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**News stories**

***Get a rat trap and help save our native birds***

By KIRAN CHUG - The Dominion Post

<http://www.stuff.co.nz/dominion-post/local/4141383/Get-a-rat-trap-and-help-save-our-native-birds>

If every Wellington resident put a rat trap in their garden, native birdlife in the region would reap huge benefits.

Conservation Department technical support officer Lynn Adams says that for a small amount of effort, the impact would be tremendous.

Trapping rats is a simple measure people could do at home to help bird populations increase.

The protection provided to native birds in the region would be the same as those areas already intensively managed by conservation groups.

The numbers of certain native species are growing in Wellington, and Ms Adams says the increase in biodiversity throughout the region is visible.

The frequency with which kakariki are seen in urban areas is increasing, and sightings of whiteheads and bellbirds are becoming more common, she says.

"They are reinvading urban areas. They're coming from Karori and down through the Hutt Valley and into Wellington."

A lot of the increase can be attributed to pest control work carried out by Greater Wellington regional council, but with everyone putting one or two covered rat traps in their garden, the biggest threat to forest birds – rats – would face another challenge.

There is the potential that the birds would do better in urban environments than their usual habitats because of the diversity of plant species they would find.

Tui and kereru are growing in numbers around Wellington, and though they are expected to continue to become more visible in the area, Ms Adams says there is still more residents can do.

Taking simple steps such as keeping cats indoors at night and putting bells on their collars is a big help, and occasional gardeners will be pleased to know that messy gardens are good for wildlife such as lizards, which like "complex habitats".

"A beautifully mown lawn is not that good and a bare garden isn't much good. People can be messy."

Ms Adams says invertebrates play an important ecological function in gardens, providing food for fantails and grey warblers, and the best way to keep a healthy population going is by avoiding using sprays.

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Encouraging beetles and native hoverflies, which feed almost exclusively on aphids, reduces the need for sprays while also attracting birds.

If residents were to take such simple steps, native birds and insects could become a more common sight in our urban environment, she says.

"These species are reinvading. We think of our gardens as artificial places, but they're not that different from a national park in terms of ecology."

### ***Tree-planting campaign aims to feed kereru***

<http://www.odt.co.nz/news/dunedin/131523/tree-planting-campaign-aims-feed-kereru>

By [Rebecca Fox](#) on Thu, 14 Oct 2010

An initiative to help encourage people to plant trees to support Dunedin's growing kereru population is being launched today.

The "Plant Trees for Kereru" campaign aims to ensure gardens around Dunedin provide an abundance and variety of food to support more kereru (wood pigeons) year round. Project Kereru's Nik Hurring said that after hearing of kereru dying in the North Island, due to a lack of food during drought, she decided to try to do something to ensure the same problem did not befall Dunedin's population.

"Keruru have an extensive diet of both native and exotic plants, and if we can make people aware of this, we can ensure there is food available all year round." Red Barn Garden Centre and Ribbonwood Nurseries would be selling plants and trees labelled "This feeds kereru", she said. "Forest and Bird are kindly providing the labels free of charge."

Department of Conservation biodiversity assets programme manager David Agnew said that during spring, kereru numbers increased around town, making use of flowering garden plants and fruit trees. "This great initiative will help people choose native plants and non-weedy exotic plants for their garden." Kereru were known to travel long distances for food, even as far as the Catlins from Dunedin, he said.

Mrs Hurring hoped the programme, which she would launch at the Red Barn this afternoon, could be extended to other nurseries and garden centres in the city.

### ***Keruru feeding on kowhai***

<http://www.youtube.com/watch?v=rhaxHRWj47c>

This video (although a bit wobbly) quite clearly shows which bits of the kowhai this kereru is feeding on. Kowhai, along with a range of other species, is high in nitrogen and is sought out during spring. Many NZ plant species are rather low in nitrogen. Nikau is also a spring favourite as the thin flesh is surprisingly high in calcium. Both nitrogen and calcium are required during breeding

### ***Trainers wanted, own aviary an advantage***

MARIKA HILL - Manawatu Standard – 10 November 2010

Massey University is seeking volunteer carers to help rehabilitate native common birds – such as waxeyes, kereru and tui – following injury and treatment.

