FOREST & BIRD

NUMBER 298 • NOVEMBER 2000

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FOREST & BIRD

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FOREST & BIRD

Features

Regulars

Cover: Taranaki/Egmont, the mountain at the heart of New Zealand's second-oldest national park which is turning 100 this year.
PHOTOGRAPH: CRAIG POTTON

comment

Seeking Common Ground

My first encounter with protest action — sometimes called civil disobedience — was an anti-nuclear march in 1957. In hindsight, it wasn't all that daring unless you call sitting on a road outrageously criminal. As it happened, the attention was focussed on the distinguished white-haired gentleman at the front, whereas us youngsters at the back were just ... there.

Public protest and its exercise is an integral and vital part of democracy. There's no dearth of examples as to its effectiveness; witness the fall of the Shah of Iran and President Marcos of the Philippines. In Western countries during the 1960-70s public protest was pretty much the action of choice. Some events were quite vicious, even fatal.

But in the main, protest marches were jolly good fun. You got to halt the traffic, be the centre of attention for two minutes, walk up the main street behind the banner-of-the-week proclaiming the cause-of-the-week and you were escorted by good-humoured police. On one occasion, whilst milling around at the bottom of Auckland's Queen Street waiting for a march to begin, I met the controversial writer and politician John A. Lee. We chatted, formed up, and off we marched. Afterwards, he went home; I went to a wine bar and drank ghastly stuff from a cardboard box.

Life was different then. The word 'environment' didn't gain common currency until 1969. Public policy was written in smoke-filled rooms. Some Government departments resembled ancient baronies. Others assumed a mandate to act in the public interest - although they rarely consulted the people for whom they purported to act. Applications affecting the environment went through convoluted bureaucratic and adversarial processes, which often didn't involve the public, or allow full public participation. Under the circumstances public protest was *de rigueur*.

'We need to talk to sector groups, engage the subject matter, exchange ideas, explore avenues for common ground, and try and gain upon their thinking.'

Times have moved on with a concomitant reduction in public protest actions. Since the mid-1960s, various Acts of Parliament, most notably the Resource Management Act 1991, have brought public participation into the heart of environmental planning and policy drafting. Just how deeply the public can participate is perhaps demonstrated by Forest and Bird's present 30-odd cases before the Environment Court.

Changes to environmental law have been matched by huge advances in other areas. There is now a Government Department (DoC) charged with managing its land, natural and historic resources for conservation purposes, with public participation through the national Conservation Authority and regional conservation boards. A Ministry for the Environment is charged with policy formulation. As a result of the information explosion of the last two decades we know a lot more about the environment. Good science - on virtually any topic - is readily available to those with a grasp on information technology. All political parties have environmental policies and are invariably open to sound arguments whereby they might improve them. Parliament's select committees and legislative agenda are fertile places to pursue environmental objectives.

More importantly, environmental awareness is becoming universal. The days when environmentalists were lampooned as the 'loony sandal brigade' are long gone. But this is no time to sit on our laurels. Forest and Bird must also move with the times or risk being 'time warped'. Protest action cannot be done away with, it's far too useful a tool. But too frequent use debases the currency and in any case there are other avenues to achieve good environmental outcomes.

In my last editorial I spoke of extending the hand of friendship to the people of the West Coast. Given that sector groups of many persuasions are producing internal environmental policies, are keen to learn and want to become more environmentally responsible, that hand should be extended further. Forest and Bird, of course, already works with many of these organisations at Branch level. It's time to bring that local focus to the national scene. We need to talk to sector groups, engage the subject matter, exchange ideas, explore avenues for common ground, and try and gain upon their thinking.

KEITH CHAPPLE *is national president of Forest and Bird.*

mailbag

Cannon-netting

The involvement of members of Forest and Bird in the activities of the New Zealand Wader Study group is very detrimental to the image of the Society.

The Society exists to protect birds and forests. Therefore, we should not cause unnecessary trauma to migratory birds in order to satisf our human curiousity about their habits.

Instead we should welcome their annual arrival on our shores, admire them from a distance, and leave them in peace.

Cannon-netting migratory birds, then putting them in dark boxes (for how long…?) before tagging them, is cruelty which our Society should denigrate, and not condone.

We do not have to emulate the British of the 1960s, and we should definitely disassociate Forest and Bird from the wader study group.

And what gives us the right to persuade Asian governments 'to leave protected areas as resting places for the birds' when we ourselves assist in the continuation of cannon-netting?

Katharine M. Hudson, Upper Hutt

The convenor of the wader study group, Adrian Riegen, responds:

It would be wonderful to sit back and admire the Arctic waders from a distance and leave them in peace. We tried that with hundreds of species of flora and fauna, once very common but now no longer with us.

If Don Merton and his co-workers had sat back and left the black robin and kakapo alone, those birds too would be gone.

By studying a species while it is common we have a better chance of preserving it for future generations to enjoy.

Helping in Parks

In the August magazine, Robert Shaw wrote about Whitireia Park and its inclusion as the next regional park for Wellington. The article suggested that Mana Forest and Bird actively lobbied for this outcome.

Whitireia Park is administered by DoC under the auspices of a board responsible for the running of the park. It is this board that has worked for some time to get Whitireia Park included within the management responsibilities of the Wellington Regional Council. While there are many members of Forest and Bird from the Mana area who are interested and complete work in the park, it is the board which should be congratulated.

Jocelyn Anton, Mana Forest and Bird

Doubtless Careless

The Far North Museum has been a keen recipient of your magazine for some years and we are impressed with its superb presentation and content.

Bearing this in mind it grieves me to inform you of a few unfortunate mistakes in one of your photo captions on page 28 of the August issue. It should read 'Rangiawhia Bay on the Karikari Peninsula visited by the French explorer de Surville aboard the *St Jean Baptiste* etc.'

Michael Ibbotson, Curator, Kaitaia

Never trust to memory. The picture was of course taken in Doubtless Bay where Surville called, just across the Karikari Peninsula from Rangaunu. We followed several authorities, academic and geographic, in shortening the name of Jean-François-Marie de Surville to Surville.


MICHAEL MCINTYRE

South Pacific Whale Sanctuary

Forest and Bird is supporting a further bid by the Government to establish a whale sanctuary in the South Pacific. Mike Donoghue outlines the crisis in Pacific whale populations.

There has been little evidence of any significant increase in the Southern Hemisphere populations of fin, sei or blue whales since 1985, when a halt in commercial whaling took effect. Although some humpback whale populations are recovering (such as those with breeding grounds around southern Africa and Australia), their numbers in the South Pacific remain low.

Between the 1930s and 1950s, when several nations operated large industrial whaling fleets, the Antarctic feeding grounds below Polynesia were internationally recognised as a sanctuary. During this period, the stocks of great whales were grossly depleted elsewhere, particularly in the Atlantic sector. The removal of this protection in the early 1950s meant that the great whales of the South Pacific were the last populations to be heavily exploited by industrial whaling fleets. They have had the least time to recover from the catches authorised by the International Whaling Commission.

In fact, things are even worse for the Polynesian whales. During the 1950s and 1960s, the Soviet Union's pelagic whaling fleets killed huge numbers of whales, particularly humpbacks, without reporting them to the International Whaling Commission. Information released from KGB files in 1994 showed more than 45,000 Southern Hemisphere humpbacks were illegally taken. Further evidence released at this year's meeting of the IWC's Scientific Committee showed that most of these whales were killed in the South Pacific sector of the Antarctic Ocean. For the six-month seasons of 1959-60 and 1960-61, the USSR fleet killed over 25,000 Polynesian humpbacks but reported only 1,000. These unregulated and unreported kills also explain why there are still so few humpbacks in the South Pacific (probably between one and two thousand whales, outside eastern Australia).

For this reason alone, South Pacific whales deserve a sanctuary to allow their populations to recover. It took two years for New Zealand and Australia to develop a proposal that had the support of Pacific Island states, and was ready to present to the 52nd Annual Meeting of the IWC, held in Adelaide last July. The sanctuary would link the present Southern Ocean Sanctuary, established by the IWC in 1994 to protect whales on their feeding grounds, to the known breeding grounds in the Pacific region, thus providing protection for the whales throughout their annual migrations of 12,000 kilometres or more. Recent research conducted in the region has shown that humpbacks move from one breeding ground to another, sometimes within the same season. It is therefore necessary to provide protection across the entire area from French Polynesia to Australia, to be certain that the genetic integrity of the few remaining whales is not compromised by any future renewal of whaling activities.

A South Pacific Whale Sanctuary would provide a boost to the development within the region of whale-watching, which can deliver real economic benefits to small island states that rely on tourism. A study conducted in 1999 by Mark Orams, of Massey University, demonstrated that during the winter months when humpback whales can be found, almost half of the tourist income of the small group of Vava'u in northern Tonga was directly attributable to whale-watching. Orams estimates that a single humpback whale, returning each year to Tonga, could generate as much as US$1 million during its life. While whale-watching is a growing attraction for Tonga, the over-hunting of whales half a century ago has effectively inhibited the development of whale-watching opportunities for countries such as the Cook Islands, French Polynesia and Samoa.

During the lead-up to the July meeting of the IWC, New Zealand and Australia lobbied heavily to get support for the Sanctuary proposal. Our Minister of Conservation, Hon. Sandra Lee, led the New Zealand delegation, as a signal of the Government's commitment to this initiative. However, Japan and Norway had also been busy with their preparations, and lined up six Caribbean countries (and a new African member, Guinea) to oppose the Sanctuary.

IWC rules require that any major change needs a three-quarters majority for adoption. After a vigorous debate, the sanctuary vote was carried by 18 votes in favour to 11 against. Although this fell well short of the necessary margin, sponsors of the proposal are not despondent. The IWC considered the Southern Ocean Sanctuary proposal three times before it was successfully adopted (eventually by a vote of 24-1). The South Pacific Whale Sanctuary will be back on the agenda for IWC 53 in London next July.

– Mike Donoghue is DoC's scientific advisor to the New Zealand Commissioner to the IWC, Hon. Jim McLay.

Proposed IWC South Pacific Whale Sanctuary

Waitakere Branch Seeks Help With Hector's Dolphin

Help with research on the tiny population of North Island Hector's dolphin is being sought by Waitakere Forest and Bird. The branch has already given $5000 to support the work of a doctoral student at the University of Auckland, Kirsty Russell, who has been studing the marine mammals since 1998.

North Island Hector's dolphin are believed to be genetically different from threatened populations elsewhere in New Zealand. North Island dolphins frequent seas off the west coast of the North Island from about the mouth of the Mokau River, on the Taranaki border, northward to the ocean coasts off Kaipara Harbour and Dargaville, north of Auckland. Their numbers may be as low 100 in the seas between the Taranaki Bight and Manukau Harbour.

Forest and Bird's marine specialist, Barry Weeber, is very concerned about their future. He is presently pushing for a zero-catch limit on fishermen, commercial and recreational, who may accidentally catch the dolphin in nets.

'Gill nets must be banned from Mokau to Dargaville, from the shore to four nautical miles out,' Barry Weeber says. 'Hector's dolphin are being caught there, along with other dolphin and seals.'

Hector's dolphin is classified as a 'vulnerable threatened species' in the most recent listing of the IUCN/World Conservation Union. A workshop in May agreed that for the northern population to recover, the drowning rate in nets would have to be lower than one dolphin per five years.

'A marine mammal sanctuary needs to be established off the west coast of the North Island between Mokau and Dargaville,' according to Barry Weeber. A sanctuary around Banks Peninsula has been successful in protecting Hector's dolphin there, though Forest and Bird would like to see it extended along the Canterbury coast from Motunau to Timaru because dolphins continue to die in nets set outside the present sanctuary.

Meanwhile Waitakere Forest and Bird, whose area abuts the coast between the Manukau and Kaipara, have taken the initiative to raise funds and support research into the North Island dolphins. The information gathered by Kirsty Russell, and others, will be compiled into a report to support marine protection in the area.

Peter Maddison, chair of Waitakere Forest and Bird, presents a cheque for $5000 to Kirsty Russell, a student of Auckland University. The money is to support her research into the North Island Hector's dolphin which she has been studying as a doctoral candidate since 1998.

Orange-fronted Parakeet a New Bird Species

The orange-fronted parakeet has just been confirmed as a separate bird species, not just a different colour-form of the yellow-crowned parakeet. Research conducted by the Department of Conservation, in association with Victoria, Canterbury and Lincoln universities, is in the process of 'scientific publication'.

There are only two known populations of the orange-fronted parakeet — a small population in the Hawdon Valley within Arthurs Pass National Park, and a significant population in the South Branch of the Hurunui River, within the Hurunui 'mainland island'. (See feature, page 30.) Population estimates of the new bird species are somewhere between 150 – 500 individual birds.

The taxonomic status of the orange-fronted parakeet has long been a subject of debate. Since its first formal description in 1857 it has been regarded at various times as a full species, a fledgling variation, or merely another colour version of yellow-crowned parakeet. Genetic studies have now shown it to have a closer relationship with the red-crowned parakeet.

The DNA research was supported with field observations, to determine whether interbreeding occurred between yellow-crowned and orange-fronted parakeets in the wild. This fieldwork revealed no mixed pairs, which indicates that they sustain separate gene pools.

The orange-fronted and yellow-crowned parakeets are virtually identical, except where the yellow-crowned has a crimson band across its forehead and crimson rump spots; the orange-fronted has an orange forehead band and orange rump spots. The calls of the two parakeet are not audibly different, but the orange-fronted tends to call much less often than the yellow-crowned. Both parakeet species are highly active, non-territorial birds, living in the beech forest canopy.

Current research indicates their diets may be different.

The Department of Conservation's goals for orange-fronted parakeet are to prevent extinction, to promote research that will aid management, and to survey for and establish new populations. Continued intensive management and ecological study of the remaining orange-fronted parakeet is essential for its continued survival.

— Sarah Mankelow, Department of Conservation, Christchurch.

An orange-fronted parakeet peeks from its nest hole in this illustration of the different frontal feathers of New Zealand's three kakariki — red-crowned, yellow-crowned and orange-fronted. Now established as a separate species by recent DNA testing, the biological status of the orange-fronted parakeet has been the subject of controversy for more than a century. Pioneer ornithologist Sir Walter Buller also regarded it as a separate species publishing this stone engraving by J.G. Keulemans in an 1880s work on New Zealand birds.

Future For Frogs On Film

The last production of the now-disbanded video unit of the Department of Conservation is devoted to *Pepeketua — New Zealand's native frogs.*

The video was made possible by an Auckland-based company, Ace Doors Ltd, which has a frog in its logo. The company has given $30,000 for research into native frogs over the past three years.

New Zealand's native frogs differ from species found elsewhere in the world and are regarded as the 'most primitive'. They don't croak, have round (not slit) eyes, no external eardrum, and no free-swimming tadpole stage, each egg hatching instead as a tiny frog. Of the seven species, three are already extinct and two species exist only in very limited, offshore environments. (Hamilton's frog and the Maud Island frog, see our feature on Maud Island in this issue.)

'Sponsorship' of the frog species has allowed more research to be done into the animals, according to Don Newman, the DoC science manager responsible. Ongoing research includes assessing the impact of 1080 poison programmes on native frogs, and research into their numbers and populations. Further work includes developing methods for translocating frogs to other places — as was done with the Maud Island frog when a population was transferred and established on Motuara Island, elsewhere in the Marlborough Sounds.

The frog video introduces all four species, shows their habitat, and how to distinguish them from introduced frogs. It runs for 18 minutes and should be available on loan from conservancy offices of the Department of Conservation.

Pest Control Programme Targets Myna Birds

Sometimes referred to as 'flying rats', mynas are aggressive birds which destroy the nests, eggs and nestlings of other birds, and deprive less-aggressive native birds of habitat and nesting sites. On Waiheke Island, near Auckland, the myna is now the target of a community-based programme to control its numbers so other birds can survive.

Introduced to both North and South islands during the 1870s, the Indian myna is now found largely in northern New Zealand. It vanished from the South Island around 1890, and the population gradually moved northward away from the southern North Island during the 20th century.

When native bird numbers appeared to be on the decline on Waiheke Island, near Auckland, a myna-bird control programme was started about four years ago by the late Jacqui Barrington – a Forest and Bird field officer and local resident. With the help of a small grant from the Waiheke Community Board, Hauraki Islands Forest and Bird has been able to revive this programme.

The humane dispatching of the birds is an important concern and a meeting was held with local SPCA members to iron out any problems. Articles and advertisements have appeared in local newspapers and the branch is preparing a pamphlet about the myna pest problem and the local response to it.

Although under the auspices of Hauraki Islands Forest and Bird, the project has been set up as a total community initiative with more than 30 people volunteering to help. Though some people have had their reservations, the response from the community in general has been overwhelmingly positive.

GEOFF MOON

The Indian myna is the subject of a control programme on Waiheke Island, near Auckland, initiated by Hauraki Islands branch of Forest and Bird. Myna have been blamed for killing native birds, destroying their nests, and taking over habitat.

The island has been divided up into areas and each of these has a chief 'myna bird control' person assigned to it. The chief control person in each area has a list of the names of suitable volunteers and receives reports of the sightings of flocking birds.

(While breeding pairs are strongly territorial, myna move in small flocks during autumn and winter. Communal roosts can be the gathering place of more than 1000 birds.)

The bait used is alphachloralose paste spread on bread, which has a narcotic effect on feeding birds. Only accredited people familiar with the correct methods are allowed access to the paste. If, as sometimes happens, non-target birds are drugged they can be revived by placing them in a warm box.

If the control programme is successful on Waiheke Island, the Hauraki Islands branch hopes other northern branches of Forest and Bird will be encouraged to follow suit.

– Brian Griffiths is ranger of Forest and Bird's Onetangi Reserve and deputy chair of Hauraki Islands branch.

More Short-tailed Bats

Short-tailed bats are much more widespread than was believed five or six years ago. Many of the locations have only been discovered as short-tailed bat habitat in the last three or four years. (*Forest & Bird*, August 2000 listed only the earlier habitats of the bats).

Recordings have now been made from Puketi Forest (including Omahuta Forest) and Waipoua Forest in Northland, Little Barrier Island, Te Urewera National Park, Kaimanawa Range, Rangataua Forest on Mount Ruapehu; Waitaanga, near New Plymouth; Tararua Forest Park; Kahurangi National Park; Eglinton Valley, Fiordland National Park, and Codfish Island/Whenua Hou. There may be other areas where short-tailed bat recordings have been made recently but not yet reported in the general press — most recordings make their way into DoC publications, but no further.

Most DoC conservancies are now in possession of bat-monitoring equipment, and are surveying for both species.

— Alina Arkins.

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A Naturalist of Two Worlds

GEOFF MOON

Author and field naturalist, Ronald Lockley at right, on the verandah at Miranda Shorebird Centre near Auckland, which he helped to found during his eighties. When he died at 97, Ronald Lockley was the oldest of Forest and Bird's distinguished life members.

When the naturalist and author Ronald Lockley died earlier this year his British obituarists found so much to say of his early years, that at least one major newspaper failed to record his last 27 years in New Zealand. In fact, Ronald Lockley wrote often of New Zealand, lending his reputation and advocacy skills to Forest and Bird and the conservation cause.

When Ronald Lockley died aged 97, earlier this year, the Society lost its oldest distinguished life member. From a lifetime perspective, it's possible a year as chair of Auckland Forest and Bird may not have added up to much in a sum of his campaigns and popular books. Yet his contribution to conservation in New Zealand was sufficient for the Society of the time to elect him a distinguished life member.

His English roots are well preserved in some of the most popular nature books of his time: several years living a castaway life on the Welsh island of Skokholm made him expert in the lives of seabirds. He published about the island life in *The Island,* and his *Shearwaters* (1942) is still a definitive study. He was also involved in the production of a pioneer natural history film, *The Private Life of the Gannet*, made by Sir Alexander Korda.

R.M. Lockley's books include studies of whales and dolphins, birds, and a biography of Gilbert White, author of the eighteenth-century classic *Natural History of Selborne*. Like White, Ronald Lockley was a field naturalist, who learnt his biology and ecology while farming.

The author of *Watership Down*, Richard Adams, freely acknowledged how that anthropomorphic tale of life among the rabbits sprang from Lockley's pioneer study *The Private Life of the Rabbit* (1964). The book followed years of observations, particularly at Orielton, now a field studies centre, and the setting of his 1977 portrait *Orielton*. In British conservation he was a council member of the Royal Society for the Protection of Birds, and involved in efforts to create nature reserves and protect the Welsh coast and islands.

His decision to settle in New Zealand in the 1970s is said to have been partly influenced by a disappointment over the British government's failure to protect his beloved coast. Yet he was already alive to our problems, writing the book *Man Against Nature* in 1970 for a Survival television special about New Zealand's wildlife and the wasting of our forests.

In Auckland, Ronald Lockley lived overlooking an extensive sandspit reaching into the Tamaki estuary. When a rubbish dump was planned for it, he roused neighbours to establish yet another of his nature reserves. Tahuna-Torea, with its visiting waders and wetland birds, is in some ways a memorial to his local efforts: his book *The House Above the Sea* (1980) draws on columns he wrote there for the *Auckland Star*.

In recent years, Ronald Lockley lived in the Bay of Plenty, where he died.

Ecotourism in Niue

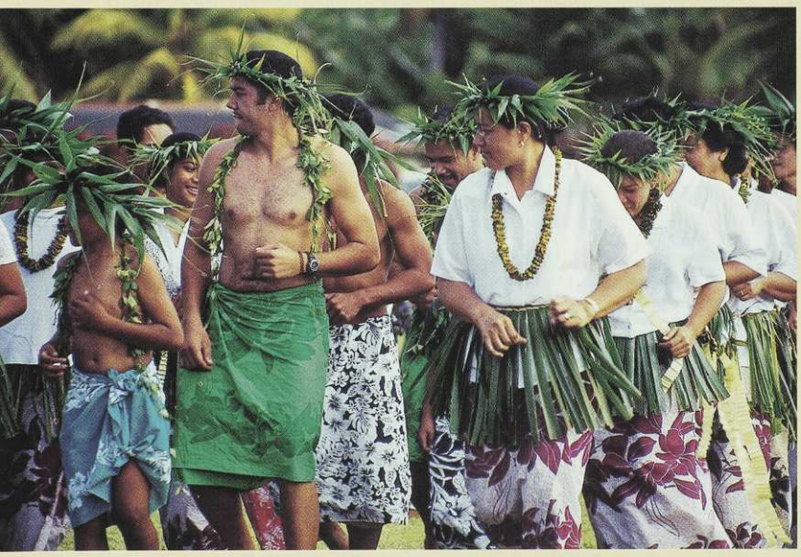
Two week-long ecotours to Niue in August with Wellington-based ecologist Dr Karen Kool and local guide Misa Kulatea provided insights into the island's ecology and culture – and enchanting encounters with whales, dolphins and diverse reef life.

Niue lies some 2400 kilometres northeast of New Zealand and there are strong ties between the two nations. Since 1974, when Niue became self-governing, the island of 260 square kilometres has enjoyed the status of free association with New Zealand and most Niueans have left the island to live here.

