



The Hutton's Shearwater Charitable Trust

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Newsletter

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Ted's Talk

A lot has been happening. Kaikoura is 3 years out from a 7.8 earthquake, and most people are carrying more than normal stress.

We still had mice in Te Rae o Atiu at the start of the winter. With help from Tim Trengrove we got up to 137 mouse traps around the colony, and the last mouse was caught on 23rd July - 80 in total this season (330 in total over 12 months since last September). Traps continued to be rebaited and checked until September, but no more mice were seen.



Between the 8th and 22nd August 42 recorders were set up on burrows expected to be used, and 2 more were added later to other burrows actually visited. The season up until 1 December has seen 67 birds known to have visited (3 seen without PIT tags recording). As at 11 December we had 28 eggs being incubated, and 1 had been broken. That is 2 less than last season for eggs laid, but also 2 less for eggs

broken thus far. The first chick should be with us before Christmas.

We also had the high profile visit of Prince Charles which seemed to go well. That was quite a process, with three half day meetings and 5 site visits with security people prior to the event (and dozens of phone calls). For the first 3 months everything was top secret, and I wasn't even allowed to tell other trustees about the possibility. In the end, on the day, he came to the colony, met all the people present, met a very stropy bird from burrow 12 (while it was occupied making holes in me), and seemed genuinely interested in both the people and the wildlife. He seemed to be a genuinely nice guy, and also seemed to enjoy the experience. We got a few seconds of prime-time TV, but no offers of funding for our work have materialised as yet.

On the 5th of December a team of 4 went into the Kowhai to do the first phase of the burrow-scoping.

(Cont. overleaf)

Ted's Talk (cont.)

60 eggs were located and marked at each of the two survey colonies (the one immediately above the hut and the one at the head of the valley). At 2am we got up and went up to the hut colony and examined about 40 birds, finding 4 that had previously been banded.

In the area immediately around the hut we found two caches of eggs, and one adult bird that had been bitten on the back of the head and partially eaten. Stoats are present, and were also present last year. But this year the area of burrows without eggs near the hut was larger.

Also seen this year were 5 deer (at one time, plus 2 lots of 2 deer which might have been some of the 5 or may have been different), 3 goats and one

chamois. The numbers of large animals in the valley seem to be increasing, and with them the likelihood of burrow collapse.

Of general concern is that we have had about 20 adults crash landing and dying on beach road this season. Also this season many red billed gulls have been found dead and dying with high loadings of ticks on their heads, most seem to be starving. The usual schools of kahawai and mackerel are not visible in the bay this season. Without the fish to drive the krill to the surface the birds appear hungry.

So there are quite a few things of concern to us, as well as some hope.

All trustees are busy in many different areas. All have worked hard to do what we have for our tūī. To each and every one I give my thanks on behalf of these

most unique and endangered birds.

If anyone out there has the time and interest to be part of the team working to ensure these amazing birds remain part of our world; then please make yourself known to us.

If anyone has a hundred thousand dollars to put into advanced monitoring gear for both the kowhai and Te Rae o Atiu colonies (and perhaps Shearwater Stream), then we would love to hear from you.

Ted Howard

Chair



Te Rae o Atiu - Colony Report

The 2018/19 breeding season resulted in 15 chicks being fledged, slightly disappointing given that 29 eggs were laid and when compared to the 18 fledged the previous year. However, this is still a good result and is contributing to the steady growth of this colony. External factors such as food supply and conditions at sea are extremely variable on a seasonal and annual basis and there is widespread concern for many seabirds that

changing patterns of currents, temperature, and food availability are having a negative influence on a number of species.

Forty two birds were physically observed, while 66 were recorded by their PIT tags. Twenty five of these birds came from the 2013 translocation, 30 from the four earlier translocations, while 11 (about 17%) were from birds born within the colony, so there is a slow trend towards sustainability.

The 2019/20 season began with 29 eggs laid, the first hatching (in total 24 hatched) taking place just before Christmas, and it appears that 22 chicks will be fledged this season. If there are no unfortunate incidents, this will be the most chicks ever fledged at the site.

There will be a full report on this season's breeding, and a feature review of the development of the colony in the next newsletter.

Feature - The Royal Visit

In November we were honoured by the visit of Prince Charles to the Te Rai O Atiu colony. Earlier in the day he visited the township and Takahanga Marae where he received a full welcome, but given the Prince's long standing interest in conservation we hope that this visit was a highlight for him. Of all the royals who may have visited, it seems appropriate that it was Charles because of his interest in conservation, organics, and sustainable management. He has been a consistent voice amongst the "British Establishment", advocating for such issues long before they became popular. Organising his visit was a long and undercover process, with Ted sworn to secrecy while security checks and arrangements were made.

