



Goodnature Trap Project

Windy Hill Sanctuary, Great Barrier Island

Report 3 – 19 September, 2016

293 Goodnature traps were established in the Big Windy Hill Pest Managed Area between February 22 and 24, 2016. Between March and August traps were checked monthly, bait refreshed, and traps set off to check reliability. The number and species of rats observed under the traps was noted. Two traps were set up in a Sanctuary garden area that has residential rails for observing by-kill possibility and checked every few days – none to date.

Results

Date	Functionality	Body Count
28-30 March	100%	16 rats incl 2 kiore
18-22 April	100%	6 rats
23-26 May	Not set off	15 rats
20-23 June	91% - gas failure - replaced	6 rats, incl 3 kiore?
18-21 July	99% - gas failure - replaced	7 rats
22-25 August	New self-dispensing bait pot inserted, new gas cylinder inserted 1 trap broken – sent for replacement	9 rats incl 2 kiore

- The reliability of the traps has been high.
- The new self-dispensing bait pots were time consuming to insert but the Goodnature on-line video was useful in training the field team in correct method.
- There was plenty of good quality bait left in the old pots indicating they could have been left in the field for more than 6 months – the same for the replaced gas cylinders.
- Bait and gas caps, and coins from the new bait pots have all been recycled back to Goodnature.
- One trap has been sent back for replacement when the gas cylinder fittings disintegrated.
- Kiore are being culled in small numbers but it is difficult to identify decomposed rats, best but unreliable estimates sometimes made on size.

Rat Tracking Tunnels and Chew card monitoring

35 Rat tracking tunnels and 200 chew cards were undertaken in January 2016 prior to the establishment of the Goodnature traps and after a 2 month period of no pest management. Tracking tunnels were monitored again in April, July, and September in keeping with the Sanctuary tracking tunnel programme. Chew cards monitoring was undertaken again in September.

	Jan/Feb 16	Apr 16	Jul 16	Sep 16

	(pre management)			
Tracking Tunnels	24%	24%	24%	14%
Chew Cards	0%			2%

It is pleasing to note the reduction in the tracking tunnels for September which may indicate the start of a downward trend. Again, chew cards did not correlate well to the tracking tunnel percentage. 2016 has been an exceptional year for rats and we could not have given these traps a tougher test.

Tracking Tunnel (TT) and Chew Card Monitoring Comparison (CC) with other Pest Managed Areas

Sanctuary wide - 155 tracking tunnels undertaken in Jan/Feb, April, July, November, and December.

Goodnature project area - 100 chew cards

Windy Hill pest managed area – 40 chew cards

Unmanaged Control area – 60 chew cards – all undertaken February and September

	Feb 16	Apr 16	Jul 16	Sep 16
Windy Hill TT	0%	12.5%	15%	15%
Windy Hill CC	2.5%			12.5%
Goodnature TT	24%	24%	24%	14%
Goodnature CC	0%			2%
Control TT	33%	55%	65%	55%
Control CC	36%			72%

The September results for the Goodnature project area were more in keeping with the results from other pest managed areas in the Sanctuary. All are higher than historically for this time of year due to the huge increase in rat numbers.

In discussions with other projects that have used Goodnature traps for a long period of time it seems, that in areas that have already had some kind of pest management prior, it takes quite a while for the benefits of the Goodnature trap to kick in.

Partnership Input

Auckland Council - Jeremy Warden reports on the Goodnature project in his Biosecurity Updates to the Local Board. He has also been responsible for ordering of new bait and cylinders as required.

DOC – Darren Peters keeps in touch and was available if required to train the field team in inserting the new self-dispensing bait pots.

Windy Hill – to date has invested over 400 hours valued at just under \$11,000 – this includes purchases for the cameras.

Next Steps

Each Goodnature trap will be checked in October to ensure that the bait is dispensing correctly and the trap set off to check functionality. The traps will not be checked again until February next year when new bait pots will be inserted.

Tracking tunnels will be undertaken in November and Jan/Feb next year and casual observation of culled rats undertaken at those times. Chew cards will also be undertaken in Jan/February 2017.



Bait collecting under trap from new self-dispensing bait pots

Summary

The traps are functioning to a high standard.

Gas and bait were still plentiful after 6 months.

Cull evidence is limited because of predation of carcasses.

The bulk of rats that are seen under traps are ship rat with a smaller percentage kiore. This may change as the ship rat numbers decrease.

The real benefits of the traps will start to show now as the labour input of servicing the traps can be significantly reduced.

Judy Gilbert

Sanctuary Manager