

Red-crowned Parakeet

Cyanoramphus novaezelandiae
Kakariki

Background Once so common that they were a serious pest of crops, orchards & gardens, the red-crowned parakeets are now rare on the mainland. Because they feed & nest on or near to the ground, they are extremely vulnerable to predation.

History on Tiri This was the first bird species to be released on Tiritiri Matangi. In early 1974, permits were obtained to release kakariki on both Cuvier Island and Tiri. Cage-reared birds from Mt Bruce were flown up to Auckland. Chris Smuts-Kennedy put them in the back of a public service vehicle and drove them to Whitianga where he was to get a boat to Cuvier. However the boat was not there - its owner had mistaken the date and gone fishing. By now some of the birds had died from the stress. Chris drove the birds back to Auckland and put them in a friend's aviary at Tuakau. A few days later he and Wally Sander, the Chief Ranger of Hauraki Gulf Maritime Park Board, took the survivors to Tiri and released them. A few months later a number were released on Cuvier as well.

Description Bright green parakeet. Red crown, forehead and band from bill to behind eye. Blue on wing coverts and some outer flight feathers. Male slightly larger than female.

Photo: Simon Fordham



Left: healthy adult

Right: adult showing effects of PBF (beak & feather disease)



Photo: Simon Fordham

Behaviour Fast, direct flight, often noisy. Regularly seen in pairs and, during Spring & post-breeding, may form larger flocks. Strong fliers and readily cross water.

PBFD Psittacene Beak & Feather Disease (PBFD), a viral infection, is present in the Tiri population and is often evident by feather loss in individuals. Affected juveniles have a particularly high mortality rate. Birds that do survive may eventually succumb due to a compromised immune system. Feathers may sometimes grow back yellow after infection.

Distribution Common to abundant on many mammal-free islands. Widespread on Stewart Island as well as Kermadec, Chatham & Auckland Islands. Very rare in central North Island and heavy forest in Northland, close to extinct in South Island.

Diet Primarily seeds and fruit. Often feeds on the ground.

Breeding October to March. Favours holes in branches and trunks but also rock and cliff crevices, ground burrows or densely matted vegetation. Has been known to breed in *muehlenbeckia* in the wharf area. 4-9 white eggs, incubated by just the female for 22 days, during which time she is fed by the male by regurgitation. The chicks fledge at about 50 days.

Similar Species

Yellow-crowned parakeet, orange-fronted parakeet and a number of other parakeet species found on Chatham & sub-antarctic islands, Norfolk Island & New Caledonia.

Facts & Figures

Family Parrots

Size 28cm ♂ 25cm ♀
Weight 80g ♂ 70g ♀

Population on Tiri Several hundred
Lifespan Not known

Legal Status Protected Endemic
Conservation Status At Risk / Relict

Snippets

- Tiri's kakariki have been shown to include some genes of the yellow-crowned parakeet, a probable consequence of the founders having come from captive stock. However, there is no visual indication of this and it is believed that, in places where both species coexist, cross-breeding can occur.
- One of only four parrot species that are known to eat carrion.
- Red-crowned parakeets spend more time feeding on the ground than yellow-crowned relatives, hence they are more vulnerable to predation.
- In early European days around the Wellington area, kakariki were shot in their hundreds and the feathers were used to stuff pillows.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p358 • Maori Bird Lore (Riley) p150

North Island Saddleback

Philesturnus rufusater
Tieke

Background Once widely distributed throughout North Island but declined rapidly after introduction of Norway rats, feral cats and, later on, mustelids. By 1964, restricted to Hen Island off the Northland coast (500 birds). Successful translocation to a number of other sites has ensured that this species is no longer considered endangered. National population is now in excess of 6,000.

History on Tiri 24 birds from Cuvier Island were released in 1984. Consideration is being given to adding to the genetic diversity of the Tiri population.

Description Glossy black with chestnut brown saddle. Orange / red wattles (smaller on juvenile). Adult has thin buff line at upper edge of saddle.



Photo: Simon Fordham



Photo: Simon Fordham

Above: juvenile. Note the developing wattles and lack of light band at the front of the "saddle"

Left: adult

Behaviour Poor fliers, preferring to bound rather than fly. Sustained flight rarely further than 50m. Often seen on the ground, picking through leaf litter, or, on tree trunks and rotten stumps, stripping bark to find invertebrates. Noisy territorial calls are complemented by a range of quiet "mews" and other soft sounds when communicating with nearby saddlebacks.

Distribution Around a dozen predator-free islands. Extinct on the mainland except for 2 predator-free sites. An attempt to establish a population at Boundary Stream (Hawkes Bay) was unsuccessful.

Diet Mainly invertebrates but in season a wide variety of fruits and nectar. Also foliage.

Breeding October to January. Pairs hold territory all year. Nests in tree holes, tree fern crowns, rock crevices etc., generally close to the ground. Readily use artificial nesting boxes. Nests of rootlets, leaves and twigs lined with grasses, bark fibre and tree fern scales. 1-4 grey or white eggs (with dark blotches and streaks). Females incubate for ~18 days. Both adults feed young which fledge ~21 days.

Similar Species

Other wattlebirds - South Island saddleback, North Island kokako, South Island kokako (extinct), huia (extinct).

