THE
Hutton's Shearwater
CHARITABLE TRUST

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In This Issue

Kia ora

The translocation of 103 Hutton's shearwater chicks from the Kowhai colony in the Seaward Kaikoura Ranges to Te Rae o Atiu (the Kaikoura Peninsula colony) was completed successfully in early April 2013. This is the final translocation of chicks for now, with a total of 500 chicks having been transferred.

There were some problems finding chicks of the right size this year as nesting started earlier than anticipated. Burrow scoping gives information on breeding success and the stage of breeding at the wild colonies, and is also used to calculate the best date to collect chicks for on-feeding at Te Rae o Atiu. The chicks need long enough at Te Rae o Atiu to imprint before they fledge but must not be so small as to make the volunteering period too long.

The mild weather this summer may have benefited adults and chicks, making feeding easier and resulting in an optimum growth rate. With so many big chicks, extra helicopter trips were needed to find suitable smaller chicks. Phil Bradfield and his collecting crew found the 103 chicks that the trust required to meet the permit conditions, and all but one chick survived and fledged. The big news for this season is that a number of Te Rae o Atiu reared chicks returned as adults (n=24) and have laid eggs (n=12) and successfully raised and fledged a total of two chicks. This is the start of a self-sustaining colony and hopefully we will see a geometric progression of returning birds, eggs laid and chicks fledged from this season on. Achieving a self-sustaining colony will, however, take some time as each pair only lays one egg per season.

This year the translocation was ably managed by Mike Bell of Wildlife Management International Limited (WMIL) and, with the help of volunteers, it worked very well. Educational visits were coordinated by Nicky McArthur (Trustee) and provided a rare opportunity for children to see up close this very special bird, which they have been learning about.

Street lighting in Kaikoura confuses fledging birds as they leave their mountain colonies to fly down to the sea. This is particularly problematic on wet and misty nights, with the young birds landing on the roads and unable to get airborne again. Finding a solution to this would be a useful community focus for future seasons.

Hopefully the two wild colonies are growing in numbers. To find the population size, a mark and re-sight technique was used about 10 years ago. This study provides the baseline information and a repeat mark and re-sight exercise is scheduled for September 2014. We will need sea-faring volunteers over a period of a week, so mark it on your planner. We will keep you informed.

Many thanks to all involved in the translocation, feeding the chicks and feeding the volunteers; to the Friends of the Hutton's Shearwater and to all those who helped or donated goods for the Farewell. I particularly enjoyed the singing, the Maori tai chi and our symbolic release of feathers. Brett Cowan led this ceremony and it was a very special time. I am looking forward to seeing 48+ chicks returning, 24+ eggs laid and 6+ chicks fledged next season.

Elspeth Wingham, Chair

Become a friend

We are always looking for new friends to join us in the journey of these amazing sea birds. If you are not already, it would be great to have you on board.

We have structured the membership so as to make it feasible for everyone. You could join as an individual($20), a family ($30), as a school ($30), a corporate($120) or for life ($300).

Your contribution will assist in the conservation of this endangered species, both at the newly established colony on the Kaikoura Peninsula, Te Rae o Atiu, and at the only other two remaining colonies (in the world) in the Seaward Kaikoura mountains.

You can find a membership form on our website www.huttonsshearwater.org.nz or contact the secretary on 03 319 7344 or the Treasurer on admin@huttonsshearwater.org.nz

Successful Translocation

During March the developing colony at Te Rae o Atiu was given a boost with the addition of a further 103 chicks flown in from the Kowhai Colony. This year's batch of chicks makes this project the single largest seabird translocation programme of any seabird species in the world. Between 2005 and 2013 a total of 496 chicks have been shifted into artificial burrows, with many of these birds now starting to return to breed.

This season's crop of chicks were in excellent condition, the birds selected for transfer having exceptional weights. In seabirds it is good to be carrying a bit of extra fat, as this helps birds through extreme weather periods when foraging is difficult. For chicks it is even more important as they head out to sea for the first time, needing their fat reserves to survive while they learn how to feed themselves. So the fat chicks this season bode well for a good return rate in 3–4 years' time, when it could be expected that they will start to return to the colony.

