

Revive Rotoiti

Easter chicks of a different variety



The three kiwi chicks are blessed with a karakia by Minister Rev. Nani Wiki and Mairangi Reher of Manawhenua Ki Mohua.



The start of autumn 2010 saw a flurry of activity, with the release of three great spotted kiwi chicks into the Rotoiti Nature Recovery Project (RNRP) on March 25. These chicks were collected as eggs in November 2009 from Goulund Downs, in Kahurangi National Park and then hatched and raised at the Willowbank Wildlife Reserve in Christchurch. To ensure more eggs could be collected this year, a team of eight with four dogs were assembled during March to locate more adult kiwi at Goulund Downs. Twenty adults have now been fitted with radio-transmitters and are ready to play their part in the BNZ Operation Nest Egg™ programme this November.



Nik Joice, RNRP ranger, introduces one of the great spotted kiwi chicks to its new home.

The three new chicks joined fifteen adult kiwi translocated from Goulund Downs in 2004 and 2006, along with four chicks born here. A pōwhiri was held to acknowledge the gift of these birds from Manawhenua ki Mohua (Golden Bay iwi) to Ngati Apa (representing Nelson Lakes iwi), with support from locals, tourists and Lake Rotoiti School pupils.

The chicks spent the first week fossicking around within 100m of their release site, but obviously were learning fast, as their choice of roost sites improved markedly.

During early checks they were found under ferns, graduating to nice dry, dark burrows under trees by the end of the week.

Sadly, one of the chicks was found dead in a stream on day eleven, with no apparent signs of predation. The pathology results from Massey University showed that the chick succumbed to severe enteritis (intestinal infection). A month after their release, the other two chicks are well over their arrival weight of 700 grams, and by spring should be well over one kilogram.

This is a trial release, as kiwi chicks are normally crèched on islands or in wildlife reserves to gain weight before release into mainland protected areas as they are vulnerable to predation when weighing less than one kilogram. The RNRP, with its reduced predator levels, should provide sufficient protection for chicks and help build the population faster than would have been otherwise possible. Further introductions of up to 14 chicks are planned over the next two years, to strengthen the population of great spotted kiwi already in residence.



Cats and kiwi

Prior to the kiwi chick release in March, targeted feral cat control was carried out, as adult cats are known predators of kiwi chicks and juveniles. This trapping was focussed around the Bellbird Walk and Loop Track, using live capture traps checked daily. Two cats were caught in the vicinity of the Kerr Bay Carpark and Bellbird Walk using these cage traps baited with raw fish. A group of cats were removed near the Lakehead Hut after fresh scats were found there. Additional traps were also deployed in late March in response to the discovery of cat scats at the junction of the Loop and St Arnaud Range tracks, however, no cats were captured there.



Ruth Garland, RNRP ranger, attaches an additional metal baffle to the base of a Philproof bait station.

Rats and bats

Rat numbers climbed to high levels in the RNRP this summer, with 45% of tracking tunnels recording rat presence in February. This is likely to have an adverse impact on bird numbers. The Diphacinone rat toxin trial, which has been postponed for two seasons, is due to commence later this year. This toxin trial will be initiated around August as birds are most vulnerable to rats when the females are nesting. The tracking tunnel percentages for spring 2010 should measure the effectiveness of this control technique.

In preparation for the toxin trial, all 600 Philproof bait stations have now been upgraded with an additional baffle to exclude non-target species such as kea. Bat monitoring commenced in late March 2010, with seven bat detectors installed within the RNRP to record any long-tailed or short-tailed bat activity. The detectors work by recording the calling frequencies that the two species use to fly around at night.

A bat detector recently recorded a long-tailed bat in the St Arnaud village in Ward Street. As long-tailed bats can fly for several kilometres while out foraging it is thought this one may have come from Big Bush or from the RNRP core area. Long-tailed bats feed while airborne, and are therefore not considered at risk from toxin operations,

as opposed to short-tailed bats which are ground feeders. In the South Island, short-tailed bats are found on Codfish Island and in the northwest Nelson and Fiordland areas. As these bats are particularly susceptible to toxins, their likely absence needs to be confirmed. The final results from these detectors will be analysed prior to the toxin trial going ahead in spring.

