WINDY HILL ROSALIE BAY CATCHMENT TRUST

Windy Hill Sanctuary Newsletter #44 June 2023

Wintery Greetings from a very soggy Aotea – maintaining the Sanctuary integrated pest management programme has never been as challenging as it is now with wild and wet conditions, a reduced field team, Covid, and team injuries.
As for much of New Zealand the lack of people available to take on positions is a challenge, and our currently small field team has led to a review of capacity to undertake our comprehensive restoration programme. Station placement has been audited and excess stations retired. The frequency of station checks has been reduced in two pest managed areas and this will be monitored to ensure that our rat tracking tunnel indices remain low.

However, there have been some exciting activities this year -

- Toutouwai/NI Robin banding on Hirakimata by Dr Kevin Parker
- A Lizard Survey led by lizard guru Trent Bell
- A Seabird survey led by Jo Sim and her dog team
- GPS/Phone data training for the team led by Kelvin Floyd
- New website development by Andy Saunders (thanks to IAG)

Toutouwai/NI robin banding on Hirakimata
For the second consecutive season Dr Kevin Parker has been engaged by the Trust to undertake a survey of the toutouwai on Hirakimata and band captured robins. The purpose of this work is to assess the numbers of birds that have established there, whether there is evidence of successful breeding (that is un-banded juvenile birds), and long term, to find out if the population is stable and self-supporting.
Toutouwai were translocated to Windy Hill and Glenfern Sanctuaries in 2004, 2005, 2009, and 2012. Ultimately, the birds failed to permanently establish in the Sanctuaries due to juvenile dispersal into contiguous bush, but a number of those birds did establish a population on Hirakimata and returned Toutouwai to Aotea after an absence of 140+ years.
Kevin encountered 15 birds over a four day period in May, including six of the 13 banded birds from the 2022 survey, two new banded birds, and seven un-banded birds. He estimates that there are >20 robins on Hirakimata.
For those folk hiking up Hirakimata please keep an eye for these engaging little birds and please report back to us so we can add your information to our data base - **lovebirds@xtra.co.nz**
Robins are curious and will often land on the track in front of people hoping for a feed of disturbed insects. If the bird is banded, both legs will have coloured 'anklets' which are read from top left leg down then right leg down, eg, the WH bird in the picture is Metal/White on left leg and a single band of Yellow on the right leg. All the banded birds on Hirakimata have two bands on each leg.

Lizard Survey & Training
Between 2007-2013, herpetologist Trent Bell lead a team at Windy Hill trialling Artificial Cover Objects (ACO's) to find a more efficient way to monitor lizards. Hundreds of the covers, made of a sheet of foam, were wrapped around trees throughout the Sanctuary and in the neighbouring unmanaged Control site.

The model proved to be a successful way of monitoring lizards over the more time consuming pitfall traps and night spotting methods and has been introduced into many conservation projects throughout the country since.
In March, Trent (pictured left with Pacific Gecko) returned to re-survey for lizards in the Sanctuary as a training exercise for three corporate ecologists and the Sanctuary field team. Over 4 days using G-Minnow traps, lizard motels, night spotting, and ground searches they found Pacific geckos, Raukawa geckos, forest geckos, copper skink, ornate skink, and a large adult chevron skink. There seems to be higher numbers of Pacific geckos and Raukawa geckos than 10 years ago, but this is anecdotal. The chevron skink was found in a tree fern in Waterfall Gully, but this was not during recent heavy rainfall events. This indicates that the skinks may use tree ferns more frequently than thought. This insight may lead to more effective survey methods for the species.
Longer term, Trent is thinking of setting up a formal lizard handling/training course to be undertaken at Windy Hill in partnership with the Sanctuary for Department of Conservation rangers, mana whenua, territorial authorities, ecologists and community groups.

Seabird Survey
In January, despite atrocious weather conditions, Jo Sim and her seabird detection dogs returned for their third survey of seabird borrows at Windy Hill. Unfortunately, no new burrows were discovered here but active Black Petrel burrows were discovered for the first time in the Station Rock and Oruawharo hills area. There are 17 active burrows in the Sanctuary.

