



The Hutton's Shearwater Charitable Trust

April 2017, Issue 20, ISSN 1179-5646.

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Life in Kaikoura has been dominated by the November 14 earthquake and the many levels of ongoing repercussions coming from it. Early overflights and photos gave us higher estimates, but later, more detailed checking has shown that about 15% of the Kowhai colony and 10% of the Shearwater Stream colony has simply fallen off the mountain side, and isn't there anymore. What was initially completely unknown was the extent of burrow damage.

On 9th March Mike Morrissey and Nicky McArthur made a physical inspection of the Kowhai hut and 100 marked active burrows from last year. Their inspection of the hut and finding extensive damage inside was a sign of things to come. Even in the flattest area of the colony that looked undamaged from the air, 36 of 100 burrows inspected were completely blocked, and only 1 live chick was actually observed.

So it seems very likely that we will have lost a substantial portion of our adult breeding birds, and had

little breeding success this year.

This quake has shown how areas close to major fault ruptures can have almost complete failure. Our existing wild colonies are vulnerable, doubly so now that once precipitous valleys are now so full of debris that they are relatively easy for pigs and deer to negotiate. Our priority must be to develop effective methods of predator control, both to enable natural prospecting behaviour on the part of the birds to establish new wild colonies, and to protect the colonies we have.

That will mean active surveying of prospecting behaviour in the coming spring, probably using infrared cameras at night, either from helicopters or from drones. Those are very weather dependent activities, requiring a clear, calm moonlight night during the appropriate period (not an easy ask).

Ted's Talk (cont.)

From there we need to select relatively accessible sites that we can experiment with to develop effective predator control strategies. If we can get the funds, and if we have enough prospecting at different sites, then running multiple trials would be a great idea. Once we have proven effective methods (which may take several years of trials to be confident), then we can deploy them across all observed prospecting sites.

Mike's report also highlights that damage from wandering deer was significant – so our job is much more than rats, cats, stoats, ferrets and pigs.

The size of our job just got a whole lot bigger.

Fortunately, the Te Rae o Atiu colony has had our first

grandchick, a chick from parents hatched in the colony. The colony also proved that just a few kms can make a big difference in a quake, with no mortality observed.

And the detailed scientific work being done by Lindsay Rowe and Della Bennett in particular are overturning just about everything we thought we knew about these birds. They are highly variable, with many strategies present simultaneously, and can travel huge distances for a meal.

Add in the idea of a dark sky strategy for here in Kaikoura, and there is much to do.

Personally, it has been a very busy time with Hutton's, four days actually at the colony weighing and measuring, one day at sea observing, and many meetings and phone calls advocating for our Titi with MPs, ministers,

mayors, PMs, local and ECan councillors, and with many officials from many agencies, and public meetings. Just writing that sentence and doing a quick mental tally, it must be close to 100 conversations outside of trust members and local DOC staff since the earthquake.

So it is a big thank you to everyone who has helped, Ecan, KDC, MPs, trustees, Geoff Harrow, Mike Morrissey and other local DOC staff, and everyone else who has made an effort, shown up, helped out. We need you all. You are all much appreciated.

Arohanui.

Ted Howard

Chairman



Te Rae o Atiu - Colony Report

Another successful season has just finished with the last of our 12 chicks having flown, twice as many as last season. This is the best season to date and reflects the increased number of adult birds here now as a result of the 2012 and 2013 translocations. One notable departure was the chick from Box 53, one of whose parents is X17334, the first of our own chicks to come back and only 4 years old. So we have a grandchick now and it will be great to see if it can make it back

in 3 years time. In total we have had about 60 of our translocated birds back this season so our colony is building up nicely. Future translocations, possibly 2018 and 2019 and at 6-yearly intervals after that, will see this colony expand rapidly.

We have installed up to 6 trail cameras opposite some nest boxes and the take-off zones. I always knew Hutton's were feisty as they scratched and bit me, and this was confirmed as some of the earlier video clips showed birds

fighting beak to beak. Many of the last clips have shown chicks outside the nestboxes vigorously flapping their wings over a period of several hours and nights in preparation for their departure. These cameras were obtained using a grant from The Sargood Bequest, Dunedin, and we are extremely grateful to them as we get a greater understanding of the birds' behaviour.

Lindsay Rowe

29 March 2017

Farewell Event

The departure of the birds and the end of Fly Safe month was marked with a simple farewell ceremony on the Peninsula. On the 2nd of April about 40 people gathered at the South Bay end of the walkway before sunrise, and made their way up the track to the Te Rae o Atiu colony. It has been a record year with 12 chicks having fledged, so it was with some satisfaction that they were farewelled, in the expectation that next season will see more and more birds returning. This was of course tempered with the knowledge that the earthquake has had a

significant effect on overall population numbers. Brett Cowan presided over the ceremony which included scattering of feathers and a

karakia for the birds. After the ceremony a hearty breakfast was enjoyed by all back at the Coast Guard building.