Having an aviary or airspace would be an advantage and full training is provided.

The University's Wildlife Health Centre is holding an information day later this month for people interested in bird rehabilitation.

Veterinary nurse Bridey White said many of the birds that came into the centre for treatment had sustained injuries from flying into windows.

"This is quite a painful experience for them and can result in fractures that either need to be supported with bandaging or repaired surgically," Ms White said.

The centre treated the mainly native birds medically and surgically, but another important aspect of their treatment was increasing their fitness before they were returned to the wild.

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Volunteer carers usually encouraged the birds to regain strength through flying practice. "Interested people would need to have the time and space to care for the birds, and having an aviary would greatly help," Ms White said.

The centre also needs volunteers who can help transport birds, build cages or assist with fundraising.

Potential carers are invited to an information day at the Ira Cunningham lecture theatre at the Manawatu campus on November 27 from 9am.

"We'll talk about the type of birds that will require care, which are the common native birds such as kereru [wood pigeon], tui, and waxeyes," Ms White said.

"After this, people who are still interested will be given further training."

A representative from the Department of Conservation will also speak about obtaining permits to care for native birds.

Anyone interested in attending can contact: [b.j.white@massey.ac.nz](mailto:b.j.white@massey.ac.nz).

### ***DOC starts 'triple-hit' 1080 drop in forest***

KAY BLUNDELL - The Dominion Post 9 November 2010

A "triple hit" 1080 drop has been started in the Tararua Range as the Conservation Department continues to search for a stoat spotted on nearby nature reserve Kapiti Island.

The department and the Animal Health Board have joined forces for the 1080 aerial programme aimed at stoats, rats and possums in a 30,000-hectare area on both sides of the range.

The pests are the three main predators threatening native birds such as kaka, kereru, tui, bellbirds, fantails and rifleman.

DoC Wairarapa area manager Chris Lester said pre-drop monitoring showed high rat and possum numbers in the park and urgent action was needed to protect vulnerable nesting birds and their chicks.

The drop was also aimed at preventing the spread of bovine tuberculosis in Wairarapa.

Helicopters are dropping 57 tonnes of cereal baits laced with 1080 across a corridor of native forest stretching between Otaki Forks and Mt Holdsworth this week.

People with dogs are being advised to avoid the region in the next few months and visitors are advised to steer well clear of any green poison baits they may encounter.

The drop is tagged "triple-hit" because the baits have been produced to appeal not only to possums, but also rats, whose carcasses would be eaten by stoats, which would succumb to secondary poisoning.

Meanwhile, the department has set traps and tracking tunnels on Kapiti Island after a stoat was spotted at Rangatira in the centre of the island on Thursday. The island nature reserve protects some of the world's rarest fauna and is one of New Zealand's most important centres for native bird recovery programmes.

Its predator-free status has been threatened by the stoat, which department staff believe may have swum there, although the five-kilometre swim from the mainland is further than the 3.5km range the good swimmers have been known to achieve.

The department's Wellington-Kapiti area manager, Rob Stone, is discounting the possibility of eco-terrorists placing the stoat on the island as such actions were normally made public for some sort of payback, he said.

### ***Does anybody know anything about pigeon ovens?***

All I know about pigeon ovens is that the iwi said there were pits in the National Park which had been dug to store big hauls of pigeons when they were caught and there were meant to be plenty around. In Hawke's Bay we don't have a history of such uses of pits - though I know of pits dug to store eels in while they were catching them then they would prepare them from there - hang them on strings and dry them etc. It may have been similar; those big calabashes were used to store cooked pigeons in their fat.

## Research and thesis abstracts

I know that most of the theses are not recent – but included the information anyway as they have only recently been made available in an electronic format.

