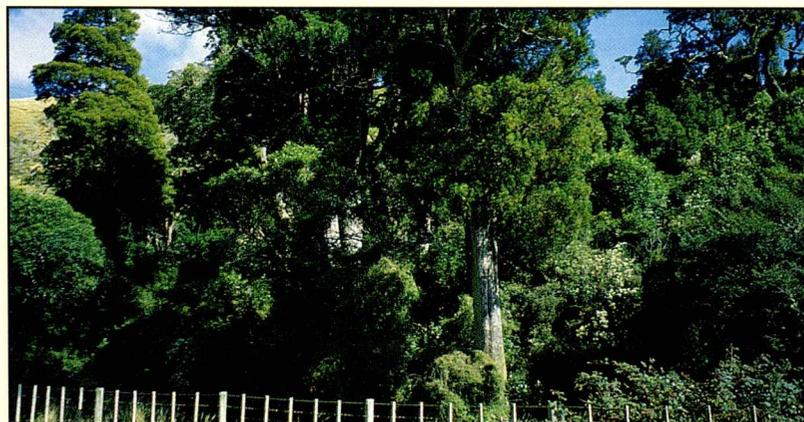
WAIARAPA

Rahui Trust Covenant

The Maunsell family of Rahui have recently protected a 58 hectare block of bush on their Waio property, just a couple of kilometres from the Castlepoint coast, at Whakataki.

The bush is part of a complex of coastal forest extending from Mt Percy to the north, and has been classed by the Department of Conservation as of particular significance.

The bush contains large



Dunnachie covenant.

kanuka, some giant karaka and ngaio trees, kowhai, nikau palms, mahoe, other broadleaf species and black beech.

Dunnachie Covenant

These three forest covenants are located on Bagshot Station in the Whangaehu Valley, about 20 kilometres north of Masterton. The old Mawley homestead is set among magnificent exotic hardwoods above the road, with the lowland open space covenant on the opposite side on the riverbank. The other two covenants are over the other side of the watershed, just south of Rangitumau, a local landmark 600 metres high. These two hill blocks are on limestone and overlook the Ruamahanga Valley.

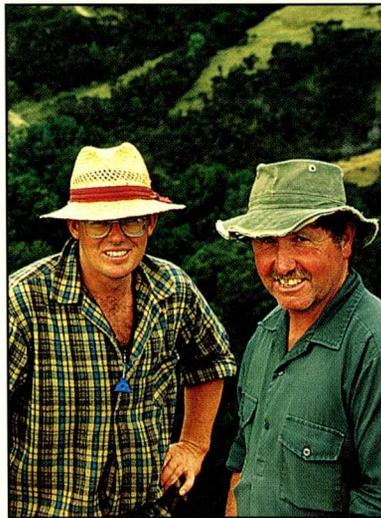
Mrs Dunnachie was very proud of Bagshot Station, with its stands of English trees and native bush. She was very keen for her manager Brian Ammundsen, to have the three areas - totalling 15.6 hectares - fenced off, and this was achieved with the help of the Wellington Regional Council and the National Trust.

Sadly, she died last year, but her ashes will be buried in the Waterfall covenant, with a memorial plaque fixed to a limestone boulder to recall her love of Bagshot Station.

Nga Rata Station Covenants

Nga Rata Station was in the hands of the Kebbell family for more than 100 years, only recently passing to the family trust of the Falloons, with the property now run by Andrew Falloon.

"One of the last decisions made by the Kebbell trustees was to covenant nine blocks on the station, totalling 78 hectares. The trust's supervisor and former manager Rob Monson had



Andrew Falloon and Rob Monson.

worked at fencing off these blocks over a number of years, and the final touches to their protection were assisted by the Manawatu/Wanganui Regional Council and the National Trust," says Regional Representative John Kirby.

The station lies to the north of the Castlehill road between Alfredton and Tinui, and the old bullock track between Castlepoint and Alfredton crosses the farm, cutting through the middle of one of the bush areas.

One of the largest bush areas, full of podocarps and a few rata, lies alongside the road into the homestead, and its name has been changed from Roadside to the Kebbell Memorial Bush. Another area, Murphy's Bush, is a four hectare area with many magnificent mature podocarps.

