

WINDY HILL ROSALIE BAY CATCHMENT TRUST



Windy Hill Sanctuary

Newsletter #31

June 2017

Year 18

Citizen Science at Windy Hill

Designing, trialling, assessing and adopting different equipment and methods has become a key interest in the Windy Hill Sanctuary. Currently we are running several projects:

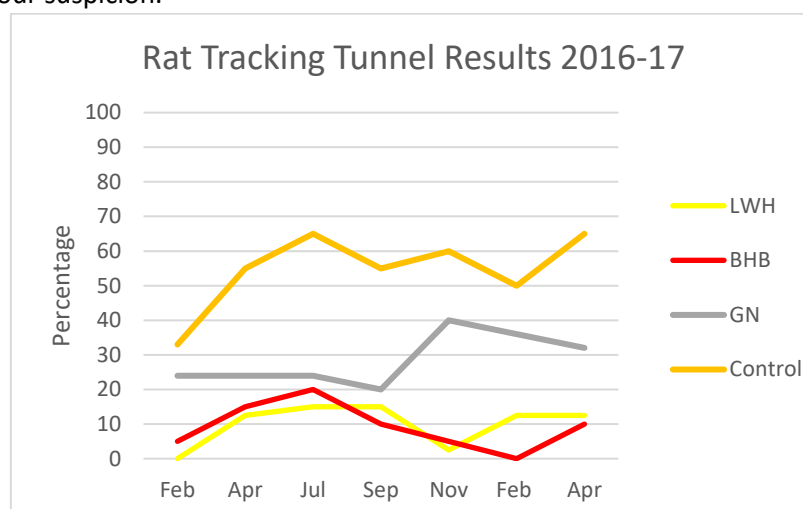
- Econode** – a field trial of 50 Econode sensed traps commenced in May in the Medlands Valley area. A series of tracks have had the standard traps replaced with a sensed trap set up to signal a computer or cell phone when it is sprung or goes offline. The field team worked with Scott Sambell and Matt Way of Econode designing the field layout, deciding on the protocols for response to a signal and frequency of reporting before establishing the units in the field. Traps will be checked every three months and long life baits replaced. Reports of trap status are sent weekly (as below) and set offs will be mapped real time while building a picture of trapping hot spots over time. A sprung trap will be attended to only if two or more are set off in a week. The time for each check will be kept and compared against the time taken for a normal monthly check. The purpose of the trial is to ‘ground truth’ the equipment and assess the labour saving potential of this method. The Econode Smart Trap report for Windy Hill below.

Traps Sprung: 1			
Node Id	Sprung	Last seen	Location
144	Y	2017-05-24 09:35:34	LWHI3/18T

Nodes offline:			
Node Id	Sprung	Last seen	Location
127	N	2017-05-28 07:33:37	LWHI5/5T
191	N	2017-05-28 19:17:06	LWHI3/20T
184	N	2017-05-28 11:55:32	LWHI3/22T
144	Y	2017-05-24 09:35:34	LWHI3/18T

- In conjunction with the Econode project the effectiveness of **Narra long life baits** soaked in peanut oil will be assessed. Sensed traps are more effective with a long-lasting bait. The Narra scented polymer lure baits have been trialled for over a year at Windy Hill and while they do not come close to matching peanut butter, they are effective if they have been soaked in peanut oil and refreshed with the oil from time to time. Thank you to our new sponsor, Peter Cooke at *Seed Oil Products*, who has provided us with 40L of peanut oil!
- The **Goodnature A24** project in neighbouring Big Windy pest managed area has completed year one of its two years. The A24 traps are not keeping rats as low as the densities achieved in neighbouring Windy Hill or Benthorn Bush pest managed areas with a mix of traps and

bait. The Trust suspects that kiore are the problem and in May opened up two rat trapping lines through the area. To date kiore catches significantly outweigh ship rat catches confirming our suspicion.



- **Gorilla Rat Traps** – purchased from Alpeca Ltd, this more robust version of the Snap-E trap is being trialled against Snap-E traps. Early results indicate it sets more finely and is out-catching the Snap-E.

Pest Management

Pest Management continues at a steady and well organised pace. The field team of Kevin Parsons, Rachel Wakefield, Henry Cookson and Dave Harland supported by administrator Sue Thompson, are a well-oiled machine that have a good handle on the Operational programme that is rolled out each year. Contractor Dean Medland has completed his programmes of chemotherapy and radiation and is in remission. Astoundingly, he has been able to hunt between treatments and recently brought in a 130lb boar from Windy Hill, the meat from which was shared with landowners.

The varying methodologies used in the four pest managed areas over the last year have been largely successful at suppressing rats with tracking tunnel indices significantly less than in the unmanaged Control area.

