WINDY HILL ROSALIE BAY CATCHMENT TRUST

Newsletter #22 – Annual Report Dec 2012

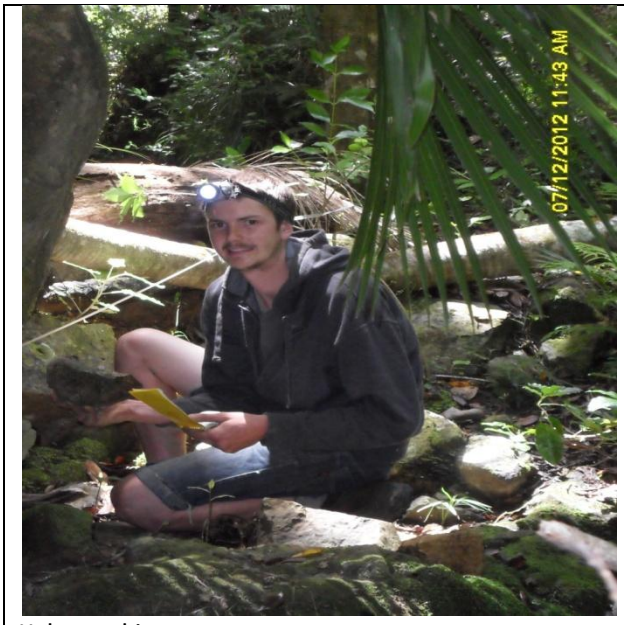
Kia ora

What an exciting, and at the same time challenging, year this has been!
It is exciting for the Trust after many years of pest management to be at the stage where we are waiting for a response from DoC to our proposals to translocate Hochstetters frogs and to develop a breed and release programme for kakariki within the Sanctuary. These two huge translocation documents were completed with awesome assistance from Amelia Geary, bio-ranger for DoC, and Halema Jamieson, lizard and frog specialist.

Highlights

- The North Island robins that were translocated from Pureora in April have mixed and matched with existing birds forming 7 breeding pairs and, so far, fifteen young have fledged. There are another half a dozen single birds about calling for mates.

- Youth employment - this year we took on our second youth employee. Twenty year old Henry Cookson joins Kyle Penton as part of our six member field team. Training and sustained employment are rare on the Barrier for our young people and the Trust is grateful to WINZ, ASB Community Trust, and WWF for their support of the Trusts commitment to employment. This year Kyle has participated in a robin translocation, a survey for Towns skinks in the northern part of Barrier with lizard specialists, a first aid and a chainsaw course. Both Henry and Kyle joined the full field team for a day at Glenfern Sanctuary looking for their robins and learning about that Sanctuary. Recently both Kyle and Henry participated in a nine day survey for Hochstetters frogs in northern Great Barrier, a rare opportunity to find these cryptic creatures.



Kyle working a stream transect

Henry checking under rocks

- **Report Brief on Hochstetters Frog Survey from Sarah Herbert of EcoGecko**
  'During two 5-day stints between the 26th of November and the 7th of December, a team of ecologists (Halema Jamieson, Sabine Melzer, Sarah Herbert), and Windy Hill field staff (Kyle Penton & Henry Cookson), searched the streams of the Te Paparahi Conservation Area to gather information on Hochstetter's frog numbers and habitat use.
  Fifteen 100m transects of streambed were established across the headwaters of 5 streams within the Te Paparahi area. During the course of the survey, ***244 Hochstetter's frogs were found****. Frogs of all age classes were seen, ranging from young-of-the-year measuring as little as 8 mm (snout to vent length, aka the length of the frog, nose-to-bum) to adult female frogs measuring as much as 45 mm. Juvenile frogs (< 18 mm) were found in three of the five catchments, but it is notable that none were found below 250 m asl during this survey. We noted that the lower altitude streams searched had more eroded banks and stream beds, usually a more open and/or regenerating forest canopy and had fewer frogs overall. While it seems that Hochstetter's frogs can persist in these streams, they may not be breeding in them.*
  Further work on the habitat quality of Windy Hill is planned for February 2012, as is analysis of the data collected from Te Paparahi. This is expected to inform the suitability of Windy Hill as a release site for reintroduction of Hochstetter's frogs.'

