

Revive Rotoiti



A new arrival

Another great spotted kiwi chick was found in the Rotoiti Nature Recovery Project (RNRP) area on 24 January after monitoring for egg incubation was carried out during the 2006/07 summer. Andrew Taylor, with help from Jack Mace and Daniela Schenk, found the chick in the nest burrow with its parents close to the bush line on the St Arnaud Range. The parents, Wainui and Tata are one of the true pairs (already mates) transferred to the project from Kahurangi National Park in 2004.

Jack Mace holding the new kiwi chick
Photo: Daniela Schenk



The Rotoiti Nature Recovery Project aims to restore approximately 5000 hectares of honeydew beech forest on the shores of Lake Rotoiti in Nelson Lakes National Park. This is being achieved through an extensive predator control programme. The project was launched in 1997 initially over 825 hectares and its success led to it being expanded over 2001/02.

The projects three goals are:

- restoration of the native ecosystem's components and processes.
- reintroduction of species lost from the area.
- advocacy for indigenous species conservation and long term pest control.

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

The chick, which is yet to be named, weighed in at 240 grams and was estimated to be around three weeks old at the time it was found. A transmitter was attached to the chick so its location can be monitored. The chick was visited again by Tamsin Bruce and Andrew Taylor in March to check weight gain, health, and the transmitter's banding.

We are hopeful of finding another kiwi chick also believed to have hatched this season. Through the use of incubation monitoring RNRP staff are able to monitor the resident kiwi for signs of breeding. Over summer, Te Matua and Tai Tapu, a true pair transferred to Lake Rotoiti in 2004, were showing positive breeding signs and on investigation of their burrow at the end of incubation, nesting material was found. Staff recently investigated the birds' new burrow for signs of a chick but as it was so extensive they could not be sure if a chick was present. We will now carry out night monitoring of the pair to try and establish whether there is a chick with them.



Department of Conservation
Te Papa Atawhai

Rito - a year on

Rito, the kiwi chick found in May last year, was recaptured in January this year as part of the ongoing health monitoring programme for great spotted kiwi in the project area.

Rito, found still sharing a burrow with its parents Awaroa and Kahurangi, weighed in at a healthy 980 grams and is estimated to be around a year old now. At a weight of about 1kg a kiwi is able to defend itself against stoats.



Daniela Schenk holding Rito

Update on kiwi movements

Resident kiwi from the first transfer in 2004 are all healthy and remain in their established territories. Unfortunately Onetahua, a lone male last located in the Lakehead area, had his transmitter fail some time ago. We are looking at carrying out 'night listening' in the Lakehead area to see if we can locate the bird and fit him with another transmitter.

All the adults from the second transfer in 2006 are well and have now established territories. The two true pairs - Puremahaia (male) and Pariwhakaoho, Motupipi (male) and Anatoki - are still displaying pair bonding. The reconfigured pair, Onahau (male) and Onekaka continue to stay close together although Onahau has dropped his transmitter. He will hopefully be located and have a new transmitter fitted at some stage.

Waitapu (female) who was released close to Takaka (former mate of Rameka who died in 2006) had also dropped her transmitter but was caught later in a 'day' burrow with Takaka, showing that they have paired up.

None of the birds from the second transfer have showed any signs of breeding this season which follows the same pattern as the birds from the first transfer. We are hopeful that once settled the birds may breed next year.



Rat control

The 1080 (sodium fluoroacetate) control operation which was carried out in December 2006 within the lower RNRP core area did not achieve the desired knockdown in rat numbers. Before the 1080 operation, rats were monitored through tracking tunnels at 40%. After the operation tracking rates had dropped slightly to 28%. A successful 1080 operation should see rat tracking rates drop to less than 5%. This result put a temporary hold on the project's subsequent rat control operation through January-March involving use of the existing trapping network to identify residual pockets of rats which would then be targeted using the toxin Brodifacoum.

There are a number of possible reasons why the target result for the 1080 operation was not met. These include the timing of the operation, which may have been too late into the season, and an abundance of alternative food resources. Last autumn we recorded the second largest beech mast (energy wise) on record.

In discussions with the RNRP Advisory Group about the proposed rodent control programme, it has been decided that the trapping network will be shut down. The proposed Brodifacoum operation will not be carried out either and instead we will be trialling a new toxin. The trial will be carried out using existing bait stations within the core 825 ha rodent grid in the lower RNRP. The design of the trial is yet to be confirmed.

Wasp control

No wasp control was carried out this summer for the Rotoiti Nature Recovery Project due to difficulties in obtaining a suitable insecticide. For various reasons, supplies of wasp toxins used in previous years, Finitron and Fipronil, were not available to us at the time.

