

Revive Rotoiti

Newsletter of the Rotoiti Nature Recovery Project
Issue 25 Spring 2011



Restore Learn Be involved

Friends of Rotoiti - 10 years of 'Giving nature a helping hand'

On 12 November, the Friends of Rotoiti (FOR) and the Department of Conservation (DOC) celebrated 10 years of partnership controlling pests to support the Rotoiti Nature Recovery Project (RNRP). The founding members were acknowledged for their persistence at building and sustaining a nucleus of enthusiasm over the past decade. The dedication of this group is evident from the 3,800 volunteer days contributed, equating to one person working full time for over 14 years.



Friends Of Rotoiti, supporters and DOC staff celebrate 10 years of pest control work, removing 15,965 pests since December 2001.

Rat	Mouse	Hedgehog	Stoat	Ferret	Weasel	Cat	Rabbit	Possum	Bird
2,717	10,402	1,089	771	68	44	24	148	702	27

Kea concerns

Last summer's survey by the Kea Conservation Trust (KCT) has revealed that the local kea population has declined drastically since the 1990s. An alarming reduction in fledgling numbers was found (ten down to two) and also breeding pairs (eleven down to three). The survey was carried out across 14,000 hectares, which is almost double the previous survey area.

The suspects for this decline are predation by stoats and possums, and lead poisoning. Camera monitoring has shown possums attacking nesting females and eating chicks. Cameras have been placed to monitor current nests for predator attacks.

Kea are known to chew on lead roof fittings and nails, which can affect both adult bird health and egg production. DOC has identified older buildings with accessible lead to be removed.

A big thank you to Fauna Recovery NZ which has funded the RNRP team and the KCT to trap predators around the current three nest sites. Thanks also to the Friends of Rotoiti for helping with this work.

Department of
Conservation
Te Papa Atawhai

Volunteer rangers

The RNRP is benefitting from an enhanced volunteer programme recently launched in the Nelson Lakes Area. From September 2011 through to April 2012 a volunteer ranger will work with the RNRP team.

The focus will vary depending on what the team is up to at the time and may include work at both Lake Rotoiti and Lake Rotoroa. The opportunity was advertised on the DOC website in July and quickly filled up with applicants from far and wide, including Germany, Canada, Australia and a good few Kiwis, committing two to eight weeks.

If you are interested in being involved from next spring (September 2012) please email us at: nelsonlakesvolunteers@doc.govt.nz



Akira Doura (trainee ranger) and Bettina Gerns (RNRP volunteer) prepare bags of Ratabate™.

Innovation meets science

It is said that necessity is the mother of invention and this is certainly the case for new mustelid trap bait trials to be undertaken by the FOR.

The white hens eggs used by the RNRP and the rabbit based polymer baits previously trialled by the FOR have both recently become unavailable.

The new fish based polymer baits, which the FOR members inventively suspend from the roof of the trap boxes, will be compared with brown hens eggs placed in every second trap to determine which baits are preferred by mustelids.