Facts & Figures

Family Wattlebirds

Size 25cm

Weight 80g♂ 70g♀

Population on Tiri Several hundred

Lifespan Oldest recorded 21+ years

Legal Status Protected Endemic

Conservation Status At Risk / Recovering

Snippets

- The territorial call is often likened to the sound of a car trying to start but not firing.
- The saddleback's jaw structure allows forceful gaping – using the opening action of the beak to prise open pieces of bark and gain entry to crevices where prey are found.
- The success of the saddleback on Tiri has allowed translocation to 5 other sites - Mokoia Island (Lake Rotorua), Moturoa Island (Bay of Islands), Karori Wildlife Sanctuary (Wellington) as well as nearby Motuihe & Motutapu / Rangitoto Islands.
- At least three different dialects have been recorded on Tiri, a phenomenon that featured in David Attenborough's "Life of Birds".
- At certain times of the year, groups of unattached males can sometimes be seen displaying and softly calling to one another

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p418 • Maori Bird Lore (Riley) p175

Brown Teal

Anas chlorotis
Pateke

Background One of the world's rarest ducks. Once common, declined in numbers due to predation (cats, dogs and mustelids) as well as loss of habitat. Also hunted until protection in 1921.

History on Tiri First introduced in 1987 with a second release in 1989. In June 2002 a further 5 males and 2 females were introduced followed by another 4 in July. However, these last 4 were all predated by harriers. On Tiri, they are struggling. Breed regularly but chicks have a high mortality rate due to predation, probably from eels, pukeko, black-backed gulls, harriers and even takahe. Some birds may leave the island of their own accord. Some have died of botulism. Males may migrate to nearby estuaries for the winter and return for the breeding season. It is possible that some are predated during this time as on Tiri there are often more females than males.

Description Warm brown with dark brown mottled breast. Breeding male has a glossy green head, white collar, reddish – brown breast and white flank patch.



Photo: Simon Fordham

Left: male in breeding plumage. **Right:** female.

When not in breeding plumage, the male can be difficult to distinguish from the female.

Behaviour Nocturnal and crepuscular (active early morning and evening). Strong fliers. Highly territorial during the breeding season. May form loose flocks in summer which disperse over winter.

Distribution Lowland swamps, swamp forest, tidal creeks, lagoons and adjacent, wet pasture. Largest populations are on the Coromandel Peninsula (~700), Great Barrier Island (~500) and Northland East Coast (~500). In the South Island, restricted to Fiordland. A few birds elsewhere, mainly on offshore islands. ~1900 total (2009).

Diet Mainly aquatic or marine invertebrates taken by dabbling just below the surface. On Tiri, they have been observed eating vegetation.

Breeding Typically June to October. 4-8 cream eggs are laid at 1½ day intervals. Nest is bowl of grass under dense vegetation. Female incubates for ~30 days. Chicks fledge 50-55 days later.

Similar Species

Auckland Island teal, Campbell Island teal

Facts & Figures

Family Waterfowl

Size 48cm

Weight 600g♂ 500g♀

Population on Tiri ~10 (2010)

Lifespan 6+ years in the wild

Legal Status Protected Endemic

Conservation Status At Risk / Recovering

Snippets

- The male makes a high-pitched "pinking" call whilst the female makes a repeated growl.
- Until recently (2001), the brown teal, Auckland Island teal and Campbell Island teal were considered to be the same species.
- The nearest relative of the brown teal is the chestnut teal (Australia)
- Although the stronghold is now the Coromandel Peninsula, until recently the largest population was on Great Barrier Island.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p270 • Brown Teal Recovery Group website www.brownteal.com

Whitehead

Mohoua albicilla
Popokatea

Background Still widespread at time of European settlement, disappeared from Northland and Auckland towards end of 1800's and Great Barrier Island in the 1950's.

History on Tiri Introduced in 1989 from Hauturu / Little Barrier Island. Population growth was rapid.

Description Male has white head and underparts with black bill, legs and eye. Female and juvenile similar but crown and nape shaded brown.



Photo: Simon Fordham



Photo: Simon Fordham

Above: adult male

Right: adult female. Females and juveniles are less distinct in their markings than males.

Behaviour A gregarious species, large flocks are often seen or heard travelling through the bush as they feed, making a range of "chirps, squeaks and buzzes". Flocks may also include other species, particularly fantails, most likely feeding on insects that the whiteheads stir up.

Distribution Historically North Island only. Widespread and locally common in native and exotic forests south of the Waikato as well as offshore islands. Abundant on Little Barrier and Kapiti Islands. Introduced to Hunua & Waitakere Ranges, Tawharanui Regional Park & Maungatautari (Waikato).

Diet Mainly invertebrates but also some fruit. Often seen feeding by hanging upside down. Occasionally feeds on the ground.

Breeding September to December. Family groups participate in breeding. 2-4 eggs (white with brown / orange specks) at 24 hour intervals. Usually one but sometimes 2 clutches. Incubation is ~18 days. Fledging is ~17 days. Young may be fed for up to 9 months. Can breed first year but usually remain as helpers for several years.

