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New

Zealand

National

Bird

Banding Scheme NZNBBS

#### **Banding Banter**

Yet another *BirDBanD* to keep the Banding Community informed about banding projects, some history, anecdotes and updates.

We would love to include your banding stories, photographs etc.; contact the <u>Banding Office</u>. Remember to circulate *BirDBanD* to anyone you know that might be interested in bird banding or that might report a banded bird.

Previous newsletters can be downloaded from <a href="http://www.osnz.org.nz/nz-national-banding-scheme">http://www.osnz.org.nz/nz-national-banding-scheme</a>

#### More Banding Office stuff?

Banding Office items from decades ago keep popping up. This is thanks to the likes of Graeme Taylor and Les Moran that have a search-image for such things as metal boxes full of punch-cards, dot-matrix print-outs of band recoveries, map cabinets with ancient maps, and endless boxes of returned bands (some still enclosed around decaying bird legs)!



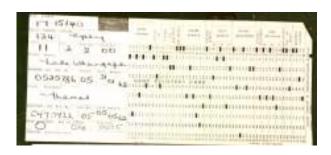
### How do we maximise the value of banding data?

The North American Bird Banding Program notes:

"It must be emphasized that the maximum value of banding data is realized only when

- (a) accurate and standardized (or well-documented) data are taken;
- (b) these data are stored centrally and made readily available to analysts and researchers; and
- (c) the data are used, and the results published." https://www.pwrc.usgs.gov/bbl/resources/nabbpii.htm

Sounds so simple, doesn't it? First, we need good data, then a central repository for the data and a means of making it readily accessible, and finally, data analysis and publication! Definitely something to aim towards as we continue to investigate options to replace the current database (written in VB6, which was declared legacy in 2008). However, the technical solution of a replacement database is to some extent the "easy part" – ultimately a database is only as good as the data it holds, and only as useful as the users find it to be. Data are easy to manage; humans... somewhat less so.

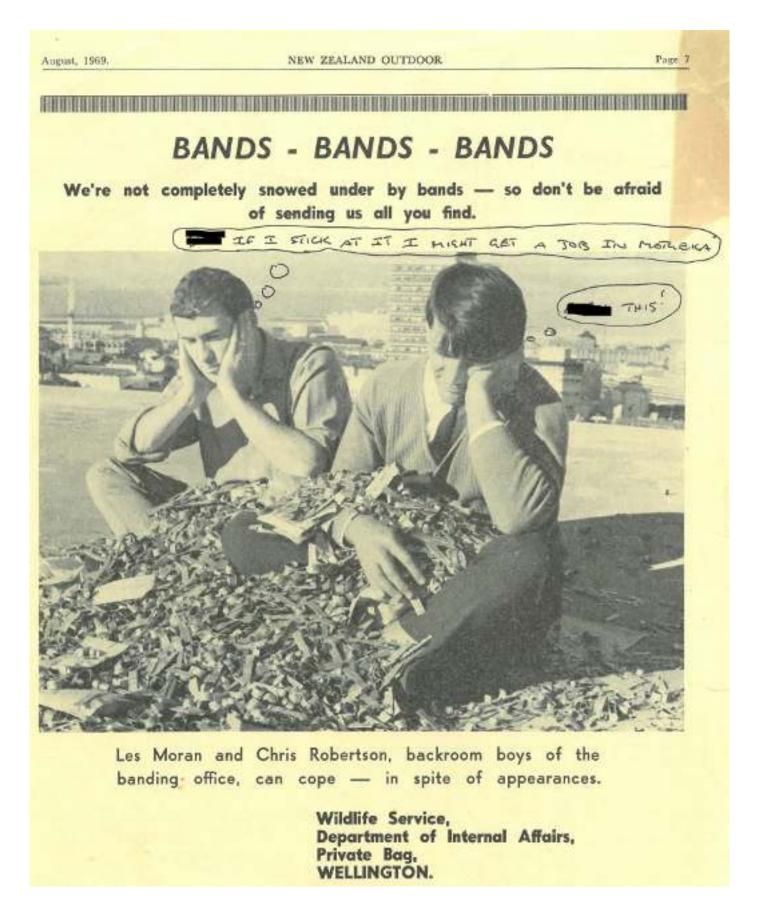


#### Backroom boys of the Banding Office, 1969

Forty-eight years ago, the Banding Office requested that all bands be returned to the Wildlife Service. However, even though some birds may still have this (or



another) old address stamped on their bands, please send bands to PO BOX 108, Wellington, 6140.