While on site Prince Charles met with members of the Hutton's Shearwater Charitable Trust, Ngati Kuri, the Tukete Trust (landowners), toured the site, walked the Peninsula Walkway and with the resident of burrow number 12, a particularly indignant bird not well pleased at being disturbed.



Chair Ted Howard greeting our royal visitor



Prince Charles meeting Runanga Representative Rawiri Manawatu, with HSCT Chair Ted Howard (left), Patron Geoff Harrow (centre), and DOC representative Phil Bradfield (right)



Having been greeted by Ted, he walked onto the site with Phil and Rawiri (left) and met with Trustees (below).



From left – Rawiri, Geoff, Ted, Phil, Prince Charles, Teri, Nicky, Sheryl (foreground), Lorna (background), and Geoff's family Lindsey, Belinda, Emma, Brenda, Steve and Paul

Geoff then presented a kete of gifts including Richard Cuthbert's book (Seabirds beyond the Mountain Crest) to Prince Charles. Geoff and the Prince seemed to develop a good relationship very quickly, not surprising given that Geoff is the nearest thing we have to Hutton's Royalty!

The Prince of Wales about to receive the kete of gifts from Geoff Harrow.



Prince Charles was also introduced to our tītī/Hutton's shearwater through meeting the occupant of burrow 12. He was able to stroke the bird gently while Ted allowed himself to be pecked and harassed - taking one for the team, thanks Ted!



Prince Charles then continued on the Peninsula Walkway, completing what was a very special visit. For a short time it gave the Trust and tītī a considerably raised profile, with stories appearing in newspapers around the world.



Mark-Resight project report

After the earthquake there was, initially at least, major concern for the mountain colony populations of our tītī/Hutton's shearwater. The scale of the earthquake was so severe that there was massive damage to the landscape, sparking a request to the Ministry of Primary Industries (MPI) for funding to work out what had happened to the breeding colonies high in the mountains. This resulted in two studies being carried out; the first (based on burrow counts and density) by Richard Cuthbert for which the fieldwork was carried out in December 2017, and the second a simple population estimate based on a mark-resight exercise. Conditions in the mountains were deemed too dangerous initially, but fieldwork was able to take place in September 2019.

The study was undertaken by marking birds in the Kowhai Stream colony with spray paint, then counting a sample of the population in the seas around Kaikōura over the following days. Sophisticated mathematics are then applied to the results to generate a population estimate, which was then able to be compared to the results obtained from the Cuthbert study.

The mark-resight exercise begins with capturing and marking birds at night, in winter conditions, high above the bushline, in the snow. Conditions are very



Some of the marking team in the cold capturing birds, and a spray painted bird (below).



difficult, so special thanks goes out to the marking team of Mike Morrissey, Ellie Brettle, Chris Deary (all DOC), Nicky McArthur (HSCT Trustee), Jody Denton (ex HSCT Trustee), and Nikki McArthur (WMIL contractor).

The resighting phase of the exercise is carried out by looking for marked birds within rafted birds at sea (below).

When the counting and calculations were complete, a total population estimate of about 550,000 birds was arrived at, with a possible range of 490 - 620,000. A pre-earthquake population estimate of about

600,000 birds was derived using both methods. The mark-resight results indicate that about 40,000 adult birds were killed as a result of the earthquake, a significant number but a setback from which the colonies should recover within a reasonable time frame. The completion of these studies allows us to plan with the knowledge that the population will recover from this setback.



Tītī/Hutton's shearwater 'Fallout' - by Trustee Lorna Deppe

FLYSAFE 2019 – To the rescue of our fledgling Tītī !!!

FLYSAFE is our annual event to work with both local community and visitors to Kaikōura to rescue Hutton's shearwater fledglings who happen to become disoriented by artificial lights on their maiden flights from the mountains to the sea and crash land (fallout) in and around Kaikōura.