### ***Population structure and biogeography of Hemiphaga pigeons (Aves: Columbidae) on islands in the New Zealand region***

Julia Goldberg, Steven A. Trewick, and Ralph G. Powlesland

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**Keywords:** Chatham Islands; dispersal; *Hemiphaga*; mitochondrial DNA; New Zealand; Norfolk Island; population structure; phylogeography

**Aim** The New Zealand avifauna includes lineages that lack close relatives elsewhere and have low diversity, characteristics sometimes ascribed to long geographic isolation. However, extinction at the population and species levels could yield the same pattern. A prominent example is the ecologically important pigeon genus *Hemiphaga*. In this study, we examined the population structure and phylogeography of *Hemiphaga* across islands in the region.

**Location** New Zealand, Chatham Islands and Norfolk Island.

**Methods** Mitochondrial DNA was sequenced for all species of the genus *Hemiphaga*. Sixty-seven individuals from mainland New Zealand (*Hemiphaga novaeseelandiae novaeseelandiae*), six of the Chatham Islands sister species (*Hemiphaga chathamensis*), and three of the extinct Norfolk Island subspecies (*Hemiphaga novaeseelandiae spadicea*) were included in this study. Novel D-loop and cytochrome *b* primers were designed to amplify DNA from museum samples. Additionally, five other mitochondrial genes were used to examine placement of the phylogenetic root.

**Results** Analyses of mitochondrial DNA sequences revealed three *Hemiphaga* clades, consistent with the allopatric populations of recognized (sub)species on oceanic islands. Of the 23 D-loop haplotypes among 67 New Zealand pigeons (*Hemiphaga n. novaeseelandiae*), 19 haplotypes were singletons and one haplotype was common and widespread. Population genetic diversity was shallow within and between New Zealand populations, indicating range expansion with high inter-population exchange. Tentative rooting of the *Hemiphaga* clade with *cyt b* data indicates exchange between mainland New Zealand and the Chatham Islands prior to colonization of Norfolk Island. We found low genetic divergence between populations on New Zealand, the Chatham Islands and Norfolk Island, but deep phylogenetic divergence from the closest living relatives of *Hemiphaga*.

**Main conclusions** The data are consistent with the hypothesis of population reduction during the Pleistocene and subsequent expansion from forest refugia. Observed mobility of *Hemiphaga* when feeding helps explain the shallow diversity among populations on islands separated by many hundreds of kilometres of ocean. Together with comparison of distribution patterns observed among birds of the New Zealand region, these data suggest that endemism might represent not long occupancy of an area, but descent from geologically recent colonizations. We consider the role of lineage pruning in creating the impression of old endemism.

**Scientists developing deodorant for smelly birds**

<http://www.globalanimal.org/2010/09/26/scientists-developing-deodorant-for-smelly-birds/17312/>

*Scientists in New Zealand are trying to develop a deodorant for their native birds to stop them from falling prey to introduced predators. – Global Animal*

Scientists are hoping to develop a deodorant for New Zealand's native birds to stop them falling prey to introduced predators.

New Zealand has an abundance of native bird species, including the famous kiwi, but no native land mammals, meaning introduced animals such as cats and stoats have had a devastating impact on bird numbers.

Associate Professor Jim Briskie from New Zealand's Canterbury University said it appeared the country's birds suffered from body odour, making them an easy target for predators.

He said unlike their overseas counterparts, which evolved alongside mammals, New Zealand birds emitted a strong smell when preened to produce wax to protect their feathers.

He said the kiwi smelled like mushrooms or ammonia, while the flightless kakapo parrot's odour was like "musty violin cases," possibly contributing to its endangered status.

The Marsden scientific research fund has given Associate Professor Briskie a NZ\$600,000 (US\$437,000) grant to study native bird body odours over the next three years in the hope of making them less exposed to predators.