#### Southern Buller's Albatross banding study 1948-2017 - Paul Sagar

Southern Buller's albatross *Thalassarche bulleri bulleri* is endemic to New Zealand, where some 13,625 pairs breed at The Snares and Solander Islands. Fisheries-related mortality has been implicated in the decline of several albatross species, and in the New Zealand region southern Buller's albatross is one of the most frequently recorded in the bycatch of surface longline, squid trawl and hoki trawl fisheries. Consequently, there has been a lot of concern about the population trend of this species. Fortunately, there are substantial demographic data from long-term banding to develop population models that inform conservation management of southern Buller's albatross.



When Dr Lance Richdale stepped ashore at The Snares in January 1948 he would have little realised that the research that he was about to begin on the breeding of southern Buller's albatrosses would have continued through to 2017. Although Richdale made just one visit to The Snares, during his six weeks ashore he banded nesting birds (using bands that he had made himself) and made meticulous records of the behaviour of the albatrosses. There was a gap of 13 years before the next scientific study of southern Buller's albatrosses, but the visit of Dr Bernard Stonehouse as part of the University of Canterbury expedition in 1961 resulted in the recapture of several of the albatrosses banded by Richdale, and the banding of more birds. On the next University of Canterbury expedition to The Snares, in January 1967,

more recaptures and banding of the albatrosses were made by Dr John Warham before a long-term study colony was established at Mollymawk Bay (where else?) in 1968-69. Subsequent annual or biennial visits to the island through to 1977 resulted in the recording of much information about the breeding schedule, breeding behaviour, nest-site attendance, adult survival, and breeding frequency of individuals. Most important was a continuous 13-month study (Dec 1971- Jan 1973) completed by Carol Horning, which covered an entire Buller's albatross breeding season, plus the start of the following one. This extended stay on the island allowed, for the first time, the banding of chicks, and so established a pool of marked known-

age birds.

The next series of annual visits to the island were from 1982-1987, again by staff and students of the University of Canterbury under the leadership of Peter Johns and then Dr Ian MacLean. This latter series of visits were funded by the then Department of Lands & Survey, which administered the Snares Islands Nature Reserve, because of concerns that vessels fishing for crayfish in the area were mooring close inshore, and so may result in the accidental introduction of rats to the island. In this period, a study of the vocalisations and breeding behaviour of the albatrosses was completed and there were further recaptures of banded birds.

Concern about the potential impacts of fisheries with the estimated bycatch of thousands of albatrosses in longline and trawl operations led to the current study of southern Buller's albatrosses. This began in 1992 and has continued with 1-3 visits annually through to 2017. Initially, this was a joint effort between DOC, NIWA, and Te Papa and involved the establishment of three study colonies (one of which is the original Mollymawk Bay study colony) that allowed for the study of population trends, breeding frequency, annual survival, diet, breeding success, age of first breeding, and recruitment. The last three parameters were able to be estimated because from 1992 to 2004 visits were made during Feb-Mar (egg stage) and Jul-Aug (late chick stage), and so the fledglings could be counted and banded. Since

2006, the study has been maintained by one visit per year, usually in early April, the period of peak hatching and the early chick guard stage. During these visits, demographic parameters such as annual adult survival, return and recruitment of known-age birds and breeding effort have been estimated. In addition, there have been a number of studies using geolocator and GPS units to track the movements of banded birds. I first studied southern Buller's albatrosses at The Snares during 1976-77, recaptured some birds during the

1980s, and have visited the islands more or less annually since 1992.

So, what have we found out from banding these birds over the past 70 years? Having fledged from the islands, young southern Buller's albatrosses spend several years at sea before returning to land and beginning the process of prospecting for a nest site and a mate. The youngest known-age albatross recaptured ashore at The Snares was three years old, but most are recorded ashore when five years or older. Most of the knownage birds breed for the first time when 10-12 years old. Some 16 to 24.5% of birds banded as fledglings survive to return and breed. The oldest known-age bird recorded was banded as a fledgling in 1972 and was breeding again in its natal colony in April 2017 – in its 46th year.

The annual survival of breeding birds ranged from just under 91% to 100%, with the highest survival occurring in the period 1948-1960 and the lowest 1973-1982. Subsequently, survival increased to 97% for the period 1986-1997 before declining to about 91% in 2010-2017. With such high survival rates some birds are



expected to be long-lived, and this is exactly what we have found. One of the breeding birds banded by Lance Richdale during 1948 was last recaptured incubating (on a nest at the same site that it was banded) in 1993, and so was estimated to be at least 57 years old (at least 45 years as a breeding bird, plus 12 years before 1st breeding).