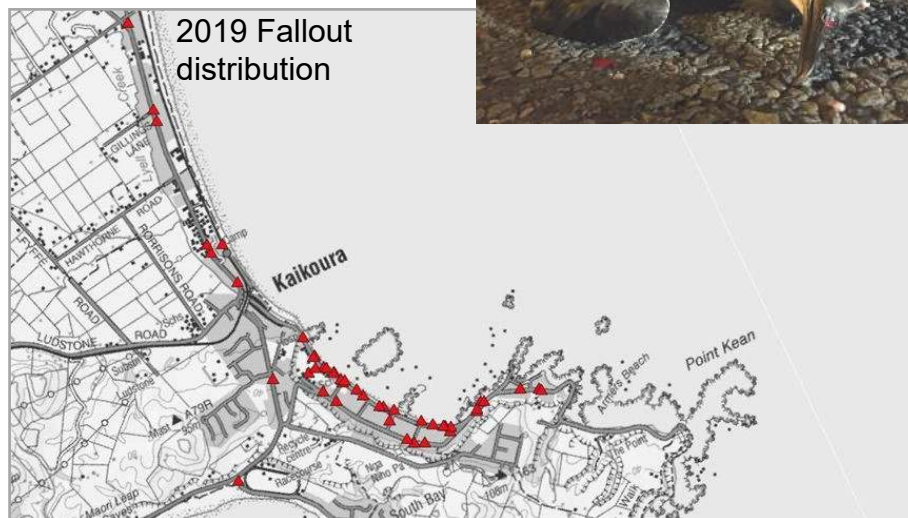


For this year's FlySafe we partnered with the Department of Conservation (DOC), Kaikōura District Council (KDC), Encounter Kaikōura, Whalewatch, Kaikōura Wildlife Rescue (KWR) and Vetcare Kaikōura. In addition we had a wonderful community behind us helping with the rescue and release operations.

This season 85 fledglings were recorded as fallout over a period of 5 weeks (8 March – 14 April), of which 18 had died either upon impact, from predation or roadkill. The latter was the dominant cause of mortality. In addition, 17 birds were found injured but could successfully be rehabilitated.

As in previous years, about 80% of fallen birds could be rescued and released, which is not least due to the great support from the Kaikōura community and our dedicated team of FLYSAFE volunteers (read more on this under 'Hutton's Rescue Heroes 2019').

Thanks to a coordinated night patrol team, this season we were once more able to record rescue locations. The occurrence of fallout concentrated along Kaikōura's coastal roads, and in particular along the Esplanade, matching our findings from previous years.



Comparing fallout numbers from the 2019 season those from preceding years, we are looking back at a 'moderate' fallout season. However, we hope to be able to reduce numbers by working with KDC and the community on mitigating fallout, which is predominantly caused by light pollution and resultant disorientation of birds having to reach the sea at night.

For a more detailed presentation on the 2019 FLYSAFE season and fallout in general, follow this link to our latest PowerPoint presentation:

<https://docs.google.com/presentation/d/1SaGYXUyE3SchbhZuDuM8AVQDS5dJGo1MJ4U4NwY00z0/edit?usp=sharing>.

Make sure you activate 'show speaker notes' under the 'view' tab to see explanations accompanying the slides.



If you want to read more on the 'science' behind the subject, ask us for a copy of "Investigation of fallout events in Hutton's shearwaters (*Puffinus huttoni*) associated with artificial lighting." Notornis, 2017, Vol. 64: 181-191.

Tītī/Hutton's shearwater 'Fallout' (Cont.)

Adult fallout in the 2019/2020 season

Similar to fledglings, adult breeding birds can also become distracted by Kaikōura town lights when on their nightly commute to the mountain colonies and crash-land/fallout on roads, lawns etc. This can happen any time across the breeding season (September - April) but again particularly during adverse, poor visibility weather conditions. Once on the ground, these birds are like 'sitting ducks': they won't take off, even if approached by a car or a cat (predator).

Adult fallout usually occurs in smaller numbers and more irregular than fledgling fallout, which due to its magnitude warrants a concerted awareness and rescue campaign (FLYSAFE) each year. However, not least since a larger number of adult Hutton's shearwaters got killed on the road in one single night in October 2017, the HSCT is trying to get a better idea of the magnitude and nature of adult fallout too.

After two years of having the Hutton's Hub open for 24/7 drop off throughout the whole breeding season (September - April), our latest annual operations review resulted in keeping the Hub closed at the start of the 2019/2020 season due to the 'cost' of keeping the Hub operational and monitored

outweighing its 'benefits', i.e. the number of times it was actually used. It was decided to open the Hub during FLYSAFE (fledging season in March/April) only, when we again expect higher numbers of birds falling and needing a space to be kept safe during the night until release.



