

# What's up in Waitutu? 1

## Newsletter regarding the protection of the Waitutu Forest

### Keeping you informed

Welcome to the first edition of What's up in Waitutu? from the Department of Conservation (DOC). Our goal is to keep you up to speed regarding our work in the Waitutu Forest. We aim to send you a regular newsletter to provide you with information about species monitoring, predator control techniques and other various work going on in the area.

### Local DOC staff

Some of you will have met the local DOC staff involved in protecting the Waitutu, however it can be hard to recall who is who. Each edition will introduce you to different members of the local DOC team and explain their involvement.

#### Introducing ... Colin Bishop



*Photo: Colin wrangling a kaka for radio tagging.*

Colin Bishop is the local Ranger responsible for managing animal pests on conservation land and

he is the project leader for animal control in the Waitutu.

In Colin's own words: I'm a hunter, fisherman, fireman and hiluxman. I have two kids, 31 chooks, 13 sheep and one wife.

### Innovation springs up in the Waitutu

Local DOC staff have created an innovative possum proof gate to be installed on four bridges spanning the Waitutu and Wairaurahiri Rivers.

A prototype built by SIT students was installed in September 2009 across the Waitutu River and has proved successful.



*Photo: Eric Roy gives the prototype gate a try on the Wairaurahiri River.*

Initial testing of the gate included monitoring with night vision cameras. On one night, there were 40 unsuccessful attempts by possums to get across the bridge.

Over three nights of monitoring only two possums breached the gate which was modified to ensure this did not happen again. It is intended these gates will reduce pest animal movement into areas that will be under possum control.

Approximately \$14,000 is required to build and install these gates and DOC is busy trying to secure sponsorship.

### Waitutu monitoring sites

DOC has established several monitoring sites in the Waitutu Forest. By consistently monitoring the same sites over a period of time, DOC and researchers have been able to improve their knowledge of the area and what is occurring in the forest.

The four primary monitoring sites are as follows:

Site	Approximate Location
Site 1	Large flat to the east of Waitutu Hut.
Site 2	Large flat to the east of Poteriteri Hut.
Site 3	Terraces either side of the Waitutu River near Slaughterburn Hut.
Site 4	Crombie Stream valley.

### Rat, stoat and mouse monitoring

Currently there are 24 lines of 10 tracking tunnels situated in the Waitutu Forest. DOC uses this tool to monitor relative population changes of a range of animal pests and to assist in making management decisions.

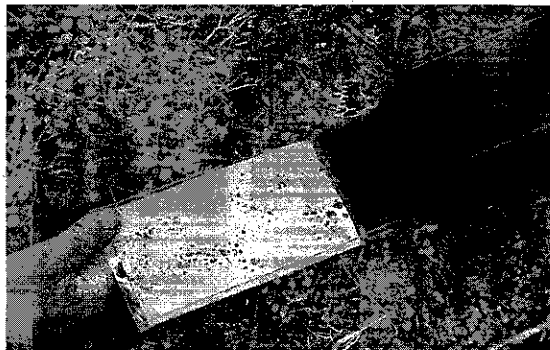


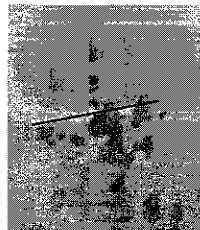
Photo: DOC Ranger removing a used ink pad and paper from a black polythene tracking tunnel.

Tracking tunnels are set out at regular intervals along a line consisting of ten tunnels each. The tunnels have an ink pad in the centre with paper either side of the ink. These tunnels are baited with peanut butter to attract small animals and this is placed in the centre of the ink pad.

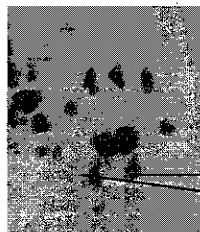


Photo: Bait such as peanut butter is placed in the centre of the ink pad, ensuring animals step into the ink and leave their footprints behind.

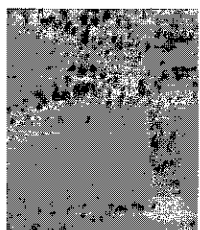
Animals enter the tunnel for the bait and leave their inked footprints on the paper upon their exit. These inky footprints are examined and identified.



Mustelid prints can be distinguished by drawing a line between toes one and four, the foot pad will be outside this line. Their furry feet sometimes create smudges as well.



Rats have four toes on the front feet and five toes on the back. They have lumps on the underside of their feet that leave clear marks.