The value of this long-term banding project to inform conservation management is recognised internationally. In particular, it has been used in a new approach to seabird population monitoring and the effects of fisheries that allows estimation of demographic parameters from multiple data types, such as banding and census data, and bycatch. Full details of this modelling approach can be found in RIC Francis and PM Sagar, 2012, Modelling the

effect of fishing on southern Buller's albatross using a 60-year dataset, New Zealand Journal of Zoology 39 (1): 3-17 (<a href="http://www.tandfonline.com/doi/pdf/10.1080/03014223.2011.600766">http://www.tandfonline.com/doi/pdf/10.1080/03014223.2011.600766</a>)

#### Colour band survey results

Through an on-line survey (<a href="http://www.doc.govt.nz/our-work/bird-banding/colour-banding-feedback/">http://www.doc.govt.nz/our-work/bird-banding/colour-banding-feedback/</a>), the Banding Office has been made aware that some banders have concerns regarding the use of Acetate butt bands, for example:

- Although easy to apply, when we've recaptured birds, we have found a number of the acetate bands have been lost
- These bands are manufactured slightly open and do not butt clean; the gap seems to widen over time
- The rough edges need to be smoothed with a nail file before fitting these bands to birds



We have substantial stock of Acetate bands, but have made the decision not to purchase additional stock. Instead, we have stocked up on Darvic/Celluloid butt bands, sourcing colours from three different suppliers. Please refer to our updated <a href="Price-list">Price-list</a> for colours and options.

Ideally, all butt-bands should be glued or soldered – we are investigating various options in this regard. If you have any experience, preferences or suggestions, please let us know via the same <u>on-line survey</u>.

### **Banding sub-Antarctic skua** (Catharacta antarctica lonnbergi) **on Enderby Island** - Sarah Michael

Enderby Island is the northernmost of the Auckland Island archipelago in the New Zealand sub-Antarctic. The island is inhabited by humans only during the summer research season, where field researchers undertake projects on the varied wildlife including New Zealand sea lions, yellow-eyed penguins and southern royal albatross.

During the 2016-2017 summer season on Enderby, we were investigating disease in New Zealand sea lions. Specifically, a bacterial disease caused by *Klebsiella pneumoniae*, which causes septicaemia (blood infection), followed by meningitis (infection around the brain) and polyarthritis (infection in the joints) in pups from when they are one month old. We have previously



detected the bacteria in environmental samples and in sub-Antarctic skua cloacal swabs, however since the birds were only temporarily marked (with nail polish on the beak) we could not be sure we weren't sampling the same birds throughout the three-month season. We were interested in further investigating prevalence as skua may act as vectors carrying the bacteria to other locations that NZ sea lion pups may become infected.

This summer, I was granted a restricted banding license to apply stainless steel bands to 44 sub-Antarctic skua on Enderby Island. Birds were captured with a hand net and restrained by a handler while a band was applied to the leg. A cloacal swab was collected and then the bird released. Strips of reflective coloured tape (lightweight 3M™ Scotchlite™) were applied in a unique pattern over the band to allow for distant identification of individual birds so that voided faeces could be collected from known individuals. One layer of tape overlapped by approximately 5mm around the band proved to be very resilient to all the things that skuas put their legs in!

I'd like to thank Michelle Bradshaw, Graeme Taylor, Sandy Taylor and Colin Miskelly for their help in banding training and making the skua work on Enderby Island this year possible. Lab work is continuing to determine the prevalence of *K. pneumoniae* carriage in sub-Antarctic skuas.





#### Quote me

"Ringing can be applied to species of any size, year after year, on a large spatial scale (nationwide or greater), with the results continually added to an ever-growing long-term database."

"Ongoing ringing is like having money in the bank, ready when needed."

– Ian Newton <a href="https://britishbirds.co.uk/article/bird-ringing-still-necessary/">https://britishbirds.co.uk/article/bird-ringing-still-necessary/</a> (Published on 09 October 2014 in Editorials)

#### Yes! I found a Golden Duck Band! - Michelle Bradshaw



While sorting through a few hundred bands in a random box (the one with the decomposing bird-legs in...), I found a Golden Duck Band!!! It's not just a rumour. This one was from a Mallard that was banded in 2003 at Turua and recovered three months later in Marton, 400km away. Did the duck visit some geothermal ponds on the way, or did the band discolour after it was sent to the Banding Office 14 years ago?

25/10/94

#### Curiosity and the cat

From the archives: Two house sparrows banded a year and 500km apart were caught by cats nine days apart.

Dear Sir/Madam			,	
The said bird wa As I have always why you have run	s caught about had an inter g this partic have not mer ch is why I	no. B71389.  It 10 kilometres rest in animals a cular breed of bootioned the breed  so curious.	south of Reetin and birds I woul ird and also whe d or sex of the	ich I presume our  i. d like to know re it was rung etc. bird but I do know
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Locale: Patea		atLong WGS84	Passerine G	roup OSNZ Central
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THEM. AS BIRDS ALL HOPING	HE PAITO HE IF SEBA	OUR GARTE	R. WE PROB * FRUITHIN ECP I'M YOU	e Reserch.
Locale: Lincoln		LatLong WG584		
20 /05 /1993 A	ge Code Iss	YearorOlder V	Sex Cod	fe Female V

# temporarily adopted

are renowned for their homing ability but when two of them decided to take a leisurely flight

to take a leisurely flight across the sea they found themselves in difficulty.