The absence of wasp control will have had a considerable impact on native wildlife with wasps preying on invertebrates and competing with some birds, lizards, insects and bats for honeydew as food. Residents and visitors have also had to contend with more wasps than usual around the St Arnaud village and Lake Rotoiti as the wasp control by the Department of Conservation and Friends of Rotoiti has had the added benefit of reducing their annoyance to people.

Fortunately with a wet start to summer, wasp numbers were lower than they might have been this summer, though still high enough to do ecological damage. Wasps began to die off towards the end of March as the weather cooled. We're hopeful we can secure a suitable toxin to carry out wasp control as usual next summer.

Weed control

The Rotoiti Nature Recovery Project has for six years benefited from the St Arnaud Village weeds programme, run by biodiversity threats ranger Dan Chisnall and supported by the majority of St Arnaud landowners. The programme targets invasive weed species on private and public land in the St Arnaud area which in turn provides protection to the



Peter Russell holding a selection of invasive weeds

project. Thirty nine weed species are high priorities for control by DOC in the St Arnaud area and three of these - cotoneaster, Darwin's barberry and rowan are of particular concern to the RNRP as, being shade tolerant species, they are able to successfully invade the beech forest. From May 2005 to the present time, 231 rowan, 364 cotoneaster and 39 Darwin's barberry, all of varying maturity, have been removed from the margins of the RNRP. The Nelson Lakes Area Office has fact sheets on native alternatives to these plants and Dan is happy to give advice on controlling weed species on private property. Please contact the Nelson Lakes Area Office, phone (03) 521 1806 if you would like more information.

Friends of Rotoiti

The group have had a productive summer, carrying out weekly checks on their stoat and possum control lines and fortnightly checks on their rat control lines. After the group's meeting in November 2006 it was decided to increase the density of rat traps on rat control lines adjacent to the RNRP. Traps along these lines are now spaced at 25m rather than 50m.

Two new rat control lines, with traps at 25 m spacing, have been set out along Holland and Robert Roads in the St Arnaud Village. These roads border the RNRP core area. It is hoped that the increased density of rat traps along these lines will be more effective in controlling rat numbers on the perimeter of the project.

Research projects

Ken Ross, a Nelson College teacher, has been awarded a Royal Society NZ Maths, Science and Technology teacher's fellowship for 2007. Ken will be based at Lake Rotoiti and will work within the Rotoiti Nature Recovery Project and the Brunner Peninsula. Over the year Ken will undertake strategic and operational planning which will include learning about and initiating baseline monitoring of both resident native and pest species. Ken's vision is to both contribute to conservation in the Lake Rotoiti area as well as creating a valuable, practical learning tool for students which can be used in the long term.



Terra Dumont checking a lizard pitfall trap

Daniela Schenk, from the University of Dresden, Germany, has spent the summer at Lake Rotoiti working on her final thesis for her degree. Her thesis is on the role of introduced birds as possible competitors with native birds in the Rotoiti Nature Recovery Project area. Daniela has now completed all her field work and has returned to Germany to write up her thesis. The RNRP team look forward to receiving a copy.

We have also had Terra Dumont working at Lake Rotoiti over the summer months researching the resident skink population as a monitoring species for the Friends of Rotoiti's rat control. Terra, a Year 13 Garin Collage student was awarded a Bayerboost scholarship to carry out her research. Terra is also a member of Friends of Rotoiti and for the last six years has monitored the skink population in the St Arnaud village and Black Hill using pitfall traps. It is great that she has been able to now analyse this data and produce a report which can be used by the RNRP team and the Friends of Rotoiti in considering future rat control options.

Staff changes

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Sadly this year we have had to farewell Matt Maitland (Team leader, RNRP) and Genevieve Taylor (predator control & fauna monitoring, RNRP) who, after dedicating seven years to the project, have moved to the North Island. Paul Gasson, who previously worked as a biodiversity assets ranger and led the kiwi reintroduction programme, has now taken over from Matt as team leader, RNRP. Tamsin Bruce has taken on Genevieve's position and will cover the rat and cat control programme, fauna monitoring and is the research liaison for the project. We also farewell Brett Thompson who has spent five years on summer contracts carrying out predator control field work for the RNRP. Due to a review of the RNRP positions carried out in 2006, a new position was created in the RNRP and filled by Anne Brow who joins us from the Research, Development and Improvement division of DOC. Anne's main focus is on stoat control and monitoring, vegetation monitoring and bird counts for the project.