The chicks were shifted down from the mountain colony in two batches and were flown by helicopter directly to their new home. Here they were placed in their own artificial burrows and fed daily. By shifting chicks a few weeks before fledging we are able to re-programme their internal GPS, getting them to feel that this is home, and so to return to the site to breed . With 15 pairs of birds from previous transfers already returning to the site, we know the process works.

The transfer went without a hitch and all 103 chicks fledged successfully. These birds will now provide an important boost to the number of birds returning to the colony and will help ensure that the number of breeding birds continues to increase.

The chicks need careful daily attention, being weighed, measured and fed to ensure they are developing healthily and are in good body condition. For this we are grateful to the army of volunteers who gave up their time to assist.

Te Rae o Atiu is the most accessible site that a seabird translocation project has ever been attempted on, and this provides a great opportunity for people to get involved. With scores of helpers, the chance to take part in this ground-breaking project — to handle birds and to help feed them — was well taken up, and was summed up in one volunteer comment: 'To have such an amazing project on our backdoor is truly an inspiration'.

Mike Bell, Trustee

Volunteer Claudia Mischler left, weighing a chick at feeding time. Local volunteer Lyn Robinson above, brings a chick up for feeding.

Mountain colonies 2012 - 2013

The control of large mammals (deer, chamois, goats and pigs) is currently the main management objective for the protection of Hutton's Shearwater in their two mountain colonies. All four species have been shown to cause extensive damage to these fragile habitats by the trampling of burrows and the predation of nesting shearwater by pigs. It is this latter mechanism that is thought to have caused the catastrophic decline of Hutton's shearwater from eight colonies in 1964 to just two colonies today.

Much of this pest control is carried out by shooting from helicopters and by ground hunting. The DoC South Marlborough 'Threats Team' carries out two or three operations in the Seaward Kaikoura Range every year and has just returned this week from a successful two days of aerial shooting, when they accounted for 1032 goats and pigs.

The threat from pigs is considered to have the potential to cause major impacts on the two remaining colonies, and it is for this reason that a substantial walk-in pig trap was established four years ago, in March 2009, by a team of DoC staff and volunteers. The trap was established on a flat terrace at the entrance to the Kowhai River colony and until a month ago had not caught any animals. This has been a great result as it means that the Threats Team had done a good job of keeping pigs in sufficiently low numbers in the proximity of the Kowhai colony.

You can imagine our surprise when Mike Morrissey (DoC Kaikoura) got a call from Lee Armstrong (Kaikoura Helicopters) on 23rd of April to say that he had seen at least four pigs in the trap as he returned from a routine flight in the mountains to check rain gauges. Within a few hours Lee and Mike flew back to the pig trap, armed to deal with the unwanted porcine intruders! They got an even bigger surprised to find that there were actually 11 pigs at the trap (four within and seven outside the trap). They accounted for ten of them, but one wee pig escaped.

It is a concern that such a large number of pigs were so close to the biggest colony of Hutton's shearwater in the world, but we are greatly relieved that ten of them were dispatched. This incident highlights the importance of having strategies to deal with introduced mammals in and around the two mountain colonies. We are very grateful to Lee Armstrong for being so vigilant and for helping us to deal with this incursion so swiftly. We simply cannot afford to have pigs anywhere near these colonies.

Mountain colony science, management & breeding success continued on page 5.

A big thanks to pilot Lee Armstrong above of Kaikoura Helicopters. If Lee hadn't done a random check during a routine flight, only a few of the younger pigs would have been caught inside the trap. Photos taken by local DoC Ranger, Mike Morrissey to whom the Trust is also very grateful for his contributions towards Hutton's conservation.

Hutton's Education

Our mission statement is to "Encourage and promote the preservation, conservation, research, public education and sustainable management of the Hutton's Shearwater".

Hutton's Shearwater (Tītī) education into our community and beyond was undoubtedly given a huge boost this year with our recent translocation. The opportunity for students and educators to see conservation in action was outstanding and one which we hope will be memorable for all. It encompassed all that our mission statement defines.

It was inspiring to have all the Kaikoura schools, including the pre-schools, take up the invitation to visit the colony and see the newly translocated chicks being fed. Schools also visited from as far afield as Nelson and Christchurch, which shows that word of our work with this unique bird is expanding and gaining significant reach. One group of visitors comprised marine biology students from Canterbury University. To be able to impress upon them the importance of whole life cycles and the unique role that seabirds play in an environment begins to give a real credence to the trust's work, both in terms of science and education.