A violent storm blew up.
Unable to make landfall and at the mercy of the wind, they had to forget their homing instincts and settle for a new home 80 settle for a new home 80 miles off the Taranaki coast - the Japanese ship

Amagi Maru. Wet and exhausted they landed on the deck of the

The master, Captain Y. ship. Ayabe, appointed the second officer as pigeon doc-tor and they were nursed back to health under his

Both birds were bagged care. but as the ship way set returning to New Zesisud the delight of the crew, -------

as the ship's mascots.

The birds settled down well and made the best of their new and strange surroundings. Now, much to t they have started to raise a family.

The ship arrived in Wellington over the weekend and while in port the female laid two eggs.

Ship sailing

But the ship is not the birds' true home and Cap-tain Ayabe would like to return them to their right-

The two pigeons, bear tags numbered ECH 68 549 and BFC 68 572.

The Amagi Maru sails from Wellington tomorrow and if not claimed by then they will stay on board in their cage on the bridge.

## Lost pigeons

The two pigeons which landed at sea on a Japanese ship now in Wellington were removed by the wildlife service of the Department of Internal Affairs yesterday.

The birds, with tags numbered ECH 68,549 and BFC 68,572, are racing pigeons. During a violent storm, they lost their homecoming instincts 80 miles off the Taranaki coast and landed on the Amagi Maru,

had been released North on the 4th MACE The owners wish to thank you for

#### Bird banding 250 years ago



In order to band a heron Christine Charlotte Prinzessin von Hessen-Kassel (1725-1782)
takes a brass plate, dated 1764, from the hat of the Oberfalken- und
Forstmeister Freiherrn Ludolph von und zum Canstein. The bird
is held by the Falkenjunker L. H. von Osterhausen.

Looking down on the ceremony is Ernst Ludwig, Erbprinz von Sachsen-Gotha. Other onlookers
are Constantin Landgraf von Hessen-Rotenburg and (in green forestry
uniform) the Hofjägermeister Friedrich W. G. von Oynhausen.

(from: Bird Trapping and Bird Banding – A handbook for trapping methods all over the world, by Hans Bub, translated by Frances Hamerstrom and Karin Wuertz-Schaefer. 1991. Cornell University Press, Ithaca, NY)

#### Break a leg! (actually, please don't)

The Banding Workshop at the recent BirdsNZ Conference was a great opportunity for the bird puppets (from our growing Training Flock) to prove their use in providing an opportunity for learner banders to practice applying bands. However, this simple exercise inadvertently highlighted another aspect of training that we will need to focus on: how not to break the bird's leg when attempting to *remove* a band! As it turns out, it was not a learner bander, but an experienced bander that broke the dotterel puppet's 3-D printed leg. Banders rarely need to remove bands from birds (except in species that experience high band wear), and many have never done so. And whereas I simply fitted the maimed puppet with a new set of 3-D printed legs, banding equipment boxes aren't stocked with bird spare parts...



#### As mentioned in the Bird Bander's Manual (page 44):

Fitting a band is relatively easy, but removing one from a live bird is more difficult. It is, nonetheless, a vital skill required by banders working independently. Even highly proficient banders can make mistakes, while the high degree of wear of bands on rocky river species such as wryptill and blue duck requires regular band replacement.

#### A very dead duck?

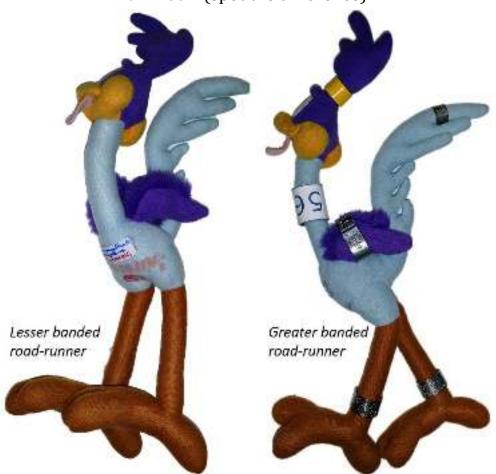
We have had a few interesting duck band recoveries during the past season, including many reports of the same duck being shot more than once, and three of these records a year apart! Even more intriguing, some of these doubly-dead banded ducks weren't even banded in the first place (there is no record of that band being used on a duck).

Of course, it is more likely that the band numbers were incorrectly and/or repeatedly reported (often by the same hunter). It is for this reason that the Banding Office in the past insisted on all recovered bands being physically sent to the Banding Office, and why each band has a return address on.

#### Pics of Banding Workshop at BirdsNZ Conference, Te Anau



#### **Puzzled?** (spot the difference)



Answer to previous puzzle