This area is regarded as the best example of podocarp forest in the Wairarapa.

NZ Native Forests Restoration Trust Covenant

Legal protection has been a long time coming for this distinctive part of the Rimutaka Hill.

The 824 hectare block is secondary forest and scrubland on medium to steep hill country 80-600 metres

above sea level.

Adjoining both the Tararua and Rimutaka Forest Parks, this block provides a significant habitat corridor. The land was bought from the Brandon family of Featherston - who were very keen to see formal protection - by the NZ Native Forests Restoration Trust in 1995.

Wellington Botanical Society members Chris Horne and Barbara Mitcalfe inspected the forest, finding two gullies in the western part of the covenant which had dozens of healthy northern rata, *Metrosideros robusta*. Many of these were 20-25 metres in height, and they estimate over 100 years old. "This type and stature of forest is now rare in the region," they noted.

Notable forest species on the block are hinau, titoki, black beech, hard beech, rewarewa, totara, black maire, nikau and kamahi. Forest makes up 37% of the block, mainly on the southern side, including 150 hectares in Prince Stream.

The lowland beech forest type is comparatively rare within the ecological district as a result of land clearance. Of what remains, much is not protected.

Indigenous shrubland is the predominant vegetation, making up 55% of the land area. Manuka and kanuka dominate on the drier sites, with species like mahoe, hebes, putaputaweta, *Olearia rani*, and rangiora in and around the wetter areas. Approximately 8% of the area is covered in gorse.

Fire has been a major modifier in the past, with shrubland successions relating to the time since fires went through the block.

Groves Covenant

Bushgrove has been in the hands of the Groves family for well over 100 years. At the end

of Adams Peak Road, just off the Castlepoint road west of Tinui, there is a homestead and shearer's quarters, now available for tourist accommodation.

A foot track starts here leading to the bottom end of the gorge of the Mangapakeha stream. Fifty-eight hectares of the winding stream and gorge, with patches of bush running up to very steep rocky outcrops, are protected in the covenant.

The gorge follows the line of a fault through the hard sandstones, and the steep slopes to the east of the stream are covered by a hardwood bush. This hardwood area includes mistletoes, now that the possum population has been controlled.

The gorge has the feel of a much more dramatic landscape than is the norm in these eastern Wairarapa hills, and is much used by visiting groups of young people, encouraged by the Groves family.

NELSON

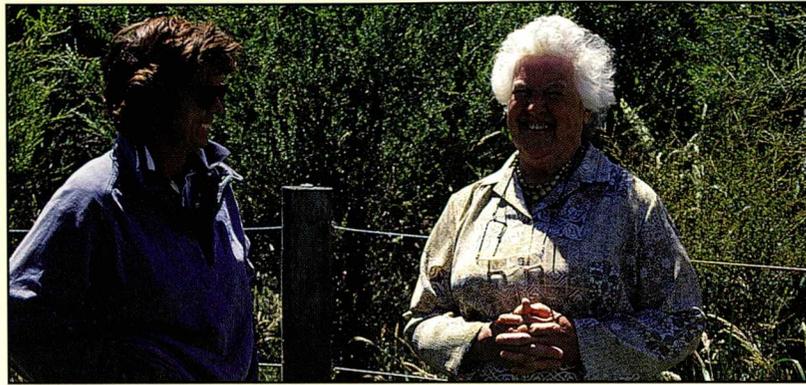
O'Connor Covenant

One of the best spring fed creeks in the Waimea Inlet now has even better protection.

Running alongside Cotterell Road, 10km northwest of Richmond, the tidal Pearl Creek provides an excellent habitat for giant kokopu and a breeding ground for whitebait. In fact, it is one of only two places in the Waimea Inlet where giant kokopu are found.

Appleby identities and farmers Teresa O'Connor and her daughter Gabrielle have provided an opportunity to recreate a piece of lowland alluvial forest.