The 1700 or so inhabitants who remain are spread among 14 villages. It's a fragile community, financially reliant on New Zealand, which last year provided $3.75 million in budget support, and $ 2.5 million in project aid through the Ministry of Foreign Affairs and Trade.

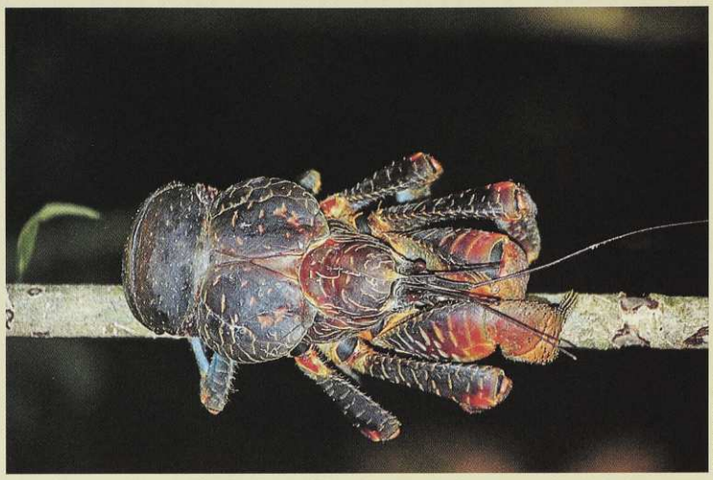
Yet, for those willing to scratch below the images on the tourist brochures, Niue offers a genuine encounter with a place and a culture still intact. It's as if the exodus of people has left space for nature – and if the island can safeguard its wild beauty, tell its stories and hold fast its memories, a Niuean 'brand identity' could form the basis for a small but viable ecotourism industry.

As a visitor, you get to see and learn a lot. The forest is lusher than might be expected. A dense stand of tropical rainforest forms the Huvalu forest conservation area, an important cultural site, and a source of food, fibre, timber and traditional medicines. Here, the bones of ancestors were laid in quiet caves that stud the coast and interior.



PAM CRISP

The charms of Niue are different from those of more sophisticated Pacific islands.



KAREN KOOL

On Niue, the uga or coconut crab lives in holes and crevices on the forest floor, climbing high into the tops of coconut palms to feed. A prized delicacy, the crab is vulnerable to overharvesting and has disappeared from many Pacific Islands. Preserving it in the wild, as an object of interest for ecotourism, may help its survival.

Then there's the ocean – relentless, alluring, and very, very blue. With no rivers or land run-off, the water around Niue is outstandingly clear with a visibility of up to 40 metres, and the snorkelling and diving are outstanding.

From the balcony of the Matavai Resort on our last day, the sighting of a tail fluke is followed by the unmistakable hulk of a humpback whale. The week before, the other group watched a mother and her calf basking in the waves, just metres from the shore.

On previous visits to the island, tour leader Karen Kool was studying the ecology of the uga, or coconut crab, a local delicacy that, without careful management, could soon disappear.

Misa Kulatea, working to establish the Hakupu Village Heritage Park and Cultural Centre on his family land, is determined not to let that happen – nor for Niue's native pigeon, the lupe, to be hunted to extinction. It's a considerable challenge. But the promise of an economic return from ecotourism may be a key to the survival of species, as well as local traditions and customs.

You can visit Niue independently by a once-weekly Royal Tongan Airlines flight. For those preferring to be part of a group, the Niue Naturally tours offer safe and informed guiding.

– Pam Crisp visited the island with Niue Naturally.

Canada's Heritage Tourism Strategy

With international visitor numbers to our national parks continuing to spiral upward, New Zealand's tourism industry could be well advised to look at recent initiatives jointly undertaken by the private sector and Parks Canada in Canada's Rocky Mountain national parks. In the early 1980s, the World Heritage Site status which overlies Banff National Park was at risk because of the impact of tourism but things are changing.

- Example one - Athabasca Glacier, Banff National Park: a tourist coach is descending a steep moraine wall after visiting the glacial spectacle of the Columbia Icefields, when the driver requests that all those driving on to Banff township be careful of any wildlife they might see on the roadside. 'This park is the animals' home, but each year hundreds are killed by tourist traffic. Please take care,' he urges, then hands every passenger an informative brochure about the vast Columbia Icefields.
- Example two - a restaurant in Banff: as a young waiter delivers meals, he also provides detailed information about local hiking routes. He explains the different forest types we will walk through, the animals we might meet, and how to behave so we disturb them as little as possible. 'Please don't feed the bears,' he pleads. 'They will eat what you leave for them but people don't understand that the bear's digestive system can't cope with introduced foods. They will starve during hibernation, and probably die.'

Such advice and information is part of a deliberate strategy introduced in Banff and neighbouring mountain parks, where Parks Canada and major tourist companies have rallied together to help ensure a balance of tourism use and wilderness preservation. Called the Banff Bow Valley Heritage Tourism Strategy, it aims to educate visitors about the natural values of the parks, to give them a better appreciation of what makes them special. Everyone likely to come into contact with park visitors is involved – from park staff and tour guides, to coach drivers, skifield staff, shop assistants and hotel porters.

KATHY OMBLER

Tour buses on Athabasca Glacier, Banff National Park.

As John Allard, superintendent of Banff National Park says: 'We have a responsibility to help visitors understand, appreciate and respect our natural and cultural heritage so they can contribute to its preservation. We are looking for interpretative opportunities, for enhancing people's experience here.'

Major commercial operators, such as Canadian Pacific Hotels and the Banff tour company Brewsters, are actively endorsing the new strategy. According to Andrew Whittick, of Brewsters, strong environmental stewardship principles are essential.

'We are showing people our own backyard, and we are concerned that they understand they are in a national park and world heritage area,' he says. 'We have also found people now want to learn something as well as be entertained so what we are trying to do is ensure they get accurate, informative and up-to-date information.'

Brewsters is recognised by Parks Canada as the first private sector company to officially relay park values to visitors. The company's driver/guides undertake an extensive six week training programme and must pass exams prior to touring, so they can educate their guests about the natural wonders and wildlife of Banff, rather than just letting it all pass by their coach window. Passengers are given written information they can take away and read, such as the brochure dispensed after the Athabasca Glacier 'sno-coach' tour. In July, Brewsters was awarded an inaugural Heritage Tourism Award for heritage interpretation.

Other Heritage Tourism Strategy measures include the 'Best of Banff' orientation programme, run for 3500 private sector staff, so they can share knowledge and understanding of park values to the tourists they meet (hence the helpful waiter). There are Heritage Tourism Certification courses for guides and tourist operators, and new programmes like 'Living with Wildlife' which educate visitors about the needs of wildlife.

John Allard says two major events planned for Banff next year are part of the new focus. The 'Year of the Great Bear' festival will focus on the world of bears, and an international conference will study human-use management in mountain areas.

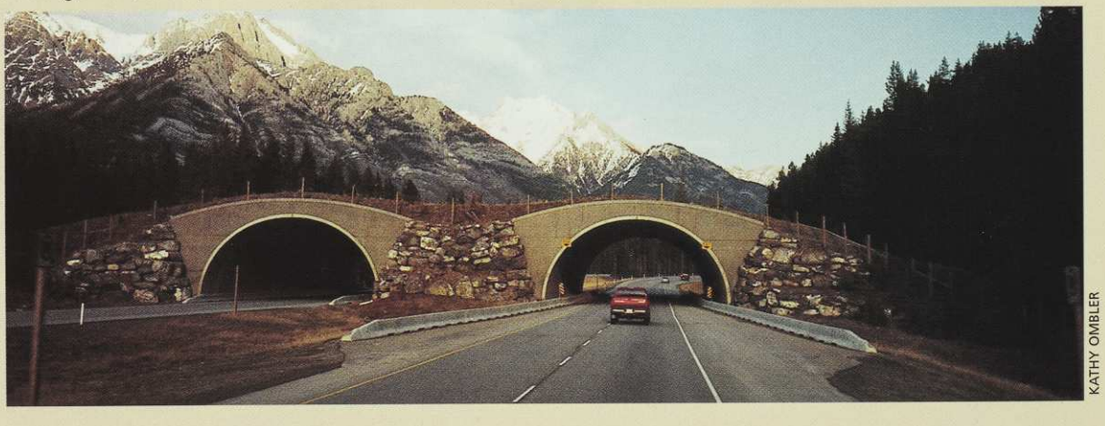
The heritage tourism strategy was borne out of the recent Bow Valley Study, written to address the issues faced by Banff National Park, where some eight million visitors annually pose enormous problems for park management. Allard says there had been some discussion in the early 1980s about losing World Heritage status because of the excesses of tourism.

New Zealander Bing Lucas, vice chair of the IUCN World Heritage Committee, says the committee has now commended Parks Canada for the far-reaching recommendations made in the Bow Valley Study.

Canada's federal government is currently in the process of passing legislation that places a stronger emphasis on environmental protection of parks ahead of tourism interests.

– Kathy Ombler recently visited Banff National Park in Canada.

These bridges over highways in Banff National Park are for wild animals, not people.



KATHY OMBLER

Meridian Energy

special *places*, special *responsibilities*

At Meridian Energy we're proud of the work we're doing to protect our environment. Our generating assets are located among some of the South Island's most beautiful and significant natural resources and we recognise our special responsibility as their guardians to make sure future generations are able to enjoy them.

Project River Recovery

Project River Recovery (PRR) is a river and wetland conservation programme funded by Meridian Energy and run by the Department of Conservation (DOC). The project aims to mitigate some of the adverse effects of hydro electric development on the unique ecological communities of rivers and wetlands in the upper Waitaki Basin.

Funding is in the order of $400,000 per annum. PRR employs two fulltime staff and several more over the summer months, as well as a number of university students with research projects.

Our braided rivers support a unique and diverse community of plants and animals, such as the wrybill plover, the rare robust grasshopper, the long-jawed galaxid (a native fish), and tiny colonial daisies. Raising lakes has flooded many wetlands and braided rivers, and has reduced flows in remaining rivers, making them more vulnerable to invasion by weeds and predators.

PRR's first priority has been to preserve those rivers and wetlands of the upper Waitaki Basin that are still in near-pristine condition. For an investment of a few days each year, an invasion of lupins, gorse, broom and wilding pines has been curtailed within the Tasman River bed, adjacent to Mount Cook National Park. Unchecked, weeds would have rapidly invaded the area, causing irreversible damage. PRR also removes heavy infestations of weeds from rivers with high conservation value, such as the lower Ahuriri River. Careful monitoring has shown that water birds rapidly return to these prime habitats once weeds are removed.

One of PRR's management experiments involves the construction of an 80 ha wetland near Lake Ruataniwha. As well as providing habitat for numerous aquatic plants and animals, the wetland provides an opportunity to test the efficacy of an electric fence, which runs around half of the wetlands, in reducing predation rates on ground-nesting wetland birds. Results to date have shown that nesting success is much higher inside the fence than outside.

Nine years on from the commencement of PRR, it is clear that this initiative has protected wildlife populations and habitats and has enabled the continued use and enjoyment of the upper Waitaki Basin.

Fish Passage on the Waiau River

The fish pass at the Manapouri lake control structure provides passage for trout from the lower Waiau River to the Mararoa River, Waiau River and Lake Manapouri.

The Waiau River is a well renowned fishery and the installation of the fish pass has enhanced the fishery in the upper reaches of the catchment and the lakes. It is one of the few fish passes in New Zealand that operates effectively with the minimum of maintenance. It won a merit award from the Association of Consulting Engineers NZ 1999 conference.

Our resource consents also require passage to be provided for native fish. An elver trap and transfer programme is operated during the migration season, with 198 kg (about 90,000) of juvenile eels (elver) transferred from Manapouri lake control structure to Lake Te Anau.

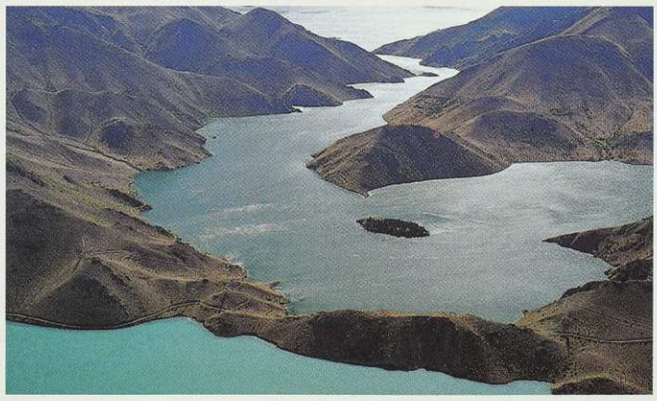
Effects monitoring - Waiau River, lakes Manapouri and Te Anau

Meridian Energy undertakes extensive effects monitoring of our activities associated with the Manapouri power scheme. We fund approximately $300,000 of monitoring and research studies each year in the lakes and rivers of the catchment.

Effects monitoring - Deep Cove

Meridian Energy funds more than $200,000 worth of research each year in the Deep Cove fiord environment to assess the effects of our fresh water discharge on the marine environment. This research is being undertaken by leading scientists at the University of Otago's Marine Science Department.

Scientists have learned that the fiord consists of two distinctive layers of water. The surface layer is fresh water that comes from the surrounding mountains which functions as a dark floating canopy that protects the underlying layers from sediment, light and strong water movement. This has created a sheltered environment below, which allows many beautiful and delicate marine species such as black and red corals to live at far shallower depths than outside the fiord environment.



Meridian Energy - the Power of Nature

Maud Island
— Conservation's Sound Investment

Forest and Bird led the campaign to purchase one of New Zealand's most famous nature sanctuaries, 25 years ago. DEREK BROWN looks at the gains.

This year Maud Island celebrates its 25th anniversary as one of New Zealand's best known and important wildlife sanctuaries. This Marlborough Sounds island was originally purchased as a reserve in 1975, much of the funding derived from a public appeal led by Forest and Bird.

Situated in central Pelorus Sound, Maud Island had been farmed since 1867. The island was virtually denuded of forest, though a heavily grazed 18 hectare fragment of the original coastal forest was fortuitously left to protect the water catchment. This act unwittingly preserved the first of the endangered species to be discovered on the island — the pakeka frog (formerly known as Hamilton's frog). The bush offered the last refuge for this native frog, which was scientifically 'discovered' in 1958, although its presence was known to the island's farming inhabitants for many years before this.

The survival of the frog gave an early signal of the potential of Maud Island as a refuge for our ever-diminishing wildlife. Even in the early 1960s when it was still being farmed, it was recognised by such people as the Wildlife Service's Don Merton and Brian Bell as having high conservation values – and outstanding potential. The main reason for this is that, despite years of human occupation, Maud remains rodent-free, and largely free of other predators and pests. Its 305 hectares were therefore – even on a worldwide scale – highly significant.

Maud first came to prominence in 1974 when the owner, Jack Shand, agreed to let the island be used to house the last of the Fiordland kakapo. This was, of course, prior to the discovery of a population on Stewart Island in 1977, and the Fiordland birds were assumed to be the last of their species. It was envisaged Maud be managed as an 'open aviary' where critically endangered flightless birds could be intensively managed and monitored in order to boost productivity.

The Wildlife Service was at this time desperate to find islands free of predators, which could then be used for intensive species management. Maud, though by no means perfect, was the best of the few options available. Jack Shand had by this time already signalled his personal commitment to conservation by fencing and gifting the forest remnants and the upper sections of Maud Island to the Crown as a Flora and Fauna Reserve in 1971-72. A few years later Jack was nearing retirement and magnanimously offered the rest of the island to the Crown for the meagre sum of $78,000. The cash-strapped Wildlife Service could not spare even this amount, so a public subscription was raised to find the shortfall. A Forest and Bird fund-raising campaign was pivotal in securing the purchase. Within a year, Maud Island was officially designated the Tom Shand Nature Reserve, after Jack's uncle, a long-term local MP and cabinet minister. (Its status was later altered to a more appropriate Scientific Reserve status.)

One of Maud's first uses was as a refuge for the last of the Fiordland kakapo, and parts of the island were planted out with a wide variety of native and introduced

Kakapo

DEREK BROWN

plants. Even at this early stage, Don Merton and others realised that the successful breeding of kakapo was strongly tied to an abundant and enduring supply of certain foods, so the aim was to provide the greatest possible flush of food at the appropriate season. In 1974 the first two (male) kakapo were transferred from Fiordland, and the following year a third joined them. The latter bird was named Richard Henry after the visionary nineteenth-century pioneer conservationist and custodian of Resolution Island, in Dusky Sound, Fiordland.

In 1980, the first of the Stewart Island birds were transferred from their cat-ravaged home. Most of the kakapo coped well with the potentially risky transfer, and settled well into their new home, but in 1982 disaster struck. A stoat was detected on the island – the 900-metre gap between the island and the mainland wasn't sufficient to prevent a determined stoat reaching Maud. The inevitable decision was made to shift the birds to the relative safety of Little Barrier.

DEREK BROWN

In what turned out to be a prolonged see-saw battle, stoats were eradicated from Maud Island a year later. Kakapo were reintroduced in 1989, only to have stoats reinvade the island a second time a year later. This time kakapo were kept on the island, amid a furious debate about the relative risks of shifting the birds (and perhaps jeopardising several breeding seasons) or letting them stay, with the possibility one might be killed by a stoat. Determined efforts by staff on the island eventually resulted in eradication of the stoats without the loss of any kakapo. Future invasions of stoats are hopefully being thwarted by intensive trapping regimes, both on the island and on the adjacent mainland. So far, this has been totally successful despite several mainland 'stoat plagues'. It is now more than six years since the last stoat was killed on Maud and there has been no re-invasion.

While the two stoat invasions were incredibly disappointing events, some positive elements have resulted. Staff involved in the stoat eradication and the ongoing control on the mainland have become some of the most knowledgeable and experienced in the trapping of these wary predators. They have been regularly called upon to assist and advise in other parts of the country.

The Maud Island kakapo saga has been fraught with challenges. Two adult female kakapo of unknown age joined the three males there in 1991, but lack of breeding by 1997, along with the 'Sword of Damocles' stoat issue, saw a recommendation that all the kakapo should be transferred off the island without delay. It looked like all the hard work and hope by so many Wildlife Service staff, DoC staff and volunteers, over more than 20 years, was to be in vain. After some discussion one last potential breeding season was to be allowed, after which the birds were to be moved immediately.

DEREK BROWN

Regenerating forest on Maud Island is kept clear of the pasture, at centre. The area is intended as a firebreak, and for the benefit of takahe which like to graze there.

Miraculously, one little hen was to change this decision, virtually overnight. In March 1998, Flossie – a female who during 14 years on Little Barrier proved unmanageable and as a consequence was transferred to Maud 18 months earlier – was found sitting on a nest containing three eggs, incredibly sited within the island's pine plantation! What's more, she had mated with the last known surviving Fiordland male, Richard Henry, ensuring his valuable genes were perpetuated. Flossie's three offspring are thriving, and along with nine others successfully raised in the last few years, offer real hope for the recovery of the species. Maud Island is now one of just two important focal points for the survival and recovery of this critically endangered species. It currently holds 17 (including five juveniles) of the 62 kakapo known to exist. (The other kakapo are held on Whenua Hou/Codfish Island, off Stewart Island.)

While kakapo have captured the headlines, the island has seen several other success stories. The first of these was the transfer of the Cook Strait giant weta from Mana Island to Maud in 1977, by Mike Meads. This was one of the first attempts at the translocation of an invertebrate species, and its aim was to establish another secure population of the threatened species within its former range. Mike released the weta on Maud's long, boot-shaped peninsula. The population seemed to take some time to gain a foothold but an exponential increase in recent years has seen the population reach hundreds of thousands, spread over much of the island. Alongside Mana and Stephens Island in Cook Strait, the successful transfer to Maud means the species now has three very healthy and secure populations.

The pakeka frog, which occurs naturally on Maud, has been the focus of one of New Zealand's longest scientific studies, undertaken by Dr Ben Bell of Victoria University. This study continues to turn out vital information for the management of our native frogs, such as breeding behaviour, population densities (up to 8 per square metre in prime habitat!) and population-age structures (some of the frogs are well over 20 and one is at least 32 years of age!). Dr Bell also carried out the first successful translocation of native frogs, from the main forest to a smaller bush remnant on Maud. This opened the door for future work including the recent transfer of Maud frogs to Motuara Island in Queen Charlotte Sound. It has recently been discovered that Maud Island frogs are genetically different from the Hamilton's frog *Leiopelma hamiltoni* of Stephens Island — so much so that they have been described as a new species *Leiopelma pakeka*. This species, once widespread over the mainland of New Zealand, is now confined to Maud Island and its new home on Motuara. Fortunately its situation on Maud looks rosy, with Elizabeth Bell (a recent student of Ben Bell's)

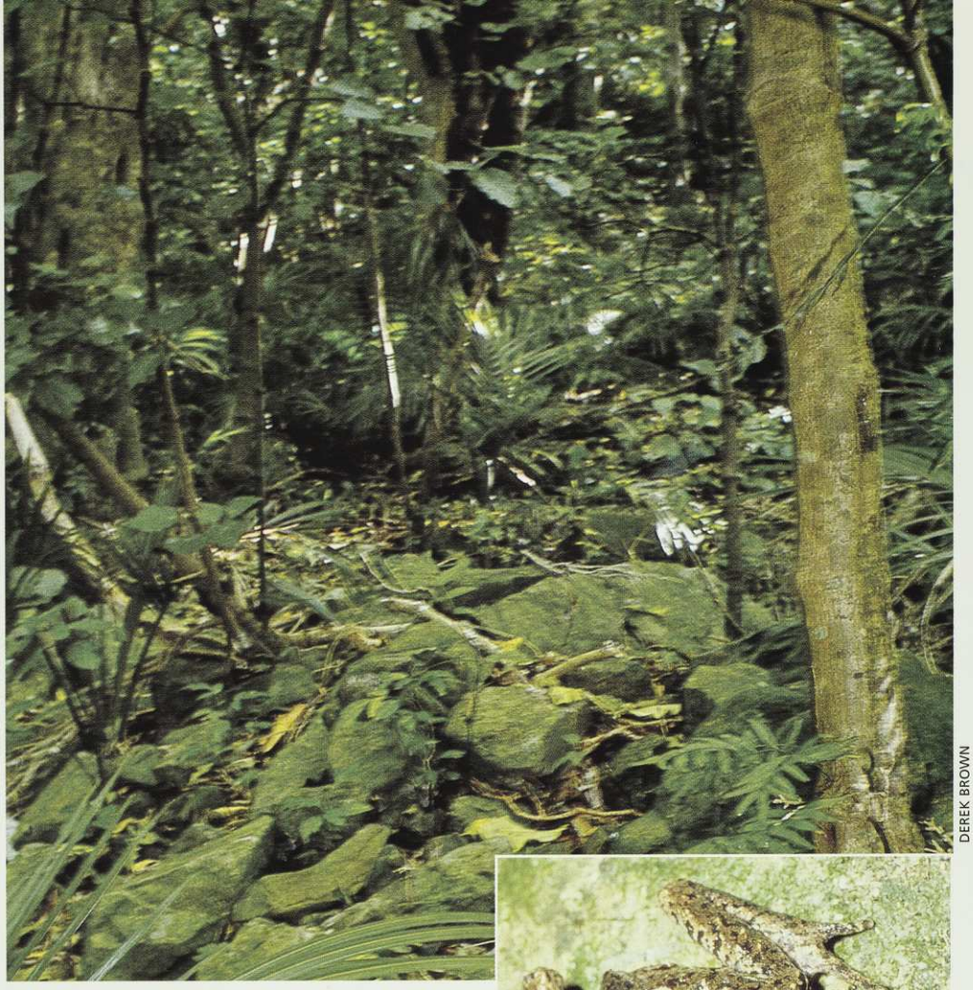
estimating 19,000 frogs inhabit the island. This healthy population is spreading as the forest regenerates, while the Motuara Island transfer secures the species further.