Mouse prints show up as very small dots, and in this case cover the paper.

Results are calculated by counting the number of tunnels that a particular species have left their footprints in. The reason for not counting the number of times a rat (for example) visits a particular tunnel is because often the same animal will repeatedly visit the same tunnel. The total number of tunnels that any one species visits is then converted to a percentage of all the tunnels on site. For example, the results below indicate that 41% of the tunnels at Site 1 were visited by rats.

In February 2010 DOC staff and volunteers undertook tracking tunnel monitoring with the following results:

Site	Rats	Mice
Site 1	41%	70%
Site 2	22%	83%
Site 3	26%	75%
Site 4	41%	83%

When compared to previous results, the February monitoring indicates rat and mouse numbers have dramatically increased over the last year and are responding to a large seed fall (mast) that occurred in autumn 2009.

Stoats were also monitored in February using tracking tunnels. The stoat population is rising in response to the higher number of rats and mice available for them to eat. As available food for rats and mice diminish, so too do their numbers thus reducing the amount of food available for stoats. It is at this time that native bird species become more vulnerable to stoat predation.

### Trapping results

DOC has a network of 259 traps covering 4,000 hectares situated at Sites 1 and 2 in the Waitutu. These traps are in areas where kākā are known to breed and where the terrain is suitable for small scale trapping.

Below is the latest trap check summary that was undertaken in February 2010:

Site	Stoats	Weasels	Ship Rats
Site 1	63	0	90
Site 2	39	0	18

Site 1	63	0	90
Site 2	39	0	18

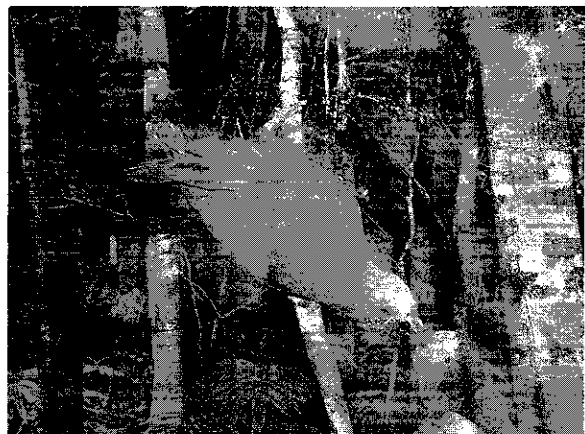
The February trapping period results are indicating a significant increase in stoat numbers in the area. Southland is experiencing a stoat population explosion in general and some have even been detected on pest free islands.

### Kākā monitoring

DOC has placed small radio tracking devices on 20 kākā at Sites 1 and 2. In February all but three birds were located. While they couldn't be found the 'mortality' setting on the tracking signal did not indicate that the birds had died.



*Photo: A small radio tracking device is attached to a kākā. The radio harness has several weak links that allows the harness to fall off if the bird should become entangled.*



*Photo: The kākā at the top has a radio tracking device fully attached and only the small aerial*

can be seen amongst its tail feathers as a light grey straight section.

### Morepork/ruru koukou monitoring

From December 2009 to February 2010, 26 morepork/ruru koukou were radio tagged at Sites 1, 2 and 4. The purpose of tagging these birds is to monitor their survival over the next year.

Within two days of attaching a transmitter to a nesting female, a mortality radio signal was detected.

The morepork was found to have been killed by a stoat. We believe this is the first instance of stoat predation on morepork to be confirmed in New Zealand. In February 2010 all remaining 25 birds were detected alive.



Photo: Morepork/ruru koukou at a nest hole.

### Resource consent results

In February 2010 the Department was granted its resource consent to aerially apply 1080 to part of the Waitutu Forest.

The full decision can be found on the Environment Southland website, [www.es.govt.nz](http://www.es.govt.nz) and follow the links: Consents > Hearings > Department of Conservation 1080 Discharge.

The primary alterations to the proposed operation include a five year consent term, 50 metre setback from the coastal marine area, independent review of the monitoring programme and independent water monitoring at 11 specific sites.

DOC would like to thank all those who participated in the process.

### 1080: Good news for conservation

DOC has just released a short DVD entitled '1080: Good news for conservation'. This DVD highlights the risk posed by possums, stoats and rats to our native wildlife and the effectiveness of using 1080 to control them.

The Department has also produced a brochure that explores similar issues as the DVD.

Both these items are available free of charge from DOC on request.

### More information

For more information regarding protecting the Waitutu please contact the Department of Conservation, 03 211 2400.