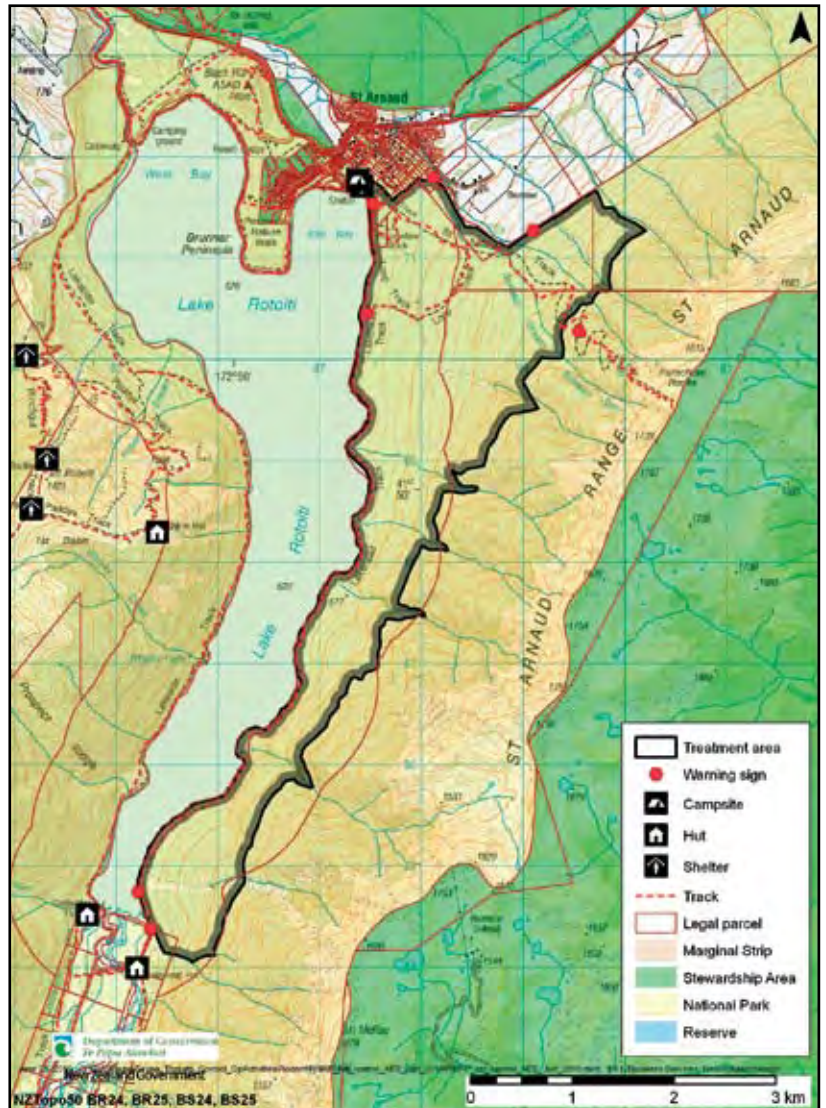
The 'winner' will then be adopted across the trapping network, and potentially become widely used.

Rat reduction

Over the autumn months, the rat control area was extended from 600 hectares to about 800 hectares, with all bait stations in the rat control area loaded with diphacinone rat bait (Ratabate™) in early September.

This effort was rewarded with a similar success to last spring with the rat tracking rate reduced to only 3% by November. The tracking rate outside the baited area rose from 14% in August to 20% by November, which is significantly above the 5% target necessary to protect small nesting birds.

This reduction in rat numbers in the mainland island should result in very few native birds being killed on nests this season.



Rotoiti Nature Recovery Project - Expanded rat control area for 2011 - 2012.

The effectiveness of the rat bait trial continues to be measured against the success of South Island robin nesting within the RNRP. The robin census result this August was the same as last year with three breeding pairs, showing no increase in nesting pairs at this stage.

It was expected that the 12 to 15 fledglings from last season would increase the resident nesting population. Our bird experts suspect that dispersal is the key reason with young birds leaving the RNRP area to set up territories.

Supporting this theory, three of the nine banded fledglings have been individually recorded 200 m, 5 kms & 9 kms from their nest sites on the eastern shore of Lake Rotoiti. One adult male was even sighted at Mt Misery, 20 kms away (as the robin flies)!

Kiwi on camera

We are coming into the last season of the BNZ Operation Nest Egg™ (ONE) funded trips to collect great spotted kiwi eggs from Goulard Downs. Two trips are planned to check the nesting progress of the birds and collect eggs to hatch at Willowbank Wildlife Reserve in Christchurch.

Our egg collecting trip back in November 2010 made it into the limelight with a feature on TV One's 'Wild Vets' with Nik Joice the star of the show alongside wildlife vet Kate McInnes. Check it out on TV One's website <http://tvnz.co.nz/wild-vets/wildvets-s3-e4-video-4502796> (series three, episode four).