Similar Species

Yellowhead & brown creeper (both South Island only)

Facts & Figures

Family Whistlers, Shrike-thrushes & allies

Size 15cm

Weight 18.5g♂ 14.5g♀

Population on Tiri >1000

Lifespan ~5 years (oldest recorded 8+)

Legal Status Protected Endemic

Conservation Status Not threatened

Snippets

- Whitehead is the main North Island host species for the long-tailed cuckoo. This is only possible due to the gregarious nature of the whiteheads; it takes a number of birds to feed the much larger cuckoo.
- The success of the whitehead on Tiri has allowed translocation to 4 other sites - Hunua Ranges, Waitakere Ranges, nearby Motuora Island and Moturoa Island (Bay of Islands). It is intended to supplement the Waitakere population with an annual translocation from Tiri for the next few years.
- At 16 years, the oldest recorded whitehead was on Tiri.
- During late autumn and winter, they are commonly seen feeding on open ground, particularly around the lighthouse area.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p387 • Maori Bird Lore (Riley) p213

Takahe

Porphyrio hochstetteri
Notornis

Background Takahe were thought by many to be extinct by the end of the 19th century but hunters and workers on the Milford Road anecdotally reported seeing them after this time. In 1948, Dr Geoffrey Orbell confirmed populations in the Murchison, Stuart and Kepler Mountains of Fiordland

History on Tiri Two male birds, Mr Blue and Stormy, were translocated in 1991 from Maud Island. Their nest building efforts resulted in an egg, also from Maud, being flown up for them, and they successfully hatched and raised the chick, Matangi. JJ (f) was translocated in 1992 and subsequently was the mother of 10 Tiri takahe. Tiri is part of a programme of moving birds between sites to ensure the genetic health of all populations.

Description Similar to pukeko but larger. Flightless. Blue body with green back, believed to provide camouflage from the air. Bill scarlet; black in juvenile. Chicks are jet black with white tip on beak.



Photo: Simon Fordham

Behaviour Fiercely territorial in the breeding season. Pairs stay together throughout the year although they don't always pair for life. Takahe chicks have a high mortality rate during the first few months but, if they survive their first year, they can live for many years.

Distribution Naturally in Murchison Mountains (Fiordland). Translocated successfully to 6 islands and Maungatautari (Waikato). Captive breeding facility at Burwood Bush (near Lake Te Anau). Advocacy (non-breeding) populations at Te Anau, National Wildlife Centre (Wairarapa) and Karori Sanctuary (Wellington).

Diet Predominantly vegetarian. In naturally distributed populations, main foods are snow tussocks and fern rhizomes. On islands, mainly eat introduced grasses. Pulling these up with the bill, they macerate the bases, digesting only the juices. Fibres remain predominantly unaltered, in green sausage-shaped droppings.

Breeding October to January. Capable of breeding in first year but usually start in second. 1-3 eggs, pale buff with brown blotches. High rate of infertile eggs. Incubation 30 days. Chicks may stay with adults 1-2 years and help rear next season's chick(s).

Similar Species

Pukeko, North Island takahe (extinct)

Takahe vs Pukeko

3kg	weight	1kg
flightless	flight	able to fly
NZ only	distribution	NZ, Australia & Pacific
grasslands and forest	habitat	wetlands, estuaries and short, damp pasture

Facts & Figures

Family Rails

Size 63cm

Weight 3kg

Population on Tiri ~12 (2011)
National Population ~250

Lifespan Oldest recorded 20+ years

Legal Status Protected Endemic
Conservation Status Nationally critical

Snippets

- All birds on Tiri are named and known individually.
- Our current oldest bird is Greg, hatched from a Murchison egg (11 December 1992) and was translocated to Tiri in 1994.
- Tiri birds produce between zero and three chicks per year. Integral to the national programme, the island populations are considered to be an insurance should anything happen to the Fiordland population.
- Our best breeding pair, Stormy & JJ, produced 7 chicks in 6 years.
- Because of the high mortality rate of chicks, takahe are not counted in the national population until one year old.
- In the summer of 2008/09, a "plague" of stoats killed approximately one quarter of the national population, setting the recovery programme back many years.
- Takahe produce approximately 6m of "poo" per day.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p290 • Maori Bird Lore (Riley) p190 • Mitre 10 Takahe Rescue website www.mitre10takaherescue.co.nz

North Island Robin

Petroica longipes
Toutouwai

Background Once considered a subspecies of New Zealand robin, now a species in its own right. Probably the easiest forest bird to photograph on Tiritiri Matangi as they are inquisitive and stay still. The North Island robin belongs to the Australasian robin family; it is not closely related to the European robin (red-breast) which is actually a small thrush.

History on Tiri Introduced in 1992 from a pine plantation near Mamaku (Rotorua area).

Description Dark slate grey with pale greyish-white lower breast and belly. Long thin legs and upright stance. White patch above bill dilates when stressed or agitated. Males are darker than females and older birds are darker than younger ones.

Photo: Simon Fordham



Left: young adult female. As the bird gets older, the light lower-breast and belly becomes more evident.

Photo: Simon Fordham



Right: adult male. Males are darker than females with a more distinct margin between the upper and lower breast. Note the dilated patch of white feathers above the bill which is an indication of stress or aggression.

Behaviour Territorial all year but particularly during breeding season. The males sing their full territorial song from August to December. In encounters between birds they raise their crown feathers. When they encounter other species (including humans) they enlarge the white frontal spot on the forehead.

Distribution Once widespread throughout the North Island, they disappeared from the north and south in the early 1900's. Locally common in mature forests and exotic plantations of central North Island but considered threatened due to loss of habitat. Abundant on a number of islands.

Diet Mainly invertebrates but small fruits during summer and autumn. Often seen trembling foot to induce prey to surface. They can be encouraged to approach by clearing the leaf litter, thereby exposing their food source.