Pest Managed Area	Method	2016 (Annual average)	2017 (average to date)
Benthorn Bush	Trapping and 20 grams cholecalciferol changing to 100 grams diphacenone in stations	11	5
Benthorn Paddock	Trapping only	15	10
Windy Hill	Trapping and 100gram diphacenone baits in stations	6	12.5
Rosalie Bay	Trapping and baits on perimeter checked monthly. 150gram diphacenone tree baits on internals checked 3 monthly	12	0
Big Windy (Goodnature)	A24 traps re-gassed and rebaited 6 monthly. Checks when going TTs.	26	34
Taumata	Tree baits at 50x100 spacing – 150 grams diphacenone	38.5	60
Control		53	57

For the last six years, the Sanctuary has been researching the optimal weight of multi-feed bait that is required to maintain rats at low levels. A review of our data by Brent Beaven and Nick Graham in October 2016 indicated that 100 or 150 grams worked more effectively than 50 grams and the 2017 Operational Plan subsequently specifies the larger amount.

It is valuable to have **independent ‘audits’** of our pest management to put alongside our internal interpretation of data. Jeremy Warden, Great Barrier Biosecurity Officer, visited WH earlier in the year with his son, Jack (who is mid his ecology degree) looking for pimelea tomentosa – a rare category C plant present in the Sanctuary. Jeremy brought along his rat detector dog and emailed me the following – “Using the dog as a tool, Windy Hill has significant differences in rodent activity compared to unmanaged areas on the island at the moment, and outstanding results achieved in the vicinity of Waterfall Gully back onto the main access road.”

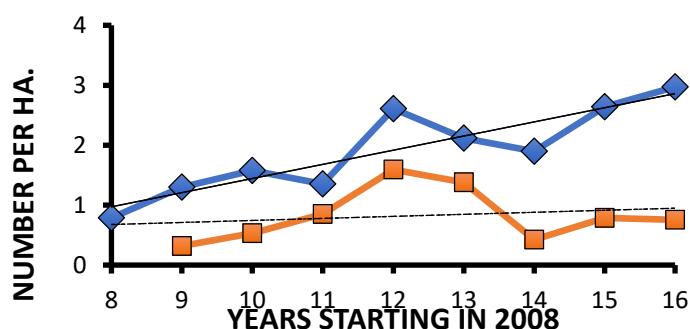
For the last five years, the Auckland Council RIMU team have been monitoring vegetation, rats, and birds in plots all over Aotea, (including Windy Hill), and the Auckland region. A comment from team leader Craig Bishop in July 2016 was encouraging; “Those are very low numbers for Windy Hill (rat chew card results), just awesome really in comparison with all the non-fenced sanctuaries in the Auckland Region. The only other location that comes close is ARK in the Park, but even they have a few more rats and mice (and even the odd possum). So, keep up the good work, which I have no doubt that you are doing.”

Red Crown Kakariki Project

Species Biologist, Kevin Parker, lead a team to the Mokohinau Islands in April to screen for beak and feather disease as part of the pre-translocation process for bringing red crowned kakariki to the Sanctuary. Unfortunately, 5 of just over 90 birds tested positive which means this cannot be a source of birds for Great Barrier. Thank you to Lotteries Environment for funding this important work.

Monitoring Programme

Ongoing Citizen Science includes our annual monitoring programme which provides data on birds, lizards, weta, invertebrates, and rats in relation to pest management. The annual Bird Count was undertaken in December 2016. The report from Trustee John Ogden details the continued rise of tui, kereru, and kaka numbers. This year also saw a rise in silvereyes. Tuis are the species that has benefitted the most from pest management and this has also been shown in other Sanctuaries. Graph below taken from the recent report.



TUI NUMBERS in areas managed for rats (blue) and (red) unmanaged areas. Trend lines diverging.

Funders

We continue to have our applications for funding well received. Thank you to funders Great Barrier Local Board, Lotteries Environment, Foundation North, Auckland Council Regional Environmental Funding, and DOC Conservation Partnerships Fund.

Thank you to sponsors Freightlink, Kelvin Floyd, Scott Macindoe, and our new accountants Lynch Phibbs Ltd.

We're on Facebook

Check us out on @windyhillsanctuary to see an awesome video of moreporks courting, a bird's eye view of the pest management project areas, and the announcement that we have now trapped over 50,000 rats meaning we have saved a lot of eggs and baby birds, weta, lizards, invertebrates, and seeds. It is a treat to reside in the Sanctuary and enjoy the bounty being created by a diligent team.

Thank you to the many people who sent an absolute waterfall of congratulatory messages regarding my recent QSM for services to conservation. Heartening to say the least and great to have volunteers in Conservation recognised. The acknowledgement is much shared with landowners, the field team, the Trustees and our generous funders and supporters.

Judy Gilbert

Trust Manager