



WINDY HILL - ROSALIE BAY CATCHMENT TRUST

Windy Hill Sanctuary Goodnature A24 Trap Project



Update Report 7

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429 Rosalie Bay Road
RD1 Tryphena
Great Barrier Island
Telephone 09 429 0306
email lovebirds@xtra.co.nz

Background

The Goodnature A24 Trap project is a collaboration between the Great Barrier Local Board, Auckland Council, DOC, Goodnature Ltd, and the Windy Hill Sanctuary. Its purpose is to establish how effectively the non-toxic, self-setting, multi-kill Goodnature A24 trap is at reducing both ship rat and kiore densities within a pest managed Sanctuary on Great Barrier Island over a two year period. This

objective supports the local community aspirations to find ways to manage these pests with non-toxic methods.

Two hundred and ninety-three A24 Goodnature traps were established in the Big Windy Hill Pest Managed Area between February 22 and 24, 2016 by a team made up of personnel from Auckland Council, DOC, Goodnature, and the Windy Hill Sanctuary.

Traps were checked monthly for the first six months, and then every 3-6 months following the replacement of the manual lure with the chocolate flavoured auto-lure pump (ALP) in August 2016. Bait and gas cylinders have been replaced at six monthly intervals since that time and rat tracking tunnel monitoring undertaken in January, April, July, September and November each year.

Over the 18 months of the trial the following issues of have been identified:

- Consistently higher rat tracking tunnel indices in the Goodnature area than other areas in the Sanctuary using standard rat traps and diphaceneone bait
- Only 10% of animals identified beneath A24 traps have been kiore with the Sanctuary catch rate for these animals standing at 57%
- Some of the Auto-Lure Pumps (ALP) emptied at 4 months, short of the 6 months expiry date
- Bait clogging round the trigger appears to result in some units gassing out.
- With such high numbers of rats left in the area, it raises the question of whether the chocolate based lure is the most effective when a peanut butter based lure works more effectively elsewhere in the Sanctuary
- The A24 spacing of 50m between units is twice that of the stations in the other Sanctuary pest managed areas and that this may also result in elevated rat numbers.

Update on Activities

In response to some of the above issues the following has been undertaken:

A24 Trap Relocation

Following discussion with Darren Peters, DoC, and Nick Graham from Goodnature, it was decided that a reduction from the current 50 metre spacing between the A24s to 25 metres would be worth trialling to see if this better managed kiore, a species with a significantly smaller home range than a ship rat.

The rat catches from the two trapping lines opened between April and June this year had shown that more than 50% were kiore and that these more cautious animals may be the reason that the rat tracking tunnels have remained consistently higher.

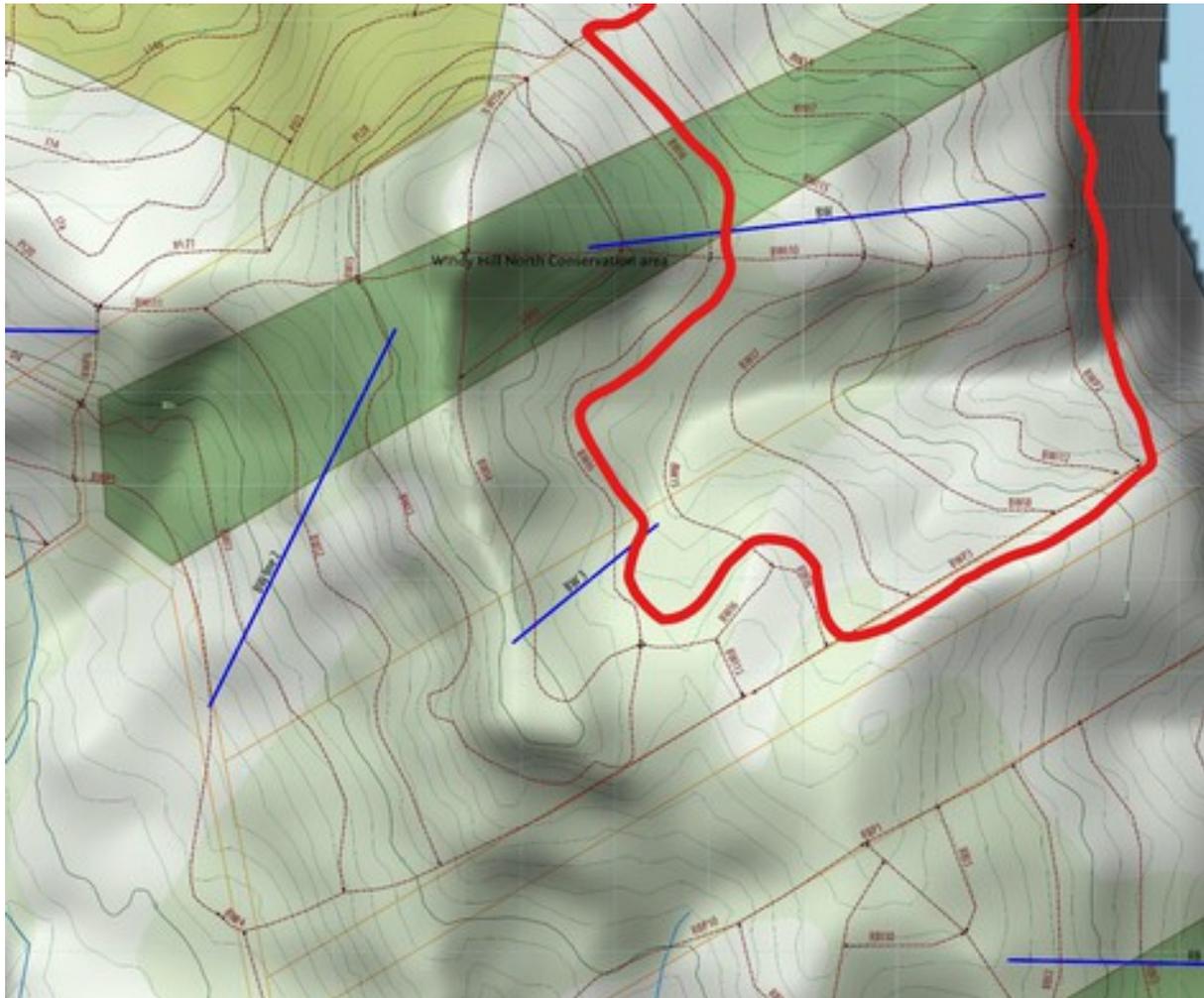
The new site placement would also bring the space between the A24s into alignment with the rest of the Sanctuary's 25m metres between each trap or bait stations.

