Rotoiti Nature Recovery Project
Nelson/ Marlborough Conservancy
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New Zealand Government

# Revive Rotoiti

## New team leader

Welcome to our new Rotoiti Nature Recovery Project (RNRP) Team Leader, Grant Harper (and his family). Grant moved here from the Galapagos Islands where he was providing planning advice on a large-scale rat eradication project. He has also worked for DOC in Southland after doing post-doctoral research on rats, weka and sooty shearwaters in the southern Titi Islands off Stewart Island. His doctoral thesis was on feral cats and the three rat species on Stewart Island. Before that he worked on the Kakapo Recovery Programme. Grant has spent many years, tramping and climbing in Nelson Lakes National Park and always wanted to come back to live here.

Grant with Felix the kakapo on Pearl Island, Stewart Island

## Our only four legged employee

Fen doing a beautiful 'point' at the Friends of Rotoiti meeting November 2009.

Fen, our trainee kiwi dog, has been making exciting progress over the last couple of months, with quite a bit of attention from other projects looking at the dual-handler option which has been pioneered here. He now points birds in the burrow by putting his head inside the entrance hole with the most scent. The next challenge is to get him pointing from around a metre back from the burrow. All going well Fen and his two handlers should attain full certification sometime in the next six months. A 'kiwi dog demo' went well at the latest Friends of Rotoiti meeting showing everyone the training tools, commands and expectations we have in progressing Fen toward kiwi-dog accreditation.

## Researchers wanted

A key objective of the RNRP is to support research into restoration ecology. In the past RNRP has supported honours, masters and PhD students with their studies by providing logistical support, accommodation and access to well maintained datasets.

Research requests are currently being sought for 2010. If you have a research idea or would like a list of possible research options then please email nelsonlakesao@doc.govt.nz or phone (03) 5211 806.

Department of Conservation
*Te Papa Atawhai*

## RNRP gets a 'lift'

The RNZAF was in town early in November for various exercises and generously agreed to transport the last of the DOC200 trap boxes to the top of St Arnaud Range. This exercise took three trips by an Iroquois helicopter to deploy 82 traps at four drop off points, saving the staff having to carry these heavy trap boxes thousands of vertical metres. During the following week, the RNRP team and two groups of Conservation Corps volunteers replaced the older, less effective Fenn traps along the lines with the much improved DOC200 model.

The RNZAF providing Iroquois power to the RNRP.

## Mistletoe monitoring

Native mistletoe is a favourite food of possum in the beech forests and is a means of estimating possum densities. Throughout August and September, the health of the three species found in the mainland island was monitored. Each plant is assessed for possum browse and die back, and given a percentage score of foliar coverage using Landcare Research's standard foliar browse index card as a guide.

The results suggest that, while generally browse is absent or very low in the RNRP core area, there are still patches where there are possums munching away on mistletoe.

## Possum population


WaxTag® in position nailed 20cm above ground level.

The core 825-hectare area of the RNRP is monitored to gauge the local possum population every three years or so, using another monitoring tool which exploits the inquisitive nature of possums. During June this year, twelve lines of twenty WaxTags® were set out, spaced at 10m intervals. Possums bite the wax tags presumably to see if they are edible.

After seven nights the sets were collected and inspected to obtain a Bite Mark Index (BMI), representing possum interference on each line. This year the BMI was 4.6% which indicates a slight increase in the population, as the last WaxTags® monitor in 2006 showed a BMI of 2.5%. Staff are now increasing possum trapping within the RNRP.

## Rats!

The diphacinone rat toxin trial was delayed yet again. This trial was planned to investigate whether rat numbers could be 'knocked down' when they reached a certain abundance within the mainland island, however, the rat numbers didn't get high enough.

Some concern has been expressed regarding short-tailed bats and whether they may be present in the mainland island. Their likely absence needs to be confirmed by survey this summer, as these bats are particularly susceptible to toxins. The Philproof bait stations are also being upgraded with the addition of a baffle to exclude any curious kea.

## *Kiwi update*

A number of people were involved in the annual winter transmitter changes this year from March through to August. Our primary sponsor – Bank of New Zealand - offer their staff two days a year of volunteer time with any national kiwi project sponsored by Bank of New Zealand Save the Kiwi. Pamela McLean, from Richmond, and her husband were here for a day, with Pamela writing about their experience in their nationally distributed BNZ newsletter.