We are grateful to our wonderful supporters at *Encounter Kaikōura* for functioning as an interim drop off station for rescued adult tītī. *Encounter* enjoys giving our birds a special ride out to sea on one of their boat trips and allowing visitors to come face to face and learn more about this precious species endemic to Kaikōura.

Adult fallout numbers so far...

Recordings of fallen and rescued birds reached us either via word of mouth through the 'community grapevine' or the rescue logs left out at *Encounter Kaikōura*. From these we can tell that we had at least 31 individuals fall in and around Kaikōura between 25 September 2019 and 23 October 2019, of which 14 had been reported dead. Every death of these precious birds matters. An adult

pair raises one chick per year. If one partner dies early in the season, there will be no offspring from this pair that year. Moreover, as these birds are long-lived and as such are likely to produce 20-30 if not more chicks in their lifetime, the death of an adult bird means a substantial loss to recruitment and thus population growth. This is of particular concern for a population currently trying to recover from the severe impacts of the Kaikōura earthquakes. We will continue to raise awareness about Hutton's on our roads in the hope to eventually minimise the number one cause of death: roadkill.

At the time of writing this article, we have not got any further fallout reported for about a month. While this fits with observations from previous years, which indicate that the majority of adult fallout happens during the first 2-3 months of the breeding season (before chicks hatch), we also know from previous reports that the odd bird still falls later in the season. Continue to keep your eyes peeled!

For more information of Hutton's shearwater fallout and what to do if you find a bird, please visit our website (<http://www.huttonsshearwater.org.nz/crash-landing-huttons-shearwater/>) or Facebook page (<https://www.facebook.com/HuttonsShearwater>), thank you.

Hutton's Rescue Heroes 2019

This year we have been blessed with a very passionate, dedicated and proactive group of FLYSAFE – volunteers, who supported us with the daily Hutton's Hub checks and organised themselves into the tireless 'Hutton's Flysafe Night Patrol' team to strategically search Kaikōura's roads for fallen birds. This is an important service as many birds would not make it through the night due to cat predation or being run over by traffic. In addition, we had the support of both skilled and loving Hutton's rehab angels who looked after injured birds.

We would like to thank (in alphabetical order) Chloe Cargill, Ela Trpin, Grant Ellis, Heleen Middel, Indigo Blue & Gustavo, Sabrina Luecht, Sam Langlois Lopez, Tony Painting and Tracy Cooper for their great input to keep our tītī safe. A special mention should go to Grant Ellis for being our 'tech officer' for trialling the 'cybertracker' app as a recording tool for night patrollers. Not only has he been training up others, he also took on the job of collating all the rescue data (electronic as well as paper records), producing result tables and spatial maps. Much appreciated. ☺

We are also very grateful to Vetcare Kaikōura who provided

euthanasia free of charge for injured birds which couldn't be saved and to Encounter Kaikōura for helping with bird release on their boat trips.

Last but not least we would like to acknowledge our trustees and FLYSAFE coordinators Nicky McArthur and Lorna Deppe for all the time and effort they put in to get and keep the show running. In addition, Nicky took a very active role 'on the ground', working with our volunteer teams, overseeing Hub operations, examining and banding fallen fledglings, and raising awareness through her school education program run alongside FLYSAFE.

Flax harvesting

Suburban School, Hapuku School and the local Kaikoura community participated in a flax harvesting morning to prepare the colony on the Peninsula for the titi return.

Some of the flaxes have become large and from now on need an annual harvest. It was wonderful to be inside the predator proof fence enjoying the views and

contributing. All enjoyed their day and the Hutton's Shearwater Charitable Trust would like to thank the Maori Wardens, and Whale Watch Kaikoura for the wonderful BBQ lunch they supplied, and especially Teri Sonal for organizing the day.

Puhi Peaks update

Nicky McArthur at Puhi Peaks Station finally consider it safe enough to return to Shearwater Stream to assess the state of the colony post-earthquake. The initial findings were of concern showing a low level of breeding success (about 30%), considerable loss of habitat, and little apparent

bird activity.

Arising from this concern a plan was developed, a project outlined, and funding sought and received for an in-depth study over the 2019-20 breeding season. This study considers population density, population breeding success, and the geomorphology of the Shearwater Stream colony. We have partnered with DOC, Wildlife Management International, and GNS to conduct this study, which has the additional aim of being carbon neutral.

We will be presenting our findings to the wider community later this year.

Nicky McArthur

Puhi Peaks

