

Revive Rotoiti

Newsletter of the Rotoiti Nature Recovery Project
Issue 26 Autumn 2012



Restore Learn Be involved

The Rotoiti Nature Recovery Project is a DOC 'mainland island' ecological restoration project with a strong focus on science and learning. Through control of introduced pests the project benefits native species over 5000 hectares of honeydew beech forest at Lake Rotoiti in the Nelson Lakes National Park. A wealth of information is provided to inform and inspire other species recovery projects. The Friends of Rotoiti volunteers assist by controlling pests in adjacent areas.

Innovative stoat control – New Zealand style

The Rotoiti Nature Recovery Project (RNRP) stoat trapping team is gearing up to become part of the Government's \$4 million trial of new self-resetting traps.

Our current DOC200 'snap trap' kills one animal and then requires manual resetting before it is effective again. Developed by Wellington company, Goodnature Limited, the innovative A24 piston delivers a fatal blow to the head of a stoat or rat using a controlled release of compressed CO₂ gas. Once the self-resetting trap has been triggered, the animal drops to the ground and the piston resets itself ready for the next pest.

"The Department of Conservation already spends over \$20 million dollars a year controlling possums and ground-based pests like rats and stoats. This is the first large-scale trial of these new traps and if successful, it will add a new cost-effective weapon in the battle against the pests threatening New Zealand's native wildlife", Kate Wilkinson, Minister of Conservation, announced during the trial launch in October 2010.



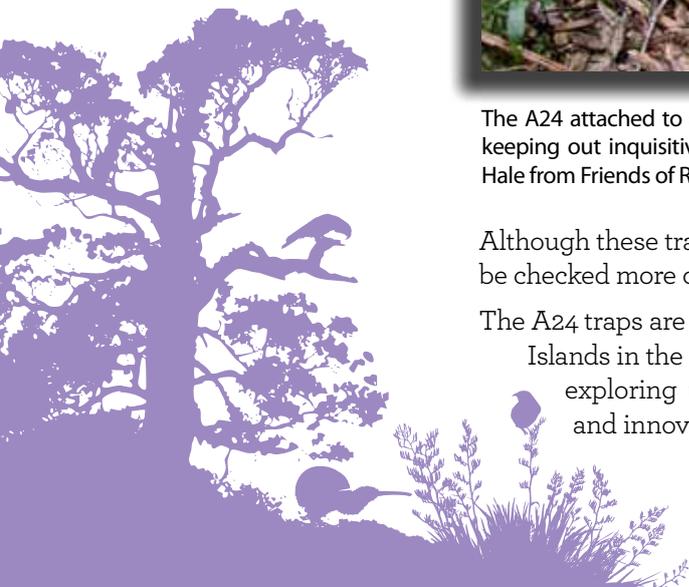
The A24 attached to our DOC200 boxes for easy access to rats and stoats, keeping out inquisitive weka and kea. Thanks to Warwick Ward and Peter Hale from Friends of Rotoiti for assisting with this creative box renovation.

After initial small-scale intensive trials in the North Island, the RNRP has been selected for a 'landscape scale' trial using 900 of the A24 stoat and rat self-resetting traps. The two-year trial from July will test if these new traps can control stoats to the same level as their DOC200 predecessor and also whether they can withstand our harsh alpine conditions.

Although these traps are designed to reset themselves 24 times before servicing, they will be checked more often during this trial.

The A24 traps are also being trialled in the Te Urewera and Boundary Stream Mainland Islands in the North Island to ensure we are rigorously exploring the capabilities and potential of this new and innovative pest control system.

Department of
Conservation
Te Papa Atawhai



Welcome to our West Coast kiwi

Approved coal mining in the West Coast's great spotted kiwi habitat requires the mining company to safely remove any potentially affected kiwi beforehand. Eggs are collected and hatched at the Willowbank Wildlife Reserve in Christchurch and then the young are released into safe areas including our own RNRP area.



Our latest translocated great spotted kiwi, *Hine Kokoiti*.

On 23 January, we welcomed our first juvenile from the West Coast's Cyprus Mine on the Stockton Plateau. Named Hine Kokoiti, this kiwi had also spent some time at the Paparoa crèche facility before coming to Nelson Lakes. Hine Kokoiti was escorted by representatives of Ngati Waewae from the West Coast and welcomed by our local iwi, Ngati Apa, together with St Arnaud residents and visitors.

Some adult birds from the West Coast population may also be transferred here over the next three to five years. This should increase breeding and broaden the gene pool of our small population.



Hine Kokoiti being received by Ngati Apa representatives Aunt Isobel Smith and Debra Kiesling, watched by Glen Newton (DOC ranger).

Lights, camera, kiwi action

Our first season using motion-activated cameras to monitor nesting great spotted kiwi pairs is now complete. Cameras were set up outside two nesting pair's burrows to photograph the parent birds, and any subsequent chicks. The hundreds of photos produced have given the RNRP team much better information about the comings and goings of the kiwi and caught several predator 'home invasion' incidents.

Both pairs produced a chick, with many photos of them spending time just outside the burrow entrance. The chick from the first burrow has been caught since and weighed in at a healthy 870 grams at only three months old.

The camera at the second burrow recorded two stoat visits. The chick hasn't been found with its parents in subsequent checks. There were no apparent signs of predation in the burrow and only time will tell if this chick is alive and well.

An unknown juvenile was also recently discovered with an adult. We suspect this bird hatched last year. These new chicks will help ensure there are enough younger birds around to ensure a viable breeding population in the future.



Great spotted kiwi adult and chick caught on one of our new motion-activated trail cameras, funded by the Friends of Rotoiti supporters.