As Hutton's Shearwater Charitable Trust convener of the Friends of, including education into our community, I have of recent times become more and more aware of the cutting-edge science that is taking place within our trust. Last year, whilst visiting Otago University, I was in conversation with the HoD of Wildlife Conservation and was delighted to hear that our trust is perceived as leading the country in seabird science.

Our progress and work with the Hutton's shearwater is being watched by many — not only around New Zealand but well beyond our shores. The recent translocation has created the biggest single seabird translocation to take place in New Zealand, and the significance of this achievement should not be overlooked.

It is without doubt the top-level science that authenticates what we are trying to achieve and makes the Hutton's shearwater project so unique and interesting to those wishing to learn about our colonies here in Kaikoura. We need to be proud of the work towards this vision, and the story we now have to tell and share with students, educators and a wider public audience not only here in Kaikoura, but throughout New Zealand and internationally of the kaitiaki of 'our bird' for future generations.

Nicky McArthur, Trustee

Hutton's Shearwater and Erosion

Graeme R Evans, a botanist on the staff of NZ Forest Service Rangiora, wrote in the New Zealand Journal of Science 1973 about a one-year study in 1966–1967 of Hutton's shearwater initiating local soil erosion in the Seaward Kaikoura Range.

He said, 'When Hutton's Shearwaters first occupy a new nesting site, the initial destruction of snow grass sward is very rapid. With the continued destruction of these sites by shearwaters, aided by goats, deer and chamois, the snow grass swards are killed; this allows severe erosion to proceed at high altitudes in the Seaward Kaikoura Range'.

Graeme Evans' concern about shearwater soil erosion in the mountains is understandable, because when you watch the birds cleaning out and making new burrows, spectacular amounts of soil are moved about. But watching the breeding burrows over the last 48 years has revealed a very different story. Any dumps of freshly disturbed soil are quickly colonised by a mixture of native and introduced plant species, including Celmisia, Poa, mountain ribbonwood, spaniard, cocksfoot, clover and, in later years, hawkweed. Under dense stands of mountain ribbonwood, the shearwater burrows are in bare soil that is riddled with tree roots, which hold the ground together.

During this period of 48 years not one sub-colony has been abandoned and the only slips have been minor and occurred during massive rainfall. Management of deer, goat and chamois have reduced trampling of burrows. Maori history tells us that the shearwaters have been breeding in the Kaikoura mountains for at least eight centuries, but quite likely the birds were there thousands of years before humans came to New Zealand. The greatest concern for the shearwaters and the stability of their mountain habitat is wild pigs. Thanks to the research of Richard Cuthbert we now know that the loss of many historical colonies of Hutton's shearwater was due to immense rooting of wild pigs, rapidly wiping out large areas of burrows and resulting in erosion. What is very obvious around the shearwater burrows is the green lushness resulting from the birds' guano top dressing.

Geoff Harrow, Trustee

Photo above of the Kowhai Shearwater Colony.
Photo courtesy of DoC.

Mountain Colonies 2012 - 2013 continued

Do stoats have an impact on Hutton's shearwater populations?

We are currently involved in a Research by Management study to determine the impact of stoats on the two Hutton's shearwater colonies. In the past, Richard Cuthbert carried out an intensive study for his PhD to determine stoat impacts in the Kowhai colony in the late 1990s. He concluded that predation by stoats did not impact on the population at that site. We are continuing with studies along similar lines by carrying out stoat control in the smaller colony at Shearwater Stream and monitoring the breeding success at both colonies to determine whether a robust stoat trapping programme can increase breeding success. Our results to date are presented below.

An interesting pattern is emerging from our breeding success study. During the first three breeding seasons, breeding success was poor in both colonies. This was followed by three seasons of very high breeding success. This past season's breeding success was lower, at 47% at the Kowhai colony and 42% at the Shearwater Stream colony. This is, however, still a reasonable breeding success figure.