One rare inhabitant of Maud managed to elude observers for many years, until its discovery in 1989. The striped gecko *Hoplodactylus stephensi*, a beautifully marked forest gecko was previously thought to exist only on Stephens Island — and in pitifully small numbers — so the finding of a second population on Maud has eased concerns about the survival of this species.

Maud Island is also an integral part of the 'takahe recovery programme'. It is part of the 'managed island' population which is proving valuable insurance for the species, as DoC staff struggle to arrest the decline of the last remaining natural population in the Murchison Mountains of Fiordland. Maud has maintained a moderately productive population of several pairs since 1984, with 'surplus' birds being made available for stocking Tiritiri Matangi Island in the Hauraki Gulf, and other islands. Birds are regularly transferred from island to island, ensuring that in-breeding is minimised.

One of the most under-rated success stories has been the creation of a new breeding colony of a common seabird, the fluttering shearwater, on Maud Island by Brian Bell and Ornithological Society volunteers. Well-grown chicks from a neighbouring island were transferred to special handmade burrows on Maud, and hand-fed until fledging. Shearwaters will nearly always return to breed on the island where they were raised. On reaching maturity (four or five years after leaving Maud), some have already returned. The simple technique of 'switching' islands at a critical time in the chicks' development has meant the mature birds have started returning to breed on Maud Island, creating what is hoped will become a self-sustaining population. This is the first time an entirely new breeding colony of shearwaters has been established through transfers. While not important for the survival of fluttering shearwaters, the project has pioneered vital techniques which it is hoped will facilitate establishment of new breeding populations of threatened seabirds such as the taiko, where current nesting locations are threatened by predators.

Maud Island also holds a recovering population of the large native snail *Powelliphanta hochstetteri obscura*, along with other rare invertebrates such as the Cook Strait click beetle. The rare shrub *Hebe speciosa* has been transferred here from its one natural South Island location at Titirangi Bay, and is surviving well – as is the Cook Strait Spaniard reintroduced in the 1970s as a kakapo food.



DEREK BROWN

S. COOK/DEPARTMENT OF CONSERVATION

JOHN MARRIS, LINCOLN UNIVERSITY

DEREK BROWN

Forest interior on Maud Island shows typical frog habitat.
At right: the Maud Island frog or pakaka, until recently found nowhere else in the world. Mid right: the Cook Strait click beetle is an endangered flightless insect found on Maud Island. Bottom right: the Cook Strait giant weta is descended from a population transferred from Mana Island off the Wellington coast.

Maud has been a conservation leader in several ways, with early and successful transfers of birds and insects, and vitally important remnant populations of rare wildlife. The island is also one of the first to have an official pest and weed prevention and control strategy put in place. This has been widely used as a model for developing systems on other 'conservation islands' throughout the country.

In its early years as a reserve, Maud was in effect sheep pasture – an open paddock of European pasture grasses, with a tiny forest remnant of 18 hectares. In 25 years it has been transformed into an important reserve for native plants and animals. The revegetation continues to expand in the complete absence of pest species such as possum, rat, goat and deer. As a result, the quality of the lush kohekohe-dominated bush is unsurpassed in the region. The regeneration is benefiting the island's

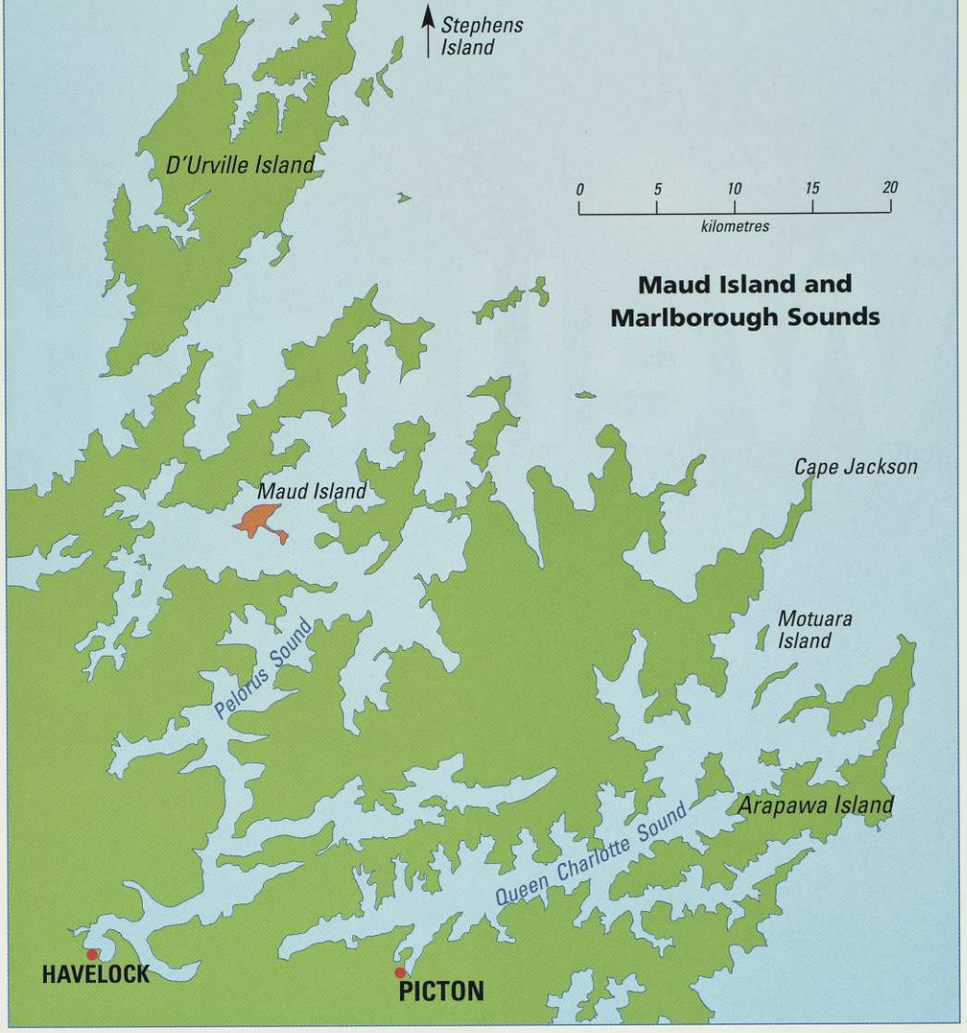
wildlife too. Even the exotics such as tree lucerne offer excellent habitat for outstanding populations of tui, bellbird and kereru — up to 50 pigeon have been seen in a single flock!

Some locals and holiday-makers were initially opposed to the 'closing' of public access to the island, but that view has largely been overtaken by an understanding and even a pride in its current conservation values. Limited numbers of open days and controlled tourist visits have benefited in raising awareness of the island's role and of conservation in general. Many a visitor has gone away beaming at the experience of having a fearless takahe stroll across the track in front of them, or of being photographed holding a giant weta. As islands such as the open sanctuary of Tiritiri Matangi have shown, first hand experiences are crucial for developing conservation awareness amongst the general public.

The DoC Nelson-Marlborough Island Strategy outlines a commitment to keep a permanent staff presence on the island, and identifies possible future introductions including mohua (yellowhead), short-tailed bat and South Island saddleback. Although these are exciting prospects, the current suite of species by themselves justifies the Department's continued management effort. Maud has been staffed full-time since 1984, and the three successive caretakers, Selwyn Bucknell, Dave Crouchley and Brian Paton, along with the fulltime 'kakapo minders', have all put a lot of their lives into the island.

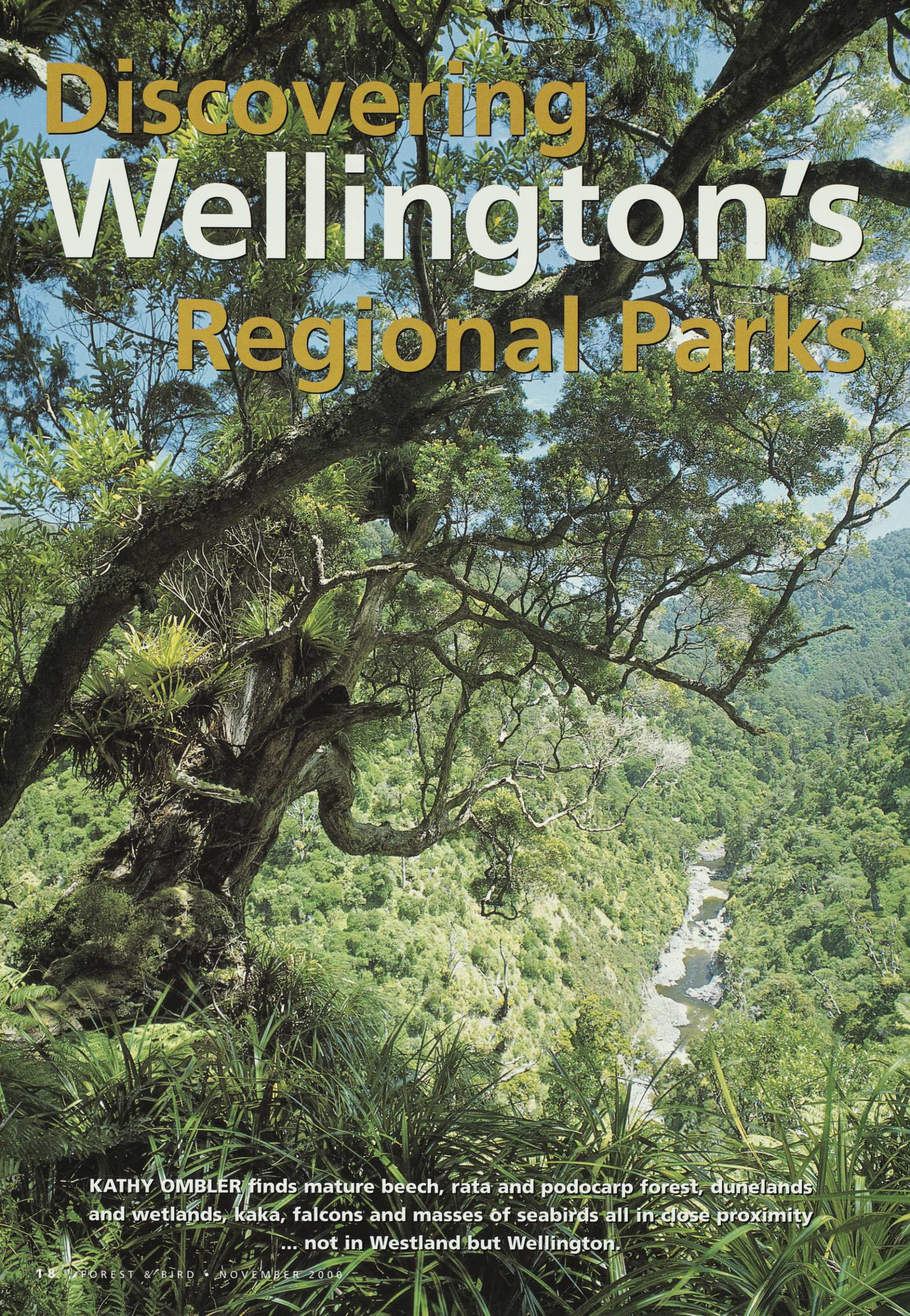
Maud was privately owned and could easily have been sold to the highest bidder. Nowadays its commercial value would be in the millions of dollars. For conservation, however, it is priceless. Without too much stretching of the imagination, Maud could now be a foreign-owned resort, like several other areas in the Sounds. We owe a lot to the wisdom, dedication and generosity of Jack Shand, and to the vision, commitment and exceedingly hard work of Maud's 'pioneer workers' such as Brian Bell and Don Merton. The support of the Royal Forest and Bird Protection Society members was clearly crucial in securing the purchase of the island. Twenty-five years on, Forest and Bird can justly take credit for making such a 'sound' investment.

DEREK BROWN *was formerly responsible for threatened species protection in the Marlborough region.*




Takahe

Discovering Wellington's Regional Parks



KATHY OMBLER finds mature beech, rata and podocarp forest, dunelands and wetlands, kaka, falcons and masses of seabirds all in close proximity ... not in Westland but Wellington.

We're talking about wilderness in Wellington, capital city – specifically in the city's regional park network to be found within a mere 10 to 40-minutes' drive from the Beehive.

In her guide to the natural plant communities of Wellington (*Wellington's Living Cloak,* 1993), botanist Isobel Gabites wrote that Wellington has 'one of the most wide-ranging and fascinating living textbooks of botany in the country.' She added: 'Well, selected pages anyway. Many of the pages were ripped out by zealous colonisers and there are now some big gaps. Fortunately, fragments of our ancestral landscape have survived.'

Many of these fragments are now protected in regional parks, or water catchment forests. A network of council-established walking tracks, picnic areas and camping grounds has traditionally catered for recreational use in the parks. However, for many years limited funding has seen limited care of significant areas of forest, wetlands, dunes and rare plant communities – Gabites' 'selected pages' – but for the efforts of a small army of self-motivated volunteers, including many Forest and Bird members, throughout greater Wellington.

In recent years, however, change has been evident. A refreshingly new environmental focus has been sweeping through the regional council, an attitude embraced all the way to councillor level and one welcomed by the volunteers.

The council's new 10-year plan spells out an increased commitment to 'environmental enhancement, education and community connection' and earmarks an additional $2.5 million, on average per year over the next 10 years, for the environment.

'I think it's great,' says Barry Wards, Upper Hutt Forest and Bird branch chair. 'We have great respect for the regional council and the direction they're taking in environment work. We're fully behind them.'

Council landcare planner Ross Jackson says the council is very much aware that a lot of volunteers have been involved in the parks over the past 10-20 years. 'We want to build on these peoples' experience and get younger people involved so they can carry on.'

For the groups and individuals who have toiled over the last 20 years or so – pulling blackberry, nursing seedlings, digging holes, planting trees and shrubs by their thousand, release weeding, and generally being environmental watchdogs – the council's new environmental focus gives welcome recognition of the value of these special places, and hope for their future.

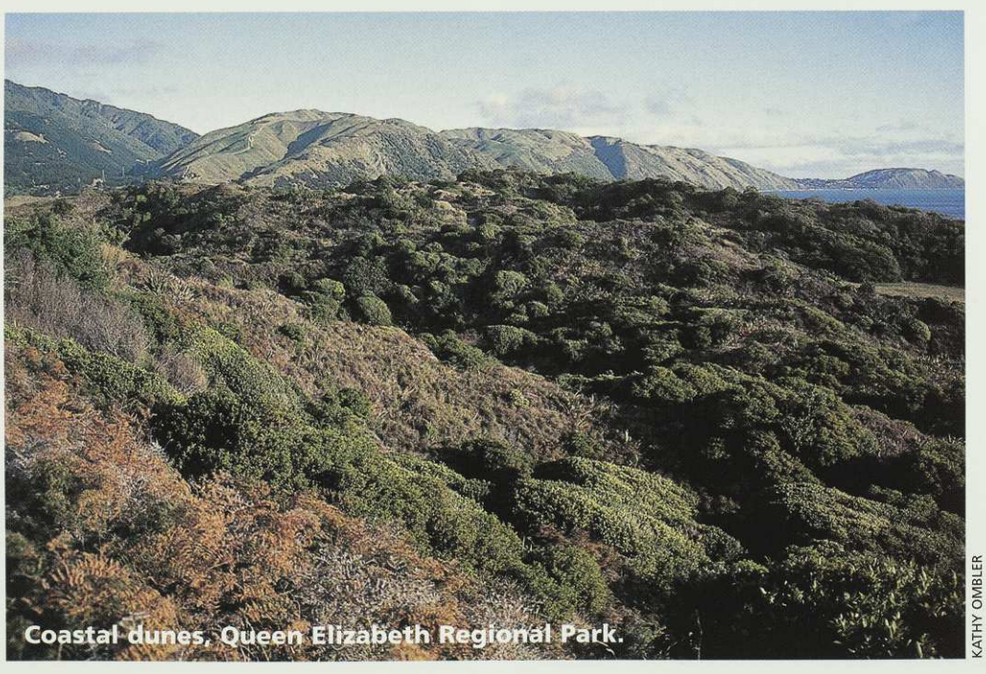
Wellington's regional parks: what's there, and who cares?

Queen Elizabeth Regional Park

At first glance, looking across farmland from the hectic Kapiti Coast stretch of SH1 at the accident-prone MacKay's Crossing, one could be forgiven for thinking Queen Elizabeth was little more than a farm park, crammed with recreation facilities. There is much more.

Within the park are some of the only remaining, almost complete dune sequences in Wellington, a small remnant of kahikatea dune swamp forest, and 10 hectares of ephemeral wetlands, which contain a number of rare plants and a significant 'turf community'. A nationally rare

◀ *Hutt Gorge, Kaitoke Regional Park.*



Coastal dunes, Queen Elizabeth Regional Park.

ROBIN BLAKE

KATHY OMBLER

Greening Wellington's Regional Parks

Name changes within the Wellington Regional Council reflect a new focus in parks management. The recreation department which became the parks department is now, having merged with the conservation forestry group, called the Parks and Forests department.

Susan Edwards, Manager Parks and Forests (strategy and marketing) explains the new council plan is about enhancing environmental values, working closely with the community, getting more people involved in the natural environment and encouraging good land management practices.

Central to this new direction is the much-vaunted 'Signature Values' assessment that clearly sets out the environmental, heritage and recreational values of each area. Susan Edwards says the assessment process is a refinement of similar concepts developed by Auckland Regional Council and Parks Victoria in Australia.

'This framework provides an objective guide for council when considering management direction and setting priorities for maintenance, restoration and upgrading,' she says.

The process also helps identify 'gaps' in the park network, and as a result the council has set aside funds to bring new areas under the umbrella of the regional park system. Two such areas are Whitireia, near Porirua (see *Forest & Bird*, August 2000), and a possible role associated with the Lake Wairarapa wetlands.

'We have a wider focus now than trees and forests. This is also about wetlands, dune systems and the fauna in our parks and forests, things on which we have concentrated less in the past,' says Susan Edwards.

Animal pest control, a major factor in the council's 'environmental enhancement' programme, has been intensive throughout regional parks and forests in the past few years. According to volunteer revegetation groups, increased fruiting, seeding and bird numbers have been the result. – *Kathy Ombler.*

native grass, *Amphibromus fluitans*, has been recorded here and at least seven other species in these wetlands are considered rare elsewhere in Wellington.

Typical trees of lowland swamp forest – kahikatea, matai, pukatea and swamp maire – grow within the park's two hectare forest remnant, which is one of the only stands of this type remaining south of Levin.

Although much of the park's long expanse of constantly shifting coastal dunes is modified, with marram grass and blackberry, there are native sand-binding and sand-collecting plants, and coastal forest, also taking a hold. The northern area contains the only unmodified dunes remaining in the Wellington region.

The Kapiti Environment Action Group (KEA) and Kapiti Forest and Bird have toiled for 10 years in the park's kahikatea forest and wetlands.

'We have been planting, release weeding and generally trying to convince people that money needs to be spent on the park,' says a former park board member, June Rowland, who has spearheaded the volunteer effort.

'Forest and Bird members have been very good to work with, they have a great knowledge of the plants and we didn't have that expertise within our group.'

A Kapiti Forest and Bird branch member, David Gregorie, says new plantings in the swamp forest have included manuka, flax, toetoe and also tree lucerne, for ground cover and to attract native pigeons.

'It's surely working,' he says. 'One of the heartening things we've found is a lot of kohekohe coming up naturally, obviously brought by the pigeons.'

June Rowland says things changed dramatically when the regional council took over the park and appointed a permanent ranger, three years ago.

'No-one but us did anything in there for a long time. Now the wetlands and bush are all fenced off and protected, and weed control is a big focus for council staff.'

Last Arbor Day, students from Raumati School planted the wetlands with species they had raised at school in a programme co-ordinated by the park's ranger, Nola Urquhart. She has an Australian degree in parks and recreation and worked with the regional council's biosecurity division for five years. Park volunteers say she has been a strong supporter of their restoration efforts. In turn, Urquhart says restoration work in the park is the result of a huge community effort, including local KEA and Forest and Bird members, tramping clubs, iwi and schools.

A wetlands restoration plan for the park is expected to be completed by council policy staff next year.

Belmont Regional Park

Sprawled along the hills between western Hutt Valley and the Porirua basin, Belmont contains several pockets of remnant and regenerating forests in between open pasture and plantation pine forests. This was possibly the first park in New Zealand to combine public and private land managed for the multi-uses of recreation, farming, forestry and conservation. It is extremely popular with walkers, mountain bikers, horse riders and runners.

Stands of native forest in the park form a

View from near trig in Belmont Regional Park, looks toward Eastbourne hills of East Harbour Regional Park and Rimutaka Ranges beyond.

Locating Wellington's Regional Parks.

Parks Problems

Wellington's Regional Parks are not without their problems.

Despite intensive lobbying there are current threats from at least three roading proposals. The much debated Transmission Gully highway, proposed to ease the pressure on the current SH1 road access to Wellington, will cut through Belmont and Battle Hill regional parks. Transit New Zealand also plans to slice a portion off Te Marua Bush, at Kaitoke, and Queen Elizabeth Regional Park.

Land ownership, where former Lands and Survey farmland has shifted to Landcorp control, and former Electricity Corporation land now sits in the Treasury "land bank", is a potential issue at Belmont.

While intensive pest operations have made a major impact on possum numbers in the Wainuiomata and Orongorongo water catchment forests, where native seedlings have flourished after 1080 poison drops, a much debated hunting ballot has had little effect on high numbers of deer, pigs and goats.

Given such issues, the regional council's apparent recognition of environmental values is timely. – *Kathy Ombler.*

critical part of the 'Hutt Valley bird corridor'. One is in Korokoro Valley (10 minutes' drive from the Beehive), which was closed as a water catchment for 60 years and contains mature kahikatea, rimu, matai and rata trees and, in its lower reaches, regenerating lowland forest. On the western side of Belmont, in Cannons Creek, a remnant stand of tawa/kohekohe forest includes rimu, totara, matai and kahikatea.

Several freshwater fish, including giant kokopu, survive in Korokoro Stream and green forest geckos have been recorded in the park.

Belmont ranger Chris Wootton says members of the local community, in particular Forest and Bird groups, are strong supporters of the park.