"Down the line, if we do find some species are particularly smelly or vulnerable, perhaps I can design a deodorant for kiwis," he told the Dominion Post newspaper.

***The impact of predation on the kereru (*Hemiphaga novaeseelandiae*) on Banks Peninsula***

Prendergast, S. T.

Master of Applied Science, Lincoln University

2006

<http://hdl.handle.net/10182/2559>

The kereru (New Zealand Pigeon, *Hemiphaga novaeseelandiae*) is a threatened endemic species. Predation of eggs, chicks, and adults at nests by mammalian predators is considered to be a major potential threat. The impact of mammalian predators on kereru populations was studied on three remnant native bush areas on Banks Peninsula, New Zealand, from February 2004 to March 2005. Artificial nests were used to monitor predator activity and to identify potential predators to kereru nests. Artificial nests consisted of a wicker basket, a wax egg and a hen egg. Rats were identified as a significant predator of nests (70% of total nest predation). Other predators identified by the artificial nests were possums (20%), mice (7%), stoats (0.4%) and unknown (2%). It is suggested that artificial nest studies should not replace studies of real nests. Rather, they are a useful supplement to data on real nests.

Kereru display flights were monitored to determine the onset of breeding. Display flights were observed from July to September 2004. Display flight frequency, the proportion of total flights observed that were display flights, was highest at 22% of total flights in July. The frequency of display flights decreased to 15% of total flights in August as one pair had begun to nest. By September pairs were nesting in Church Bay and not performing display flights.

Kereru nests were located by following 15 kereru fitted with radio-transmitters. Nests were intensely monitored for signs of predation by video monitoring and direct observation. A total of 20 nests were located, of which 11 failed, seven the result of predation. Seven chicks fledged giving a nesting success rate of 35%. Rats and possums were identified as predators of two eggs and implicated in the loss of another five eggs. A cat preyed on a nestling chick and also ate the brooding female. Three radio-tagged kereru were lost at the beginning of this study and their transmitters were redeployed. So 18 radio-tagged kereru were monitored for predator-induced mortality. Five adult kereru died, three as a result of predation. A cat was recorded on video preying on one adult. It is hypothesised that cats were responsible for preying on other kereru during this study. Rat and possum predation limited nesting success however, this could have

been offset by replacement nesting after nest failures. Cats preyed on chicks and adult kereru which impacted on the breeding viability of the adult population. Kereru may be able to withstand some nest predation pressure if the pair are able to re-nest in the same season. However, the ability of kereru to re-nest is reliant on them having an adequate food source, so this may not be possible in poor seasons.

These assertions of when predator control is most needed would benefit from population modelling to determine their relative importance. Nesting success would benefit from rat and possum control during good breeding seasons. Adult survival would benefit from the control of predators such as cats and stoats. However, as kereru have integrated into urban habitat, managers must consult with the community before conducting predator control.

***An analysis of home ranges, movements, foods, and breeding of kereru (*Hemiphaga novaeseelandiae*) in a rural-urban landscape on Banks Peninsula, New Zealand***

Schotborgh, H. Maaiké  
Master of Science, Lincoln University  
2005  
<http://hdl.handle.net/10182/2681>

Aspects of kereru (*Hemiphaga novaeseelandiae*) ecology were studied on Banks Peninsula, New Zealand, from February 2004 until March 2005 (13 months). Telemetry equipment was used to locate 15 radio-tagged kereru. Characteristic of the human-modified landscape where this study took place is a mosaic of farmland, peri-urban areas, townships, native forest patches, and conifer plantations. Main study sites were at Church Bay and Orton Bradley Park. This study is part of the Kaupapa Kereru Programme which aims to enhance the kereru population on Banks Peninsula, and also contributes to national efforts to enhance kereru populations in human-modified landscapes. Before this study, little was known of kereru ecology in landscapes such as on Banks Peninsula.