Field Team Training
Techie Guru Kelvin Floyd has been a long term sponsor of the Sanctuary providing voluntary mapping, gps, and technical assistance since the mid 2000's. Kelvin visits the Sanctuary annually to create and update maps, refine data, and this year to also train the field team in phone mapping and data entry, gps, and general technical matters. Kelvin shown here working with Kate Clapshaw and Lewis Jones in April. The Trust is highly appreciative of his generous contribution.

New Website
Huge thanks to Andy Saunders who has volunteered his time with some sponsorship from IAG to give our website a new look – plans are for launch in early July.

Funding
We highly appreciate the three year funding received from Foundation North and a continuation of our Funding Agreement with Auckland Council. Aotea Great Barrier Local Board has also part funded the Aotea Community Native Plant Nursery Manager which is managed by the Trust. Thank you.

Research
Lizard Seed Dispersal Study by Hayley Alena (PhD student at Auckland University)
Hayley has just finished up 1.5 years of field work in Windy Hill Sanctuary looking at how lizards contribute to seed dispersal. Hayley's field work involved placing 35 artificial lizard houses ("retreats") at Windy Hill, as well as 35 at Kowhai Valley (no pest control) and 10 at Medlands dunes (pest control) and collecting lizard scats from these. There is still much work to be done in terms of analysing her samples, but it is encouraging to see that there were far more lizard scats inside Windy Hill than directly outside at Kowhai Valley, which suggests higher lizard abundances inside the sanctuary where there are high levels of pest control. Lizard scats were also found in a higher percentage of the artificial retreats in Windy Hill compared to Kowhai Valley, suggesting lizards are using more habitat, likely due to reduced predation pressure from introduced pests. There were few scats found at Medlands, but there were only 10 artificial lizard houses, and scats were found in most of them which suggests high lizard abundances where there is also pest control. This highlights the importance of controlling pests to protect our native lizards and shows that Windy Hill is successful in providing this protection. Hayley's next steps are to identify the seeds found in the lizard scats to

determine which plant species they are dispersing, as well as identifying the specific lizard species though their DNA in the scats. Hayley will provide another update once this work is complete.

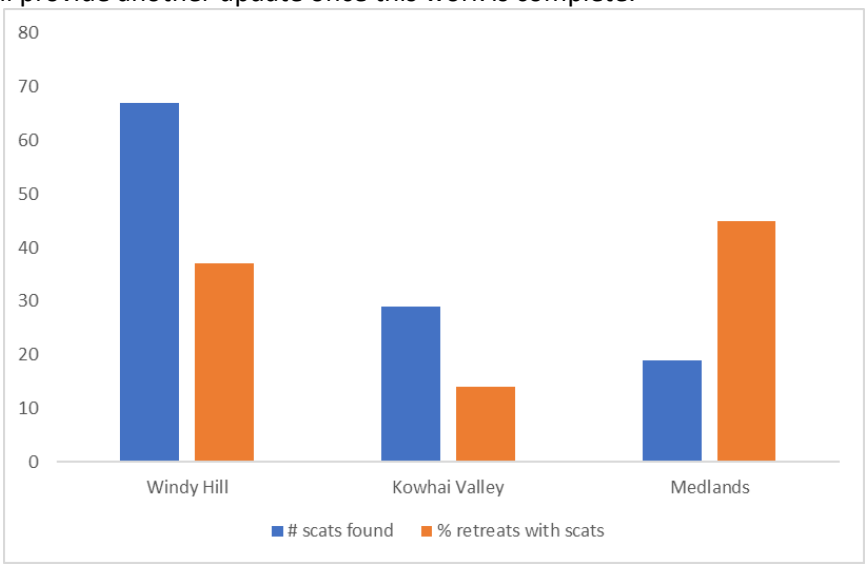

Figure 1. Number of lizard scats found at Windy Hill Sanctuary (pest control), Kowhai Valley (no pest control) and Medlands dunes (pest control), as well as the percentage of retreats where scats were found. Windy Hill and Kowhai Valley had 35 retreats, and Medlands had 10.

Hats Off

To the Sanctuary field team – Maxine Barrowman, Kate Clapshaw, Travis Munday, and our landowner trapping volunteers for doggedly keeping up with pest management through one of the worst years of weather experienced.

Until next time,

Judy Gilbert
Trust Manager

Scott Macindoe– Education Fund
Phibbs & Co – Pro Bono accounts
Kelvin Floyd – Mapping
Andy Saunders - Website