



Windy Hill Sanctuary Citizen Science Series #4

The essential element of citizen science is of course, the citizens. This article is focused on the Sanctuary field team and the Sanctuary supporters involved in working towards finding a socially acceptable way to suppress kiore, ship rats, and mice on Barrier. Over the last 18 years it is these citizens who have created a toolbox of options for effectively reducing these highly invasive species long term. The Windy Hill field team arrives at the end of 2017 on a real high – the dawn chorus has been stunning, we have located 22 kaka nests some with up to 4 chicks, and successfully suppressed rats to very low levels reaching the magic target of 5% for our annual rat tracking tunnel monitoring. This is a remarkable achievement for an open Sanctuary with traps backed by RatAbate as the key tools.

These achievements are only possible with a dedicated field team:

Kevin Parsons is the Sanctuary Field Manager and has been with us for 15 years. Over this time he has developed a deep understanding of integrated pest management alongside comprehensive species monitoring and our citizen science projects.

He leads the team of 3 other field workers – Henry, Dave, and Abby - through the annual Operational Plan



which covers all the above plus OSH and track clearing. Kev is a beautiful communicator and we are in daily contact as he details the actions, challenges, and outcomes of this field work. His annual diaries are a complete record of all field activities and detail the 51,000 rats we have trapped. Kev is a hard taskmaster, setting himself and the team ambitious daily targets. Walking up to 21 kilometers a day (as measured on his Fitbit), it is little wonder he goes through two sets of top quality hiking

boots a year!

Dean Medland has worked in a variety of roles in the Sanctuary since 1999. He is the foundation on which we have grown from 100 traps in a 20 hectare area to over 5500 bait and trap stations over 770 hectares. He has designed and built the Sanctuary's 80+ kilometers of tracks. We are so pleased to have Dean back in good health and undertaking the Biosecurity Contracts we have with Auckland Council and Auckland Transport. He keeps us supplied with delicious wild pork from his management of feral pigs in the Sanctuary.



We have enjoyed 14 roasts this year despite his getting through chemo and radiation. Legend! Dean has monitored lizards, invertebrates, and weta since 2006 all of which are much more abundant in the Sanctuary than in the unmanaged Control area. His partner, **Rachel Wakefield**, finished as a field worker in September after 12 years as a supremely conscientious and hardworking team member. Rachel will continue to assist with bird counts and as a back-up field team member from time to time.

Henry Cookson began as our youth worker 4 years ago and has gone on to take responsibility for the field work in our new 137 hectare Taumata pest managed area. This year he completed a full weed survey and a prioritised plan for culling these weeds for the area. He also led the three 'pulses' (bait in, bait out) of



RatAbate – a research project trialling the efficacy of limited time periods of bait. The November tracking tunnel result of 5% was an indication that having bait in an area for as little as 18 weeks per annum can be successful. This research will continue into next year. Henry's dog 'Chase' has appointed himself chief kaka nest finder and has found nearly all of the 22 nests locations.

This photo shows Henry at Baring Head in Wellington where he has been on a 10 day Lizard Survey with EcoGecko. Thanks to the Windy Hill Sanctuary Education Fund sponsor **Scott Macindoe**, Henry had a rich experience upskilling on lizard identification, trapping, and handling with a top team. This is 'Life Long Learning' in action!



Dave Harland works part time managing the 'trapping only' area in the Benthorn Farm pest managed area along with volunteer landowner **Helga Speck**. Checking traps at two weekly intervals within a surrounding buffer of bait and traps has resulted in a very creditable 7% rat tracking tunnel rate. Dave has worked for the Trust for over 10 years, he volunteered for 3 years, and is now back as part of the team undertaking all aspects of Sanctuary activities. He also works in the Rosalie Bay area which is managed with a mix of traps and bait and achieved the outstanding result of 2% rat tracking tunnels for the year. This is the only area, ever, where 4 out of the 5 'tracking tunnel runs'

came in at 0%!



Abby Naismith is our new youth worker who started in September this year. He is funded by the QEII National Trust and MSD FlexiWage. 267 hectares of covenanted land exists within the Sanctuary and it's great to have the covenanting organisation supporting on the ground improvement to the biodiversity. Abby has now graduated to being independent in the field – this takes 6 to 8 weeks - and is a full time field worker. He has been monitoring the trial of coconut oil versus peanut butter flavoured lures which will continue into next year.

Thank you to **DOC Community Partnerships Funding, Foundation North, and Lotteries Environment** who cover the operational costs of the team. Thank you to the **Great Barrier Local Board** who fund the teams OSH gear as well as traps and bait.

Thank you to our long serving Trust Administrator, **Sue Thompson**, our trustees **John Ogden** and **Rose Harland**, and the **53 landowners** within the Sanctuary for your invaluable support.

Every year the dynamic forest at Windy Hill serves us up another curve ball – rats caught in traps are down over 40% on previous year averages! This year we have caught less than 2600 in our traps versus our long-term average of 3750. Trap catches were down for 11 of 12 months. We don't know why this is but suspect

we will see a steep climb as reduced numbers means more food and less competition allowing rats to rapidly build up again.

The Goodnature A24 trap project funded by the Great Barrier Local Board and the Windy Hill Sanctuary has been extended until August 2018 in order to trial these traps at 25 metre spacing rather than the 50 metre spacing they were initially established at in February 2016. The rat tracking tunnel average for 2017 in the Goodnature project area was 31%, higher than any other area, and the Goodnature team are keen to find out why. Bringing the traps closer together has reduced the size of the project area and could mean that kiore, with their smaller home ranges, may encounter the traps more readily. If you are interested to follow this project more closely please visit our website www.windyhillsanctuary.nz/briefs/research for the 7 reports to date.

Working alongside other organisations is a key element for a community based project like ours.



The Hillary Outdoors Education Center teamed up with our field team in August. We hosted groups of up to 20 students over three weekends. Their work was focussed on removing weeds identified in the new Taumata project area – particularly hakea, pampas, wilding pines and blackberry. They also cleared and maintained tracks in the Little Windy Hill project area. We appreciate the opportunity to work alongside the experienced supervisors of Hillary Outdoors and to have the students able to participate in our restoration activities.

Markus Gronwald from Auckland University also spent two and a half months at Windy Hill continuing his doctorate study of ship and kiore rats. He now begins the painstaking process of analysing thousands of video clips. His thesis will be enlightening.

It is important to keep abreast of science and new developments, as well as sharing what we are learning. This year **Judy Gilbert** attended the Crazy and Ambitious Conference in Wellington where the Predator Free NZ 2050 was launched alongside New Zealand's Threatened Species Strategy. She attended the Sanctuaries of New Zealand Conference in Christchurch in August then the Island Arks Conference in Fiji in October where she made two presentations. The pest issues in the Pacific Islands are dire – imagine Fiji without palm trees! The invasion and rapid spread of the Rhinoceros Beetle make this a distinct possibility. Judy also made a presentation at the Auckland Council Pest Liaison Group in November. Conference attendances are all self-funded. One of the positives about meeting with so many other people involved in conservation restoration is to know that even in the back blocks of the Barrier we are up there with technology and practice.

Judy Gilbert

Sanctuary Manager