The breeding season extended from mid-July 2004 to at least March 2005. Sixty-seven percent of tagged kereru bred and seven chicks fledged from 20 nesting attempts (35% success rate). Breeding success was higher compared with kereru populations on mainland New Zealand, but not as successful as a relatively predator-free population or for populations in areas where predators were controlled. Kereru nested in native forest patches and in areas frequently occupied by humans. Kereru ate 11 native and 12 introduced plant species. Two to eight species were eaten each field week. Introduced species were eaten solely during parts of summer and autumn, and made up at least 50% of the diet during these periods. Native species were eaten during winter but made up less than 50% of diet. During mid to late summer, kereru ate solely native species. Native species provided leaves, flowers, and fruit. Introduced species provided leaves and flowers, except plum trees (*Prunus* spp.) which also provided fruit. Before and during the first part of the breeding season, kereru were recorded eating leaves and flowers, mostly of introduced deciduous species and kowhai. The crop content of one brooding female found dead suggested that a chick was at least partly raised on plum tree and willow (*Salix* spp.) leaves.

The kereru population did not appear to be limited by food. However, planting of additional food sources could enhance food variety and ensure availability of sufficient foods for an increased population. Home ranges, estimated using cluster analysis, were significantly smaller during the breeding season than during the non-breeding season. Home ranges (1.8-22.2 ha) and core areas (0.01-0.28 ha) were significantly smaller than those found in the Whirinaki Forest Park (13.9-704.2 ha, and 1.1-26.7 ha respectively). Home range overlap was less at Orton Bradley Park than at Church Bay. Home range overlap was generally less during the breeding season than during the non-breeding season at both study sites.

During the non-breeding season, six of 10 kereru moved away from Orton Bradley Park for about two months perhaps as a result of insufficient food. Daily movements were mostly less than 500 m at both study sites. Presence of kereru was regulated by food availability, except during the

breeding season when kereru also required suitable nesting sites. The Church Bay and Orton Bradley Park study sites appeared to contain all required resources as home ranges were within these sites. However, more predation events occurred at Orton Bradley Park reducing its quality. Increased food availability across Banks Peninsula should allow kereru to colonise new areas. Additional (native) fruiting food species should improve carrying capacity of areas, diet choice of kereru, and indirectly improve species composition in forest patches through improved seed dispersal by kereru. Seed dispersal of native plant species occurred only during mid to late summer and mostly within 500m from foraging locations.

Management efforts to enhance the kereru population on Banks Peninsula should first focus on predator control. Adult survival should be prioritised above reproductive output. Adult kereru were especially vulnerable to predation during summer and the breeding season when foraging on low scrub and while incubating or brooding. Five of 20 nests were preyed upon; four eggs and one chick were preyed upon. Kereru in human-modified landscapes elsewhere in New Zealand could be exposed to similar threats. Secondly, management should focus on providing suitable nesting sites and increasing the food availability before and during the breeding season for future, increased populations (i.e., following predator control). Suggestions for future research of kereru in human-modified landscapes are made.

***Feathers of contention : social constructions of the New Zealand pigeon/kereru***

Renganathan, M.

Master of Resource Studies, Lincoln University

2004

<http://hdl.handle.net/10182/2679>

Commonly when areas are set aside to protect forest areas and wildlife, local communities lose or retain only a limited number of traditional rights to harvest resources. In recent years there has been an increasing interest in indigenous and local knowledge systems such as traditional ecological knowledge (TEK). Increasing numbers of indigenous and local communities seek to actively participate in and manage natural resources. Although they may share similar goals with conservationists and resource managers, reasons for doing so may differ. It is important to understand the different reasons people have in conserving and protecting resources. Understanding of different worldviews may enable more equitable methods of environmental management that integrate current forms of conservation and indigenous practices of sustainable use.