DOC ranger Sarah Forder secures the harness on a kiwi transmitter, assisted by Friends of Rotoiti volunteer Peter Hale.

A big challenge this winter has been locating kiwi that have dropped their transmitters. The transmitters are attached to the bird's leg with a harness designed to be strong enough to stay attached through general kiwi activity for a year or more but which will break to free the bird if the harness becomes entangled.

Unfortunately the record snowfall in 2008 left a lot more branches on the ground for kiwi to contend with and this additional wear has shortened the life of the harnesses. An independent contractor, using experienced kiwi dogs, was successful in finding six of the wayward birds, with Fen finding another. By season end, seven of the 19 kiwi still remain 'at large' without transmitters, but we expect these to be accounted for over the next year through tracking by kiwi dogs.

DOC Ranger Nik Joice packing one of three kiwi eggs at Gouland Downs (Nov 2009) for transportation to Christchurch.

In order to reduce the problem of dropped transmitters in the future, kiwi will be caught in summer (after the breeding season) to replace the leg harness. This should minimise the likelihood of transmitters falling off too easily and will ultimately save the project time in the difficult task of locating individuals. It will also give Fen some good practice between annual transmitter changes.

The Bank of New Zealand Operation Nest Egg™ (ONE) programme is continuing this summer. The movements of eight adult kiwi in the Gouland Downs area of Kahurangi National Park are being monitored by Golden Bay DOC staff remotely retrieving data streams produced by high-tech leg transmitters fitted to the kiwi. This data is analysed by the RNRP team to detect long periods of low activity during the night that could indicate the kiwi are incubating eggs. The plan is to retrieve a number of eggs for hatching at Willowbank Wildlife Reserve in Christchurch this summer. The RNRP team will look to find and fit transmitters to more birds after the breeding season so as to locate more eggs for collection later next year.

Nelson Lakes Area Office hosted the first Great Spotted Kiwi (GSK) meeting which brought together GSK staff from Canterbury, Arthurs Pass, the Paparoas (Greymouth) and Motueka. Key staff for each project gave presentations, including their ONE programmes, to the rest of the group with much discussion generated. Until the first GSK translocation to Rotoiti in 2004, little was known about this kiwi, and since then ONE has proven to be invaluable in increasing numbers of these kiwi in sites across the South Island.

## Wasps beware

Encouraging trials by the Friends of Rotoiti last summer indicated that wasp nests can be killed up to 350m from wasp toxin bait stations. This summer the RNRP team are planning some similar trials in the mainland island with the bait lines spaced 400m apart, rather than the current 100m. We will also investigate how large an area of wasp nests can be effectively eliminated from a centre of three to four bait stations grouped together. If successful, it could mean that with the same resources, wasps can be controlled over larger areas with less work.

## Friends of Rotoiti

A major milestone of pest captures for Friends of Rotoiti – 10,000 – has come and gone sometime in September, with the total at the end of October being well over 11,000. This group of keen conservation volunteers now have their own website at www.friendsofrotoiti.org.nz where their dedication and achievements will be showcased.

A supporter's club, with Sir David Attenborough as the founding honorary member, will be launched before Christmas this year with the website hopefully being a key conduit to building the membership. This supporter's club will cater for those who want to support the Friends of Rotoiti, and through them the RNRP, but are too distant or not able to help with hands-on conservation. If you are interested in becoming a supporter of the Friends of Rotoiti, please contact Petr Carter via email pccarter@doc.govt.nz or phone (03) 5211 067 or fill in and post us the enclosed form.

*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 honeydew 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.*

FRIENDS OF ROTOITI CAPTURES - DEC 2001 TO OCT 2009 – 11,155 PESTS REMOVED

| | RAT | MOUSE | H/HOG | STOAT | FERRET | WEASEL | CAT | RABBIT | POSSUM | BIRD |
|---|---|---|---|---|---|---|---|---|---|---|
| Stoat traps | 777 | - | 861 | 567 | 53 | 9 | 7 | 114 | 117 | 6 |
| Rat traps | 1,213 | 6,914 | 32 | 18 | 1 | 11 | - | 3 | - | 8 |
| Warrior traps | - | - | - | - | - | - | - | - | 458 | - |
| Totals | 1,990 | 6,914 | 893 | 585 | 54 | 20 | 7 | 117 | 575 | 14 |

Friends of Rotoiti members at the spring 2009 meeting.

## Revive Rotoiti on-line

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