It's breeding season again for our local Rotoiti birds and we are busy monitoring their activity through their radio transmitters. A reduction in activity at night can signal incubating behaviour.

As we learn more about great spotted kiwi it has become apparent that the adults have a tendency to abandon the nest, and their chicks with it, if disturbed. With this knowledge the team has decided not to disturb new chicks until they are around three months old.

Less direct contact with the birds over the entire spring/summer period is likely to become best practice. The drawback is that if a chick was killed by a predator it would not be recorded. We are hopeful that the parents defending the young (and the low predator numbers in the RNRP) will diminish the likelihood of predation occurring.



Nik Joice, (RNRP ranger), using the new burrow scope, purchased last year with funding from Friends of Rotoiti.

Further to this new strategy, the Friends of Rotoiti have provided funding to purchase three LTL Acorn Trail cameras. These cameras will be used to monitor kiwi nests to collect information on nesting success without human disturbance. Images can be taken day or night as stills or video, and can be set to be motion activated.

Last year, FOR Supporter funds purchased a burrow scope to help the RNRP team locate kiwi in long and/or deep burrow systems. Nik Joice, RNRP ranger, says, "I've used the new scope recently to check a difficult burrow system, and it worked really well." Thank you to the FOR Supporters who have made these purchases possible.

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.

BNZ Operation Nest Egg™ (ONE)

ONE is being used here to bring younger birds into the population to increase breeding. All of our ONE chicks come from eggs that have been collected from the Kahurangi National Park. They are sent to Christchurch to be incubated and raised until about 800g in weight, before release back here into the RNRP core.



A newborn ONE chick at the Willowbank Wildlife Reserve in Christchurch. Photo courtesy of NZ Conservation Trust.

Kiwi conversations

The RNRP team organised the third annual great spotted kiwi meeting this year. These meetings involve technical advisors and practitioners from all the areas working on this kiwi species - including Arthurs Pass, West Coast, Waimakariri, Golden Bay and Motueka. These meetings are valuable for sharing experiences and information on a species we still know little about.

The West Coast and Waimakariri are using ONE on a larger scale than Nelson Lakes to bolster their kiwi populations. There have been disappointing ONE results across all areas and there is general agreement that chicks should be raised for longer in captivity before release.

The RNRP team are now looking at options to do this, rather than 'hard releasing' young chicks directly from the chick rearing facility into the mainland island.

Wise advice

The RNRP Technical Advisory Group (TAG) held its annual two day meeting in October. The TAG's role is to provide decision making support and peer review of all aspects of the project.

Members include Nelson/Marlborough Conservancy and National Office staff and external scientists. The resulting robust debate from these meetings always provides valuable strategic direction and advice for the coming year/s.

Weed wars

Environmental weeds are a serious threat to native ecosystems with many originating as garden plants. In the St Arnaud area these plants pose a threat to the adjacent RNRP area and the wider Nelson Lakes National Park.

The most abundant weeds targeted are rowan (*Sorbus aucuparia* subsp. *aucuparia*) and several species of cotoneaster which are shade tolerant and produce masses of bird-attracting berries. Birds spread the seeds but don't need the food to survive.

In recent months DOC staff have controlled over 350 rowan and 250 cotoneaster on conservation land including on the fringes of the national park and within the RNRP. The plants range from seedlings to mature fruiting plants spread largely from private land seed sources.

Without control these weeds would become firmly established. The forests would end up with a species mix resembling that of the northern hemisphere with a predominance of European birds rather than native birds.



Rowan.

Cotoneaster.

Left unchecked, these weeds would spread and cost many more taxpayer-funded dollars to put things right. We recognize the ongoing support of the majority of local property owners in the village weeds programme. It is only through controlling these weeds at the source that the war can be won.

