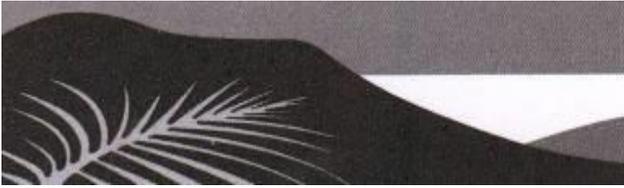


WINDY HILL ROSALIE BAY CATCHMENT TRUST



Newsletter #29

June 2016

Wintery greetings

The Windy Hill Sanctuary just had a major growth spurt! 150 hectares of new land has been added to our Sanctuary bringing the total area up to 770 hectares.

'Taumata' is a beautiful property to our west and joins other Sanctuary boundaries at the top of the Tryphena and Rosalie Bay catchments on Southern Great Barrier. This addition creates an east to west coast corridor for birds and other threatened species.

We welcome this property and its owners, the Bell-Lonsdale family, who introduce themselves as follows: **"We are a family of three - Derek Bell, Robin Lonsdale and Jeremy Bell. For the last 10 years we have been renovating the old Todd farmhouse in Mulberry Grove. We have now purchased what remains of the original Todd farm - that being the large bowl of bush sitting to the south of Rosalie Bay Road and beneath Little Goat Road. This purchase fulfils a vision for directing our energies into ecological restoration of some Barrier bush. 137 hectares of the land is already in QE2 covenant, courtesy of Bubbles Wheeler, a previous owner. Much of this covenant contains magnificent mature forest with the remainder being 30 year-old regenerating bush. Bird life in the bush seems sparse and we look forward to seeing (and hearing) an improvement as a result of joining the Windy Hill Rosalie Bay Catchment Trust Sanctuary.**



Looking west over the covenanted area

The remaining 23 hectares of the property lies immediately behind the settlement area in Mulberry Grove and is currently in pine forest and pasture. We are (rather ironically) facing major early frustrations with obtaining a resource consent from council to remove the pines. But we otherwise we remain excited about our future involvement with the ecological enhancement of the island. We have lived in Central Otago for the last 30 years

and although work will keep us employed there in the short-term, we look forward to spending heaps more time on the Barrier in the future - and being actively involved in environmental activities.”

The Sanctuary now has 267 hectares of QEII Open Space Covenants and 25 hectares of Auckland Council title covenant – a substantial area protected in perpetuity. The google map shows the extent of this protection.



Work in the new area will initially focus on pre-management monitoring of rats, birds, and lizards to ensure sound baseline data.

Sanctuary Research

Pest Management is entering a phase of exciting new methods and equipment potentially leading towards much greater areas being able to be managed with the same level of resource. A number of field trials are underway here and the outcomes of this work will assist in the future pest management methodology decided on for 'Taumata'.

- **Kiore research** - One of the difficulties with rat management on Great Barrier is the presence of kiore and ship rats. At both Glenfern and Windy Hill Sanctuaries it has been noted that as ship rats are kept at low levels kiore numbers rise and they appear to be able to persist. In May and June 2014 at Windy Hill each animal caught was identified - 59% of rats trapped were kiore - a huge increase over the early trapping results in the Sanctuary when the highest recorded level of kiore was 20%. Because kiore are a problem not only on outlying islands in NZ but throughout the entire Pacific, a Doctorate Student from Auckland University has begun work on recording the differences in kiore and ship rat behaviour. Early this year, Markus Granwold spent three weeks at Glenfern Sanctuary and a further three weeks at Windy Hill Sanctuary recording captures and re-captures of kiore and ship rats. Animals were trapped live in 42 cage traps, marked and released, and their behaviour filmed at each trap. This has resulted in thousands of hours of footage to be analysed but already it has been seen that kiore are the master 'houdinis' and were able to escape thorough the smallest gaps in traps.

- **Tree baits** – In the Rosalie Bay and Big Windy Hill pest managed areas it has been difficult to reduce rat tracking tunnel rates so in late 2015 the Trust trailed bagged baits stapled into trees as an alternative to bait in stations. This worked very well – the Rosalie Bay area went down from 10% to 0% and Big Windy area from 35% to 4%. This methodology has now been adopted throughout most of the Sanctuary area over the 2016 winter when kaka are at low numbers. With weather events, like droughts or wet summers, so affecting rat densities and their behaviour, adaptive management is essential.

- **Goodnature Traps** – Beginning in February 2006, and in keeping with our aim to reduce toxin use, the Trust entered into a partnership with the Great Barrier Local Board and DOC to undertake a field project using the A24 Goodnature traps. This two year trial is in its early days with monthly checks assuring us that, so far, the traps are 100% reliable. Over 30 rat bodies have been sighted - most are predated by pigs, cats, hawks, and morepork - two of these kiore. Kiore are an elusive animal and it is this species of rat that the project is most focussed on. The initial

rat tracking tunnel result after the traps were installed was in keeping with earlier years – 24%. Eleven cameras are currently recording activity at trap sites showing lots of rats and a number of cats visiting the traps.



Kiore killed by Goodnature trap

- Long Life baits** - A key element of any trapping based programme is the longevity of the bait. For over six months the Trust has been trialling the Nara long life bait (a pre-scented plastic plug which fits into a SnapE rat trap) against the standard peanut butter bait. To date, the peanut butter wins hands down but we have now commenced a further trial comparing peanut butter with the long life bait plug having been soaked in peanut butter. If baits can be made to last for 3 months or more this reduces the labour efforts of the field team considerably, thus meeting our goal of working more efficiently.

NARA LONG LIFE BAIT TRIAL									
Area - WH P2-5 25 traps Nara / 25 traps Control - Peanut Butter									
Start	2/10/2015								Total
Checked	8/10/2015	14/10/15	19/11/15	4/12/2015	17/12/15	11/1/2016	2/2/2016	25/2/16	
Control -PB	13	1	0	5	11	5	0	1	36
NARA	2	0	0	1	1	3	0	0	7
Area - WH P33a 25 traps Nara / 25 traps Control									
Start	25/2/16								Total
Checked	14/3/16	22/3/16	14/4/16	26/4/16	4/5/2016	10/5/2016	13/5/16	19/5/16	
Control -PB	2	5	2	7	1	5	2	2	26
NARA	2	2	3	3	1	1	1	1	14

In 2014 and 2015 we trapped over 3500 rats per annum and it looks like this year will be similar. If this is what climate change looks like we are going to have to get very smart indeed to keep on top of these highly fecund animals – 48,000 rats and mice trapped since we began in 1999, with an unknown number poisoned. That means a **lot** of birds, lizards, weta, fruit and berries have been saved from their onslaught.

Cheers to our field team – Kevin, Rachel, Dean, Henry and Dave for their dedication to making the biodiversity of this area a joy to behold.

Judy Gilbert
Trust Manager