



NEW ZEALAND WADER STUDY GROUP

In association with

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Compiled by Adrian Riegen

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Bar-tailed Godwit and Transmitters

During the northern summer of 2005 several Bar-tailed Godwits were fitted with transmitters while on the breeding grounds in Alaska. Unfortunately they all stopped working after a couple of months so we were unable to track them into New Zealand as had been hoped. An expedition to Alaska's Yukon Delta in August 2005 to catch and fit 60 more godwits with transmitters failed miserably when it proved impossible for various reasons to catch a single godwit let alone 60. However, all was not lost, as three godwits with the transmitters were seen later in the year in New Zealand and at least one bird was also seen in southeast Queensland. As it turned out one of the birds seen in New Zealand and one in Queensland were a breeding pair, 'holidaying' in quite different places.

This confirmed that at least some godwits were able to carry the transmitters and still complete their southward migration. Would they be able to make it back to the breeding grounds this May? Well at least three of them did and were seen in June 2006 by Bob Gill and his band of waderologists on the Yukon Delta at Old Chevak, where they had been caught in June 2005.

We now wait to see if they return again to New Zealand and I hope people will look out for them. Each has a single black flag with white letters engraved in the surface. If you see one or any other flag please report it to Adrian Riegen.

Banding Results

From 25.10.2004 to 04.03.2006

Since the last banding report (NZWSG News #20) 18 catches have been made at seven sites and a total of 1806 birds caught as shown in Table 1. A summary of each catch is shown in Table 2, and Table 3 summarises all new and retrapped birds caught since 1979.

Table 1. Species Totals

Banding Totals 31.10.04 to 04.03.06

Species	New	Retrap	Total
Wrybill	538	547	1085
Red Knot	483	43	526
Bar-tailed Godwit	93	5	98
Banded Dotterel	67	2	69
SIPO	25		25
Pacific Golden Plover	3		3
Total	1209	597	1806

Some of the Bar-tailed Godwit and Red Knot in these totals were colour banded by Phil Battley and the catch at Manawatu was targeting Bar-tailed Godwit and Red Knot for colour banding under the OSNZ – DOC project. The Banded Dotterel and SIPO, not being part of this project were banded using NZWSG bands.

Table 2. Catch Totals

Site	Date	Bar-tailed Godwit		Red Knot		SIPO	Wrybill		Banded Dotterel		Golden Plover
		new	retrap	new	retrap		new	retrap	new	retrap	
Taramaire	31.10.04	65	4	2	2		14	3			
Jordan's	27.11.04	14		7							
Taramaire	14.01.05						30	16			
Miranda	29.01.05						241	241			
Karaka	12.02.05	15	1	1	1	2					
Jordan's	13.02.05			23	24		3	1	18	1	3
Karaka	05.03.05					1					
Karaka	12.03.05					17	45	4			
Karaka	09.04.05					1	8				
Taramaire	10.04.05						102	204			
Taramaire	02.07.05							11	27		
Miranda	22.10.05	4		265	13						
Miranda	18.01.06			185	3		83	64			
Clarks Bay	29.01.06						2		1		
Manawatu	31.01.06					1			5		
Clarks Bay	05.02.06						9	2			
Miranda	20.02.06					3	1				
Tapora	04.03.06							1	16	1	
Total >		98	5	483	43	25	538	547	67	2	3

The Wrybill catch of 29.01.05 and the Red Knot catch of 22.10.05 were made for researchers from the Massey University Epicentre and MAF to screen for avian flu viruses as reported in NZWSG News #21. No flu viruses have been found in the samples but waders will continue to be screened as possible carriers of the H5N1 virus in New Zealand and other countries, in particular Alaska, prior to the birds departing from their this September.

Table 3. Total birds caught in all years since 1979

Species	New	Retrap	Total
Wrybill	6075	2436	8511
Red Knot	7149	180	7329
SIPO	2850	30	2880
Bar-tailed Godwit	2182	47	2229
Turnstone	149	12	161
Banded Dotterel	139	2	141
Curlew Sandpiper	22	1	23
New Zealand Dotterel	19	2	21
Pied Stilt	15		15
Pacific Golden Plover	5		5
Red-necked Stint	4		4
Variable Oystercatcher	1		1
Grey-tailed Tattler	1		1
Terek Sandpiper	1		1
Total >>	18612	2710	21322

Bar-tailed Godwit

Many of the godwits caught during this period were fitted with colour bands by Phil Battley as part of his studies and as part of a project funded by the Dept of Conservation looking at survival rates and movements of waders within New Zealand. Some of these colour-banded birds have also been seen in Asia and Alaska, further adding to our understanding of their migration routes, and the timing of such movements. One banded godwit was seen in southern Japan 11 days after being seen in New Zealand. Another has been seen at the same site in South Korea for the past three years during its migration north.