'The Lower Hutt branch are avid users of the park and have always been great advocates,' he says.

A branch member and former park advisory-committee member, Bill Milne, has been waging a private war against possums in Korokoro Valley. With bait supplied by the regional council, Milne has run a line of bait stations through the valley for the past six years.

'You can tell by the regenerating miro trees that it's having an effect,' he says.

Another local resident, Kate Malcolm, initiated a planting programme in the lower valley six years ago.

'We are not a group. I am not a woman to waste time at meetings. I raise native plants on my own property and the council matches these. We generate publicity to get enough people to help with plantings and this year we put in about 200 plants. We now have canopy enclosure from our first plantings of mainly ngaio.'

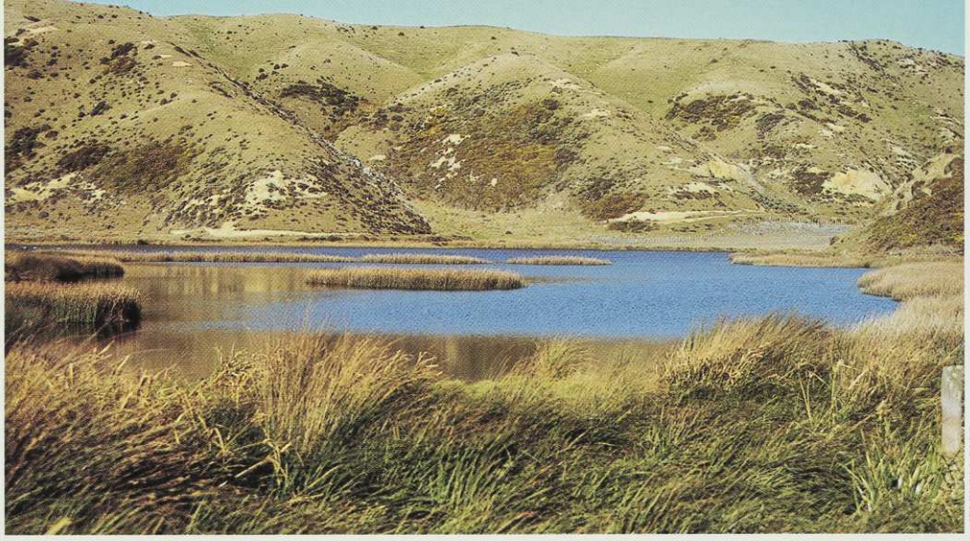
Over the hill at Cannons Creek, Mana Forest and Bird member Sylvia Jenkins has enlisted a number of branch colleagues and established the Friends of Maararoa Society, with the aim of restoring 100 hectares of tawa/kohekohe forest over the next 10 to 20 years. The Society has the support of the Mana Forest and Bird branch and the East Porirua Ratepayers Association.

Kaitoke Regional Park

Kaitoke, a major water collection area just 40 minutes' drive north of Wellington, is visited by some 100,000 people each year. The park contains nearly 2500 hectares of mature native forest including hard beech, black beech, red beech, rimu, northern rata, hinau and kamahi. In one popular recreation area, by the Pakuratahi Forks, magnificent rata and rimu tower over a canopy of kamahi, hinau and miro. Ferns present include regionally uncommon *Sticherus cunninghamii*, an umbrella fern, and *Blechnum colensoi*. Matai forest lines part of the Hutt River gorge, a popular stretch for wilderness rafting.

The park, located on the southern end of the Tararua Ranges, supports common forest birds as well as North Island kaka, yellow-crowned parakeet and a significant number of New Zealand falcon.

Barry Wards, Upper Hutt Forest and Bird chair, says branch members have provided volunteer support for possum control and tree planting at Kaitoke, and enjoyed a close working relationship with the regional council. The branch operates a nursery at Rimutaka Prison which supplies plants to the council, and involves the Kiwi Conservation Club in its plantings.



JEREMY ROLFE

Lake Kohangatera, one of two lakes at Pencarrow Head, East Harbour Regional Park, both nationally important wetlands.

Te Marua Bush

This small remnant of podocarp forest by the entrance to Kaitoke Regional Park is considered particularly significant. Just three hectares of predominantly matai, totara and maire which grows on an old alluvial terrace, it is typical of the river terrace forests which once covered this area.

Planting in wetlands in Queen Elizabeth Regional Park.

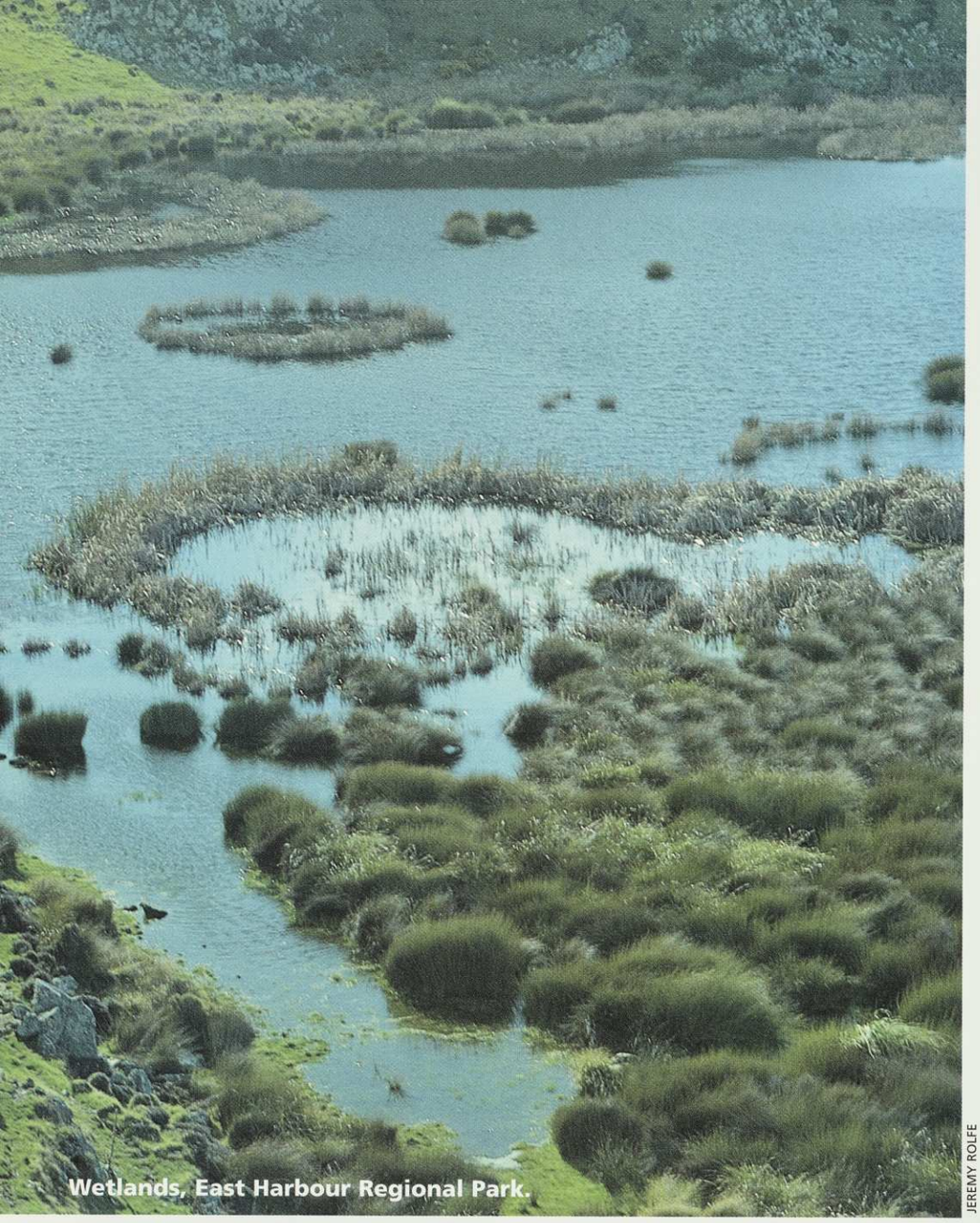
Since 1990 Wellington Botanical Society (Botsoc) has worked with regional council staff, conservation corps and Upper Hutt Forest and Bird members to restore this area. Botsoc stalwart Barbara Mitcalfe admits the area is small, but there are bigger plans.

'It is only just sustainable because it's such a small site, but we've been planting into an adjacent area hoping to provide a buffer. We hope this current mosaic of remnant forests will eventually be joined together. You don't get this sort of forest mix elsewhere until about Otaki,' [farther up the Wellington West Coast].

Te Marua volunteers and council staff are also working together trialling chemicals for weed control, aimed to combat Tradescantia (wandering Willie) without affecting mature native trees.

In a special 'millennium planting' at Te Marua last June, all past and present council members and families were invited to plant a totara or matai. The event was attended by the Hon. Marian Hobbs, Hon.

WELLINGTON REGIONAL COUNCIL



Wetlands, East Harbour Regional Park.

JEREMY ROLFE

Paul Swain, children and parents from nearby Plateau School, Liz Mellish from the Wellington Tenths Trust and members of the Upper Hutt Branch of Forest and Bird and the Botanical Society.

East Harbour Regional Park

Mature beech and rata forests and wetlands with rare plant communities are the special features of this park, which as its name suggests occupies the hills and coastline on the eastern side of Wellington Harbour. The regional council has adopted an 'umbrella role' for the co-ordinated management of the park, which encompasses a collection of regional council land, Hutt City Council reserves and DoC-administered wildlife and recreation reserves.

Recreation use is high in some areas of this park, in particular the forest tracks behind Eastbourne and Days Bay, and the Pencarrow coastal road.

On the southern Pencarrow coast, Lakes Kohangapiripiri and Kohangatera are rated as nationally important wetlands. Plant communities of the wetlands and raised beach ridges include several threatened species and the lakes provide habitat for waterfowl, including the regionally rare banded dotterel.

More vulnerable plant species, including *Muehlenbeckia astonii,* survive further along the coast at Baring Head, along with a 'nationally uncommon' spotted skink *Leiolopisma lineocellatum.*

The beech and rata forests that cover the eastern hills behind Eastbourne and Days Bay are the only forests of this type so close to a major city. Although significant areas of these hills have in the past been cleared, burnt or devastated by high winds, they are now regenerating well around substantial stands of mature northern rata and black and hard beech. Special plants surviving in these forests include red mistletoe and 19 species of native orchids.

Besides the common forest birds, there are New Zealand falcon, whitehead, yellow-crowned parakeet and long-tailed cuckoo. Six lizard species have been recorded in the park and the main waterway, Gollans Stream, contains eight species of native fish, including the regionally rare giant kokopu.

The Eastbourne forests have been the subject of major volunteer restoration work. A two-year attack on the local possum population, by the community and the Hutt City Council, resulted in an impressive increase in bird life and plant flowering, and encouraged further effort.

The East Harbour Environment Association, made up of committed local residents, has now embarked on an intensive pest control programme they call MIRO. This stands for Mainland Island Restoration Operation, which mirrors DoC's mainland island programmes and focuses on 160 hectares of untracked forest in the park.

Battle Hill Regional Park

This multi-use farm and forest park on the Paekakariki Hill Road is well used by large camping groups, walkers and mountain bikers. Natural features at Battle Hill include a 33-hectare remnant of kohekohe forest and an area of wetlands.

The regional council policy advisor for wetlands, Paula Reeves, says a restoration plan for the Battle Hill wetlands will be formulated in 2001.

KATHY OMBLER *writes about the outdoors, from her base in Wellington.*

Rata and beech forests, East Harbour Regional Park.

LLOYD HOMER

Take A Break, Explore Wellington's Regional Parks & Forests

Akatarawa Forest

The Akatarawa Forest, between Upper Hutt and Paraparaumu, was originally a complex mixture of lowland podocarp-hardwood and podocarp-beech forest. Between 1930 and 1972 much of the easily accessible rimu, matai, totara, kahikatea and miro were logged.

Today there is an extensive network of roads and old logging tracks through regenerating bush and pine trees. The tracks provide access for walking, swimming, mountain biking, trail biking and hunting. Hunters, trail bikers and motor vehicle drivers require permits.

Battle Hill Farm Forest Park

Battle Hill Farm Forest Park is the site of the 1846 battle between Te Rangihaeta and Crown forces. The original farm buildings - homestead, cottage, barn and woolshed - have been restored to maintain their historic character.

Tracks lead through a native bush reserve along the Horokiri Stream and to the hill tops for panoramic views of Pauatahanui. Walking, picnicking, mountain biking and horse riding are popular activities.

Belmont Regional Park

The rolling hills, bush-clad valleys and farm land between Porirua and the Hutt Valley provide an ideal place for horse riding, cross country running and mountain biking.

Short easy walks lead to sheltered picnic areas by the Korokoro Stream. On longer hill top tramps you can enjoy panoramic views of the South Island and the Porirua and Wellington Harbours.

Historic features worth visiting include the Korokoro Dam, World War Two ammunition stores and the original coach road from Wellington. Geological features such as boulder block fields and peneplain remnants are also of interest.

East Harbour Regional Park

East Harbour Regional Park, on the eastern side of Wellington Harbour, comprises public land between Wainuiomata, Eastbourne and the coast to Baring Head. Tracks give access to bush-clad hills, sheltered valleys, freshwater wetlands of national importance, rocky headlands and sweeping bays.

Kaitoke Regional Park

The steep, bush-clad Kaitoke hills north of Upper Hutt enclose sheltered picnic and camping facilities. You can try whitewater rafting down the rugged Hutt Gorge, swim in tranquil river pools, or enjoy a variety of bush walks (some suitable for wheelchairs).

Tracks explore magnificent native forest with tramps of up to three hours. Great views can be had of the Upper Hutt Valley from the Ridge Track. Canoeing, fishing and hunting are also popular activities at the Park.

Pakuratahi Forest

Pakuratahi Forest, in the Rimutaka Ranges northeast of Upper Hutt, includes both pine and native forests. Forest tracks provide access for a range of recreation activities, including walking, swimming, mountain biking and hunting.

The Rimutaka Incline Recreation Area offers an easy graded 18 km walk that passes through historic tunnels and over bridges following the route of the 1870's Wellington-to-Wairarapa railway line.

Tane's Track in Tunnel Gully Recreation Area sidles through hard and black beech forest to Collins Stream and then through podocarp/tawa forest back to the lower picnic area. Mt Climie can be reached from the upper picnic area.

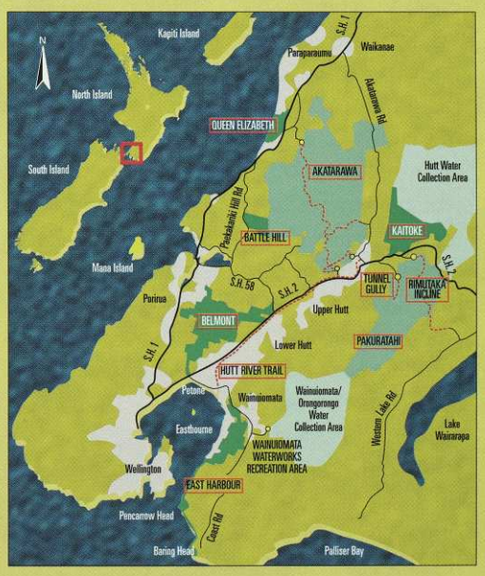
Queen Elizabeth Park

Located between Paekakariki and Raumati, Queen Elizabeth Park is ideal for picnics, swimming and surfing. Other attractions include easy walks along the sand dunes, fishing, a motorcamp and the tram museum. The seaward dunes attract gulls and wading birds. Spurwinged plovers may be seen near the wetlands which are home to paradise ducks, pied stilts and herons.

Hutt River Trail

The Hutt River (Te Awa kai rangi) flows through the Hutt Valley from its source in the southern Tararua Ranges. In the early days the river was an important transport link for both Maori and later, European settlers. A foot track along its banks extended to the Wairarapa over Rimutaka Hill.

The Hutt River Trail re-establishes the lower section of the track to provide routes for cyclists and walkers as well as access to the river for swimming, fishing and canoeing.



For more information check out our website **www.wrc.govt.nz**
or phone 04-384 5708, freephone **0800 496 734**
or pick up a brochure from the Wellington Regional Council
PO Box 11 646, Wellington

WELLINGTON **REGIONAL** COUNCIL

Portrait of the Dabchick

GEOFF MOON documents the life cycle of a threatened wetland bird.

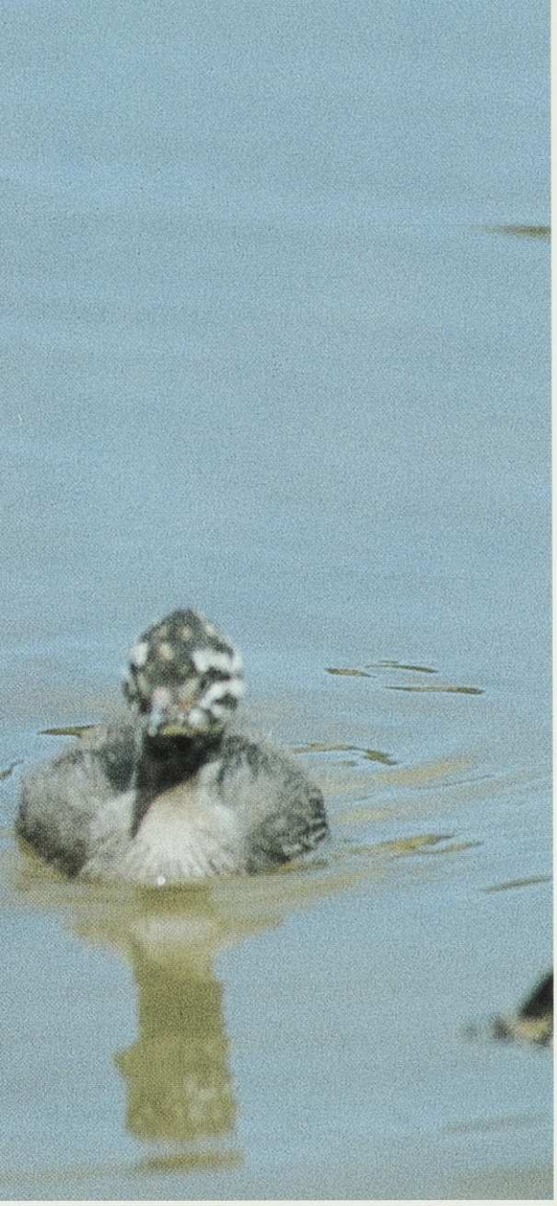
The New Zealand dabchick is already extinct in the South Island, and classified as 'threatened' in its North Island habitat. It is the only grebe peculiar to New Zealand, though Australian species visit, and the South Island has a small population of the magnificent Australasian crested grebe.

These grebes are collectively known as Podicipedidae for a strange physical feature: the name means 'rump foot' and refers to the fact that their feet are positioned well back on the body. The feet are lobe-webbed, which describes the flat web bordering each toe — a feature of all grebe species. Grebes can't walk on land, so their lifestyle is entirely aquatic. The lobed feet provide very efficient propulsion when a dabchick swims submerged in pursuit of aquatic insects and small fish, its main diet.

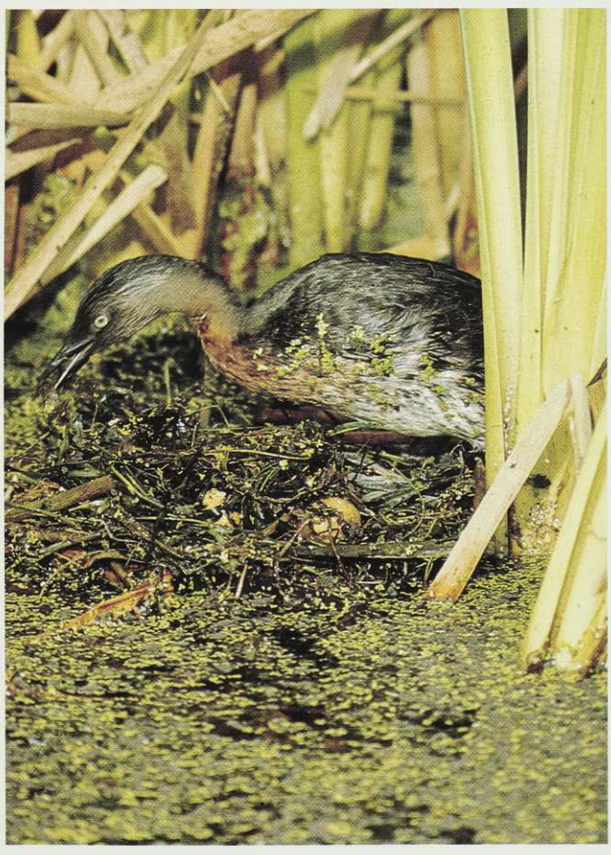
The New Zealand dabchick, or weweia is reasonably common on the Rotorua lakes, the western border of Lake Taupo, and the dune lakes of the west coast. They also inhabit lakes and farm dams further south, especially in Wairarapa.

The birds can be seen flying low over the water during the day, particularly during courtship displays. It seems the bird flies

Above: Young dabchicks have streaky heads. Below, left to right: duckweed clings to a dabchick which makes a submerged approach to its nest; eggs are frequently turned as they are in contact with wet weed; newly hatched chick rests on still-brooding parent's back.



Above right: lobed feet are a distinctive feature of all grebes. Inset: Young dabchick rides on a parent's back while the other adult bird finds food.



strongly only at night, however, when migrating to different stretches of water.

Nesting extends over many months of the year, with nests being found from July through to March. Favoured nesting sites are usually composed of water weeds anchored to raupo or trailing willow branches. They may also be found under overhanging clumps of sedge, under boatsheds and even in a suspended tyre hanging from a wharf.

Nests are constructed of water weed and dead raupo stems. In most cases the nests are floating, as they sit on fallen raupo or low-lying branches. Material has to be constantly added as the weight of the nest begins to sink it.

The usual clutch consists of two or three white eggs, which soon become stained due to the birds' habit of covering the eggs with weed, when vacating the nest. Some books state that the New Zealand dabchick is the only grebe which does not cover its eggs (eg *Reader's Digest Complete Book of New Zealand Birds*). This is untrue, and may only be the case when a nest has been discovered by an observer and the bird has vacated the nest, having not had time to cover the eggs before leaving.

Both sexes take turns at incubating over 20-24 days. The incubating birds make a submerged approach, surfacing close to the nest. This accounts for the girdle of chickweed adhering to the incubating bird;'s body, shown in some of these pictures.

The chicks hatch at daily intervals, with the first-hatched chick finding its way to the parent's back. The family leaves the nest after the last egg has hatched, and each parent takes its turn to carry the chicks while the other parent dives for food.

The family group stays together, but the chicks disperse when another nest is built.