The Rotoiti Nature Recovery Project is one of DOC's six 'mainland island' ecological restoration projects where science research and learning is the main focus.

The Rotoiti Nature Recovery Project covers 5000 hectares of boneydew beech forest on the shores of Lake Rotoiti in the Nelson Lakes National Park.

The project's goals are to:

- restore native biodiversity at Rotoiti.
- increase our knowledge of how to restore biodiversity nationally.
- increase public support for ecological restoration.

The project is assisted by Friends of Rotoiti volunteers who carry out pest control adjoining the project area.



Without rat control, native birds such as this fantail are at risk while nesting. Photo: David Mudge.

Possum control

In response to the WaxTag® monitoring programme conducted in June 2009, new strategies have been employed to control possum numbers in and around the RNRP during the past six months. The monitoring programme showed an increase in the possum population from 2.5% in 2006 to 4.6% in 2009. During October 2009, an additional 60 traps were deployed at the southern end of the RNRP and within the original 825 hectare 'core' area. The traps were placed where the WaxTags® recorded the greatest interference.

Possum control within the RNRP has been conducted since 2004 using five lines of Warrior kill traps or BMI traps. The new 2009 possum trap lines are utilising Sentinel kill traps. These improved traps feature a 'rat resistant' bait clip, and are both easier to set and less expensive than the Warrior traps.

A variety of lures and baits have been used over the years. Most recently the bulk of the traps have been baited with cereal baits with aniseed paste used as a lure on the tree beneath the trap. Two lines are baited with sections of wood dowel soaked in aniseed or cinnamon oil. Previously, wood was favoured over cereal as it is less vulnerable to rat interference.

RNRP Possum line locations:

Five lines set up in 2004

MOR : southern midline
(12 warriors)

GBP : southern boundary of core
(10 warriors)

SBP : northern boundary of core
(10 warriors)

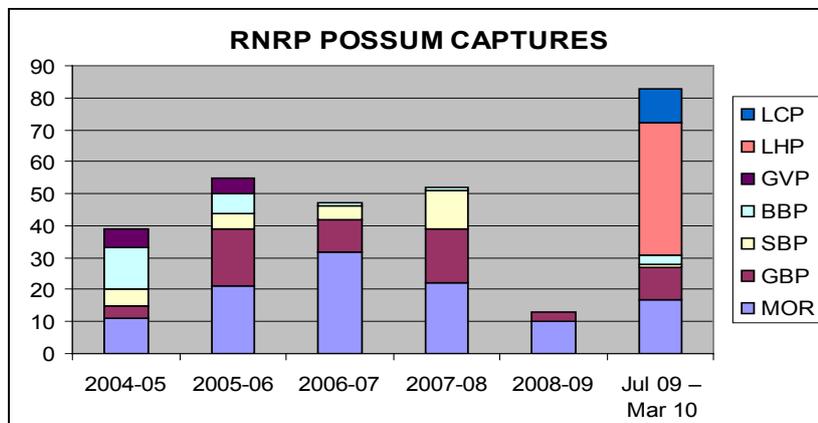
BBP : north western boundary
(58 BMI's)

GVP : far north western boundary
(18 warriors)

Two additional lines set up in October 2009

LHP : southern boundary
(15 Sentinels)

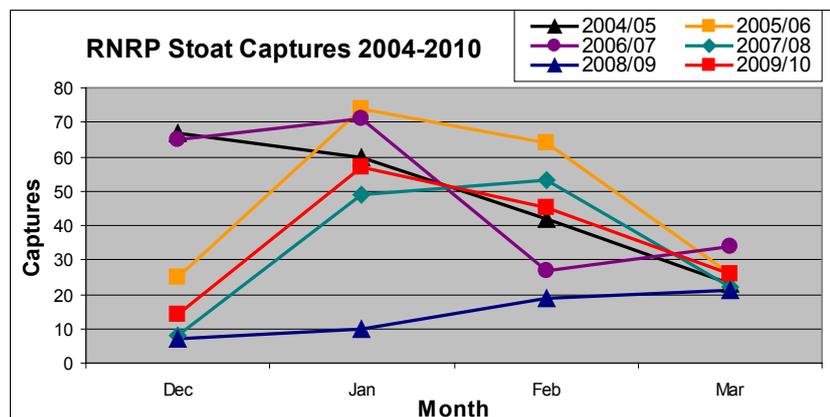
LCP : western boundary of core
(45 Sentinels)



