

# RAT CONTROL (100m x 50m) HARTS HILL – FIORDLAND PROJECT REPORT



## Project Summary

The Harts Hill project was established by DOC and Fiordland Conservation Trust in the Trust's "Kids Restore the Kepler" project area with the objective to knockdown and control rats with the Goodnature A24 self-resetting rat trap.

In November 2014 a network of 467 Goodnature A24 rat traps was established over 200 hectares of beech forest at Harts Hill, Kepler Track, Fiordland National Park using DOC best practice guidelines. Prior to establishment, rat numbers in the project area had exploded to a pre-treatment rat index of 68% due to the widely publicised beech mast/rat plague event. After twelve weeks, the first post-treatment monitor showed rat numbers had been reduced to 0% - an undetectable level - while rat numbers in the non-treatment monitoring area remained high at 70%. A second post-treatment monitor at 6 months showed rats had been maintained at 0% while the population in the non-treatment area remained at 70%.

The project successfully knocked down and controlled elevated rat populations in New Zealand beech forest to undetectable levels.

## Project Objective

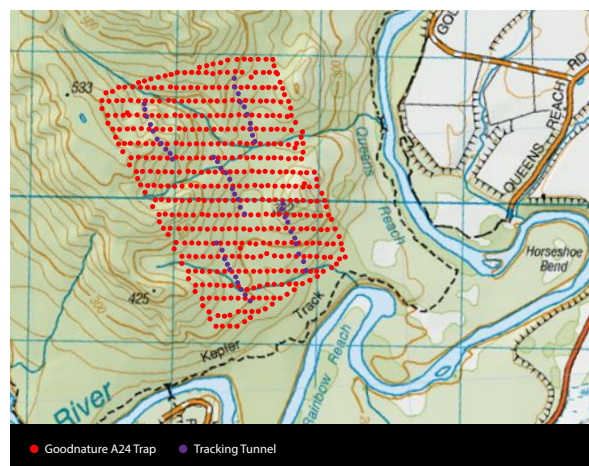
This project was set up to knockdown and control high numbers of rats during a beech mast/rat plague event in South Island beech forest with a control network of Goodnature A24 self-resetting traps.

## Project Design

The network at Harts Hill was established using DOC current best practice guidelines for ground-based rat control.

Traps were set at 50m intervals on trap lines 100m apart. The trap lines and locations were set on a GPS grid.

Monitoring was established using DOC tracking tunnel guide v2.5.2.



Harts Hill, Kepler Track

-45.48, 167.67

**Dates:** November 2014 – May 2015

**Area:** 200ha

**Traps:** 467 x Goodnature A24 rat & stoat traps set 200mm high.

**Lures:** Goodnature chocolate formula.

**Network Establishment Time:** 20 person days.

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Conservation  
*Te Papa Atawhai*

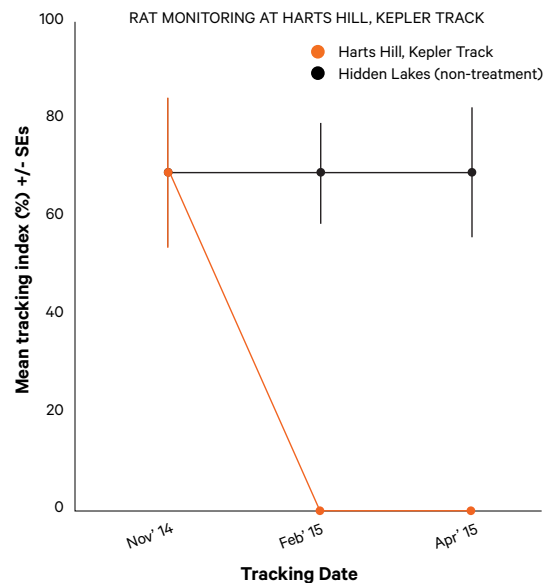
**Maintenance Schedule:** 3 person days every 4 weeks to refresh lure. CO2 replaced every 6 months.

**Monitoring Events:** Three monthly.

**Monitoring Method:** 5 lines of 10 tracking tunnels.

## Results

Objective achieved: **Yes**



Harts Hill pre-treatment monitor

**Nov 2014 68%**

Harts Hill post-treatment monitor

**Feb 2015 0%**

Harts Hill post-treatment monitor

**April 2015 0%**

Hidden Lakes non-treatment monitor

Nov 2014 74%

Hidden Lakes non-treatment monitor

Feb 2015 68%

Hidden Lakes final non-treatment monitor

April 2015 68%

## Highlights/Learnings

At least 7 stoats were observed trapped by the A24s during the rat control project. Four of these were in a single A24.

The project was established and managed by a range of operators including volunteers confirming the ability for volunteers to achieve success in a project of this type and scale.

Sixteen year-old Tim Barrow from Fiordland College was one of the main trap checkers.

This was the first large scale rat control project to deploy the Goodnature chocolate formula to target rats.

## References

Gillies, C.A. & Williams, D. 2013. DOC tracking tunnel guide v2.5.2: Using tracking tunnels to monitor rodents and mustelids. Hamilton, New Zealand: Science and Capability Group, Department of Conservation. 14 pp.



Goodnature A24 rat & stoat trap

[www.goodnature.co.nz](http://www.goodnature.co.nz)

## Acknowledgements

DOC: Craig Gillies, Lindsay Wilson, Sam Gibson, George Ledgard, Gerard Hill; Fiordland Conservation Trust: Laura Harry; Kids Restore the Kepler: Tim Barrow; Goodnature: Grace Paske, Nick Graham; Patrick Stewart and Eastern Bay of Plenty Polytechnic Students; Bob Schumacher.

## Contact

Darren Peters – DOC Science and Policy  
Terrestrial Ecosystems  
dpeters@doc.govt.nz

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