– GEOFF MOON *has been photographing and recording the lives of New Zealand birds for nearly 50 years. He is the author of many books.*

The Other Grebes

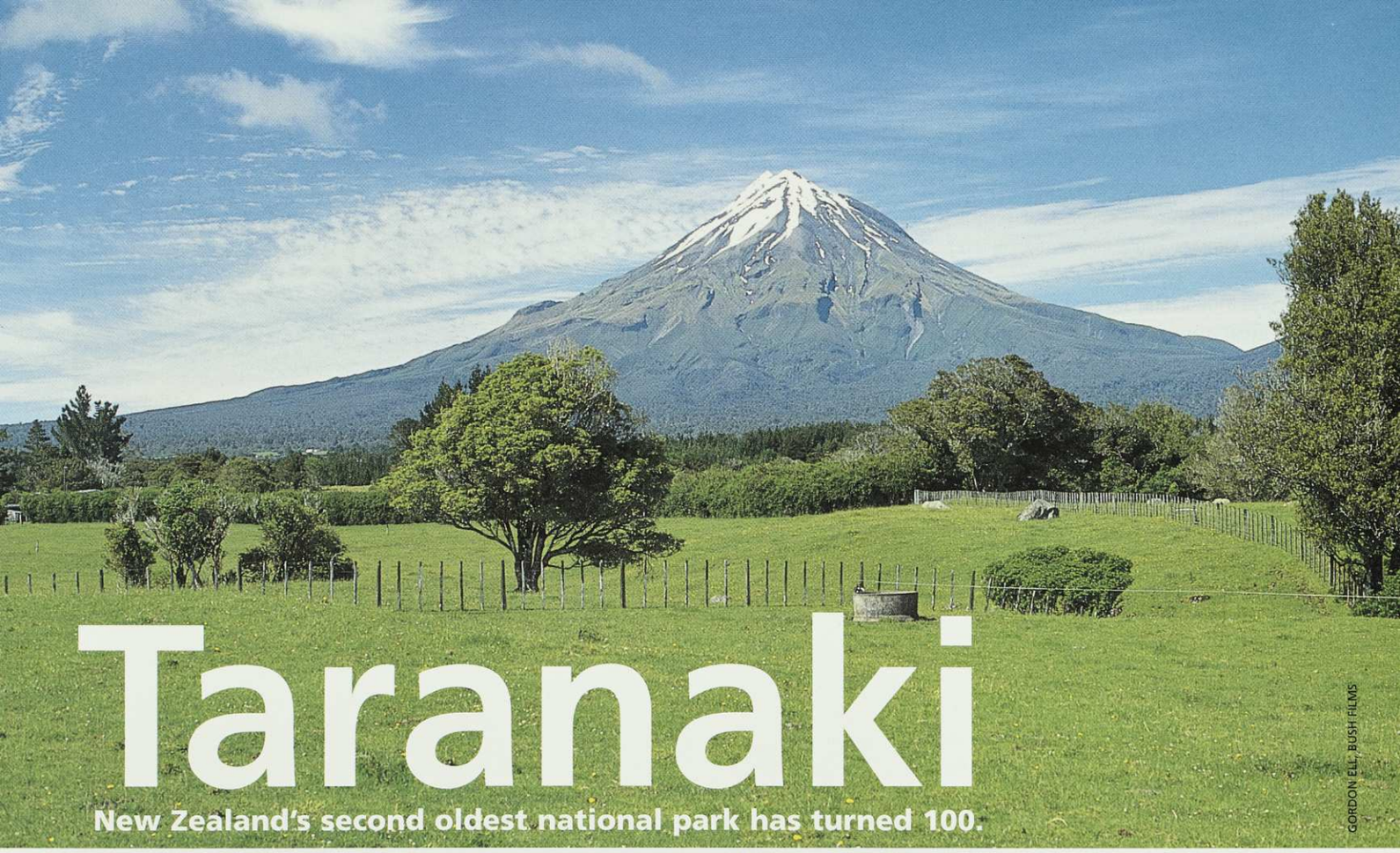
Three other grebe species are reported in New Zealand. The Australasian crested grebe (at right) is unmistakeable — a large bird found as a related subspecies in many parts of the world, including Europe, Africa and parts of Asia. In New Zealand it is restricted to South Island lakes, generally in the high country, or lakes in lowland Westland. The population of this threatened native bird is estimated to be 200-300, and fears are held for its future.

Birdwatchers are more likely to confuse the New Zealand dabchick with one of two Australian species sometimes found here. The Australasian little grebe (below) has established a tiny breeding population in Northland in the past 20 years or so, and has also been reported from the South Island. It is smaller than the dabchick and has a yellow patch of skin at the base of its bill. The hoary-headed grebe is a rare vagrant from Australia.

Australasian little grebe

GEOFF MOON

Australasian crested grebe



Taranaki

New Zealand's second oldest national park has turned 100.

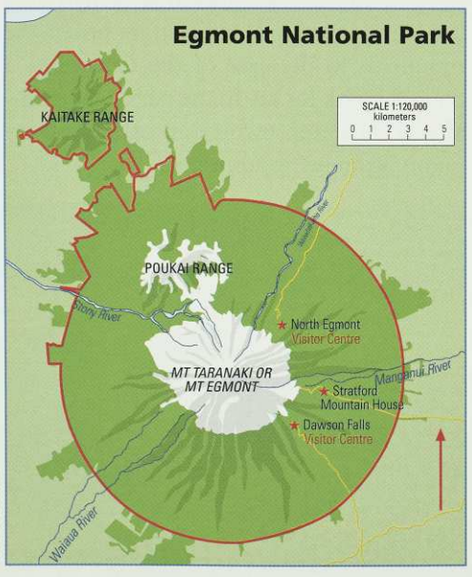
GORDON ELL, BUSH FILMS

It's possible to drive right around Taranaki over two or three days without ever seeing the mountain. Yet, when the cloud clears, the mountain defines the region.

The volcanic cone lies at the centre of the province, its products the basis of rich soils which ring the mountain. Taranaki itself stands apart from the pastureland, however, surrounded by an almost perfect circle of forest. Seen from the air, the forests of Egmont National Park look like a saucer of bush, abruptly margined with pasture, surrounding the steep cone of Taranaki.

The line is no accident. In 1881, as the surrounding ring plain was cleared for farming, the Taranaki Provincial Council protected the mountain's forests within a radius of six miles (10 kilometres) of the summit. This 'forest reserve' of 29,292 hectares was combined with a further 2400 hectares of forests extending onto the adjacent Kaitake Range, when Egmont National Park was gazetted in 1900. Over the ensuing century a further 1835 hectares has been added. From October 2000, Egmont National Park celebrates its centennial as the second oldest national park in New Zealand.

Taranaki itself is such a striking feature that it is easy to overlook the adjacent ranges, themselves the worn-down cusps of older volcanoes. Maori tradition has Taranaki marching overnight from the volcanic plateau of the central North Island, after fighting Tongariro for the love of Pihanga: after rending open the gorges of the Whanganui River, Taranaki was arrested in his night march by the Pouakai Range, stopping before the sea. The Pouakai Range, now also part of the park, lies to its northwest, with continuous bush flowing beyond, across Pukeiti (and the Rhododenron Trust gardens), to the separated part of the park atop the Kaitake Range. Pouakai and Kaitake, like Paritutu and the Sugar Loaf islets at New Plymouth, are even



FOREST & BIRD

The Renaming of Taranaki

Taranaki is the Maori and an official name for the mountain encompassed by Egmont National Park.

The name of the park, however, follows the European naming of the mountain as Egmont.

Lieutenant James Cook gave its English name in January 1770 while circumnavigating New Zealand. He was honouring a former First Lord of the British Admiralty, the Earl of Egmont. The scientist with Cook's expedition, Sir Joseph Banks, then wrote:

'This morning soon after daybreak, we had a momentary view of our great hill, the top of which was thickly covered with snow, though this month answers to July in England. How high it might be I do not take upon me to judge, but it is certainly the noblest hill I have ever seen, and it appears to the utmost advantage, rising from the sea without another hill in the neighbourhood one-fourth its height.'

Mount Egmont thus found itself on the official charts, but the name of Taranaki remained with the province.

The name of Taranaki for the mountain was restored to New Zealand maps by the Geographic Board in 1986, jointly with Mt Egmont, in one of the first official restorations of traditional names to the colonised landscape.

older volcanoes than Taranaki. For Taranaki, benign as it may appear in its surrounding ring plain of lush grass, is barely dormant. Its historical record, laid down in successive ash showers, suggests it erupts a minor ash shower once a century, on average. The last record is from 1775.

A careful look at the Taranaki countryside reveals great mounds of volcanic spoil – lahars – spread across the plains, evidence of what might happen again in the case of a major eruption. Glowing clouds of gas and lava have rolled down the mountain in the past. Its steeper slopes, which tend to stabilise at 35 degrees, are actually heavily eroded, with reefs of solid lava standing in places against deep and moving gullies of volcanic ash.

Much of the volcanic activity occurred during the great Ice Ages which separated Taranaki from the remainder of New Zealand. This is one of the explanations offered for the absence of beech forests on the mountain. Instead of rising through the usual succession of rainforests to beech near the snowline Taranaki has a moss forest, clinging to kamahi, then open ridges clothed in hard-leaved leatherwood scrub. There are many hectares of this wind-compacted shrub daisy spreading along some ridges. Mountain flowers and tussock grow in the lee of volcanic cliffs and boulders. It is a harsh environment. At any season, katabatic winds may drop from the mountain top, sweeping its flanks with cold air.

From the visitors' point of view Mount Egmont is particularly accessible. Three mountain roads climb from the farmlands through rainforest, nearly to the treeline. Commercial lodges on the mountain complement the more rugged accommodations of mountain huts and two 'intermediate' lodges provided by the Department of Conservation. Walking tracks also access the Pouakai and Kaitake sectors of the park.

On Taranaki there is a Round-the-Mountain walk (taking up to seven days), traversing its forested flanks, with the summer alternative of emerging in several places to walk on the open flanks of the mountain, itself an 18-hour circuit. Walking tracks from the road ends explore the adjacent forest, or point the walker up into the sub-alpine zone. Altogether, Egmont National Park offers some 206 kilometres of tracks. There are also established routes up Taranaki itself, and the 'parasitic' cone of Fantham's Peak on the south flank of the mountain.

GORDON ELL, BUSH FILMS

On a clear day, the symmetry of Taranaki (2518 metres) contrasts with the eroded remnants of volcanoes to its northwest, including the Pouakai Range (1399 metres) and Kaitake (683 metres).

Above the bushline, closely compacted leatherwood scrub surmounts many ridges. This almost impenetrable forest consists of a multiple-branched shrub daisy, which then blends with dracophyllum and tussock, approaching the alpine herbfields.

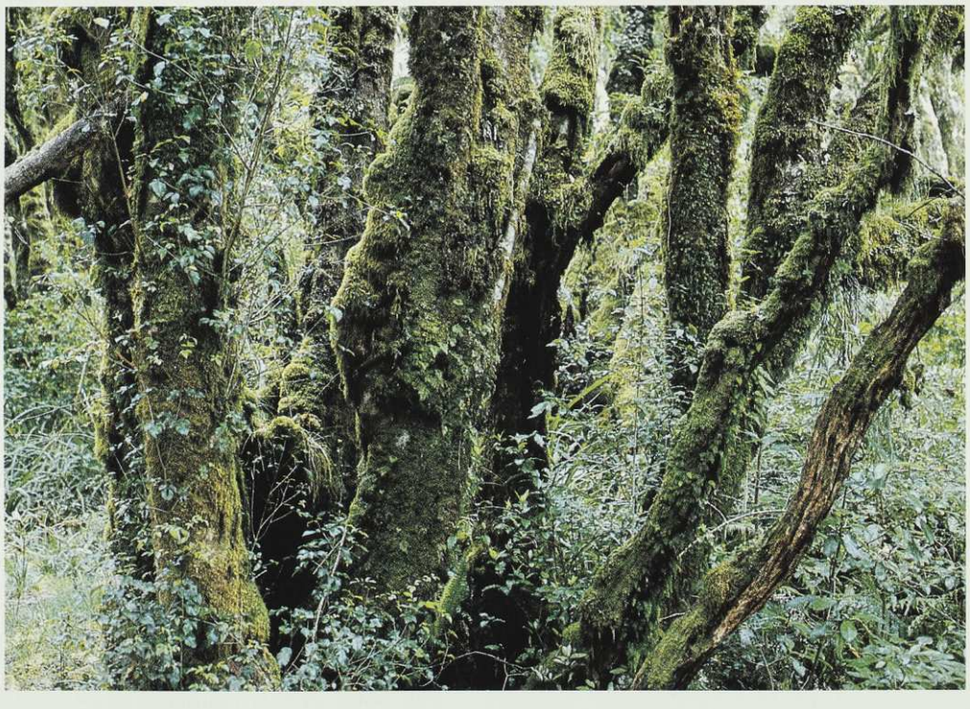
Climbing the mountain has been the cause of some controversy, ever since the scientist Ernst Dieffenbach and the whaler James Heberley became the first Europeans to do so in 1836. Maori regard the mountain as an ancestor and its head too sacred to disturb. The recently published Egmont National Park Management Plan Review suggests climbers do not take the final step to stand on its peak as a mark of respect. (A similar suggestion is made on behalf of Ngai Tahu at Mount Cook National Park, to protect the sacred summit of Aoraki.)

In 1978, the ownership of Mount Taranaki was granted to the Taranaki Maori Trust Board on behalf of tribes which had suffered through the Crown's confiscation of much of their land during the Taranaki wars of the 1860s. More than generously, the Trust Board immediately returned the mountain to the care of the Crown, as a national park for all. In the park's centennial year, however, ownership of the mountain is again being contested.

GORDON ELL, BUSH FILMS

Eight Taranaki tribes with an interest in the mountain have laid claims with the Crown for its return. Resolution of these claims may be some way off. It is understood the case of the mountain will be determined only after agreements have been reached with the Office of Treaty Settlements over the various other claims made by the tribes, and that could take several years. – *Gordon Ell.*

The mountain cedar, variously known as kaikawaka and pahautea, is a striking feature of the upper mountain forests, rising above the shrubs near the snowline on the eastern flanks of the mountain. The bare skeletons of many trees have been ascribed to harsh growing conditions, though possums are now known to feed on the growing points of these trees.



GORDON ELL, BUSH FILMS

Taranaki is notable for the absence of beech forests which often form the upper limits of mountain forests. Instead its higher 'goblin' forests are comprised predominately of kamahi, hung with mosses and lichens (above and right).

Taranaki Treasures

Like all New Zealand's national parks, Egmont has its share of peculiar treasures which set it apart as having national park qualities. The iconic shape of the mountain itself gives its scenery the exceptional qualities which distinguish national parks. The quality and peculiarity of its forests contribute too.

Among animal treasures are meat-eating giant snails, Powelliphanta, similar to those of northwest Nelson but possibly a yet-to-be-described species. With a diameter up to 110 millimetres, these snails are believed to live up to 20 years or more. Their habitat covers an area of just 30 hectares on the mountain.

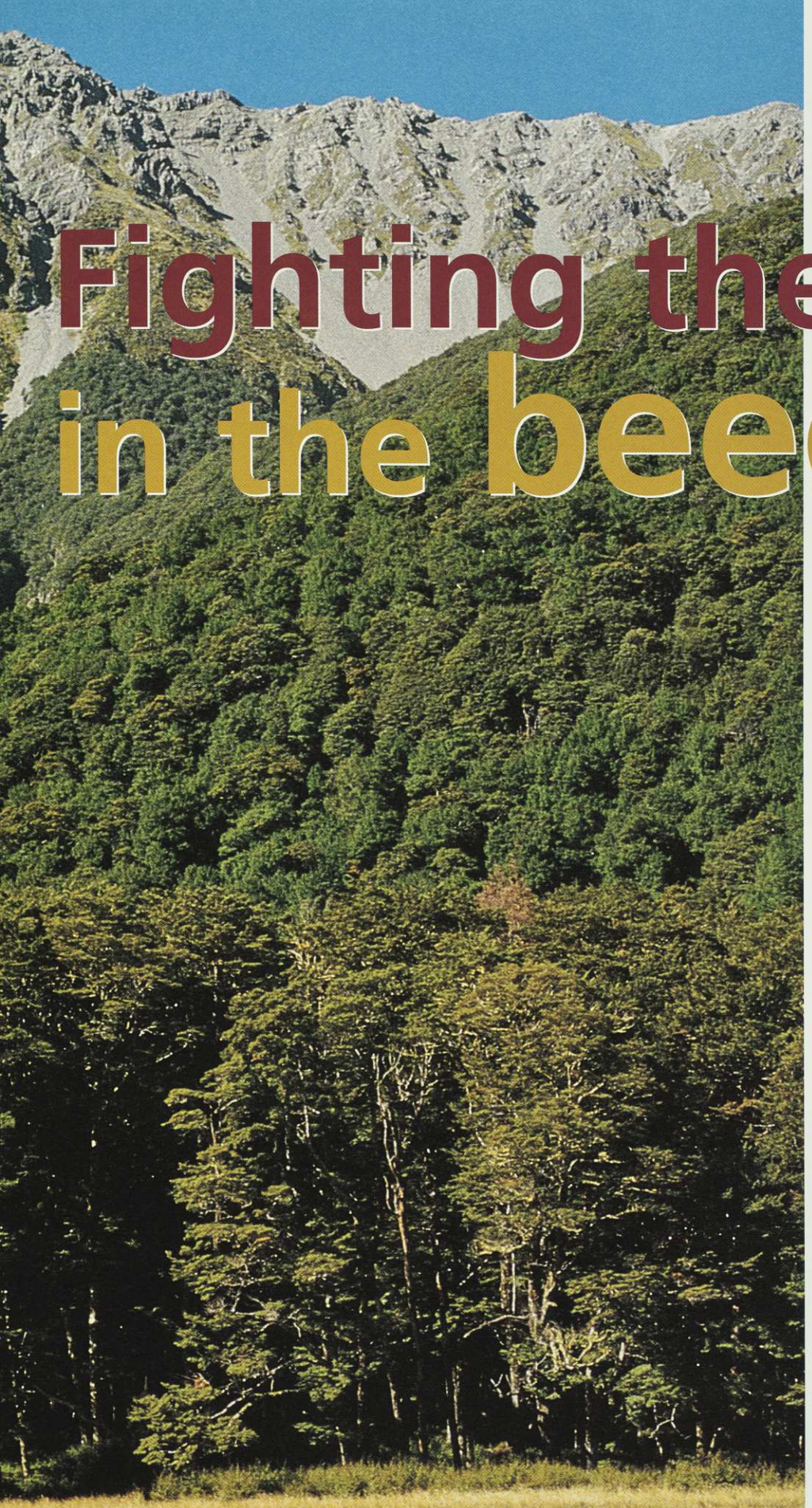
Four threatened species of native fish – all galaxiids, mature whitebait – are found in the pure streams which fall from the mountain.

Through the 1990s determined efforts have been made in the park to restore the blue duck population. North Island brown kiwi are widespread.

Besides the particular associations of native plants and trees, Taranaki has some specialties among its plants. These include a mountain shrub *Melicytus drucei*, rare and restricted to Egmont National Park and the woodrose parasite which lives underground.

In 1995, two nationally threatened plants were found in a swamp adjoining the park. One, a small herb called *Gratiola nana,* had only one other record from Taranaki, by the botanist Thomas Kirk, in 1887. The other, a large water milfoil, was unknown before in Taranaki. The area of swamp and swamp forest has been purchased for addition to the park.

GORDON ELL, BUSH FILMS



Central river flats, and beech forest, Hurunui South Branch

Fighting them in the beeches

A 'mainland island' project in the Hurunui valleys of North Canterbury is bringing back the birds.

People have followed the Harper Pass route over the Southern Alps for centuries. Working inland along the shores of Lake Sumner (Hoka Kura), the old greenstone and gold trails followed the North Branch of the Hurunui, over Harper Pass and down to the West Coast, by way of the tumultuous Taramakau. Trampers still take the route but, increasingly in recent years, the people who've been heading into the headwaters of the Hurunui have been officers of the Department of Conservation, and volunteers supporting efforts to establish a 'mainland island' in the mountains, to save several species from extinction.

This is high beech country but the enfolding forests have been modified since the days when Maori traded greenstone and goldminers sought their Eldorado. The wlidlife was largely silenced as introduced pests took their toll of native birds, and even the fabric of the forests.

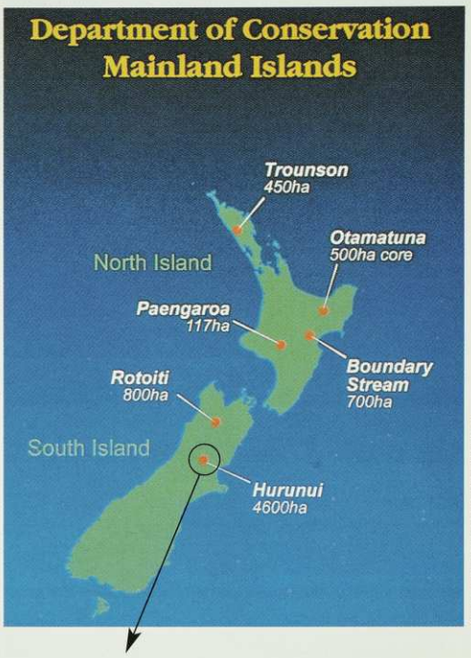
Among the birds at risk are yellowhead (mohua), orange-fronted parakeet, and roroa or great spotted kiwi. There are kaka and kea here too, along with yellow-crowned parakeet, falcon, robin and migratory cuckoo

The Hurunui has two main sources, the North and South branches, both falling from the Main Divide. At 12,000 hectares, their upper valleys make up New Zealand's largest 'mainland island'.

All of the protection work has so far concentrated on the South Branch, where intensive trapping and poisoning of pests began in 1995. The North Branch, which carries the Harper Pass route to Westland, has been used since the summer of 1998-9 as a reference area, to see what happens when nothing is done.

