



## Windy Hill Sanctuary Citizen Science Series #10

### The Goodnature A24 trap – how well is it doing on Barrier?

Nearly 300 gas fired, multi-kill, non toxic A 24 traps were purchased by the Local Board in 2016 and established in the Windy Hill Sanctuary to see how they would work when both kiore and ship rat are present and in an area where rat numbers were already suppressed.

The following is the 9<sup>th</sup> report prepared by the Sanctuary for the Local Board and is printed with their permission. It details progress since the traps were established in February 2016.

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

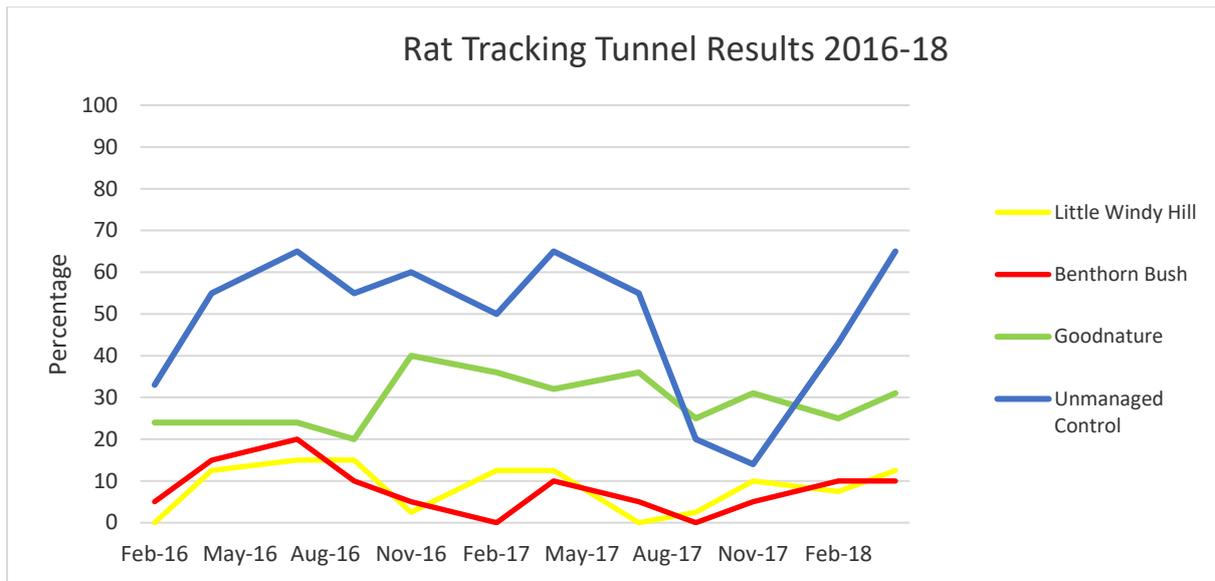
Two hundred and ninety-three A24 Goodnature traps were established in the Big Windy Hill Pest Managed Area in the Sanctuary between February 22 and 24, 2016 by a team made up of personnel from Auckland Council, DOC, Goodnature, and the Windy Hill Sanctuary.

The project was originally planned for a two-year period - this has now been extended to August 2018 by the Great Barrier Local Board to allow more time for the project.

### Actions and Outcomes

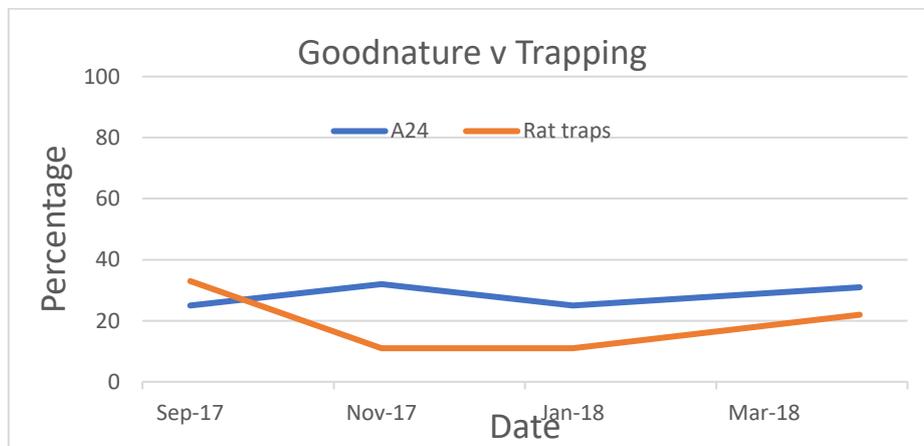
Traps were checked monthly for the first six months, and then every 3-6 months following the replacement of the manual lure with the chocolate flavoured auto-lure pump (ALP) in August 2016. Ship rat and kiore body counts were recorded – 90% ship and 10% kiore in the first 6 months. Bait and gas cylinders have been replaced at six monthly intervals and rat tracking tunnel monitoring undertaken in January, April, July, September, and November each year.