Chick sponsorship 2017

This year's 12 chicks were put up for sponsorship at the beginning of March and all were adopted within a few days. Along with the sponsorship came several substantial donations which were greatly appreciated.

Each chick has data such as date of laying, hatching, and date of departure recorded. This information is due for download from recorders within the next few days, when it will be sent out to sponsors. A sincere thank you to all.



Lindsay Rowe is leaving

Just as this Newsletter goes to press Lindsay has confirmed that he is leaving Kaikoura for Rangiora. There will be a more

fitting tribute in the next Newsletter, but for the moment, Lindsay, a sincere thank you from all those who have been involved

in the project (and from the birds - their pecking and scratching was really a sign of affection!). You will be sorely missed.

Predator control

The following is a report from Mike Morrissey from DOC on predator control carried out around the Te Rae o Atiu colony. The report refers to the well documented populations of Red Billed Gulls which breed just a few hundred metres away on the peninsula. These populations are the subject of a long running study by Jim Mills (the avian equivalent of the "Dunedin Study" which has recently been in the news), and provide an example of a declining Kaikoura seabird population.

Red Billed Gull colonies on the Kaikoura Peninsula declined in numbers by 51% between 1993 and 2003. A recent study showed that 9212 pairs nested at Kaikoura in 1988, while the current number of nesting pairs is 3210 shows a decline of 65%.

Essentially there was no predator control before 2003 apart from ad hoc spotlighting trips done in my own time when the colonies sustained predation at higher than usual levels.

However once the Kaikoura Peninsula/Te Rae o Atiu enclosure was established there has been a gradual increase in trapping and associated spotlighting when necessary. The trapping is carried out by myself during Departmental time and the spotlighting as recreation.

Originally there were only 10 box traps available from a previous project at Oaro. Other trapping

around the enclosure perimeter (prior to predator fence) was with Gin Traps as the only means available. This was a temporary measure. The Trust then purchased 25 DOC 200 and 250 traps, 10 around the enclosure and the other 15 along the coastal scarp. In 2015 10 additional stainless steel traps were purchased by DOC in order to phase out Fenn traps; all other traps used were made available from other DOC locations as they were phased out. This year DOC made available a number of DOC 200 and 250 traps from a storage site at Onamalutu. This ensured all the Fenns have been removed from the Peninsula. There are now 165 operational traps on the Peninsula compared to 119 in 2014.

Statistics indicate that increased numbers of traps does not necessarily result in an increase in kills. However, the whole of the Peninsula scarp is now trapped to the benefit of several species rather than just targeting the enclosure and the two Red Billed Gull sites. The problem is that cats in particular are problematic to trap when gulls and terns are nesting so spotlighting individuals becomes a priority rather than increasing trap effort. In terms of results 131 cats, 14 ferrets, 99 stoats, 39 weasels, 319 rats and 277 hedgehogs have been trapped or shot.

Recreationally I have also shot or

trapped between 2008 and 2016, 111 feral cats at the local dump plus another 50 at some businesses, together with a small number of hedgehogs and rats. Most of these animals were live trapped, with pets being released.

Out of interest the lures used have varied considerably, it's safe to say if it smelt meaty or fishy it's been tried. My conclusions are that virtually anything fresh that last for a few days or up to a week works best. The kill traps are checked monthly so it is possible to ascertain how long they have been dead. Long lasting lures and eggs are easier to maintain when alternative food sources are low but seem less effective during summer.

Mike Morrissey, 21/10/16

The report illustrates the level of background predation which goes largely unseen, and these numbers are frightening given the damage an individual cat, stoat, or ferret is capable of. It also illustrates Mike's dedication to this work.

Also of note is massive decline in the Red billed gull population, which is partially attributed to climatic variations which pushed the currents which bring krill (their favoured prey) further offshore. These at sea fluctuations are also likely to be major drivers of success for Hutton's shearwater, and predation is also clearly significant.

Research report

Fly South: GPS trackers reveal unexpected foraging locations of the Hutton's shearwater *Puffinus huttoni*

Della Bennet, Travis Horton, Sharyn Goldstien and James Briskie. University of Canterbury

We have been fortunate that the earthquakes caused little damage or upheaval in the Te Rae o Atiu colony and our latest research season was completed with minimal interruptions. Over a five-week period during January and early February 2017, we deployed GPS trackers on 23 breeding Hutton's shearwaters. Our research objectives were to identify foraging locations while the birds were at sea, and to measure the durations of their foraging trips. We found that some shearwaters traveled from their breeding

grounds at Kaikoura to foraging areas off the coast of Banks Peninsula, whereas others took a more coastal route before heading offshore into deeper waters. Birds traveled distances of between 100 - 300 km south from the Kaikoura Peninsula and then up 250 km east from the coast. Trip durations varied from two to 21 days (mean = 7). The distances flown by the shearwaters were greater than we expected, although the flight paths and durations varied between individuals. At this stage, it is not clear whether the patterns we observed were affected

by recent earthquakes in the area, or by other fluctuations in the marine environment. Mapping the spatial and temporal distribution of Hutton's shearwaters at sea will be fundamental to their conservation, as such information can reveal potential areas of conflict with fisheries and other industrial users of the marine environment. This research season has been very successful and further data analysis will be completed over the next few months.