'The point of this mainland island is to find out how to manage a forest for its entire ecosystem, rather than for individuals within an ecosystem which we tended to do

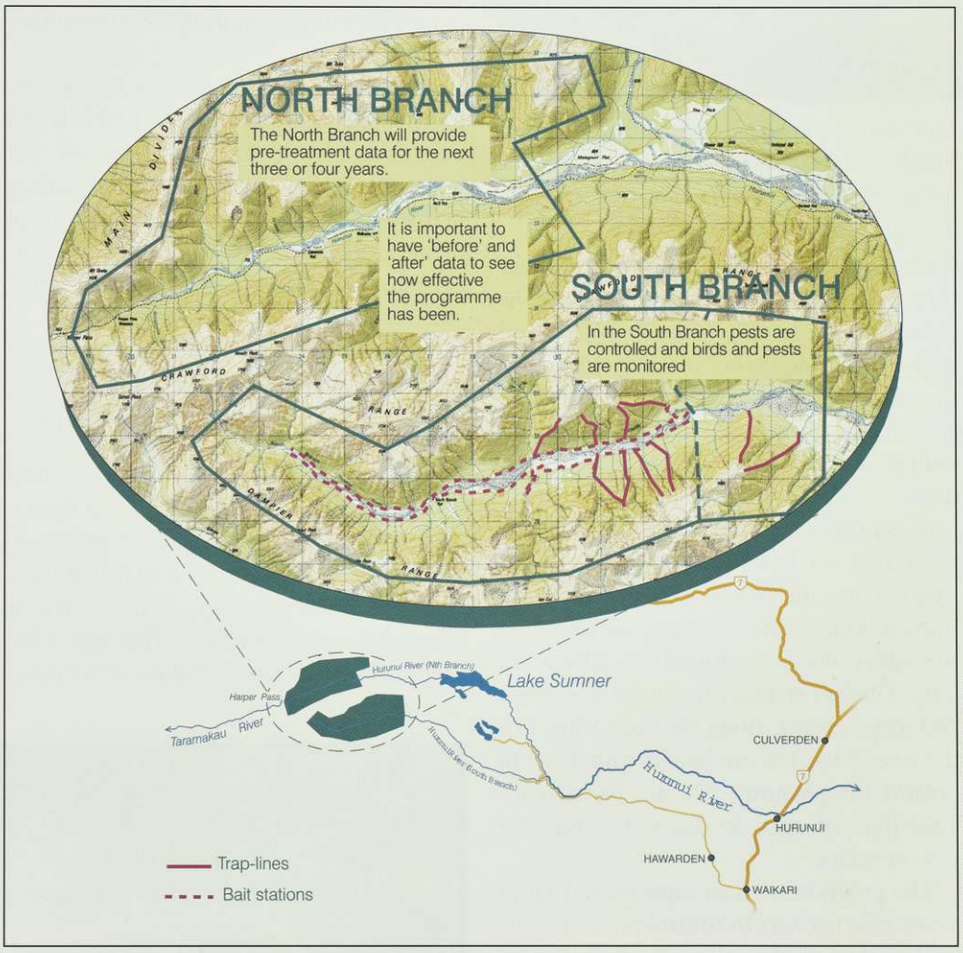
ANDREW GRANT



DEPARTMENT OF CONSERVATION

DEPARTMENT OF CONSERVATION

Making 'the egg run': putting out 50 dozen eggs laced with 1080 at a time, Department of Conservation staff bait for stoats in the South Branch of the Hurunui. The bait line along the forest edge of the valley floor is around 27 kilometres long.



SOURCE: DEPARTMENT OF CONSERVATION

in the past,' says the DoC scientist who guides the project, Andrew Grant. 'We chose the Hurunui partly because of its physical nature — it was possible to isolate the area geographically — and partly because of its outstanding populations of threatened species; mohua, orange-fronted parakeet, kaka and kiwi.'

The upper Hurunui valleys are clad in deep beech forest protected from the onslaught of West Coast rains by the snowy crests of the Main Divide. The trees are a mixture of silver, red and mountain beech. Their valley floors are carpeted in short tussock and river-flat herbfield, along with wetlands which are 'suprisingly natural and representative'. The alpine area, above the bushline, has snow tussock and alpine herbfields.

As one of the 'most intact' beech forests left in Canterbury, the upper Hurunui is managed to restore habitat damaged by red deer, chamois, possums, hares, and roaming farm stock. Wildlife is further protected in the South Branch by the poisoning of stoats and possums which attack both birds and their nests.

To date, rats and cats have not been particularly apparent but the DoC guardians are ever watchful lest the eradication of one species leads to an increase in another.

As a 'mainland island' the Hurunui river valleys fit into a national strategy of the Department of Conservation — to somehow 'ring fence' an area of mainland habitat, attempt to remove the pests, and stop them from reinvading from the surrounding countryside. The concept requires an area which can be isolated by geography or fencing.

In the Hurunui it is hoped the mountain ridge tops will form part of the boundaries. Electric fences across the valley floors are erected to keep cattle and sheep out.

'It's possible for possums to cross the ridges from one valley to the other but we think invasion comes at the forest edges along the valley floor,' says Andrew Grant. 'For this reason we concentrate our work on poison-bait lines laid along the lower forest fringes.'

In the summer breeding season, teams of

At 12,000 hectares, the Hurunui 'mainland island' is the largest of six operated by the Department of Conservation. The 'island' extends over beech forest on two branches of the Hurunui River, running from the Main Divide in the Lake Sumner Conservation Park in North Canterbury. The South Branch follows a separate valley system, joining into the main Hurunui River below Lake Sumner. Intensive conservation work began in the South Branch in 1995. The North Branch has been monitored as an 'unmanaged' comparison since the summer of 1998-9.

ANDREW GRANT

Bait station at the edge of the forest in the South Branch of the Hurunui River. These are set about 100 metres apart. Possums are poisoned with 1080 in pollard.

three DoC staff spend 10 days at a time stationed in the South Branch, to carry out the poisoning work. (They also monitor bird populations and gather other data to judge the effect of their work.) Pest control is the critical factor in creating a 'mainland island', with poison bait stations defending the borders.

To get control of pests, the island's managers first set bait-lines for possums and stoats along the forest edge of the South Branch valley. The bait-line, surrounding the valley floor, is around 27 kilometres long. The bait stations are established some 100 metres apart, along the bush fringes of the river flats: 158 are baited with 1080 in pollard for possums; 222 are baited with 1080-injected eggs, 50 dozen at a time, to poison stoats.

'The programme is an experiment to find a cost-effective way to control pests in a valley-based beech forest,' says Andrew Grant.

In the South Branch of the Hurunui bird populations appear to be responding to the special treatment. Populations of the 33 different native bird species are growing.

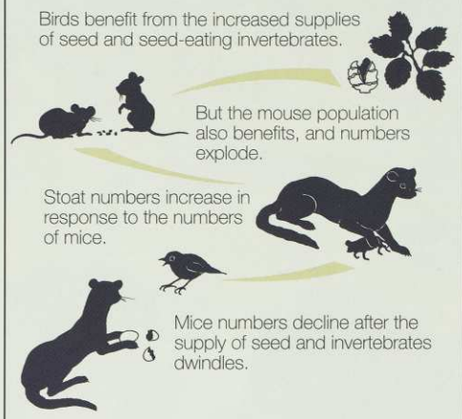
Among the birds being studied is the great spotted kiwi, a South Island species now largely restricted to three regions of forested mountain country: in the Kahurangi National Park of northwest Nelson, the Paparoa Ranges, and the forests of the Hurunui high-country and adjoining Arthurs Pass National Park. Nocturnal and shy, they are less studied than New Zealand's other kiwi species but may be just as vulnerable to the onslaught of introduced pests, a focus for research. Besides poisoning pests to protect nesting birds, conservation workers have captured 22 great spotted kiwi in the North Branch forest and banded them for study.

Yellowhead populations are recovering with stoat control. This despite what managers call a 'mast' season, when beech trees carry exceptional quantities of seed — boosting mice, and consequently stoat populations. This last summer, stoat-poisoning protected the yellowheads with few chicks lost to stoats. Numbers of the birds have increased to between 150 and 200 along the South Branch and between 50 and 75 in the North Branch. A sub-section of the yellowhead population — 25 birds — is closely watched through the breeding season. In 1997-98, nine of 10 banded birds succeeded in raising young, indicating the effectiveness of stoat control.

'There appears to be a positive response to the methods we are using both for birds and vulnerable plants,' says Andrew Grant 'but we can't tell yet, whether this is the result of management, or some combination of management with the very unusual beech-mast cycle and abnormal weather patterns.' (See diagram.)

The South Hurunui valley also holds the only significant population of an endangered kakariki. The orange-fronted parakeet is distinguished from the yellow-crowned parakeet by an orange 'front' rather than a red band above its bill, and orange rather than red rump spots. Over the years, arguments whether it is some kind of hybrid between red and yellow-crowned kakariki have abounded: more recently it was accepted that orange-fronted parakeets are a colour phase of the yellow-crowned parakeet (just as, in the South Island, some fantails appear in a black phase while being of the same species as the pied fantail). Now, according to the Department of Conservation, DNA tests have deter-

The Beechmast Cycle



SOURCE: DEPARTMENT OF CONSERVATION

The great spotted kiwi, also known as roa and roroa, is little known despite still being the common kiwi of high-country forest from about the Heaphy Track in northwest Nelson, south to the Paparoa Range and Arthurs Pass National Park. As their contribution to saving a national icon, students of Rangi Ruru Girls' School in Christchurch raised $1700 for radio transmitters so the secretive, nocturnal birds could be tracked in the forests of the Hurunui 'mainland island'. This year, DoC staff have banded 22 kiwi in the Hurunui North Branch to establish their territories, and with the hope of assessing their breeding success.

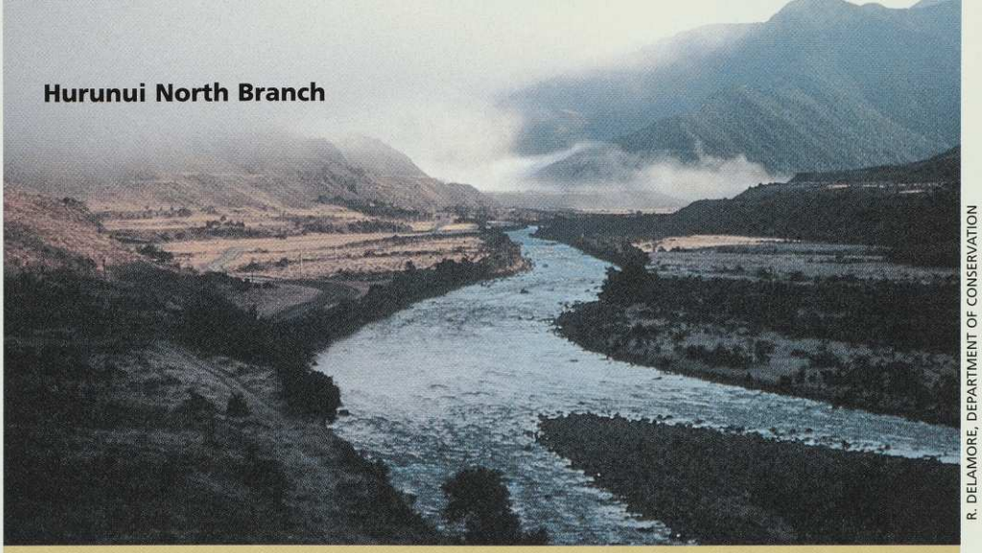
GNOME HANNAH-BROWN

Two of the threatened species of Hurunui 'mainland island'. Above, the mohua or yellowhead, as engraved by J.G. Keulemans for Buller's Birds of New Zealand. *Below, the orange-fronted parakeet is very similar to the yellow-crowned parakeet excepting its 'front' — just above the bill — is orange, not red. (see comparison also on page 6)*

IAN SOUTHEY

mined the orange-fronted parakeet is actually a separate species (see Conservation Briefs, page 6). Highly endangered and geographically limited, the estimated population of 150-500 birds is restricted to the South Branch of the Hurunui, and a small population in the Hawdon Valley of nearby Arthurs Pass National Park. Their survival is understandably a focus for pest control work; the birds have always had a category A rating in the priorities for threatened species protection. At the same time, other native species benefit as the tide of introduced pests is driven back to the shores of the mainland island.

Among these are plants: the scarlet bloom of mistletoes which grow on the southern beeches have reappeared in the area where possums are controlled. Most beech forests have already lost these 'icecream' plants to these introduced browsing animals. The summer flowers are a visual reinforcement of what the ear indicates; renewed birdsong in the South Branch indicates a turning of the tide of recovery in the cool valleys of this mainland island. – *Gordon Ell.*



R. DELAMORE, DEPARTMENT OF CONSERVATION

North versus South Hurunui

Research into methods of pest control and bird numbers began in the North Branch of the Hurunui in the summer of 1998-9. According to Andrew Grant, the Department of Conservation scientist responsible, this work provides a comparison with methods used in the South Branch since 1995.

'This is largely monitoring work, but eventually we'd like to do pest control in the North Branch too,' he says. 'Presently we maintain bait stations in the North Branch but without poison. This gives us an idea how pests use bait stations.'

An electric fence has been erected across the valley floor just below the Hurunui Number 3 Hut to keep out grazing farmstock. Already this has produced an improvement in native-plant habitat, as swampy areas are no longer pugged by cattle.

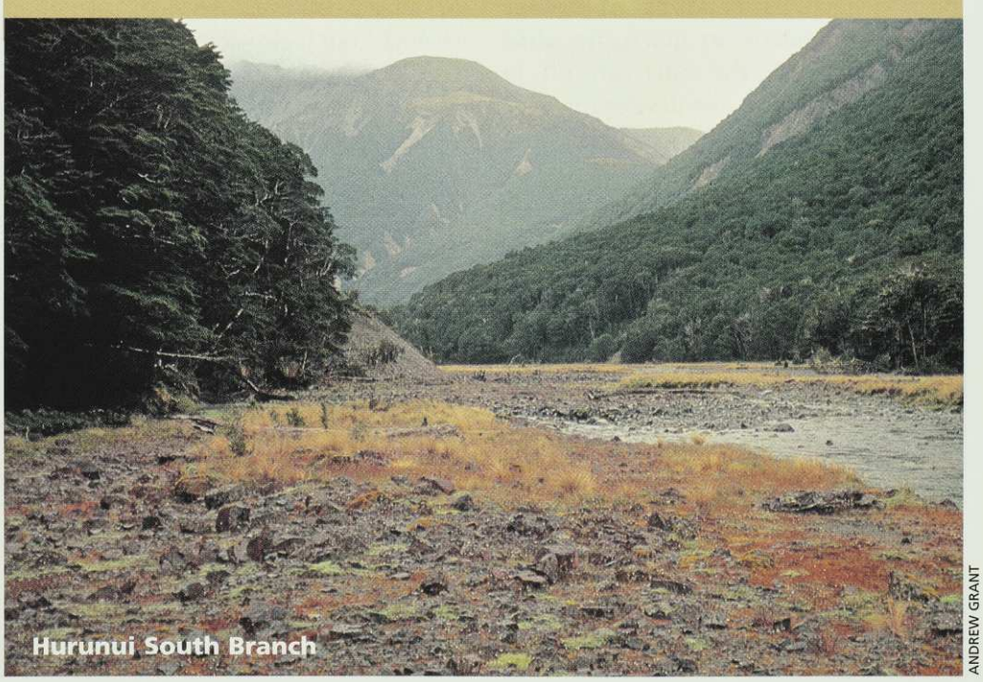
'We have also introduced "exclosure plots" where we can measure the effect of protection from deer, chamois and farmstock.' Some exclosure plots are also designed to measure the effect that hares have on regenerating plants. The Hurunui experiments also include measuring again in plots first fenced off by the old Forest Service in the days of the Lake Sumner Forest Park. Native broom is recovering inside the protected areas.

At the same time bird studies are carried out, listening for calls at five-minute intervals, and checking on banded birds. The North Branch carries a good population of yellowhead too.

Both kiwi and possum are tracked with radio-telemetry to establish their movements and behaviour.

Other research in the mainland island generally, includes keeping a record of beech-seed falls, mouse and hare populations, and sampling gut material from possums to trace what foods they favour.

'All this information should help us gain knowledge and improve methods for restoring beech forests,' Andrew Grant says.



ANDREW GRANT

Turtle-top Cities

Modern cities reject the rain at their peril.
Story and photographs by PETER NAGELS

Flash floods in our cities could become more frequent as the style of our housing changes. Suddenly, stormwater is becoming a problem in cities undergoing redevelopment.

Nature's rains which formerly drained away into the land via soak pits and quarter-acre sections now have nowhere to go as runoff is increasingly spilled overground by the growing expanses of concrete and other hard sealing. As a result, stormwater systems overload, there is erosion, property gets damaged, and sewerage systems spill. Downstream, beaches and other waterways are polluted by runoff from roads and industry, and sewage.

The tendency to cover the earth with concrete and other seals is the product of many people overlooking the collective result of their individual environmental impacts. Rainwater should be valued and collected.

A Danish consultant, Karl Iver Dahl-Madsen, hired by North Shore City to 'peer review' its handling of sewage likened the modern city to a turtle; when nature rains on it, the water runs off. In some areas of the fast-developing city, more than 70 percent of the land has been made impervious. There are precious few natural places left to absorb the rain.

'In a certain sense, the city is protecting itself against rainwater as if the rain is toxic,' he says. 'Every time a drop of rain hits the city surface, it is transported downhill and out into the sea.'

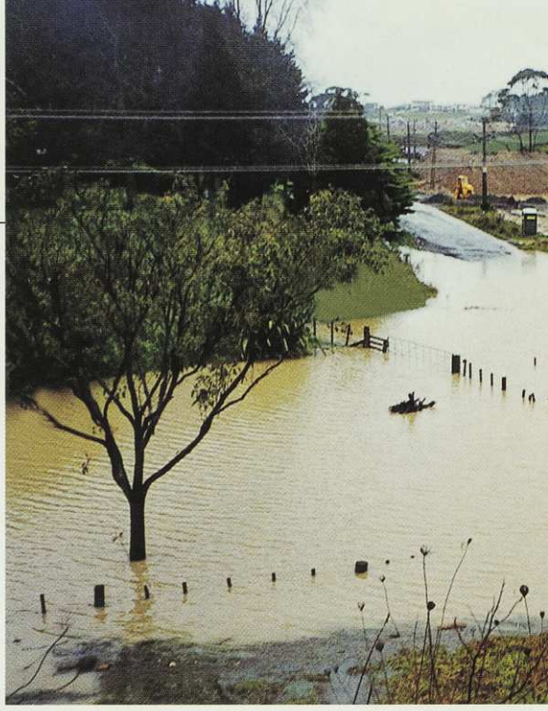
There are possible alternatives; leaving grass islands in driveways is one; slowing the run-off naturally, by planting roadsides with appropriate species, is another. Developments could be planned to include natural areas, incidentally providing somewhere for the run-off to go.

The fringe of North Shore City is rapidly developing in the Albany basin where town-planning restrictions have been varied to produce a new pattern of intensive development. In many places this has produced rows of townhouses, or warehouses with studio flats over; most surrounded by concrete lanes and yards.

In the older suburbs too, land is also being redeveloped with two or three townhouses in place of each of old family home. This creates predictable problems for already strained services, including sewerage; but it also accelerates run-off as more earth vanishes under buildings and impervious surfaces.

These pictures illustrate a problem common in developing towns and cities, and suggest some possible solutions.

–PETER NAGELS *is a committee member of North Shore Forest and Bird, and works as a stormwater engineer.*



• *Much of the urban landscape is smothered by impervious surfaces, particularly asphalt and concrete. Sometimes these paved areas are hardly used, but the run-off harms the coast. Impervious surfaces need to be rigorously limited because of the environmental damage they cause elsewhere.*

Sewage caught up in stormwater, frequently pollutes North Shore beaches after rainstorms. Stormwater discharges from the central city onto Takapuna Beach are concentrated, polluted, voluminous and sometimes violent (previous page, far left).

• *Motor vehicles are the catalyst for the formation of most impervious surfaces. Roads, carparks, driveways and off-street parking all contribute. In the Auckland region, 40 percent of land is dedicated to the demands of vehicles and transportation, but the effects are not taken seriously enough.*

Less damage is done where natural vegetation is allowed to slow run-off.

• Edge maintenance of motorways often involves regular spraying with herbicides. But spraying results in unnecessary erosion and environmental damage.

Fortunately may road edges, particularly in rural areas, contain good remnants of native plants, such as kanuka, manuka, bracken, cabbage trees and flax. These slow stormwater run-off and help retain the natural character of the countryside. Weed pests, such as blackberry, pampas and honeysuckle, should not be allowed to establish on road edges, but roadside sterilisation (below) should be avoided.

Concrete strips, gravel, and semi-permeable pavers help water drain naturally.

Below: swales are dish-shaped grass areas by roadsides. Besides slowing run-off they can also be places which enhance natural biodiversity if not sprayed like this. Instead grow plants such as carex grasses, flaxes, hebes, and manuka (bottom).

• When it rains, water rapidly runs from the impervious areas, swelling streams, flooding low-lying areas, and damaging structures, before polluting the sea.

The cumulative effect of many hard surfaces can be devastating. Incremental paving occurs in all urban areas. Earlier styles incorporated grass with relatively low impacts and minor stormater run-off.

Even small storms can transfer considerable amounts of land-based materials to the coast. The effects are often underestimated. Many storms occur at night and the true impacts are not seen. Below, opposite, is the effect of a short-duration storm (approximately 10 millimetres of rain) on Takapuna Beach. In contrast, water transfers to the coast via groundwater infiltration where there is less paving, exiting slowly through beach sands on Cheltenham Beach (below).

Some Solutions

The impact of rainstorms can be alleviated, and the environment improved, by valuing rain and planning to cope with it. Methods include:

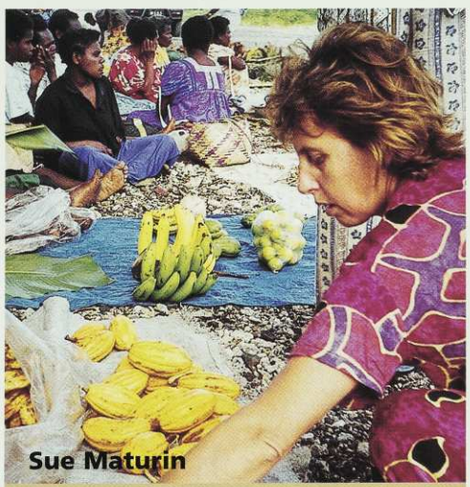
- A good degree of healthy landscaping, minimising imprevious surfaces.
- Raintanks – collection of rainwater (a natural resource) for re-use.
- Enhance natural systems: swales, raingardens (soak areas), wetlands.

Visiting Vanuatu

ANN GRAEME discovers how Forest and Bird ecotours help save forests far from home.

We stood on the edge of the escarpment, looking down on the village of Matantas. Below us, like matchstick figures, we could see the village women beating clothes on the banks of the stream, and beyond them the forest rolled from the beach of Big Bay to the distant Jordan River and the Cumberland Mountains. This was the forest of Vatthe, on the island of Espiritu Santo. At about 5000 hectares it is the last big lowland forest on the islands of Vanuatu.

I was travelling on Forest and Bird's Vanuatu tour, led by our Southern field officer, Sue Maturin. I had come because I wanted to see the rainforest and the coral reefs, and I wanted to see and support our Pacific island conservation project. And I was glad I had come. I knew Sue, and I had read about the project, but it hadn't really prepared me for the reality of conservation in the Pacific islands.



Sue Maturin

Forest and Bird Tours

Forest and Bird field officer, Sue Maturin (above) from Dunedin, is loved and respected by the people of Matantas and she speaks fluent Bislama. For more than a decade she has visited Vanuatu.

'The Vatthe conservation project is very dear to my heart.' she says. 'It has been one of the biggest and most difficult challenges of my life.

'I am glad that I can keep on helping by bringing tourists to Vatthe.

'Every year when I return, I see the progress that the people of Sara and Matantas have made.'