- While the boys were away a seabird survey was in action in the Sanctuary with Jo Sim and Madi, her trained seabird sniffer dog, covering likely habitat guided by field manager Kevin Parsons. Several Black Petrel borrows with chicks were identified and a small breeding colony of grey faced petrels found. Her report brief is attached. Seabird scientist Chris Gaskin also visited Glenfern and Windy Hill Sanctuaries to supervise the deployment of 6 acoustic recording devices which will remain in place over the next year with the aim of identifying seabirds breeding or passing through the area. The Trust manager was given training by Chris in the software required to read the recordings. A practice run with a device recorded a fluttering shearwater which was an exciting discovery. Chris's report is attached. Thank you to the Auckland Council EIF fund for their support of the recorders and training.

- The Trust Manager was invited to do a presentation about our Sanctuaries monitoring programme in Wellington mid year. The comprehensiveness and longevity of our monitoring is seen to be a real asset to be shared with other conservation groups.

Challenges

- The challenging part has been the focus required to maintain rats at low densities. Rats have been at high levels throughout the Auckland region responding to ideal climatic conditions which has resulted in an abundance of food. Rats respond incredibly quickly to the right conditions increasing the number of times they breed and their size of litter. It's a pity that birds and lizards have not evolved to do the same.
  Our field team of Kevin, Rachel Wakefield, Kyle and Henry, plus volunteers Dave Harland and Brendon Kerr have really dug it in this year and it is disappointing for us that even with the most systematic of attacks we have not managed to keep the rats as low as we would want. What we are up against is the highest ever recorded annual average tracking tunnel index of 88% for the unmanaged Control site . Rats have put pressure on in the managed Sanctuary area as indicated by the higher annual rat tracking tunnel percentages as follows – Little Windy Hill pest managed area 15%, Benthorn Bush 8%, Benthorn paddocks 10%, Big Windy 16% and our rogue area, Rosalie Bay, at 28%. Disappointing but so much better than if we were doing nothing.
  Clearly, this year we have not been able to keep rats at the 5-10% annual average tracking tunnel indices aimed for. However, by consistently measuring tracking tunnel

results against species outcomes (eg: robin nest success) we are beginning to calibrate the levels of pests that can be tolerated while still achieving conservation gains. Birds, some species of lizard, weta, and nikau seedlings are present in greater abundance in the Sanctuary despite the climate, weather events, and seasonal variations which drive food and thus rat abundance.
Using limited potency baits with trapping as the backup tool must also be considered as part of the variables resulting in higher levels of rats. However, the same methodology last year, when rats were at lower densities, produced an average of 6% in the contiguous bush areas so it has been successful in less extreme conditions. We will trial a short pulse of a more potent bait in one pest managed area to knock back the rats and measure the response early next year. Advice is also being sort from biodiversity and pest management specialists.

- We also farewelled Trustee Mike Lee after 11 years and thank him for his input and support over that time. Mike's passion for a rat free Great Barrier and his extensive network will, Im sure, continue to be of benefit to Great Barrier. We have yet to choose a replacement.

The integrated pest management results for the last two years (till end Nov for 2012) are presented in the table below:

	Rats	**Mice**	**Cats**	**Pigs**	**Magpies**	**Wasps**	**Rabbits**
2011	3096	48	10	5	5	6 nests	16
2012	2715	14	24	5	0	5 nests	10
Total	5811	62	34	10	5	11nests	26

It is interesting that despite higher tracking tunnel rats less rats were caught this year than last. This raises questions of whether more food abundance results in fewer rats trapped, or is more intensive management and more potent bait required , or do we maintain our programme and ride the waves of conditions that drive rat numbers measuring how our management works as conditions change?
These issues will be the focus of our work next year.

Acknowledgements

A special thanks to the Biodiversity Condition Fund for a further three years of funding enabling us to maintain our key field team members.
Thank you to our others funders; ASB Community Trust, Auckland Council Heritage and EIF Funds, WWF, COGS, and Lotteries Environment.
Thank you to the Auckland Council Biosecurity and Biodiversity teams for your highly valued support and input. Thank you to GB DoC – a great little team working under shrinking conditions.
Thank you to the 16 landowners whose properties make up the Sanctuary and last, but not least, thank you to our dedicated field team who have worked solidly through a miserable wet winter and spring and who make up the great engine room of this Sanctuary.

Wishing you happy and relaxed holidays
And an abundant Xmas

Kindest regards

Judy Gilbert
Trust Manager