If we assume that both colonies share many similar attributes, then it appears from our study thus far that five years of stoat control in Shearwater Stream made no difference to breeding success when compared with breeding success results from the Kowhai colony. As Richard Cuthbert concluded, yes, there are stoats in these colonies, but the sheer numbers of birds in a colony buffers any predation effect on the overall population.

As has been observed with many other seabird species, it appears that these fluctuations in breeding success are related to 'at sea' effects and, most likely, to food supply. The test of the hypothesis regarding the impact of stoats will be to stop stoat trapping at Shearwater Stream and continue to monitor and compare breeding success at both colonies. Our plan is to turn stoat trapping on and off over the next five years. Hopefully, by doing this we will be able to determine whether stoat trapping is actually worthwhile for the conservation of Hutton's shearwater, or whether the future health of these two populations is actually determined by factors that we can have very little influence over. Watch this space!

The stoat trapping programme in Shearwater Stream continues to run smoothly and traps are still checked every three weeks, where possible. This season, as with most seasons, only a handful of stoats were trapped. The traps are left set over winter, as there is always a chance of trapping animals between now and when the traps get checked again at the first opportunity in spring. We acknowledge the landowner, Nicky McArthur, her family and staff for their continued support of this project.

Phil Bradfield, Trustee

Table 1: Does stoat control increase breeding success of Hutton's shearwater?

Year	Kowhai Colony Breeding Success	Shearwater Stream Colony Breeding Success
2006/07	17%	4%
2007/08	32%	6%
2008/09	27%	25% (stoat control)
2009/10	81%	81% (stoat control)
2010/11	70%	72% (stoat control)
2011/12	66%	70% (stoat control)
2012/13	47%	42% (stoat control)

Mike Morrissey, DoC, on the trap line - Shearwater Stream Hutton's colony, Puhi Peaks· November 2008· Photo courtesy of Phil Bradfield DoC·


NAU MAI HOKI MAI NGA MANU
Welcome Home
Hutton's Shearwater
Nāu mai hoki mai ki te Kainga
WELCOME HOME
ART - OLIVIA BAILEY
HUTTONS SHEARWATER
Saturday 21 Sept 2013
School Yard Market
Please support the Hutton's Shearwater stand
to welcome back our Titi for the Summer
9 am - 1 pm
• Hamburgers for sale
• Tee shirts for sale
• Lucky Draw - write a note
to a returning Titi and be in to win a tee shirt
Hutton's Shearwater
CHARITABLE TRUST
www.huttonsshearwater.org.nz

Research News

This summer we have been monitoring eight burrows at the Kowhai River colony and 20 artificial burrows at the Te Rae o Atiu colony to discover more about the patterns of visits made by adult birds during the season. Birds seen entering these burrows had a small PIT tag (passive integrated transponder or microchip, the same as used by vets on pets) injected in the back of the neck. As birds move through a small coil of copper wire placed at the tunnel entrance the time is recorded on a datalogger powered by a 12v battery connected to a solar panel. The Kowhai River study was a trial to see how the loggers work in a tough environment — rain, snow, cold, very hot and dusty being the variables. Eight loggers were installed in mid-November and the data was retrieved when the chicks were being collected for translocation in late February. Results were mixed. Kea managed to pull the coil out of one burrow, and two solar panels were covered in dirt when birds cleared the entrances of nearby burrows, so the batteries went flat, resulting in short records. On the positive side, one burrow at which both birds were tagged gave good records throughout the summer. The difficulties of assigning tagged birds to burrows is highlighted by the results. Birds seen entering burrows were believed to belong to that burrow, but three were never recorded by any logger. X20785, believed to belong to burrow A1, was never recorded there, but was at both PIT1 and PIT4 on 3 December and PIT4 only on 5 and 31 December and 10 January — it must have had a home somewhere else. Another bird, X20765, was recorded spasmodically at its 'home burrow' until early February but had been seen at A1 in early December. Thus, it appears that many birds (possibly non-breeders??) could wander from place to place. This has given us plenty of food for thought as we plan this year's study using loggers at 30 burrows. The Te Rae o Atiu study and the results of monitoring the translocated chicks as they fledged using nearly 100 loggers will be reported in later newsletters.

Lindsay Rowe, Treasurer

Hutton's Farewell 2013

On Sunday, 7th April the people of Kaikoura farewelled the Hutton's shearwater at the peninsula colony, Te Rae o Atiu, as the birds returned to their winter feeding grounds off the west coast of Australia.