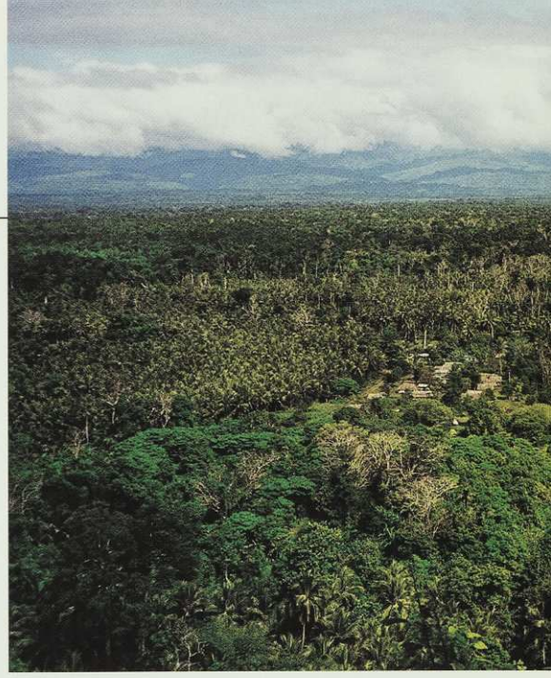
Sue Maturin will lead a Forest and Bird trip to Vanuatu in June 2001. If you would like details, ring her on 03-477-9677 or e-mail her at suem@earthlight.co.nz

Conservation work is different and difficult in another culture. In their villages the native islanders, called Ni Vanuatu, don't have electricity and they are not in thrall to television, so their material wants differ from ours. They seem less concerned for the future than we are, perhaps because the climate is always warm so they do not need the 'squirrel mentality' so essential to our ancestors in order to survive the winter. But the Ni Vanuatu population is growing rapidly and the people need some money, particularly for the education of their children. Forest conservation must pay its way.

The Vatthe conservation project aims to protect a forest which is owned by several large families in two separate villages, Matantas and Sara. The rest of Sara's forests have been logged. And once funding from international aid and the South Pacific Biodiversity Conservation Program support finishes in two years' time, the fate of Vatthe forest will rest upon the villagers: on the determination of the women, and the vision, the egos and the aspirations of the chiefs; on the Forest and Bird tours and other money from tourism – and on the blandishments of the logging companies.

Sue Maturin has been involved from the beginning, from the first ecological assessment through the endless village talks, and the search for funds from the aid sources that slosh around the Pacific and are now the mainstay of the island economy. These funds have enabled the people of Matantas and Sara to build the bungalows where the tourists stay, and Sara's people to buy a van to bring them here. Now a tidy profit from accommodating and guiding visitors is tucked away in the village account. This is vital, for the conservation project will have to stand alone.

The project is meticulously designed.



The setting of Matantas village (centre with coconut palms) on Big Bay where the Forest and Bird party stayed. The forest of Vatthe lies beyond.

Every landowner must share in its profits. Every family in Matantas contributed to our stay, and every family was paid. One family baked the bread, others were guides, some prepared the barbecue at the Jordan River, distant villagers came to perform custom dances, some took us to find coconut crabs (but no eatum!), and every family brought food to the feast. Purity is in charge of the project accounts. She is the wife of Solomon, the customary chief elected by the villagers. Sue Maturin helped Purity to straighten out such anomalies as the half-day escarpment walk (led by men) being paid much more than Phelma's garden tour, which included a delicious lunch of garden produce. (Are men the same the world over?)

We walked a good deal in the forest. It is a benign place – no poisonous snakes nor dangerous insects – dim below the dense canopy with great looping lianes and bright fungi. Many of the trees have large leaves and buttressed roots and belong to families which are unknown in New Zealand.

Recognisable, however, were members of the Myrtaceae family (our ratas) with showy stamens designed to plaster pollen on the heads of those visiting bats, the flying foxes. The song of the golden whistler filled the forest and we heard the strange call of the rare and endemic megapode bird, which incubates its eggs in a compost heap.

We swam a lot too, in the warm turquoise waters of Big Bay, and at night the bathers were outlined with phosphorescence. When going to swim and walking about the village, we women wore long skirts or sarongs in deference to the sensitivities of the local culture.

SUE MATURIN

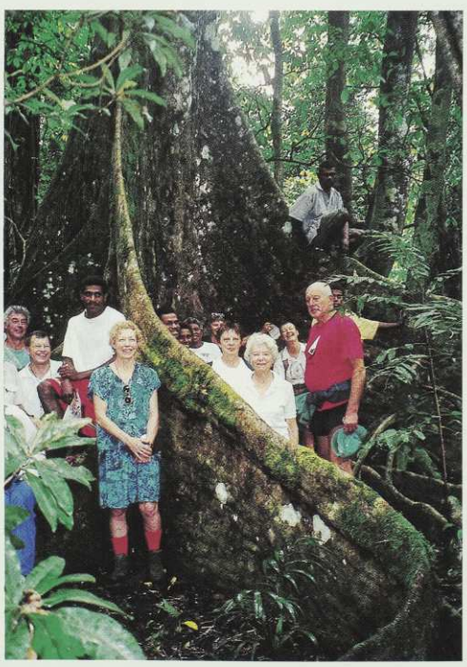
GARY WARE

A typical tourist bungalow in the village of Matantas.

Aid money is not always spent wisely. Many foolproof projects dreamed up in air-conditioned offices fall over under the tropical sun and the weight of misunderstanding. Vatthe is not immune. For example, someone had advised the villagers to provide showers and flush toilets for the visitors' bungalows. But the water wasn't connected, a cyclone had toppled the water tower . . . Sue Maturin sighed. 'We really should have had dry toilets and simple, solar-bag showers.'

Alley cropping is a good idea that has so far foundered. Traditionally, villagers have cleared patches of forest to grow their crops. When the soil is exhausted, they clear another patch and shift the gardens, planting coconut palms in the abandoned clearings. But around the growing village of Matantas there is no more land to cultivate without moving into the conservation forest. So Sue Maturin came up with the idea of alley cropping, which involves planting crops between hedges of nitrogen-fixing plants. When the crop is harvested, the hedge foliage is cut and composted in the rows between, enriching the ground for the next crop, and the next and the next.

Forest and Bird tour party in the forest of Vatthe. They stand among the buttressed roots of a nakatambol tree.



SUE MATURIN

But introducing new technology into a 4000-year-old culture is difficult. Sue has high hopes for Eric, the full-time Peace Corps volunteer living at Matantas.

'He'll have to sweat away digging with the gardeners,' says Sue. 'Telling people what to do and leaving them to do it just doesn't work. You've got to get stuck in alongside them.'

Mistakes and problems aside, the Vatthe conservation project is working. The people are proud of their forest and keen to show and share it with their visitors. Their friendliness and good manners put many New Zealand tour operators to shame. If sufficient tourists come – and it need not be many – their money will provide the modest wants of the village. There is no local school, and for most families, their largest financial commitment is the 18,000 vatu ($NZ250) a year needed to send a child away for education.

Besides the Vatthe conservation project, there is lots to see and do in Vanuatu.

After five days at Vatthe we went to Lonnoc, to the famous Champagne beach considered one of the most beautiful beaches in the world and destination of the cruise ships. For us – happily – it was deserted, as was Elephant Island where we picnicked and swam and played card games on the fine silver sand.

Then we flew south to the cooler island of Tanna where crimson splashes of a rata-like flowering tree lit the higher altitude forest. There we looked into the crater of the active volcano Mount Yasur which, apart from a few red splutters, was resting that night. We snorkelled through soft coral gardens where I had my most memorable encounter of the trip. For 10 minutes or more I swam slowly beside a dugong, a great, gentle beast with a calm eye and a pilot fish suckered to his belly.

Finally we returned to Port Vila on the island of Efate, the portal for international flights to Vanuatu. A stone's throw from the town, we stayed on Hideaway Island where the fish and the hard coral are the most beautiful and diverse I have ever seen. I saw an anemone a metre wide with bold little clown fish swimming amongst its tentacles. I saw tube worms, like the blue tentacled ones with chalky white tubes glued on the rocks of home. But the big tropical ones have tentacles of every imaginable colour and their red, blue, pink, orange and even striped cones disappear at a snap of your fingers.

The fishes vied to outdo each other in colour, pattern and shape and it was a delight to watch one stand on its tail, vibrate its fins and have a busy cleaner fish dash in and service it! Even the non-swimmers of our party could share the experience as the reef is so shallow that, with a mask on your face, you can crouch down and look at the fish and coral under the water.

So the trip had something for everyone, and for me, it made me proud that Forest and Bird, my conservation society, was playing such a vital part in conservation in the Pacific.

ANN GRAEME *runs Forest and Bird's Kiwi Conservation Club from her base in Tauranga.*

Advisory Post for Kevin Smith

After 15 years with Forest and Bird, Kevin Smith has resigned from the position of conservation director to become a senior policy advisor to the Minister of Conservation, Hon. Sandra Lee.

Kevin Smith joined the Society's staff in the heady days of the campaigns to save the West Coast forests, after working for the Forest Research Institute (on the regeneration ecology of the west Taupo forests), and several years as a possum trapper and meat shooter in South Westland. In Westland, he had been one of the leaders of the Native Forest Action Council of the time. Living in the milltown of Harihari, he was active in researching and organising the joint forest action committee's work (with Forest and Bird) to protect the rainforests.

As the West Coast field officer of Forest and Bird, Kevin Smith was the architect of of many West Coast reserves. He also represented conservation groups on the South Westland working party which developed the conservation and community 'package' for the South West World Heritage Area/ Te Wahi Pounamu. He succeeded Dr Gerry McSweeney as conservation director of the Society in Wellington in 1989.

Paying tribute to Kevin Smith's service to the Society, national president Keith Chapple noted: 'he is leaving us after a period of exceptional conservation success for the Society. These successes include bringing an end to the logging of publicly-owned West Coast rainforests and securing a substantial funding boost for the Department of Conservation. Other achievements during this period include the creation of national parks and world heritage areas, the signing of the New Zealand Forest Accord in which Kevin played a large part, and a ban on the export of native woodchips.

Kevin Smith who has resigned as the Society's conservation director to become a senior advisor to the Minister of Conservation.

'In recent times Kevin Smith has worked closely with the forestry, farming and horticulture industries to draw public and political attention to the need for tougher border biosecurity to protect New Zealand's economy and environment. The recent decision to require the offshore cleaning and inspection of used car imports owed much to Kevin's advocacy,' Keith Chapple said. 'He also played a leading role in threatened-species advocacy and was a member of the kiwi recovery group.

'We wish him well in his future conservation career.'

Restoring Wetland Near Taupo

The Oruanui wetland project began in June 1997 when Taupo Forest and Bird learnt of an extensive wetland on the northwest outskirts of Taupo owned, in part, by a freshwater scientist, Dr George Coulter, who was anxious to protect the area from possible development. He had recorded 27 bird species there and was aware that the largely unmodified flax swamp was unique in the district.

For several years Dr Coulter had written letters and spoken with local authorities to no avail. This came to Forest and Bird's attention and the project was born.

We began by approaching the neighbouring farmer to ask if he was interested. With his cooperation, three or four members walked the length of the six-hectare block, looking at fencing and assessing the weed problem. An investigation was needed and the fact that the wetland had been listed as a Recommended Area for Protection in 1995 became important in negotiations.

We needed the help of an officer from Environment Waikato to prepare an application for funding. This involved many visits to the wetland and consultation with the landowners. The fenceline was stepped out, marker battens placed, costs calculated, and about a year later we had enough information to apply for a grant from the Environmental Initiatives Fund to help with fencing, the planting of native trees, and weed control. At the same time we applied on behalf of both owners to the Queen Elizabeth II National Trust for an open-space covenant.

Both applications were successful. In conjunction with the sale of the neighbouring farm, the boundaries of the wetland were redrawn and finally, in June 1999, the Oruanui wetland under the single ownership of the Coulter Family Trust came to fruition.

Several years of work have resulted in the preservation of — to quote from the report by Rotorua Botanical Society — 'a wetland that is a significant piece of vegetation with a very high conservation ranking' and home to a wide range of bird species.

In May this year, 25 branch members celebrated the realisation of the covenant by planting 250 trees and shrubs. The Coulter family is pleased to allow visitors to the wetland. Over the coming years, Taupo Forest and Bird will continue to raise plants and have working bees for the enhancement of this conservation area. — *Bett Davies, Taupo Forest and Bird.*

Oruanui Wetland

Thanks to Speaker

Waitakere Forest and Bird has presented a certificate of appreciation to a local Member of Parliament, the Rt Hon. Jonathan Hunt, Speaker of the House (above). The award recognised 'the very positive role he played within the Labour caucus to set the West Coast Forest Policy which is to see the end of native-forest logging on Crown-owned land'. As a founder-member of the Waitakere Ranges Protection Society, Jonathan Hunt is already well-known for his interest in protecting our local forests, according to branch chair, Dr Peter Maddison. A kaka-beak plant donated by Oratia Native Plant Nursery was part of the presentation, to add to a large selection of native species already on Jonathan Hunt's property at Karekare.

Replanting Jack's Blowhole

JACK DAWSON

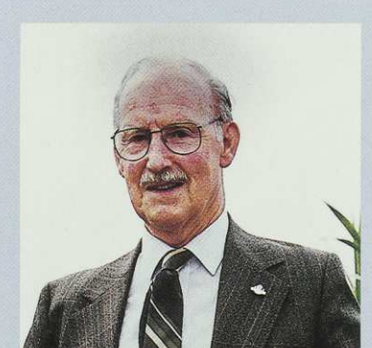
Jack's Blowhole replanted: a few years ago the land surrounding this collapsed sea cave was cleared like the farmlands beyond.

Jack's Blowhole, in the Catlins district of South Otago, is a collapsed sea cave, 140 metres long by 70 metres wide. When I first visited it, you scrambled through thick bush, mainly kamahi and rata, past yellow-eyed penguins and their chicks nesting under fallen rocks: suddenly the earth opened and you stared down at the waves rushing through the tunnel 70 metres below. In the 1950s a suspicious fire flattened the whole area of bush, and the local famer 'cleaned it up' by ploughing and sowing pasture right up to the blowhole, including the designated scenic reserve.

After a bitter fight over a number of years, spear-headed by Forest and Birders Wallace Ramsay and Paul Every, the reserve was fenced off. For the past 20 years Otago Forest and Bird members have been fighting possums, rabbits and grass to create a new bush area in the reserve.

In early August, Prof Alan Mark took a busload of mainly 'green students;' with a sprinkling of 'oldies' to spend a weekend there. At the same time an icy blast, interspersed with showers, arrived direct from the South Pole. Well-wrapped in polypropylene, we were able to plant out another 400 assorted natives, with a few strategically-placed miro, rimu and rata. When showers passed over, we were grateful for the thick canopy of already-established trees. At least we could warm up and socialise in the comfortable Pounawea Convention camp nearby, with the satisfaction of helping to restore a landmark of New Zealand's heritage.

— John Dawson, Dunedin Forest and Bird.



After 15 years' service, Stan Butcher of Lower Hutt recently stood down from the role of membership secretary of the Friends of Bushy Park Trust. This is the body which financially supports the Wanganui mansion which passed from the Society's ownership some years ago, to a locally based Bushy Park Homestead and Forest Trust. When he became membership secretary there were 207 'Friends', rising to a peak of 397 in 1994, and droppping to 288 presently. Contributions to Bushy Park over these years total $96,108. Stan Butcher has also long been an active committee member and sometime chair of Lower Hutt Forest and Bird, and is a distinguished life member of the Society.

— David Underwood, national treasurer.

Photographic Competition

A distinguished life member has won the Society's competition for photographs showing Forest and Bird or Kiwi Conservation Club members 'enjoying themselve, caring for the environment'. Margaret Peace of Marlborough Forest and Bird submitted four pictures (three published here, and another used in the magazine to illustrate a field trip report in May 2000).

The pictures were sought for use by the Society in its publicity for new members, and on its website. In all, six members received prizes of Eco 'starter packs' containing cleansers from Forest and Bird supporter, the Eco Store.

The successful photographers are Margaret Peace, Ute Friedrich (Glenfield, Auckland), Betty Graham (Marton), Diana Taylor (Blenheim), Gillian Pollock (Mapua, Nelson), Alex Eagles (Ohauiti, Tauranga), Jenny Cogger (Upper Hutt), Jill and Roy Lynch (Upper Hutt) and Carol Knutson (Wellington).

— Lyn Bates, general manager.

MARGARET PEACE

MARGARET PEACE

MARGARET PEACE

Prize-winning photographs from Margaret Peace in the competition to show Forest and Bird members enjoying themselves, caring for the environment. Pictures show: members Keith Ireland and sons Vincent, Nathan and Earle with rubbish gathered from the tideline at Ward Beach in 1990; members cross the Hurunui River in North Canterbury during a 1998 field trip; and a Forest and Bird high-country gathering visits a remnant of beech forest on the Barrier Range, Ahuriri Valley, Easter 1998.

bulletin

Official Kakapo Website

An official website for the Kakapo Recovery Programme is being launched on November 6, 2000. It will carry information about the various programmes to help the bird.

The Kakapo Recovery Programme was initiated in the early 1990s through a partnership of the Royal Forest and Bird Protection Society, Comalco New Zealand and the Department of Conservation.

You can visit the website at www.kakaporecovery.org.nz to meet some of the birds, and the people who are working with them, as well as the latest on research techniques, and a special children's section.

Pulling Out Wild Pines

Waikato Forest and Bird invites fit members of all ages, from all branches, to participate in its annual camp to assist the Department of Conservation in removing *Pinus contorta* from Ruapehu. This will be held on the weekend of February 24-25, 2001. The camp is based at ski lodges in Ohakune: accommodation is free, and the branch also contributes to petrol costs. Those interested please contact Philip Hart by mid-February, preferably by email to prhart@waikato.ac.nz otherwise by letter to 129 Cambridge Road, Hamilton, or phone (07) 856 7992. Please book early: beds are limited.

Waikato Conservation Grants

Grants of up to $6000 are available from the Waikato Branch of Forest and Bird, for conservation projects to be undertaken in the coming year. The grants could help to fund research, practical projects, or advocacy for conservation. There is no restriction on the type of project, provided that it contributes to nature protection. However, relevance to the Waikato-Coromandel region would be helpful. There is no application form. Instead, send three copies of your proposal, together with a budget, to Tracey Greenwood (secretary), Waikato Forest and Bird, P.O. Box 11-092, Hillcrest, Hamilton. The closing date for applications has been extended this year to November 20.

And from Canterbury Too

Stocker scholarships are being offered again by North Canterbury Forest and Bird. These take the form of grants for conservation projects or research. Projects must have special reference to the needs of the South Island and the objectives of Forest and Bird. Grants may be made to individuals or groups. Just over $3000 is available for one or more applicants. Please direct enquiries and applications to the Secretary, North Canterbury Forest and Bird, PO Box 2389, Christchurch. The closing date for applications is December 15.

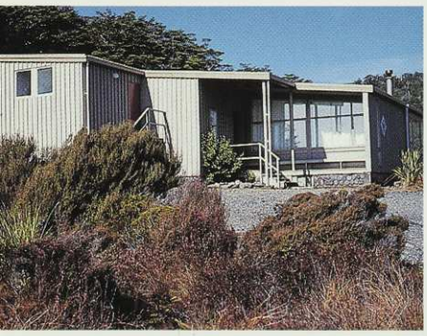
Society's Tongariro Lodge Serves First National Park

In the North Island, 'The Mountain' means only one place — Ruapehu — the winter playground of people from Auckland to Wellington who like to slide down mountains on bits of wood. The occasional eruptions of this great volcano are salutary reminders that this is one of the great wild places of New Zealand, not to be blithely diminished as a winter playground.

Forest and Bird's lodge at Whakapapa, just beyond the village and the Chateau, is well-known to skiing members but is better value in the warmer months when it makes a great base for exploring Tongariro National Park. This World Heritage Area covers nearly 80,000 hectares surrounding the chain of volcanoes gathered at the centre of the North Island. The Forest and Bird lodge is close to park headquarters and a range of transport operators who service track ends throughout the park. This is one park where the traditional summer programme (December 27-January 9 or thereabouts) still survives.

Surprisingly, bookings at the Forest and Bird Lodge around this time, are fairly light. (Two of us shared an eight-bunk room, while other rooms stood empty.) Before Christmas, and outside the school holidays, the lodge is often nearly empty.

The Society's Tongariro Lodge offers inexpensive bunkroom accommodation, a big kitchen, hot showers, drying room and a vista of beech forest and mountain. Walks and park trips begin from nearby Whakapapa Village, the park headquarters.



GORDON ELL, BUSH FILMS

One of the major charms of Tongariro National Park is the range of things to do, from near-level walks to demanding routes around the mountains. The Lodge offers a base which should appeal to most ages and activity levels because of the range of recreational opportunities nearby. Whakapapa is a popular centre with interesting beech forest and tussock grasslands walks close to the Lodge, and longer loops and trails to such places as the Silica Springs (a volcanic feature), the Tama Lakes (craters lying in the saddle between Ruapehu and Tongariro/Ngauruhoe), and the Taranaki Falls (passing through heathlands where fernbirds call).

Whakapapa is also the pick-up point for transport to guided walks such as those offered by the Department of Conservation at midsummer (to points all round the mountains, this year including specialised bush walks near Ohakune, climbing or clambering round neighbouring volcanic cones, horse-riding. bird-watching, looking for kaka or blue duck, and enjoying alpine wildflowers.)

Further conveniences of Whakapapa are its proximity to the Top of the Bruce, or Iwikau skiing village on Mount Ruapehu, from where ski lifts now operate in summer, carrying visitors to the alpine zone with its wildflowers and interesting plants, and the opportunity of a guided walk to the crater of Ruapehu itself.

You can also catch buses at Whakapapa for longer walks elsewhere in the park. (This saves leaving vehicles at track ends to be stripped by thieves, and also allows undertaking one-way walks with pick up by buses at the other end.)

GORDON ELL, BUSH FILMS

The classic walk in Tongariro National Park is the Tongariro Crossing, often described as the 'Finest One-Day Walk in the World' (7-8 hours). And it is superb, particularly on a clear day. (I have been snowed off the top ridge at New Year in a blizzard, and sunburnt in shorts a day or two later.)

The 17-kilometre walk usually starts in the Maungatepopo Valley, with a steep, rocky clamber onto the saddle between Ngauruhoe and the multi-cratered top of Tongariro itself. The trail passes across a flat crater, then onto a long ridge which provides sweeping vistas across the Rangipo Desert to the central North Island. The red and black rocks of Red Crater still steam while the small Emerald Lakes below make a memorable lunch place. Across a further crater, and around the broad waters of Blue Lake, the track leads onto the tussocked flanks of the upper mountain. The long descent passes close to the roaring steam vents of Ketetahi Springs, down to the bush line, and through Hall's totara forest to the roadhead far below.
— *Gordon Ell*

GORDON ELL, BUSH FILMS

Bookings for the Tongariro Lodge may be made through the central office of Forest and Bird (see Lodges, page 49 for details).

— *Gordon Ell*

John Fensham's Memorial Sanctuary

When John Fensham died in 1943 at age 91, he left behind him an important legacy for the future of New Zealand's indigenous flora and fauna. His will made provision for a nine hectare block of native forest to be preserved for all time as the 'John Fensham Sanctuary for Native Trees and Birds'. The surrounding 41 hectares of flat pastureland and scrub-covered hill was to be leased and the income paid to his four sisters during their lifetime.