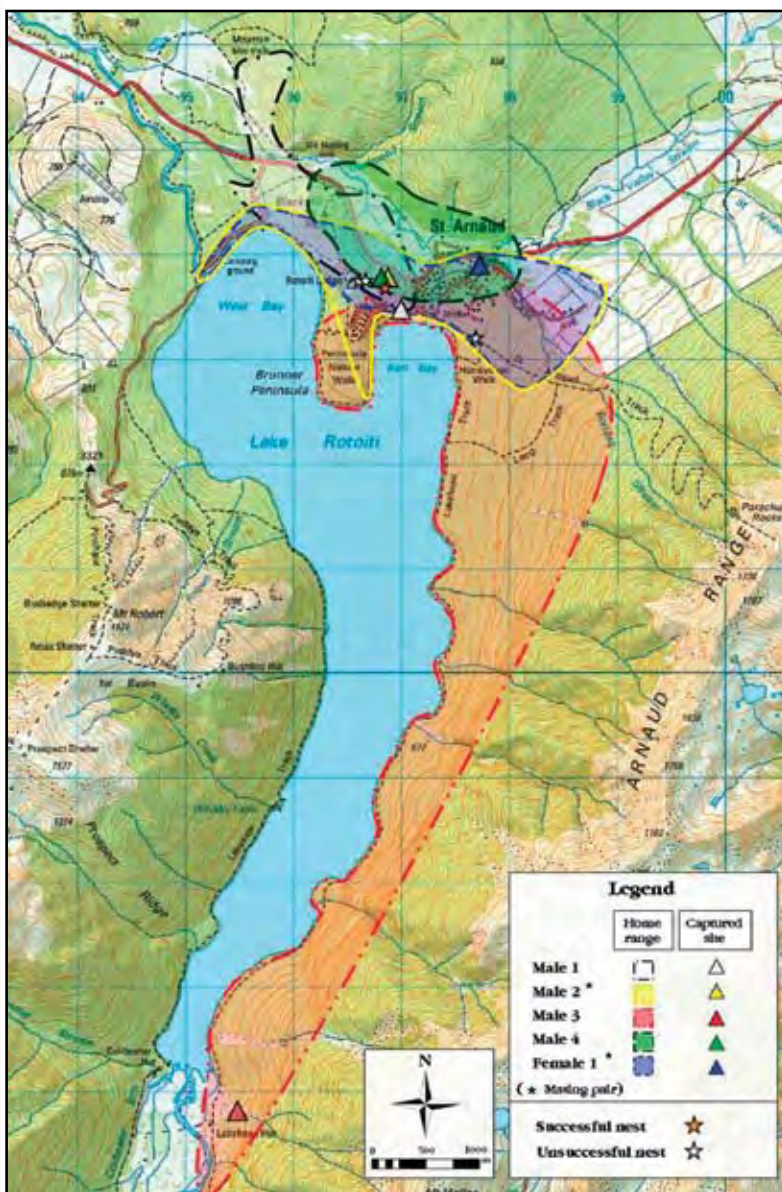
If you have a property in St Arnaud and would like assistance to control these weeds please contact Dan Chisnall at dchisnall@doc.govt.nz.

Wandering weka

Weka were very abundant in the Nelson Lakes area in the 1800s, but they suddenly disappeared in a catastrophic die-off during 1909. A weka radio-tracking study around the St Arnaud village was commenced in September 2010 by trainee ranger, Akira Doura. Six weka were fitted with transmitters using a backpack-style harness and identifying bands.

Locals have become involved by providing observation reports to build a picture of population size, dispersal and reproduction. One male was found dead in an unattended private live capture cat cage. Other than that, all the weka appear to be in good condition and there has been no evidence of disease/parasites and predation.

The lone mating pair have nested four times between April and October, with only one chick successfully fledging. We are investigating possible reasons for this low success rate. These could include climate (snow) and lack of parental experience with this particular pair.



Weka range around Lake Rotoiti - 2011.

Revive Rotoiti on-line

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For previous issues of Revive Rotoiti and RNRP Annual Reports see www.doc.govt.nz

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