Rat tracking tunnels in the area managed with the A24 have remained between 20 and 40% since the A24 project commenced. The graph below illustrates the differences in tracking tunnel percentages for the neighbouring Little Windy Hill, Benthorn Bush pest managed areas, and the unmanaged Control.



On 29<sup>th</sup> and 30<sup>th</sup> August 2017, 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. Traps at 50 metre spacing were re-established in the area vacated by the A24s and subsequently checked monthly. 101 rats have been trapped since the changeover.

The 25 existing rat tracking tunnels are split with 16 in the Goodnature area and 9 in the rat trapping area. The results from rat tracking tunnels since the changeover follows.



#### ALP and Gas Changeovers and Checks

In February 2018, another gas and ALP changeover was undertaken with the Windy Hill team joined by Goodnature personnel – Sean O’Brien and Christine Stockum. 10 ALPs had failed to drop bait and 3 had out-gassed. This was a real improvement on the last run in August 2017 and was not considered significant to the integrity of the network.

	Aug 2017	Dec 2017 Spot check of 70 units	Feb 2018
ALP- fail to release	43	2	10

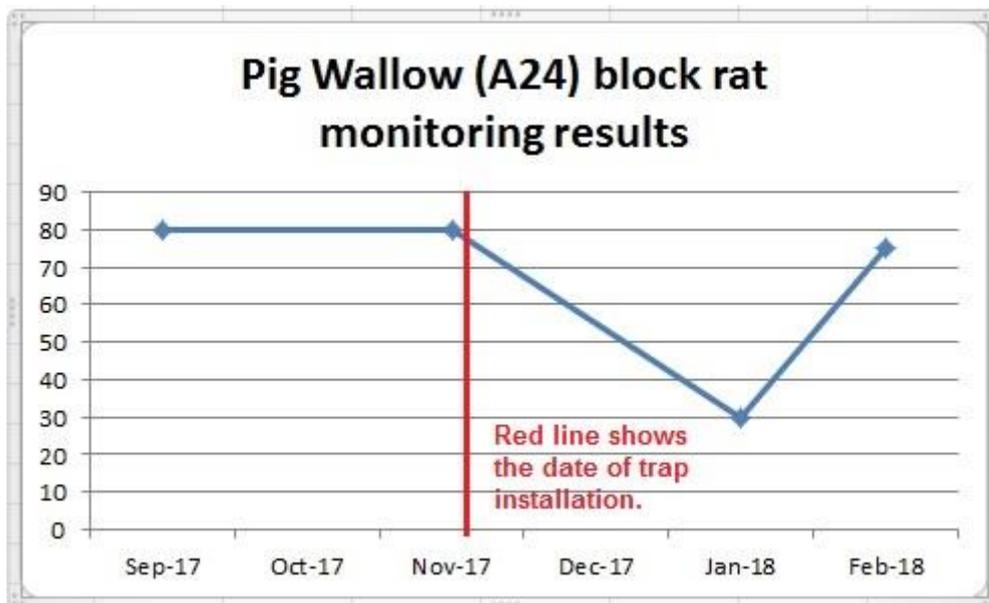
Off gassed	9		3
Trigger blocked	5 of the 9 above	12	

However, Christine and Sean acknowledged that this was an issue and took some of the ALPs to be further analysed by their engineers.

The picture at below shows the amount of bait that could be squeezed out following removal of an ALP after 6 months in the field.



After spending two days in the Goodnature project area the team from Goodnature had no changes to the field layout to recommend. Sean and Christine also spent time reviewing rat tracking tunnel history and Christine has taken the previous two years tracking tunnel data from the pest managed areas neighbouring the Goodnature site to analyse. Further discussions have been held with other groups using the A24s but in two cases they are used in a mixed array with DoC 200s and 1080 and not comparable to our situation. Fortunately, Ark in the Park in the Waitakeres has a 50 HA area with just GNA24s and the following graph supplied by them shows that the A24s are not maintaining rats at low levels there either. Their traps are set at 100x50 while ours are now at 100x25.



### Next Steps

The project is due for completion in August 2018.

- As agreed by Goodnature, we would like to recommend to the Local Board that the project continue for a further 12 months to more fully assess the closer proximity of the A24s, and

to change the timing for the ALP changeover to 4 monthly intervals and the gas to 8 monthly intervals. This will involve some additional cost.

- Trapping will continue in the area where the A24s were removed from.
- Tracking tunnel runs are planned for July, September, and November.
- Goodnature will report on their analysis of our tracking tunnel data.
- Further communication with other projects using A24s will be undertaken.

Thank you, Sean O'Brien and Christine Stockum (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, Abby Naismith, and Henry Cookson for their diligent work as the Windy Hill Sanctuary field team. The Sanctuary has invested \$25,000 in this project.

Judy Gilbert  
Sanctuary Manager