Breeding July to December. Usually retain same partner from year to year. Female builds nest, a bulky cup of twigs, bark fibre and mosses, and lays 2-4 cream eggs with purple / brown spots. Incubation ~18 days, ~21 days to fledging. Raise up to 3 broods but, if nests fail, may lay up to 6 clutches. Breeding can begin at 1 year old.

Facts & Figures

Family Australasian Robins

Size 18cm

Weight 35g

Population on Tiri 60-100

Lifespan ~3 years (oldest recorded 16)

Legal Status Protected Endemic

Conservation Status Not threatened

Similar Species

South Island robin, black robin & tomtit

Snippets

- 22 birds were "exported" to Wenderholm Regional Park (near Waiwera) in March 1999. Subsequent translocations have been made to Tawharanui Regional Park and two sites on Great Barrier Island.
- Robins are often seen vibrating one foot, a behaviour believed to induce prey to the surface.
- Robins on Tiri have been observed eating large prey including weta and skinks.
- The black robin (Chatham Islands) is more closely related to the tomtit than to the North or South Island robins.
- Their confiding nature makes them the easiest forest bird to photograph on Tiri.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p397 • Maori Bird Lore (Riley) p171

Little Spotted Kiwi

Apteryx owenii
Kiwi-pukupuku

Background Once widespread throughout North & South Islands, they became extinct in the North Island during the 19th century and in the South Island in the 20th. The stronghold is Kapiti Island (~1,200 birds) where they were probably introduced from the South Island in the 1920's.

History on Tiri First released in 1993 (10 birds) with a further 6 in 1995.

Description The smallest of the kiwi. Brownish grey. Finely mottled or banded. Flightless.



Photo: Simon Fordham

Kiwi & Predators

Adult kiwi can defend themselves against most predators. They sometimes struggle against ferrets and stand little chance against most dogs. However, the main problem is with the chicks. They leave the adults soon after hatching and, in an unprotected mainland situation, between 95% & 99% are believed to fall victim to predation within their first year. Operation Nest Egg takes eggs and chicks from the wild and returns them to the same area when they are big enough to fend for themselves. Over 1000 kiwi have been raised this way. However, the most certain future for kiwi is within protected sanctuaries like Tiri.

Behaviour Nocturnal. Male calls with high pitched, repetitive, ascending whistle, often repeated 10 to 25 times. Female lower and more tremulous. Most vocal in spring & summer.

Distribution On six other offshore islands - Kapiti, Hen (Northland), Long (Marlborough Sounds), Red Mercury, Motuihe & Chalky (Fiordland). Extinct on mainland except for the Karori Wildlife Sanctuary.

Habitat is native forest, scrub, grassland. On Tiri, kiwi have also been observed on Hobbs Beach, foraging amongst the seaweed.

Diet Mainly small invertebrates but also fallen fruit and leaves. Main prey are earthworms and larvae of various insects, spiders and large beetles.

Breeding September to January. 1-2 eggs (2 egg clutches rare) laid 2-3 weeks apart. Incubated by male only (65 to 75 days). Chick hatches fully feathered and stays in nest for 4 to 5 days. It then stays in natal territory 6-9 months. Pairs are monogamous throughout the year and from year to year.

Similar Species

Four other kiwi species - brown kiwi, great spotted kiwi, Okarito brown kiwi and tokoeka.

Facts & Figures

Family Kiwi

Size 40cm

Weight 2.2kg♂ 2.8kg♀

Population on Tiri 60-80 (2007)

Lifespan Oldest recorded 30+ yrs

Legal Status Protected Endemic

Conservation Status At Risk / Recovering

Snippets

- Contrary to popular belief, the kiwi does not have the heaviest egg in relation to body weight. Some storm petrels lay eggs that are around 30% of their own weight. However, at 23%, the egg of the little spotted kiwi is very large for a bird of this size.
- The kiwi is the only bird in the world with external nostrils at the tip of its beak.
- Kiwi have sensory pits at the tip of their beaks, which allow them to sense prey moving underground.
- The genus name, *Apteryx*, means wingless. They do, however, have vestigial wings.
- With bones filled with marrow, a body temperature of 38°C (2 degrees below avian average) and 2 functioning ovaries, the kiwi is sometimes referred to as an "honorary mammal".

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p169 • Maori Bird Lore (Riley) p135 • BNZ Kiwi Recovery website www.kiwirecovery.co.nz

Background Once found throughout the North Island and offshore islands, by 1885 they had vanished from the mainland and all but Little Barrier Island. Since 1980 they have been transferred to 5 islands, Hen (unsuccessful), Cuvier (unsuccessful), Kapiti, Mokoia (unsuccessful) and Tiritiri Matangi. They have since been translocated from Tiri to three mainland sites: Karori Wildlife Sanctuary (2005), Waitakere Ranges (2007) & Maungatautari (2009). They have also bred in captivity at Mt. Bruce in the Wairarapa.

History on Tiri 50 birds were translocated from Hauturu / Little Barrier Island in 1995 & 1996. Subsequent translocations from Mt Bruce & Hauturu / Little Barrier Island bring the total to 91.

Description Male: black head, upper breast and back, yellow border across breast and shoulders. White tufts behind eyes. Some white in wings. Female: non-descript brown with white wingbars.