When Nina, last of the Fensham sisters, died in 1978 the property passed into Forest and Bird ownership.

Since 1962 the grazing land has been leased to a local farmer who is also a Forest and Bird member. With his cooperation the forest and shrublands on the hill above the original reserve area have been allowed to regenerate.

Situated outside of Carterton at the upper end of Cobden Road, Fensham Reserve is now one of very few protected areas on the low-lying Wairarapa Plains. Today the reserve contains approximately nine hectares of primary forest, three hectares of wetland, 19 hectares of regenerating forest and shrublands, and 18 hectares of pastureland.

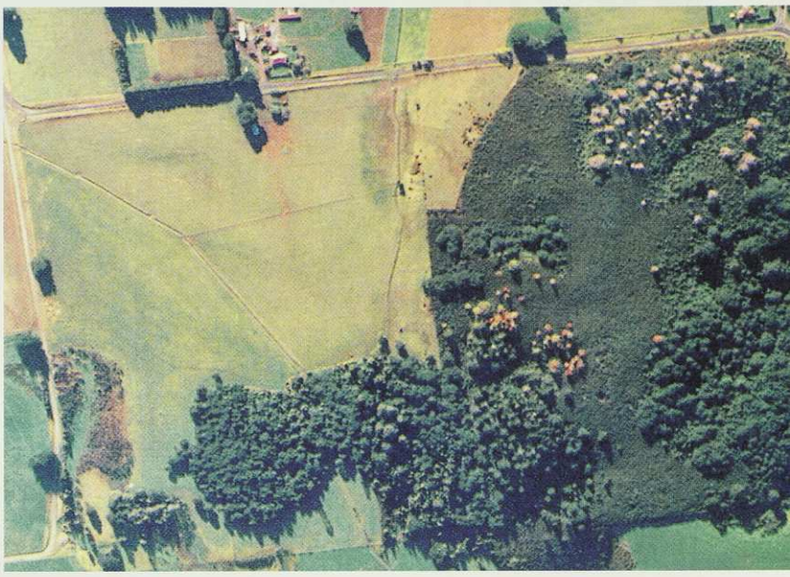
The primary forest, situated on mainly flat land that includes occasional wetland areas, is in good condition with a well-established canopy and rich understorey. The forest is dominated by kahikatea, tarata, titoki and black beech with smaller amounts of totara, matai, rimu, kowhai and hinau. Some of the podocarps here are 400-700 years old. The hill contains areas of black-beech forest with an understorey of advanced regeneration. Between these two forest types there are considerable areas of regenerating kanuka-manuka forest with significant amounts of rewarewa emerging in the canopy.

On the alluvial plain there is a small kahikatea-totara-matai forest with kanuka, hinau, pokaka and black beech. This forest is associated with areas of manuka, rushes, sedges and toetoe growing in a wetland containing brown mudfish *Neochana apoda*. This is a Category B, nationally threatened species of 'vulnerable' status.

Fensham Reserve is one of several areas in the Wairarapa where high numbers of brown mudfish exist. A study by Albert Rebergen (of DoC) in 1996 indicates that the reserve could well contain the highest numbers of brown mudfish of any Wairarapa site.

Fensham Reserve also contains a regionally threatened fern species, parsley fern *Botrychium biforme*, and various tree species uncommon in the ecological district.

Due to its proximity to Wairarapa towns, and the limited opportunities for bush walking in the district, Fensham Reserve enjoys a high level of public usage and is popular with school groups and groups of elderly people. In order to protect the interests of the lessee, public access is restricted to the areas of primary forest and regenerating hill slopes.



Two entry points on Cobden Rd give access to the Circuit Track, which circumnavigates the hill and primary forest area, taking in all the changing vegetation patterns in the reserve along the way. At the northern end of this track there is a picnic area.

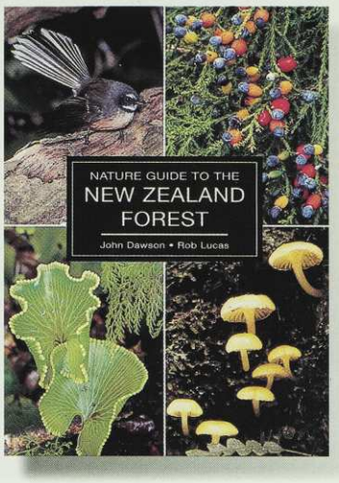
The reserve is managed by the 'Fensham Group', a band of dedicated volunteers from the Wairarapa Branch who received an Old Blue Award this year for their efforts. Over the years the Fensham Group has developed tracks and boardwalks, erected signs, controlled possums, eradicated willows and old man's beard from the reserve, and ringbarked or felled hundreds of radiata pines. They have also done extensive revegetation round the edges of forest and wetland areas. It is planned to continue this work into the future as areas of grazing land are removed from the lease. With the Fensham Group's dedicated enthusiasm, John Fensham's legacy will live on.

– Peter White, a member of Forest and Bird's national executive, is reviewing the management plans of the Society's reserves.

Fensham Group

Fensham Reserve, Wairarapa

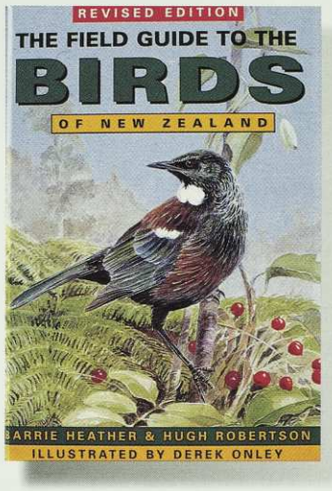
bookreviews



Nature Guide to the New Zealand Forest

by John Dawson and Rob Lucas, 312pp limp, Godwit, Auckland 2000, RRP$45.

Two experts, who have produced fine studies of our natural world before, now combine their talents in a general guide to the world of our forests. The idea of melding the trees and shrubs with the other plants and creatures which live in the forest is a welcome addition to the burgeoning shelf of New Zealand nature guides. The author (Dawson) and photographer (Lucas) cover trees and shrubs; vines, epiphytes and mistletoes; life on the forest floor; birds, lizards, frogs and bats; and insects and other invertebrates. They take you into the forest and ask you to begin looking at the tall trees, and gradually work down to the forest floor, and the animals in the forest. Because of the great variety of life forms, some groups, such as insects, are covered in broad detail with only a few representatives of main families. These do, however, draw attention to the diversity of forest life. Marginal notes on special features and relationships are included, along with directions to further readings. The book uses scientific language but for the enthusiast it is a fascinating companion, drawing attention broadly to the features of the forest.



The Field Guide to the Birds of New Zealand (Revised edition)

by Barrie D. Heather and Hugh A. Robertson, illustrated by Derek J. Onley, 440pp hardback, Viking, Auckland 2000, RRP$49.95.

This is the Ornithological Society-inspired guide to the birds of New Zealand, revised from 1996 to 2000. It looks much the same as the previous edition though an addendum draws attention to the dynamic nature of our birdlife — six new species added as 'vagrants' to the New Zealand list between 1994 and 1998. Reclassification of species has also had some effect though the kingfisher, for example, still carries its old scientific name. Nevertheless, this bird guide, combining as it does the accumulated wisdom of many observers, is the one to have.

The Reed Field Guide to Common New Zealand Shorebirds

by David G. Medway, 155pp hardback, Reed Publishing, Auckland 2000, RRP$34.95.

For a lot of folk, shorebirds are simply black and white and confusing. This book reveals a fascinating variety of local and international migratory species, as well as the resident birds. David Medway is an enthusiast for shorebirds and has photographed most of them. His interest in the Ornithological Society of New Zealand (he is president) means his field notes are up-to-date with recent discoveries, and he shares an enthusiasm about where to look for these birds and enjoy them.

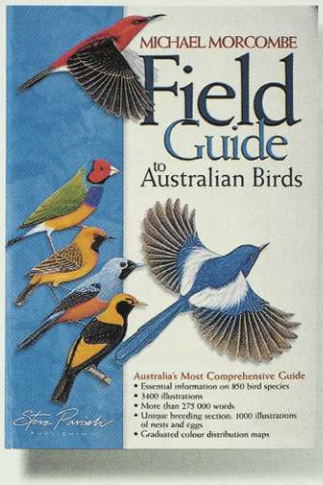
Going Overseas

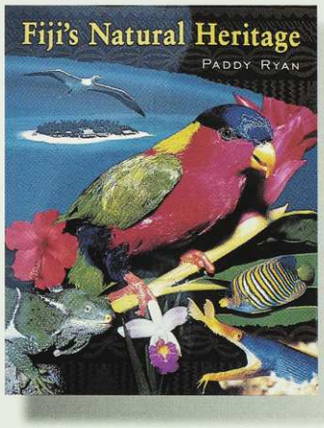
Here are a couple of excellent nature guides which could appeal to New Zealanders taking a holiday elsewhere in the Pacific region.

Field Guide to Australian Birds

by Michael Morcombe, 446pp, limp, Steve Parish Publishing, Archerfield, Queensland 2000, RRP Aust $45.

This is quite a bit heavier than lunch but you would still want it in your daypack when visiting Australia. Michael Morcombe illustrates every bird in Australia with a precise painting — often supplemented by paintings of the bird in flight or displaying. In all there are 850 bird species with 3400 illustrations, including 1000 illustrations of nests and eggs. A handy colour code on the leading edge of each page leads swiftly from the contents list to the various species within each bird group. The bird paintings are heavily annotated with notes on the visual characteristics which help identify or distinguish similar birds in the field. Distribution maps and notes help with making an identification. This book is so full of information that it will seriously challenge the popularity of existing guides — such as Slaters' — though it weighs twice as much and costs more. The book is available direct from our counterpart, Birds Australia (see page 5).





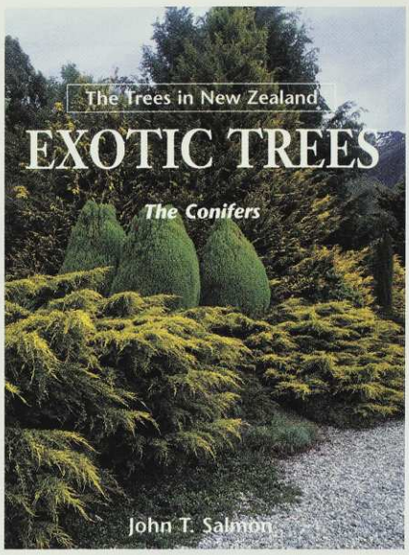
Fiji's Natural Heritage

by Paddy Ryan, 288pp hardback, Exisle Publishing, Auckland 2000, RRP$49.95.

This came out in concert with this year's Fijian coup. If you are still willing to go into Fiji's wild places, this book would be an excellent introduction. It is full of wonderful colour photographs of the natural world and the species which inhabit lagoon, seashore and jungle. Paddy Ryan is already noted for his underwater photography and this book is another showcase. Reptiles, birds and plants, however, all get a fair coverage. There is also a section on where to go. Perhaps purchase it as an armchair read, while planning for holidays in better times.

The Trees In New Zealand
EXOTIC TREES: THE CONIFERS
Professor John T. Salmon

FLETCHER CHALLENGE FORESTS



This book provides a guide to over 120 species of exotic coniferous trees in New Zealand, with over 420 colour photographs making it the most lavish and comprehensive record available. With its companion volume *Exotic Trees: — The Broadleaves*, it complements Professor John Salmon's best selling *The Native Trees of New Zealand*, first published in 1980 and now a classic reference work.

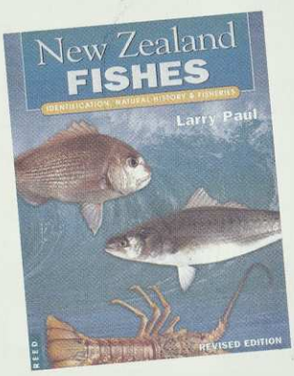
The Conifers introduces all the major exotic conifer families and genera found in New Zealand. Each species is presented in a succinct text accompanied by photographs of form, leaves, bark and strobili where appropriate. The descriptions give background to each species' worldwide distribution, its use and cultivation, introduction to New Zealand, growth and habit, foliage and strobili. **$79.95**

Reed New Zealand Nature Series
BUTTERFLIES AND MOTHS OF NEW ZEALAND
Brian Parkinson and Brian Patrick

Each of the books in the popular Reed New Zealand Nature Series, formerly known as the Mobil Nature Series, features clear photographs for the purpose of identification, accompanied by detailed information. Recently published titles in this series: **Ferns • Seashells • Mushrooms & Fungi** **$14.95** each

THE REED HANDBOOK OF COMMON NEW ZEALAND INSECTS
Annette Walker, Eric Heath and Geoffrey Cox

This book contains information on over 70 insects, and is divided in to three sections: Insects in the Field and Garden, in the Bush and in Fresh Water. The introduction includes information on introduced and endemic pests, what insects eat, collecting insects, insects and the angler, as well as an extensive identification guide. Also available in The Reed Handbook series: *Common New Zealand Birds* and *Common New Zealand Ferns*. **$34.95**

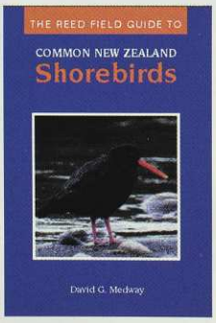


NEW ZEALAND FISHES
Larry Paul

New Zealand is fortunate to have a rich variety of sea life. In this illustrated guide to New Zealand fish and shellfish, emphasis is given to those species of interest to recreational and commercial fishers. Arranged by family, the species are each briefly described, with notes on their distribution, habitat and life history. There are over 300 line drawings and colour photographs to assist identification. This book is an eagerly-awaited revised edition of *New Zealand Fishes*, which has been out of print for 7 years. **$49.95**

THE REED FIELD GUIDE TO NEW ZEALAND FRESHWATER FISHES
R.M. McDowall

New Zealand has a rich and varied assortment of rivers, streams, lakes and wetlands that are home to a modest but fascinating and varied freshwater fish fauna. This is a complete and easy-to-read reference to the fishes throughout New Zealand and outlying islands. Each entry contains colour photographs, a line drawing and a distribution map as well as information on size, colour, features particular to the type of fish, distribution, habitat and diet. Other books in The Reed Field Guide series include: *New Zealand Birds, New Zealand Native Trees, New Zealand Geology, New Zealand Wildlife, Common Shorebirds in New Zealand* and *New Zealand Freshwater Fishes.* **$39.95.**



THE REED FIELD GUIDE TO COMMON NEW ZEALAND SHORE BIRDS
David G. Medway

New Zealand's coastline provides suitable habitat for a variety of shorebirds, some of which are resident here while others migrate to this country each year from their breeding grounds in arctic regions. Shorebirds include waders, gulls and terns. In this book, the plumage, population and behaviour of commonly seen shorebirds are all described in detail. The photographs illustrate both the natural beauty of those birds and important aspects of text. Also included are descriptions of several outstanding and significant shorebird localities throughout New Zealand, including the Miranda area of the Firth of Thames, and Farewell Spit and Lake Ellesmere in the South Island. **$39.95**

Available from leading booksellers nationwide
Visit the Reed Publishing website: www.reed.co.nz

REED

2000*index*

By issue then page number.
Key: Bn = Bulletin
BO = Branching Out
CB = Conservation Briefs
Cm = Comment
IF = In the Field
WW = World Watch

AUTHORS

SUBJECTS

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- Participate to the level you desire in a large, successful, grassroots conservation group.
- Be informed by your local branch of trips, walks and conservation projects in your area.
- Stay at Forest and Bird's reasonably priced lodges around the country.

Use the attached form to give a donation or join as a member *(donations over $5 are tax deductible)*

It is your support and generosity that enables Forest and Bird to continue working for the environment

and a special club for children

Kids love learning about the natural world and how to protect and enjoy it. The Kiwi Conservation Club is for young people aged 5 to 12 years. It encourages an appreciation of nature, and promotes fun, conservation-based activities. Membership is available to individuals, families and schools.

KCC members receive:

- Five copies annually of the KCC magazine, packed with interesting stories, games, jokes and projects.
- A personalised KCC membership certificate containing the Kiwi Conservation Code.
- KCC member's stickers.
- Notification of activities and trips held in most areas by local KCC groups.

Kiwi Conservation Club

Instilling a love of nature is a gift that lasts a lifetime

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☐ overseas	NZ$70.00	☐ corporate	$275.00

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☐ single	$12.00	☐ family (no. of children _____)	$20.00
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2000

DONATION AND/OR MEMBERSHIP FORM

Name (Mr/Mrs/Ms) _____

Address _____

_____

_____ Telephone _____

This is a ☐ new membership
☐ renewal membership (membership no.) _____

GIFT MEMBERSHIP

Join a friend by filling in their name above and your name below. Gift membership will be sent with a special gift card in your name. If you would like to be billed for renewal of this gift membership next year please tick here ☐

Gift from (Mr/Mrs/Ms) _____

Address _____

_____

Forest and Bird membership category (all prices include GST)

☐ single ☐ family ☐ non-profit group	$49.00		
☐ senior citizen ☐ senior family	$37.00		
☐ student/schools	$32.00	☐ libraries	$49.00
☐ business	$100.00	☐ life (single only)	$675.00
☐ overseas	NZ$70.00	☐ corporate	$275.00

Kiwi Conservation Club membership category (all prices include GST)

☐ single	$12.00	☐ family (no. of children _____)	$20.00
☐ mini set (4 magazines)	$22.00	☐ class set (30 magazines)	$55.00
☐ overseas	NZ$22.00		

DONATION (Donations over $5 are tax deducible) $ _____

☐ Enclosed cheque to Forest and Bird
or charge my ☐ Visa ☐ Mastercard ☐ Amex ☐ Diners

Expiry date _____ Cardholders signature _____

By mail FREEPOST No. 669, Forest and Bird, PO Box 631, Wellington.
By phone (04) 385-7374 with credit card details. By fax (04) 385-7373.
Email enquiries to: office@wn.forest-bird.org.nz

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Working together we can make a difference
join Forest and Bird

As a member of Forest and Bird you can:

- Gain satisfaction from the knowledge that you are contributing to the conservation and protection of New Zealand's natural heritage.
- Receive the Forest & Bird magazine - four full-colour issues a year, delivered to your mailbox.
- Receive regular issues of *Conservation News* containing the latest in environmental news.
- Participate to the level you desire in a large, successful, grassroots conservation group.
- Be informed by your local branch of trips, walks and conservation projects in your area.
- Stay at Forest and Bird's reasonably priced lodges around the country.

Use the attached form to give a donation or join as a member (*donations over $5 are tax deductible*)

It is your support and generosity that enables Forest and Bird to continue working for the environment

and a special club for children

Kids love learning about the natural world and how to protect and enjoy it. The Kiwi Conservation Club is for young people aged 5 to 12 years. It encourages an appreciation of nature, and promotes fun, conservation-based activities. Membership is available to individuals, families and schools.

KCC members receive:

- Five copies annually of the KCC magazine, packed with interesting stories, games, jokes and projects.
- A personalised KCC membership certificate containing the Kiwi Conservation Code.
- KCC member's stickers.
- Notification of activities and trips held in most areas by local KCC groups.

Instilling a love of nature is a gift that lasts a lifetime

lodges*accommodation*

Arethusa Cottage
An ideal place from which to explore the Far North. Near Pukenui in wetland reserve. 6 bunks, fully equipped kitchen, separate bathroom outside. For information and bookings, contact: John Dawn, Doves Bay Road, RD1, Kerikeri, Tel: (09) 407-8658, fax: (09) 407-1401.

Tai Haruru Lodge, Piha, West Auckland
A seaside haven set in a large sheltered garden on the rugged West Coast, 38km on sealed roads from central Auckland. Close to store, bush reserves and tracks in the beautiful Waitakere Ranges. Double bedroom and 3 singles, plus large lounge with open fireplace, dining area and kitchen. The self-contained unit has 4 single beds. Bring food, linen and fuel for fire and BBQ. For details and rates send stamped addressed envelope to Ethne Richards, 1/109 Fredrick St, Hillsborough, Auckland. (09) 625-8627.

Waiheke Island Cottage
Located next to our 49ha Wildlife Reserve,10 minutes walk to Onetangi Beach, general stores etc. Sleeps up to 8 in two bedrooms. Lounge, well-equipped kitchen, separate toilet, bathroom, shower, laundry. Pillows, blankets provided. No pets. Ferries 35 minutes from Auckland. Enquiries with stamped addressed envelope to: Maya Spence, 16 Hobson Tce, Waiheke Island, Tel/fax: (09) 372 9333, e-mail: andyspence@xtra.co.nz

Ruapehu Lodge, Tongariro National Park
Situated 600 metres from Whakapapa Village, at the foot of Mount Ruapehu, this lodge is available for members and their friends. It may also be hired out to other compatible groups by special arrangement. It is an ideal base for tramping, skiing, botanising or visiting the hotpools at Tokaanu. The lodge holds 32 people in four bunkrooms and provides all facilities except food and bedding. Bookings and inquiries to Forest and Bird, PO Box 631, Wellington.Tel: (04) 385-7374, fax: (04) 385-7373. Email: office@wn.forest-bird.org.nz

William Hartree Memorial Lodge, Hawkes Bay
Situated 48km from Napier, 8km past Patoka on the Puketitiri Rd (sealed). The lodge is set amid a 14ha scenic reserve and close to many walks, eg: Kaweka Range, Balls Clearing, hot springs and museum. The lodge accommodates up to 15 people. It has a fully equipped kitchen including stove, refrigerator and microwave plus tile fire, hot showers. Supply your own linen, sleeping bags etc. For information and bookings please send a stamped addressed envelope to Pam and John Wuts, 15 Durham Ave, Tamatea, Napier. (06) 844-4751, email: wutsie@xtra.co.nz

Matiu/Somes Island, Wellington Harbour
Joint venture accommodation by Lower Hutt Forest and Bird with DoC. A modern family home with kitchen, 3 bedrooms, large lounge and dining room, just 20 mins sailing by ferry from the centre of Wellington or 10 mins from Days Bay. Ideal place to relax in beautiful surroundings, with accommodation for 8. Bring your own food and bedding and a torch. Smoking is banned everywhere on the island, including the house. For information sheet, send stamped addressed envelope to: Accommodation officer, PO Box 31-194, Lower Hutt. (04) 567-1686.

Tautuku Lodge
State Highway 92, Southeast Otago. Situated on Forest and Bird's 550ha Lenz Reserve 32km south of Owaka. A bush setting, and many lovely beaches nearby provide a wonderful base for exploring the Catlins. The lodge, the Coutts cabin and an A-frame sleep 10, 4 and 2 respectively. No Animals. For information and rates please send a stamped addressed envelope to the caretaker: Diana Noonan, Mirren St, Papatowai, Owaka, RD2. Tel: (03) 415-8024, fax (03) 415-8244. Email: dianan@clear.net.nz

projectcrimson.org.nz

Photo: Kerry Fox

PROTECTING POHUTUKAWA & RATA

PROJECT CRIMSON

Carter Holt Harvey
in partnership with the Department of Conservation

10 YEARS

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