Their new wetland covenant, in three parts on the margins of Pearl Creek, has proved to be a significant



Gabrielle and Teresa O'Connor at Pearl Creek.

community project. Before fencing, most of the old willows were cleared out of the covenant area by Tasman District Council Taskforce Green workers. Some were left to shelter the new, young plants.

Following the willow removal, the O'Connors fenced the stream banks with the help of the National Trust and funding from the Lottery Grants Board.

The next step was the planting out of several thousand native plants to revegetate the wetland. The plants, grown and donated by the Department of Conservation, were planted by pupils from Appelton School and students from the Nelson Polytechnic.

The O'Connor covenant is the first such protected wetland in the Motueka ecological district. The project is illustrative of the community support and involvement engendered by open space covenants.

Coggins Covenant

An impressive stand of black and silver beech and kahikatea is now protected at Sunday Creek. Joy Coggins has taken out a covenant over her whole title of 4.2 hectares, almost all of which is east-facing bush which slopes gently down to the meandering Sunday Valley Stream.

There are about 30 mature rimu, a few matai and a dense

understorey, and the bush is regenerating rapidly. It's home to many wood pigeons, morepork, tui, bellbird and fantails, and it's visited occasionally by kea.

The Coggins covenant is only two kilometres upstream from the Sunday Creek Covenant, which is 4.4 hectares of second growth beech and tall kanuka.

WESTLAND

Blakely Covenant

Almost 10 hectares on the southern side of the mouth of the Waitaha River, 15km south of Ross, have been protected with a new covenant.

It takes a short boat trip down and across the River to reach the whole-title covenant. The covenant protects an unusual and almost pure kowhai remnant and a block of secondary regenerating bush.

Other species in this remnant include kaikomako, tree ferns and ground ferns. In the other area of native bush fuchsia, mahoe, koromiko, cabbage trees, kowhai and seedling miro, matai and kahikatea are present.

The remainder of the land is actively regenerating in native broadleaf species.

The Blakely covenant is part of the Harihari ecological district, where there is only one similar area of coastal vegetation formally protected.

TUPARE: A GARDEN OF LAYERS

Tupare provides great examples of exotic trees grown in New Zealand in much shorter time than in their native habitat. Visitors from overseas who ask the age of a fifty year old tree, regularly comment that it would take at least 150 years where they come from to reach the same height.

As trees are a strong and distinctive element of Tupare, their fast growth rate, particularly in the conifers, has raised interesting issues in the management of the heritage garden.

When Tupare was first established in 1932, the Matthews family began with a bare site. There was a great deal of bracken clearing to be done and weed control to be implemented but planting started as a single layer. That means that all plants, whether trees, shrubs or perennials,

started at the same level. Naturally, over time the different layers evolved, following the intention of the owners, and provide the special character which draws large numbers of visitors every year.

Today, it is evident which trees thrived in Tupare's conditions. Some of the most successful are the Blue Atlas Cedar, the Japanese Cedar, *Magnolia* spp., Lawson Cypress, Dawn Redwood and Californian Redwood, all of which have provided a magnificent tree canopy.

Underneath, of course, things have changed. For the QEII National Trust, taking over the care of Tupare has meant both preserving the original character of the garden and managing its evolution. What we have done with the changing environs beneath the trees

might be helpful in the management of your own garden.

Beneath any increasing tree canopy there is a growth in shade and a decrease in moisture and eventually in nutrition. Plants under the trees that liked sun and reasonable water supplies will naturally suffer.

At Tupare we have had to identify whether or not rhododendrons under the trees can continue to thrive. Sometimes, careful tree surgery of the canopy can raise the light levels and encourage straggly rhododendrons to thrive again (more on tree surgery in a later column).

Soil replenishment through mulching with organic matter can build up the soil structure, restore vigour and health and get them flowering once more. But in some cases, the environment is clearly no longer suitable for a plant which has grown to dislike its conditions. The rhododendron will be removed and the area replanted with more suitable plant material.

At Tupare we have planted ground covers in a number of areas under mature trees. Some of the more prominent ones in recent years include *Arthropodium cirrhatum* (Renga Renga Lily) which grows and flowers well in semi-shade and doesn't mind a draught. This winter, at the top of the Dell, we will plant the pink flowered relation. Renga Renga Lilies grow on cliff faces further north and can withstand coastal winds. They are easy to lift and divide in winter by slicing with a spade or teasing apart with two forks held back to back in the centre of the clump.