Photo: Simon Fordham



Left: adult male

Photo: Neil Davies



Right: adult female

Behaviour Stitchbirds are generally regarded as seasonally territorial. Males will aggressively defend distinct areas during the breeding season, although these areas may be occupied by these same males year round. They occupy a similar niche to tui & bellbirds, both of which are dominant, often excluding stitchbirds from fruit and nectar sources. Unlike bellbirds, stitchbirds tend to cock their tails when perched.

Distribution Little Barrier Island (several thousand), Kapiti Island, Tiritiri Matangi Island, Karori Wildlife Sanctuary, Waitakere Ranges, Maungatautari (Waikato).

Diet Wide variety of nectar and fruits. Also some invertebrates. Supplementary feeding on Tiritiri Matangi using a sugar solution is administered via imported hummingbird feeders.

Breeding Cavity nesters. On Tiritiri Matangi, where tree holes are uncommon, nesting boxes are widely utilised. Nest is a platform of sticks (up to 700) with a cup made from tree fern rhizomes. 3-5 white eggs per clutch laid September to March. Female incubates for ~14 days. Both sexes feed to fledging (~30 days). Several broods per season.

Similar Species

Similar size and shape to bellbird. Closest relatives are the wattlebirds (kokako & saddleback).

Facts & Figures

Family Stitchbird (own family)

Size 18cm

Weight 40g♂ 30g♀

Population on Tiri ~150

Lifespan Oldest recorded 7+ yrs

Legal Status Protected Endemic

Conservation Status Nationally Endangered

Snippets

- Once considered a honeyeater, they have now been placed in their own family, Notiomystidae.
- In 2010, a further 13 male and 7 female birds were translocated from Little Barrier Island to enhance the genetic diversity of the Tiri population.
- Males may move across territories and force themselves on fertile females. Nests often contain eggs fertilized by more than one male.
- The stitchbird is the only bird known to copulate face-to-face.
- The name stitchbird is onomatopoeic - both sexes call with a sharp "stitch"
- 370 birds have been translocated from Tiri to other projects since 2002.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p402 • Maori Bird Lore (Riley) p188 • Hihi Conservation website www.hihiconservation.com

North Island Kokako

Callaeas wilsoni
Blue-wattled Crow

Background At time of European settlement, widespread through North Island and Great Barrier Island. Now in low numbers in mature forests, mainly in northern Urewera ranges and central North Island.

History on Tiri 3 birds were introduced in 1997, 2 males from Mt. Bruce and a female from Mapara (King Country). One male predated soon after release, probably by harrier. 4 further males from Mt. Bruce released 1998. New genetic stock has been introduced annually since 2007, most importantly, birds of Taranaki origin. It is intended for the subsequent offspring to be translocated back to Taranaki, once suitable habitat is restored. The Tiri kokako are a managed population and birds are translocated if their genes are over represented in the population.

Description Bluish grey, black facial mask, blue wattles (pink in juveniles). Large strong legs to leap and hop about the forest. Wings are short and rounded, resulting in weak flight.



Photo: Simon Fordham



Photo: Simon Fordham

Above: juveniles can be identified by their pink-tinged wattles

Left: adult

Behaviour Kokako are poor flyers, sustained flight rarely exceeding 50m. However, they are extremely agile as they bound along branches and from branch to branch. They sing loudly and for prolonged periods and the singing bird flaps its wings as it calls.

Distribution Northern Urewera Ranges, central North Island forests, Hauturu / Little Barrier Island, Kapiti Island, Secretary Island (Fiordland). Small populations on other islands, in Hunua & Waitakere Ranges as well as Northland.

Diet Wide variety of foliage and fruit, supplemented with invertebrates, at all levels of the forest.

Breeding October to April. Kokako remain in territorial pairs all year. The female builds the nest, a twig base, often lined with tree fern scales. Up to 3 broods a season with 2-3 eggs (pinkish grey with brown and mauve spots) per clutch. Incubation is ~20 days. Chicks fledge at 30-40 days. Young stay with adults for up to 12 months. Females known to breed in first year. On Tiri at least one first year pair has attempted to breed.

Similar Species

Other wattlebirds - South Island kokako (extinct), North Island saddleback, South Island saddleback, huia (extinct).

Facts & Figures

Family Wattlebirds

Size 38cm
Weight 230g

Population on Tiri 20+
Total Population ~780 pairs, ~240 unpaired

Lifespan Oldest recorded 20+ years

Legal Status Protected Endemic
Conservation Status Nationally Vulnerable

Snippets

- The 2000 Kokako Recovery Plan proposed a goal of 1000 breeding pairs by 2020. In the first ten years, the number of pairs more than doubled from ~380 to almost 800 so this target should be achieved much sooner.
- Historically, kokako are not known to have existed long term on any island smaller than Great Barrier Island, most likely due to inbreeding. For this reason small populations, like that on Tiri, need to be genetically managed.
- With the South Island kokako "officially" extinct, in 2008 North Island kokako were introduced to Secretary Island (Fiordland).
- In Maori legend the kokako filled his wattles with water and gave it to Maui as he fought the sun. His thirst quenched, Maui rewarded the kokako by making the bird's legs long and slender, enabling the kokako to bound through the forest with ease in search of food.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p417 • Maori Bird Lore (Riley) p140 • Kokako Recovery www.kokakorecovery.org.nz

Fernbird

Bowdleria punctata
Matata

Background Described by Buller in the 19th century as “one of our most common birds”, fernbird have suffered greatly through habitat loss.