About 40 people attended the dawn farewell, walking from South Bay to the top of the Kaikoura Peninsula to toss shearwater feathers into the wind. The ceremony, led by Brett Cowan of Kaikōura Rūnanga, included a celebration of the four winds with Oruorua Whakaoriori, a Māori form of Tai Chi.

The 'KaiChorus', directed by Ailsa Howard, followed on with a song she composed for the Hutton's shearwater, with words by Karen Starkey to farewell our birds on their journey. The words of the song are very beautiful and are provided to the left. Feathers were then released to symbolically blow in the wind towards the sea and distant shores.

A shared breakfast of bacon butties at the coastguard building, followed by a scientific and educational update, concluded the Hutton's Farewell morning.

We would like to acknowledge the volunteers who took part and our sponsors of this event: Coastguard Kaikoura, Whalewatch Kaikoura, Forest and Bird, New World Kaikoura, Yvonne Mackle, Kaikoura Wilderness, KaiChorus, Department of Conservation, Blue FM, Culverden Tea Rooms, Land Services Ltd.

Nicky McArthur, Trustee

Photo - Nicky McArthur.

HUTTON BIRD FAREWELL

Verse:
Hutton birds, farewell
Hutton birds, farewell
Answer the call of Hine Aroraki,
Who tells you to fly, she tells you to fly.
Move to the House of the Summer Maiden
And wait a while, and wait a while.

Chorus (Maori)
Hoki mai. Hoki mai.
Tama nui te rā
Haere mai ki te waewae o Māui
Te tama o Hine Aroraki

Chorus (English)
Return with the sun, return with the sun.
Return to South Bay, Kaikoura.
Return to the place of Maui's footstep,
The son of Hine Aroraki, of Hine Aroraki.

The Hutton's Shearwater Trust acknowledges the following for the production of our newsletters.

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Editor: Julie Buunk courtesy of DoC Renwick.

Contributors: A number of our trustees.

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Please share this newsletter by email

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Hutton's Housekeeping

Dates for your diary:

Saturday and Sunday, 5th and 6th of April 2014 will see the launch of a seabird weekend in Kaikoura. Whilst in its early stage of planning the idea is as follows:

'Seabirds, Shearwaters, Science and Seaweek'
An ornithological weekend in Kaikoura.

- Saturday morning: Local activities, e.g. Albatross Encounter, nature tours and nature walk oppotunities, all provided by local operators.
- Saturday afternoon: Scientific talks from two or three prominent ornithologists.
- Saturday evening: Dinner at a restaurant and/or film at Mayfair Theatre.
- Sunday morning: Hutton's Farewell, followed by scientific updates from the Hutton's trust; also a scientific talk on the Blue penguins residing under the coastguard building.
- Sunday afternoon: Brett Cowan to lead a family afternoon at South Bay, celebrating Seaweek.

We would like people from all around New Zealand to consider joining us in Kaikoura for this inaugural event. Updated details to follow; please diary this, and we look forward to seeing you here.

Bag Yourself A T-Shirt.

You can now buy your Hutton's shirts on line.
See www.huttonsshearwater.org.nz for more details.

Project funding

Our projects would not be possible without the assistance of many funding agencies. We are grateful to the following organisations for help with these projects:

- The 2012 and 2013 translocations of chicks from the Kowhai River to Te Rae o Atiu: Encounter Foundation, Mohamed bin Zayed Species Conservation Fund, WWF-New Zealand, Lions Club of Kaikoura, Ron and Edna Greenwood Environmental Trust
- The 2012–13 Kowhai River Research project: The Lion Foundation, Air Rescue Services Trust
- The 2013–14 Kowhai River Research Project: Birds NZ Research Fund
- The Te Rae o Atiu monitoring project: NZ Lottery Grants Board Environment and Heritage Fund; Mohamed bin Zayed Species Conservation Fund; Sistema Plastics; Reid Technology; Department of Conservation

THE HUTTON'S SHEARWATER TRUST WAS ESTABLISHED 2008

To encourage and promote the preservation, conservation, research, public education and sustainable management of the Hutton's Shearwater.

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