The moving of traps was planned to coincide with the ALP and gas cylinder six monthly replacement due in August.

On 29th and 30th August the Windy Hill field team worked alongside Nick Graham and Chris Dwan from Goodnature to move 124 of the A24 units from the coastal side of the project area and interspersed these with the units on the inland area of the project at 25 metre spacing. The map below shows the area now cleared of A24s in red.

At the same time, the existing rat trapping lines were re-established at 50m spacing in the area cleared of A24s as a comparison with the previously placed A24s. These will be checked in the third week of September and then on monthly.

The existing rat tracking tunnel lines, as marked on the map, are reasonably spread between the A24 and the standard rat trapping areas and should provide sufficient data to measure the outcomes from the changed regimes. Rat tracking tunnel monitoring will be undertaken in September and November. By late this year we should get some indication of how well the repositioned A24s are doing stand alone and compared to standard trapping.



ALP and Gas Changeover

During the changeover operation, it was found that 9 of the units had no gas left and that 43 of the ALPs had not dispensed any bait and were still full. The latter is a significant percentage of units and raises some concern about the consistency of the ALPs.

The problem of the lure running out after 3-4 months and before the six month expiry date which was identified in the 20 unit spot check carried out in June could not be re-confirmed at this time. 5 of the 9 gassed out A24s were units where the bait had congealed around the trigger indicating this may have been the cause.

One unit was damaged during the gas cylinder changeover and will be replaced by Goodnature.

Next steps

The A24 Goodnature Project is due to be completed in February next year. I would like to propose an extension to allow for a full year over which to assess the closer A24 placement. There are sufficient gas cylinders and ALPs in stock for a changeover in February 2018 which would take the project through to August 2018.

This project is being closely followed throughout NZ and is raising some sound questions regarding the efficacy and reliability of the A24 in the presence of two species of rat. The Windy Hill Rosalie Bay Catchment Trust remains committed to funding the field and data collection.

There needs to be further investigation by Goodnature as to why so many of the ALPS failed to release bait and why some appear to have released bait too quickly and run out well before the expected 6 months. The clogging up of the bait around the trigger could also be addressed though this occurs less frequently.

A review of the flavour of the bait would be useful. The Sanctuary has been in discussion with Goodnature and Darren Peters regarding chocolate based versus a peanut butter based lure. Peanut butter and peanut oil based bait are used successfully throughout the Sanctuary so the low catches of rats by the A24s could also be attributed to the chocolate lure not being as attractive to rats in this habitat. A casual trial was undertaken using the chocolate lure from partially used ALPs in 49 standard rat traps in an area being regularly trapped outside the Sanctuary. Previously consistent catches dropped away with the operator questioning if the chocolate lure was less attractive. This simple unscientific trial indicates that a more robust trial comparing the two would be useful.

Thank you, Nick Graham(Goodnature), Darren Peters (DOC), Auckland Council, and the Great Barrier Local Board for your involvement and support of this very worthwhile project. Thank you, also, to Kevin Parsons, Rachel Wakefield, and Henry Cookson for their diligent work as the Sanctuary field team.

Judy Gilbert
Sanctuary Manager