This thesis attempts to bridge the division between the ecological and social issues within wildlife management and investigates a case study of the New Zealand pigeon or kereru (*Hemiphaga novaeseelandiae*). The kereru plays an important role in New Zealand forests as it is the only extant native bird able to disperse the large seeds of certain native trees. Numerous in the early 19th century, heavy hunting pressure, habitat loss, and the introduction of exotic predators reduced kereru populations. Protected in 1922, the kereru is illegally hunted. In recent years, Maori have requested they be able to resume customary harvest of native species, such as kereru, for certain occasions. Research conducted implies kereru harvesting at present is unsustainable because populations are considered too small. However, kereru populations are known to be variable though out the country.

Although kereru are not managed specifically, many communities and iwi (tribes) participate in various activities such as predator control that aim to increase kereru numbers. Anecdotal information implies that some populations have increased. As local communities and iwi continue to actively participate in kereru management, different perceptions of the bird based on knowledge held by such communities will become more apparent. This thesis proposes that contemporary resource management strategies would benefit from the inclusion and use of TEK.

The thesis uses social construction theory to investigate the different perceptions New Zealanders have of kereru and its management, based on a variety of materials and interviews. The thesis concludes that an understanding of the different perceptions people have of kereru will foster

greater understanding of the reasons communities undertake ecological activities. The thesis shows that a combination of scientific information, TEK, and local knowledge can play an important role in gaining data on local kereru populations, enabling better management strategies for specific populations.

***Advancing the customary use debate in New Zealand***

Barber, Faith

Master of Resource Studies, Lincoln University

1995

[http://researcharchive.lincoln.ac.nz/dspace/bitstream/10182/2766/4/barber\\_msc.pdf](http://researcharchive.lincoln.ac.nz/dspace/bitstream/10182/2766/4/barber_msc.pdf)

There has been increasing efforts, in recent years, by Maori to further restore customary use decision making rights. This has resulted in a continuing, and sometimes antagonistic, debate in New Zealand between 'preservationists and pro-harvesters'. However, the interested parties all have one key concern in common - a concern for the future well-being of the species. Maori express this concern in terms of providing the conditions for and maintaining a sustainable harvest while preservation lobby groups want this dealt with via the preservation ethic. Existing legislation such as the Wildlife Act 1953, is mostly interpreted so as to exclude Maori from decision making processes. Further, conservation legislation is interpreted from a preservationist perspective.

However, New Zealand is signatory to, and has ratified the Convention on Biological Diversity (CBD), which supports the development of sustainable use. I examined the issue of customary use decision making rights from the Pakeha perspective of national and international policy. I argue that government, in order to act consistently with the CBD and Article II of the Treaty of Waitangi, will need to involve Maori in the decision making process. Development of a national biodiversity strategy, the responsibility of the Department of Conservation, is seen as one vehicle for advancing policy and understanding in this area. It is recommended that the Crown and Iwi construct a process for the development of this strategy. Concurrently, government needs to facilitate a process to improve understanding between Maori and key preservation groups. I argue that unless some initiatives are taken soon many species' populations will continue to decline.

***An updated checklist of helminth and protozoan parasites of birds in New Zealand***

**Author(s):** Dr. Philip McKenna

Downloaded from <http://www.webmedcentral.com>

A combined and updated checklist of helminth and protozoan parasites of birds in New Zealand is provided. This checklist, which is divided into two parts, includes a total of 203 parasites (68 nematodes, 40 cestodes, 44 trematodes, 11 acanthocephalans and 40 protozoans) from 116 hosts.

**Pigeon, New Zealand**

*(Hemiphaga novaeseelandiae)* Protozoa

*Eimeria* sp.† [McKenna PB. Register of new host-parasite records. Surveillance 2001; 28: 15-6.]

*Plasmodium* sp.† [Tompkins D, Massey B, Sturrock H, Gleeson D. Avian Malaria in native New Zealand birds? Kararehe Kino 2008; Issue 13: 8-9]

*Sarcocystis* sp. [Johnstone AC, Cork SC. Diseases of aviary and native birds in New Zealand. Surveillance 1993; 20: 35-6.]

*Trichomonas* sp.