Fly Safe Month

This has been an average season as far as fallout birds have been concerned. A late start had us wondering if our worst fears with regard to losses as a result of the magnitude 7.8 earthquake of birds, especially chicks, at the mountain colonies were being realised. Very few birds were found before the 24 March by which time most of the Te Rae o Atiu chicks had left. After that we were getting 4-8 a night until 1 April and one or two a night since.

Two birds last night brings the

total of live birds handed in to the hub to be banded and released to 58, although we know of a few other that were released by the finders and some found dead on roads. Most birds that have come in have been very good weights with only one under 200g and nine more less than 300g. Considering the grizzly weather we had at the end of March and the storms this last week, I think we have got off lightly.

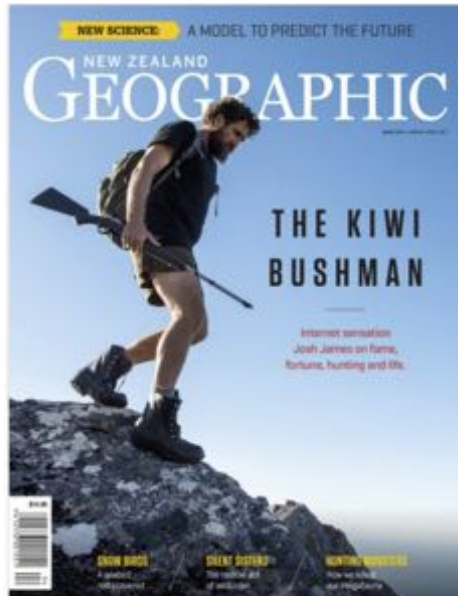
Lindsay Rowe 8 April 2017

The photo shows some of the lids of the drop off boxes, lovingly painted with a gentle reminder to the birds of what they should do next!

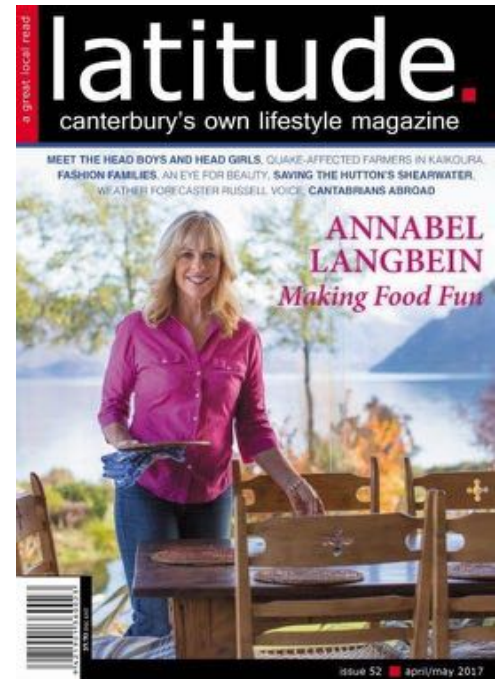


Magazine Articles

An excellent feature story about Hutton's shearwater was recently published in New Zealand Geographic magazine - well worth having a look at.



Another article was published in the magazine Latitude, which has a Canterbury focus.



Kia ora Nancy

As a Trust we rely on a large number of volunteers to help us. It is with great sadness we have lost a volunteer Nancy Reeves (she died the last day of 2016). Nancy worked tirelessly in the background for our Trust twice a year helping deliver in the Whale Watch white truck the BBQ's required for our events. (farewells, welcome homes and more recently popup disco). She would bring tables, her own table cloths, utensils and everything else we needed to organise a smooth running get-together. One year it was raining and with her friend Ari she set up her own gazebo to keep us dry - we arrived to find the site in the schoolyard already set up and the

BBQ's going. Her no-nonsense approach to tasks were like a breath of fresh air. Her generous nature was reflected in how she lived her life. Not only with her



practical care of the environment (we note she lugged the same gear to "Love the Lyell" annual sausage sizzles held for the community) she worked tirelessly for others. Post-earthquake as a Maori Warden she checked door to door on every home alongside her fellow wardens. The Titi have been well supported by this behind the scenes great worker and our big regret is that we did not acknowledge her contribution while she was alive. Thank you Nancy, Rest in Peace.

Teri Sonal

March 2017