Bar-tailed Godwit Recoveries

Phil Battley retrapped a godwit on the Manawatu on 02.02.06 that had been banded at Chongming Dao near Shanghai in China as an adult on 31.03.04 during its northward migration. This was the first Chinese banded wader to be caught in New Zealand.

Rob Schuckard and David Melville have retrapped two Bar-tailed Godwits in the Nelson region that were banded in Victoria. One banded as a two year old in Victoria on 22.08.04 was recaptured in Golden Bay less than four months later on 13.12.04. Like Red Knots it appears that some Bar-tailed Godwits spend time in Victoria as first year birds and then move on to New Zealand in their second and subsequent years. The other bird was banded on 27.01.00 in Victoria and recaptured on Rabbit Island, Nelson on 15.12.04.

A godwit banded at Miranda 21.10.00 as an adult was retrapped at Miranda on 12.01.04 and then on 10.05.05 it was found dead by the Han River near Seoul in South Korea.

The last recovery was a bird banded at the Avon-Heathcote Estuary, near Christchurch on 22.10.04 and seen there again on 27.02.06. One month later, on 29.03.06 Zhang Kejia caught it at Chongming Dao in China. (See note elsewhere on Chongming

Dao banding). It is likely the bird did not leave New Zealand until sometime in March. This is yet another fairly quick movement to the Yellow Sea region and a further indication that at least some birds fly non-stop from New Zealand to China a distance of more than 9000km.

Red Knot

During this period a further seven Red Knot banded in Victoria were recaptured in New Zealand, six at Miranda and one at the Manawatu Estuary. Six were banded in Victoria as first year birds and the other as a second year. This brings the total of Victorian knot caught in New Zealand to 42, of which only seven were banded as adults. For reasons we don't yet understand, many young knot spend their first year in Australia and then move to New Zealand, where the majority will then reside each non-breeding season, without returning to Victoria.

Just occasionally a knot will return to Victoria from New Zealand as happened on 07.11.05 when a knot banded at Miranda nine years earlier on 20.10.96 was recaptured by the Victorian Wader Study Group. Only one other New Zealand banded knot has been recaptured in Victoria. Even more remarkable, is the evidence of this one-way traffic as shown by leg flags. There have been 794 reports of orange (Victoria) flagged knots in New Zealand but only one white (NZ) flagged knot seen in Victoria and that was back in 1993.

Three other interesting Red Knots include:

- C-74504 flag AJD: banded as a second year bird on 22.10.05 at Miranda and caught six months later at Chongming Dao, China on 13.04.06. It was generally thought that Red Knot did not return north until at least three years old but this one was not quite three.
- J6: a bird banded and fitted with an engraved flag in North West Australia as a first year bird in June 2005 and still there on 17.09.05 was seen six months later at Miranda by Phil Battley on 15.03.06. Tony Habraken then saw it on 01.04.06 at Karaka on the Manukau Harbour. Two others engraved flags (K2 & K3) from NW Australia have been seen on the Firth of Thames and Manukau Harbour.
- C-45718: was banded at Miranda on 03.11.90 as a second year bird and recaptured by Phil at Miranda 15 years 2 months later on 18.01.06 making the bird 17 years old and the oldest known knot in New Zealand.

Wrybill

The catch on 29.01.05 really did have 241 new birds and 241 retraps. Throughout this reporting period there were slightly more retraps than new birds caught. 538 new and 547 retraps. The retrap data is being analysed at present for a paper on survival rates etc.

Banded Dotterel

Of particular interest were two retraps:

- B-51975 was first banded at Jordan's Farm, Kaipara Harbour on 10.01.93 as an adult. It was retrapped two fields away on 13.02.05, 12 years 1 month later, making the bird at least 14 years old. Many Banded Dotterel breed in the South Island braided rivers but we are certain this bird had not been near a braided river as the band showed almost no sign of wear unlike Wrybill bands. Wrybill always breed in braided rivers and their bands wear very quickly in that environment, making the numbers difficult to read after a few years.

- B-54419 was retrapped at Taporā Kaipara Harbour on 04.03.06. This band was badly worn so we suspected it was from the South Island. And indeed it was, having been banded on the braided Ashley River in Canterbury on 09.11.86, 19 years 4 months earlier, making this bird at least 20 years old.