History on Tiri In 2001 thirteen fernbirds were rescued from the path of the new Northern Motorway near Orewa and transferred to Tiri where they immediately disappeared into the thick ground cover. An unbanded bird was observed in 2002, demonstrating successful breeding. Although requiring patience to see, their short, sharp, metallic single or double note calls may now be heard from most patches of muehlenbeckia or bracken around the Island, and they are undoubtedly doing well.

Description Warm brown shade above, paler shade below, which is heavily striated dark brown. The forehead and crown are a chestnut brown with a white eye stripe. It has a distinctive long frayed tail which is drooped during flight. Males and females look alike.

Photo: Simon Fordham



Photo: Maria Galbraith

Behaviour Fernbirds are extremely secretive and often remain hidden in thick vegetation, creeping around like a mouse when they do venture out. They prefer not to fly but when forced to their flight is weak and noisy and low to the ground. Most fernbirds stay in pairs or small groups all year and don't tend to stray far from their breeding site.

Distribution Widespread and locally common on the mainland, especially in Northland and parts of the Volcanic Plateau, northern and western South Island and the coastal areas of Southland and Otago. Their main habitats are low dense ground vegetation interspersed with emergent shrubs in drier swamps, pakahi, rush and tussock-covered flats and saltmarshes, and low manuka shrub.

Diet Main prey is spiders, caterpillars, flies, moths and beetles.

Breeding August to March. Both parents make the nest together over a period of about 3 days. It is a neatly woven cup of dry grass, sedge and rushes, lined with feathers. The eggs are pale pink, flecked with purplish brown. 2-3 clutches a year; both parents take turns incubating the eggs (~13 days) and feeding the chicks. The fledging period is about 17 days.

Similar Species

None in New Zealand. Closest relative was the larger Chatham Island fernbird (extinct).

Facts & Figures

Family Old World Warblers

Size 18cm
Weight 35g

Population on Tiri >100

Lifespan Oldest recorded 6+ years

Legal Status Protected Endemic
Conservation Status At Risk / Declining

Snippets

- One of the distinctive calls is a duet described as “u-tik”, the second bird appearing to respond with a “tik” before the first has completed its “u”.
- Maori revered the fernbird as a manu tohi (oracle or wise-bird)
- Early settlers called the fernbird the “swamp sparrow”.
- The Codfish Island sub-species is an inhabitant of the forest floor, something that is only occasionally seen on Tiri.
- The Chatham Island fernbird became extinct by about 1900.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p386 • Maori Bird Lore (Riley) p79

Tomtit

Petroica macrocephala

Miromiro

Background Tomtits were throughout the mainland of New Zealand at the time of European settlement but have declined with the clearance of much lowland forest and the introduction of mammalian predators.

History on Tiri Vagrant tomtits have been observed periodically but no breeding has been recorded. 32 birds were translocated to Tiri, from the Hunua Ranges, in April 2004. However, these birds soon disappeared and at least one was known to have flown 53 km to its place of capture.

Description Tomtits have a large head with a small white spot above the bill and a short tail. The male has a black head, glossy black upperparts and upper breast and white underparts, divided at the breast, a white wingbar and sides to the tail. The female has a brown head and upperparts, grey brown chin and upper breast fading to white on the underparts. The wingbar and sides of the tail are pale buff.



Photo: Simon Fordham

Left: adult female



Photo: Simon Fordham

Right: adult male

Behaviour Adult tomtits remain in the same territory throughout the year but the male only actively defends it from July to February. The male patrols his territory and sings from prominent perches. In aggressive encounters between birds, they raise their crown feathers but in encounters with other species (including humans) they flash the white frontal spot on their forehead.

Distribution Widespread and locally common from Kaitaia to Cape Palliser. Rare between Whangarei and South Waikato. Also Chatham Islands, Snares Island & Auckland Islands.

Diet Invertebrates, small fruits in autumn and winter.

Breeding September to January. The female builds the nest over a period of ~4 days, between 1 and 10 metres above the ground. It is a bulky cup of twigs, bark, fibres and moss, bound together with cobwebs and lined with ponga scales, moss, fine grasses, feathers and even wool. The eggs are cream, flecked with yellow purplish spots. 3-6 eggs are laid per clutch with 2-3 clutches a year. The female incubates the eggs for about 16 days and then feeds the chicks. The fledging period is about 18 days. Tomtits usually have the same partner year after year.

Similar Species

Black robin (Chatham Islands), North Island robin & South Island robin.

Facts & Figures

Family Australasian Robins

Size 13cm

Weight 11g

Population on Tiri Vagrant

Lifespan probably 10+ years

Legal Status Protected Endemic

Conservation Status Not Threatened

Snippets

- Almost all of the vagrant tomtits seen on Tiri have been males, most likely young birds looking for new territories.
- The male of the South Island sub-species has a distinctly yellow breast whilst the North Island male may exhibit traces of yellow.
- The black robin of the Chatham Islands is more closely related to the tomtit than it is to the North or South Island robins.
- Maori recognized the keen vision of the tomtit. They would describe an observant person as "he karu miromiro" (having a tomtit's eye).
- There has never been a successful translocation of tomtits, most likely due to competition with robins and a strong homing instinct.
- With the advent of a predator-free Shakespear Regional Park, it is hoped that tomtits will naturally recolonize the Park with consequential increased sightings on Tiri.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p396

Background Rifleman were widespread at the time of European settlement but declined with the loss of lowland forest and are now patchily distributed. Because they are unlikely to disperse across water or open habitats, unless humans intervene, loss of this species in fragmented blocks of forest tends to be permanent.