These changes can be seen in the graph above, with 41 possums caught along the new Lakehead line (LHP), and 11 within the lower core (LCP). This new line is set up as a 'rolling front' whereby three lines of 15 Sentinel traps are moved forward through the lower core, and is proving to be very successful.

Shifty stoats

A typical spike in stoat captures was recorded this summer, with an average peak occurring in January with 57 stoats. This annual fluctuation in stoat numbers, with peaks moving between December and February is most likely caused by variations in food availability. Last year's very low stoat captures is thought to be due to suppression from the unusually high snow fall during August 2008.



Wasp wars

The annual wasp control programme within the core of the RNRP was conducted in February, utilising the results of the wasp bait trial run by the Friends of Rotoiti (FOR) in 2009. In previous years, Fipronil toxin had been applied in bait stations at 50m intervals on lines running parallel 100m apart. The FOR trial indicated that moving the spacing out to 200m would still achieve an effective knock-down of wasp nests.



RNRP ranger, Nik Joice loading a bait station with Fipronil.

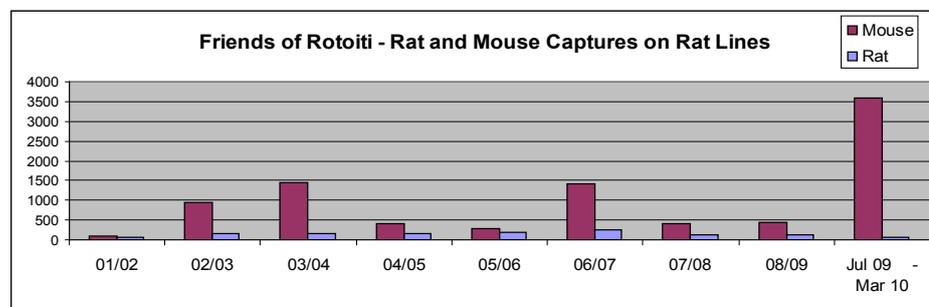
In addition, further bait station trials were carried out at the southern end of the lake to investigate the effectiveness of small clusters of bait stations, as opposed to the parallel line method. This trial included three groups of eight bait stations, within 20m of each other, monitored out to a distance of 500m.

The results showed effective knock-down of wasp nests out to a 200m radius around the bait station groups. These trials will be repeated next summer, but the results so far indicate more effective control of wasps with the double benefit of reduced labour and less toxin being required.

Friends of Rotoiti

The Friends of Rotoiti are celebrating the launch of their supporters club with the receipt of over \$1500 in donations in the first few months. Thank you to all those who have taken up this opportunity - your support will allow this group of dedicated conservation volunteers to continue their important work.

The website www.friendsofrotoiti.org.nz continues to be developed, showcasing the work being done to control pests in and around the RNRP.



The mice captures have been extraordinary over the past six months, with record captures in the rat traps throughout the village of St Arnaud. This, along with the usual higher pest captures during the warmer months, has kept the volunteers on their toes.

If you would like to become a supporter of the Friends of Rotoiti, please download the supporters form from the FOR website.

FRIENDS OF ROTOITI CAPTURES - DEC 2001 TO MAR 2010 - 13,663 PESTS REMOVED

| RAT | MOUSE | H/HOG | STOAT | FERRET | WEASEL | CAT | RABBIT | POSSUM | BIRD |
|-------|-------|-------|-------|--------|--------|-----|--------|--------|------|
| 2,186 | 9,058 | 931 | 665 | 60 | 28 | 9 | 127 | 599 | 15 |

Revive Rotoiti on-line

If you have received this Revive Rotoiti in the post but would prefer to have future editions emailed to you (saving the project printing and mailing costs) please contact Petr Carter at pccarter@doc.govt.nz.