A second ground cover we use which is suitable for



In Open Space 38 the sculpture exhibition held at the Trust's Taranaki Garden properties was described. This sculpture was sited on the Cottage lawn at Tupare. It is Progression by New Plymouth sculptor, Maurice Whitehead and is worked in Taranaki andesite.

woodland conditions but doesn't like draughts is *Acanthus mollis* (Bear's Breeches). The usual green form may be invasive so please be careful. In New Plymouth we have many areas of bush remnant that don't need another weed. A better form of Bear's Breeches that poses no threat to the bush

and was raised at the other QEII National Trust garden, Hollard's Garden, is *Acanthus mollis* "Hollard's Lemon". It has a golden leaf which can really brighten a formerly dull area under large shade trees.

The best way to multiply Bear's Breeches is by root cuttings. Lift the plant and cut off 5-7cm long pieces,

place them in sand and they will shoot easily. At present there is a small planting of Hollard's Lemon in the Elizabeth Garden and this year we will plant out more in the Dell behind the *Magnolia* "Lennei".

Greg Rine
Gardens Manager

ROGER SUTTON RETIRES

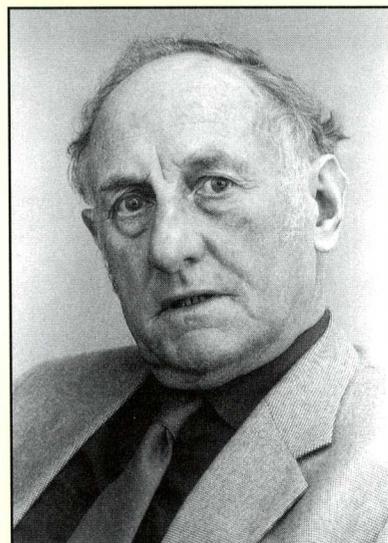
Long-serving Regional Representative Roger Sutton has taken off his National Trust hat.

Roger, who joined the Trust in 1979, is retiring officially as Southland Regional Representative, and his work has been taken over by Mokotua farmer and covenantor, Gay Munro.

Roger, despite his new "retired" status, will still fill every hour in the day with conservation work: he is a member of the Southland Conservation Board, the recently formed Waiau Fisheries and Wildlife Enhancement Trust, and he chairs the Monowai Working Party.

"I naturally have feelings of sadness at leaving the Trust, but all good things must come to an end. It's been rewarding working with people who share my values and are keen to protect their environment. The many valued friendships I have made along the way have truly added an extra dimension to my life, and for that I thank you all most sincerely."

"My association with the Trust has provided me with a grand opportunity to facilitate the preservation of valuable natural features and their associated natural history



values in the Southland region."

He says the passing years have consolidated his belief the Trust has an important role to play in nature conservation.

"However the facts are that the hills seem to have become a little higher and steeper, and getting over the ground, and walking the boundary fences seems to take a little longer."

Roger's work throughout Southland has protected 69 areas with open space covenants, and they average about 24 hectares each.

"While these covenants are a good average size, there is very good diversity too, particularly with regard to important wetlands, and that has given me pleasure because it has

been a particular life-long interest."

Roger hopes to maintain close links with the Trust, and is keen to continue carving National Trust signboards.

Virtually his whole career has been focussed on conservation issues. For 15 years he was an elected member of the Southland Catchment Board, and before he joined the Trust, Roger worked for 30 years as a senior field officer with the Southland Acclimatisation Society. He was also a member of the National Water and Soil Authority.

Other achievements in a notable career include:

- Regional Representative for the NZ Ornithological Society from 1966-1983, and also on the national council.
- in 1979 he and his wife Christine were jointly awarded the prestigious Loder Cup for protection and cultivation of New Zealand native trees and plants
- in 1984 awarded MBE for services to conservation
- in 1990 Roger was appointed to the Southland Conservation Board, and in 1993 reappointed as Chairman.

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