History on Tiri 31 rifleman were translocated from Hauturu / Little Barrier Island in February 2009 with a further 14 birds transferred 12 months later and 15 birds in April 2011.

Description New Zealand's smallest bird, Rounded wings, short, stumpy tail. Fine, slightly upturned bill. Male is bright green above. Female is streaked brown above. In poor light, difference in plumage between sexes may not be apparent.

Photo: Simon Fordham



Left: adult male with its bright green upper plumage



Right: the plumage of the female is brown above with a green tinge

Photo: Simon Fordham

Behaviour Pairs remain in their territory all year and stay together year after year. Rifleman are renowned for climbing tree trunks, like treecreepers, gathering food from epiphytic mosses and lichens. However, food is gleaned at all levels of the forest and occasionally from the forest floor.

Distribution North & South Islands and some offshore islands. Disappeared from Stewart Island within last 20 years. North of Waikato / Coromandel, they are only found on Hauturu / Little Barrier Island and Great Barrier Island with two small populations in Northland.

Diet Almost entirely invertebrates, mainly beetles, spiders, small weta, flies, moths & caterpillars. Some ripe fruit is also taken.

Breeding Mainly cavity nesters. On Tiritiri Matangi, some nesting boxes have been utilised although old ponga logs are a popular choice. Except for entrance, nest is completely enclosed and lined with leaf skeletons, fern roots, twigs & feathers. 2-5 white eggs per clutch laid September to December. Both sexes incubate for 19-20 days then feed to fledging (~24 days). Chicks become independent after 4-5 weeks. Up to two broods per season.

Similar Species

Rock wren (alpine). Five other members of the New Zealand wren family are now extinct, most recently the bush wren.

Facts & Figures

Family New Zealand Wrens

Size 8cm

Weight 6g♂ 7g♀

Population on Tiri Tens

Lifespan Oldest recorded 6+ yrs

Legal Status Protected Endemic

Conservation Status At Risk / Declining

Snippets

- Rifleman may begin building a second nest whilst still feeding chicks in the first and will start incubating whilst still feeding the fledglings.
- The sound of the rifleman is a very high pitched "zipt - zipt - zipt" that is outside of the hearing range of many people
- Some pairs have one or more helpers attending their nests, often unpaired males that then pair with the offspring.
- Tiri was only the third recipient of translocated rifleman and the first to receive birds from Hauturu / Little Barrier Island.
- Unlike many species, rifleman tend not to disperse very far when released. During the first breeding season on Tiri, only one nesting box was used, 5m from the release site.
- The first rifleman translocation was from Codfish to Ulva Islands, both near Stewart Island. Although only ~30 birds survived release, within 5 years the estimated population on Ulva was around 300.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p371 • Maori Bird Lore (Riley) p168 • Rifleman Conservation & Management www.titipounamu.net.nz

Background Named for their bell-like song which can be almost deafening when they are gathered at a prime feeding location such as in Wattle Valley when the wattles are in flower during the winter months. Some male bellbirds migrate seasonally to adjacent areas of the mainland but the more sedentary females mostly remain on the island.

History on Tiri Thought to have been present both before and during the farming period. In 1969 a full survey found just 24 birds.

Description The male is a dark olive green, paler on underparts, with a glossy purple head. Wings and tail a dark bluish black. The female has similar plumage, slightly browner in shade, none of the purple gloss and has a narrow white stripe across the cheek from the bill. Both sexes have red eyes. Bellbirds have a short curved bill and a slightly forked tail.



Photo: Kay Milton

Left: adult female above, juvenile below. Note difference in iris colour



Photo: Kay Milton

Right: adult Male

Behaviour The more aggressive, larger males tend to dominate at the Tiri sugar water feeders.

Distribution Once common throughout North and South Islands, they declined with the arrival of ship rats and stoats (though some suggest other causes). Now fairly common throughout most of New Zealand except in Northland where they are mostly absent from areas occupied by tui, although both species are present elsewhere in North Island. Recently self-established on nearby Rakino Island as well as Tawharanui Regional Park.

Diet Mainly nectar and fruit. Some invertebrates, particularly for females and young in the breeding season.

Breeding September to January. They maintain the same breeding territory every year. The female makes the nest, loosely built of twigs and fibres with a deep cup lined with feathers. Usually only one clutch of about 4 pinkish white eggs, with reddish brown spots. The female alone incubates for about 14 days. Both parents feed the chicks which fledge at about 14 days. Two broods are possible.

Similar Species

The closest relative is the tui. Although the stitchbird is similar in size and shape, it is not closely related.

Facts & Figures

Family Honeyeaters

Size 20cm

Weight 34g♂ 26g♀

Population on Tiri >1000

Lifespan Oldest recorded 8+ yrs

Legal Status Protected Endemic

Conservation Status Not Threatened

Snippets

- Bellbirds were the subject of one of the first scientific studies on the Island. A hide was built high in the big puriri tree on the Kawerau Track to enable study of the birds in the canopy.
- In 2010, 100 bellbirds were transferred from Tiri to Waiheke and Motuihe Islands as well as Hamilton. One of the Hamilton birds returned to Tiri within a few days.
- A male captured in 2010 weighed a huge 54 grammes, possibly the heaviest ever recorded.
- The noisy flight of the bellbird is due to a shallow notch at the tip of the 9th primary feathers.
- In 2010 an adult male bellbird was seen feeding a recently fledged hihi chick near the Totara Track.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p403 • Maori Bird Lore (Riley) p49

Tui

Prothemadera novaeseelandiae

Parson Bird

Background Tui are important pollinators of many native plants. Their song varies from district to district. Some of the song is too high-pitched for human hearing. Tui are the larger of the two native honeyeaters.