Wet weather and wasps

We appreciate the continued assistance of Landcare Research in our trials of the wasp toxin X-stinguish™ (active ingredient - fipronil). The wasp control grid spacing continues to be our focus, aiming to identify optimum spacing between bait station lines so that all wasp nests are vulnerable.



Worker wasps eagerly collect the meat based bait.

This year the same 400m x 50m grid and a 400m x 100m grid (with paired bait stations) were tested in the core area. Results so far indicate the 400m x 100m grid may be a more effective spacing to ensure that bait was readily available for worker wasps to take back to the majority of nests. Further testing will be required during a season of high wasp numbers.

As January was wet the wasp numbers were slow to build this season, resulting in the X-stinguish™ toxin not being deployed until mid-February. Despite less wasp toxin being put out and less taken by wasps than in other years, wasp numbers were noticeably lower after the operation. Wasp numbers remained much higher outside the trial area.

This season we have also looked at different monitoring methods to measure the success of the operation. Monitoring of honeydew, invertebrates and wasp foraging activity was carried out before and after the trial. Preliminary results indicate that the further the distance from bait station lines, the greater the impact the wasps are having on the ecosystem.

Thank you to the Friends of Rotoiti (FOR) who again assisted in the wasp control trial this season.

RNRP Volunteer opportunities

Volunteer ranger opportunities for September 2012 through to April 2013 will be advertised on the DOC website (www.doc.govt.nz) this July. Laura from Germany volunteered last season and said "I think it's the perfect opportunity to get to know more about conservation work in NZ and especially the work of DOC". Please email us at nelsonlakesvolunteers@doc.govt.nz to register your interest.

Beech forest becomes a rat restaurant

After large-scale beech tree flowering last spring, we are expecting more beech seed this winter. Such a beech seed (mast) event can result in large numbers of rodents breeding over the winter due to the readily available beech seed food supply on the forest floor.

We currently monitor beech seed fall once it has dropped off the tree, using collecting trays positioned to catch a sample of the seed which are then counted and analysed.

As the seed falls through May and June, the rodents can already be benefitting from this extra food before we've finished analysing our seed samples in August.

In March a new method was used to retrieve seed samples while still on the tree, providing a result four months in advance of the natural seed fall collection method. The unusual tool for this was a shotgun, whereby branches of beech trees with forming seed pods are shot off the tree and the seeds counted.

The result of this work showed we should expect a moderate beech mast event this winter. Consequently, we conducted a pre-emptive rat control operation using Ratabate™ (active ingredient - diphacinone) in April. The timing of this rat control will hopefully ensure there are fewer rats to breed over winter and prey on native birds next spring.



Joris Tinnemans, DOC research assistant, collects beech tree branches for seed counting.

Friends of Rotoiti

Friends of Rotoiti captures - December 2001 to April 2012

16,644 pests removed

Rat	Mouse	H/hog	Stoat	Ferret
2,915	10,643	1,138	816	71
Weasel	Cat	Rabbit	Possum	Bird
46	25	163	827	34

Boat show display tent

For the first time this year, the Friends of Rotoiti (FOR) set up an information tent of their own for the Classic and Power Boat shows on two weekends in March. They were able to re-use some excellent 10th Anniversary trapping displays made by Warwick Ward and photo boards by Bryce and Carol Buckland and Janice Gibbs.

There was a lot of interest in the different types of traps FOR use and the stuffed display pests provided by the local DOC office greatly interested children and their parents. Some DOC200 traps and rat tunnels were sold to locals and information sheets about FOR's DOC200 box design and setting instructions for sentinel traps were handed out.



Sporting their red Friends of Rotoiti shirts, volunteers Warwick Ward (left) and Marg Hunter (right) promote their pest control work.

Some new folk came forward to volunteer after meeting members at these shows - it will be great to get them out on the trapping lines.

A big thank you to Janice and Lyne Gibbs, Marg and Drew Hunter and Warwick Ward for their ambassador work on behalf of the group.

Possoms beware

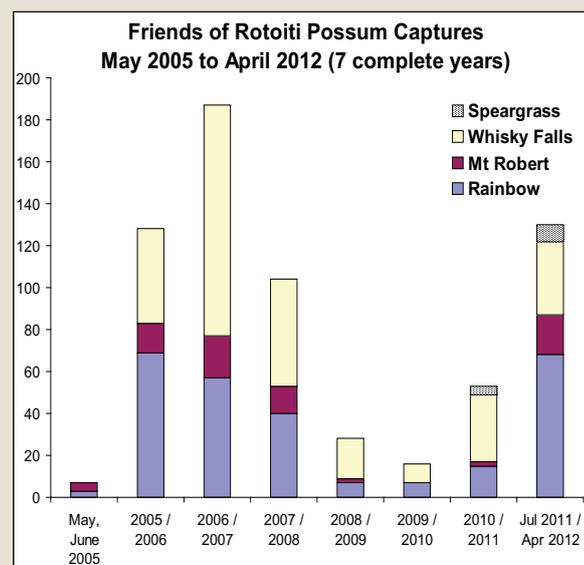
When FOR started controlling pests 10 years ago, their stoat traps would sometimes catch inquisitive possums instead. To stop this happening, warrior possum traps were set close by any stoat traps that had caught possums. These possum traps could then be moved in response to possum activity anywhere on that stoat line.

Over the past seven years of possum trapping, they have become a target pest in their own right, with each stoat line having more possum traps added as time goes on. This has proved to be very successful, catching 653 possums between May 2005 and April 2012.

With the recent move to sentinel possum traps, the volunteers are using different pastes or dough as lures and the current smelly aniseed possum dough has proven very successful. Thank you to the Friends of Rotoiti supporters who help fund their efforts to control this large mammalian pest.



Bryce Buckland celebrates another brushtail possum capture in a sentinel trap.



Revive Rotoiti on-line

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