Pacific Golden Plover

Three Pacific Golden Plovers were caught on 13.02.05 at Jordan's adding to the two caught there in 1991 and 1993. The three caught in 2005 were fitted with white flags. Gwen Pulham and John Simmons saw all three at Jordan's on 24.10.05 as reported on NZWSG News #21.

SIPO

The 25 caught during this period were all caught during mist netting sessions. There were no interesting recoveries or retraps during this period.

Red Knot & Bar-tailed Godwit with lettered white flags

Red Knot

On 22 October 2005 over 250 Red Knots were caught on the shellbanks of Miranda and rather than being fitted with a plain white flag, 163 of them had received a white flag each engraved with three black letters.

These lettered flags allow us to identify each bird individually in the field in much the same way that colour banded birds are identified. This method will generate considerably more information than a white flag alone, which only tells us that a particular bird was caught sometime after 1992 in the Auckland region. The disadvantage with lettered flags over colour bands is that the observer needs to be close to the bird and side on to the flag in order to read the letters. The advantage is that one flag is easier to fit than four colour bands.

Almost immediately after these flags were fitted they were seen at other sites around Auckland and later on at the Manawatu Estuary and Farewell Spit.

This mirrors trends seen with Phil Battley's colour banded birds. We expect young birds to move about but these resightings show that adults also move between sites during one season.

Why do Red Knots move around the Auckland region and further afield? At present we are not sure but food availability is likely to be a contributing factor.

Does this mean sites like Miranda are not able to provide sufficient food for knots throughout the summer? If there is a lack of food is this a natural situation that has always occurred or has the balance been changed by human activities?

We know that in the 1970s to early 1990s Farewell Spit was the major site in New Zealand for Red Knot, but since then the number there has dropped dramatically. Meanwhile the numbers on the Manukau Harbour have increased steadily so that the Manukau Harbour is now the most important site in New Zealand for Red Knot.

Hopefully someone will research this fascinating subject.

Summary of lettered flag sightings

Red Knot

163 Red Knots had lettered flags fitted on 22.10.05. Of those 30 have been sighted again by nine observers at nine roost sites, but only two have been seen twice.

Two birds had moved from Miranda to Mataitai (c50km) one week after banding. Two more were seen close by at Whitford in Dec 2005 and Feb 2006. Six were seen at Miranda but not until Feb 2006.

14 were re-sighted at several sites on the Manukau Harbour, the first a month after banding on 24.11.05 the others mainly from January – March 2006. Three were still on the south Manukau Harbour in mid July 2006; interestingly two were banded as adults so should have been on the breeding grounds in July. One adult moved to the Manawatu Estuary and was seen there on 02.02.06. Two adults moved to Farewell Spit and were seen on 28.01.06 and 16.02.06.

I encourage as many people as possible to look again for these birds when they return from the arctic later this year.

Bar-tailed Godwit

Only twelve Bar-tailed Godwits have been fitted with engraved flags, eight at Karaka, Manukau Harbour on 12.02.05 and four at Miranda on 22.10.05. Of these only two Karaka birds have been re-sighted both at Karaka, between September 2005 and February 2006.

Wader banding at Chongming Dao, China

In the late 1980s and early 1990s 10 Red Knot banded in New Zealand were recovered from Chongming Dao and other places close to Shanghai. All had been hunted. In those days, hunters took thousands of waders each spring during northward migration. The hunting has all but stopped now but Zhang Kejia and other Chinese researchers at Chongming Dao have been catching birds for banding and release and so putting the hunter's skills to good use.

Between 22 March and 12 May 2006 they caught and banded 3607 waders of 34 species. Outside Australia this is the greatest number of birds caught at one site on the East Asian-Australasian Flyway.

Most birds were flagged with white over black flags. However, they have now switched the combination round so that the white is below the black. This is because they are adding engraved flags to their birds and the white engraved flag lower on the leg should be more visible, (something else to look for here!).

Of interest to us in New Zealand were the 354 Bar-tailed Godwit and 103 Red Knot they caught, some of which will have come from New Zealand. 39 of the Red Knot and 8 Bar-tailed Godwit had engraved white flags fitted.

Flag Maps

The number of flag sightings continues to rise dramatically particularly for Bar-tailed Godwit and Red Knot and the two maps show where the different colour combinations have been seen. Bar-tailed Godwit flags from 13 regions and Red Knot from nine regions have now been seen in New Zealand.

To date at least 1843 reports of flagged Bar-tailed Godwit and 1557 Red Knot have been recorded in New Zealand.

Adrian Riegen
 riegen@xtra.co.nz



A red knot with a lettered flag. Keep your eyes open! Photo Ian Southey