History on Tiri Thought to have been present both before and during the farming period. In 1969 a full survey found just 21 birds. Current population unknown, but they are obviously quite successful on Tiritiri.

Description Dark coloured, almost black at first glance but is in fact an iridescent blue & green with a reddish brown back. Sexes alike. Both have two white throat tufts forming a bib under their chin (missing in recently-fledged juveniles). The neck has a lacy white collar of very fine feathers.



Photo: Simon Fordham

Right: adult tui showing white lacy neck collar, white throat feathers and blue wings, rump and tail



Photo: Kay Milton

Left: juvenile lacks the white throat feathers and colourful plumage

Behaviour An aggressive bird, they vigorously chase both tui and other species from breeding territories or a good food supply. Part of their display is to soar high above the canopy and then make a near vertical dive. This has also been reported as an attack on other birds.

Distribution Common throughout New Zealand except Christchurch and the Canterbury Plains.

Diet Mainly nectar, honeydew and fruit, along with a few invertebrates, particularly when feeding chicks. When breeding, they can commute in excess of 10km to a prime nectar source. Outside of the breeding season, they will sometimes travel further than 20km in search of food.

Breeding September to January. The female makes the nest, a bulky structure of twigs and sticks lined with grasses, usually in a fork of a tree. They lay 3 white or pale pink eggs, with reddish brown spots. The female alone incubates for about 14 days. Firstly the female and then both parents feed the chicks which fledge at about 21 days.

Similar Species

The closest relative is the other endemic honeyeater, the bellbird.

Facts & Figures

Family Honeyeaters

Size 30cm

Weight 120g♂ 90g♀

Population on Tiri >1000

Lifespan Oldest recorded 12+ yrs

Legal Status Protected Endemic

Conservation Status Not Threatened

Snippets

- Their flight is noisy and whirring, caused by a notch in the 8th primary feather which makes the wingtips flutter.
- Despite the tui's aggressive nature, a kokako has been observed pushing six tui out of a flowering rewarewa on the Ridge Track.
- During Captain Cook's visit to New Zealand, the tui was the most commonly eaten bird by his crew. It was known as the poi bird, so called because the white throat tufts resembled poi, something they had become familiar with in Tahiti.
- The call of the tui is notably dynamic, with significant regional variation. Being renowned mimics, their call can often adapt to surrounding noises. On Tiri, they have been known to imitate the likes of kokako. In urban areas they are known to copy, amongst other things, telephone rings and car alarms. In captivity, tui have learnt to imitate speech.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p405 • Maori Bird Lore (Riley) p197

Brown Quail

Coturnix ypsilophora

Background Introduced from Australia in the 1860's to both the North and South Islands although now survive only in the North Island.

History on Tiri Anecdotal reports suggest that quail have been on Tiri for approximately 100 years. While there have been suggestions that early farmers or lighthouse keepers may have introduced them to the island, it is more likely they flew or were blown across from the mainland.

Description Small, rounded appearance. Feathers range from brown to cream, with patterns of black flecks. Males and females have different colouration/patterns. They have short rounded wings and, when pressed, will fly upwards with a whirr of their wings. Hatchlings are bumblebee-sized.

Photo: Simon Fordham



Above: adult male



Photo: Mel Galbraith

Right: adult female, distinguishable by the heavy mottling above

Behaviour Brown quails form strongly bonded family groups, or coveys, of 5 to 10 birds which appear to have defined territories. The call is a plaintive 'ker-wee', with rising inflection.

Distribution Natural range is southern Indonesia, New Guinea, and Australia. In New Zealand, Northland, Auckland region and Bay of Plenty. On Tiri they tend to prefer the dry open areas of the southeast side of the island, Wattle Valley, Ridge Road area.

Diet Omnivorous, feeding on invertebrates, fallen seeds, flowers and foliage.

Breeding September to January, although on Tiri observed as early as July and as late as May. Nest is on the ground under thick vegetation, a slight depression lined with grass and leaves. 7-12 white eggs freckled with brown. The female alone incubates for about 21 days.

Similar Species

New Zealand quail (extinct). Other Australian quails.

Facts & Figures

Family Gamebirds

Size 18cm

Weight 100g

Population on Tiri 200-300

Lifespan Unknown

Legal Status Game

Conservation Status Introduced

Snippets

- Brown quail are considered an analogous species for the extinct New Zealand quail, thereby occupying the same niche.
- Brown quail are most often seen feeding on the edge of tracks. Fleeting glimpses are often mistaken for kiwi or, on occasion, rats.
- Brown quail were introduced to New Zealand from Tasmania as well as the Australian mainland. However, only the mainland sub-species survived.
- Soon after the kiore eradication in 1993, brown quail bred profusely, often seen with around 15 bumble-bee sized chicks.

Further reading: Field Guide to the Birds of New Zealand (Heather & Robertson) p281