



# NEW ZEALAND WADER STUDY GROUP

*In association with*

Miranda Naturalists' Trust

Newsletter No 19

- August 2004 -

Compiled by Adrian Riegen

ISSN 1173-387X

## **COMMENT**

I find it hard to believe it is almost two years since the last newsletter. Where has the time gone and what have we been doing during that time? There have been reports of course in the Miranda News over the past couple of years of particularly interesting wader stories but a great deal has happened. Of particular interest are the numerous flag and colour band sightings from around New Zealand with some sightings from new banding schemes along the flyway.

In this issue we'll review the latest news in flag sightings and an interesting story regarding one particular Red Knot. Results of the banding work over the past year or so will have to wait until the next news in November. But to start with we have an introduction to Phil Battley's study which anyone with a good eye and telescope can get involved in.

## **Colour-banding Godwits and Knots**

Arctic wader banding has taken a new turn recently, with individual colour-banding projects starting up for the first time. Phil Battley, officially working through the University of Otago's Math's and Stats department, has based himself at the Firth of Thames to study the demographics of Bar-tailed Godwits and Red Knots. Phil's work is part of an international move to study the survival rates of godwits and knots around the world, which will allow comparison of the "population health" of the different subspecies of these birds. This is a challenging prospect, but as of July 2004 five of the six subspecies of Red Knot around the world have colour-banding projects underway. Measuring annual survival rates is a slow process, because (obviously) it takes at least a year to gather the appropriate data, but in reality it takes even longer than this, as some of the birds that have not been recorded in a year (and so are possibly dead) may simply have been overlooked or be elsewhere. From a three-year project, you typically get only one decent survival rate estimate!

But there are many questions that are of interest in the shorter-term, particularly at the end of a migratory pathway where subadult birds reside year-round. One of these is what the survival is like for those young birds remaining in New Zealand, and if birds can be resighted frequently enough, seasonal survival rates can be calculated. For adult birds, high resighting rates mean that we can start to determine what proportion of the annual mortality occurs in New Zealand, and what proportion occurs while birds

are away on migration or breeding. There are extremely few studies that have addressed this, and none that have looked at whether populations with different migration schemes have different mortality patterns. Do knots or godwits that fly in excess of 10,000 km to a New Zealand summer have different overall or seasonal survival than those that fly just a short distance but have to put up with a European winter? These are the sorts of questions that we will be able to address in the longer term.

Having individually-marked birds also enables us to look at local and international movements of birds. Already, even with just small numbers of birds banded, the results are proving interesting. Two godwits (out of just 37 banded in February and March) were seen on migration, one in South Korea and one in China. This was not a bad return considering the vast numbers of birds in those areas and how hard it can be so see the legs up close. On a more local scale, 40 knots banded in the Firth of Thames in June are proving what has been suspected before – they are very mobile! There were 600–700 knots in the Firth in the early part of the winter, but in July only 30–50 remained (and no, this was not because of the banding; the birds stayed around for a couple of weeks before moving off). Over half the banded birds have been seen at Karaka, on the Manukau Harbour, while at least six colour-banded birds and three leg-flagged birds were seen at Tapora, in the Kaipara Harbour. Wanting to get the details on the birds in the Kaipara (only one full combination could be gathered when the six were seen), Phil Battley and Sue Moore visited Tapora three days later. Any disappointment at finding just one banded knot there disappeared soon after, as the very next morning the same bird was back in the Firth of Thames, 150 km away! (The Fairy Martin at Tapora also helped...)

In a timely development, the Ornithological Society of New Zealand is also about to start colour-banding godwits and knots to study movements within New Zealand. The research has been commissioned by the Department of Conservation to determine what sort of habitat networks waders may use while they are in New Zealand. Are birds highly site-faithful, using just a few sites in close proximity, or do they range widely? This work dovetails in perfectly with the work Phil is doing, and means that we will be able to gather data on a much larger scale than previously anticipated. Rob Schuckard and David Melville are set to

start colour-banding in the Nelson region, with a trip to Southland to try and catch godwits in the plan for this season. We also hope to catch in Canterbury and the Manawatu at some point. Hopefully there will soon be a good spread of banded birds to search for, and enough observers out looking. All of the birds will have two colour-bands on each lower leg, but also a white flag somewhere. Recording the position of the flag is important, as they will generally be in different positions for South Island and North Island birds. It is also possible that birds with bands and a yellow flag could turn up in New Zealand, as this will be used in Northwest Australia, and other banded birds from there have turned up in New Zealand in recent years.

Please send any sightings of colour-banded godwits and knots to Phil Battley ([philbattley@quicksilver.net.nz](mailto:philbattley@quicksilver.net.nz))

### Footnote to this story.

David Lawrie and others were at Karaka on 24 July 2004 and saw 1000 Red Knot including 23 colour banded birds. A week later on 2 August 2004 there were only 160 Red Knots and no colour banded birds. He asks "Is this amount of movement typical or is it an unusual year, or is it because we have never been aware of the flocks changing so frequently?"

### Flag sightings

White leg flags have been fitted to a further 80 Bar-tailed Godwit, 224 Red Knot, 3 Turnstone and 2 Curlew Sandpiper in the Auckland region bringing the total number of birds flagged to 3488 since 1991.

Red Knot	1852
Bar-tailed Godwit	1072
SIPO	452
Turnstone	110
Curlew Sandpiper	2

Sightings of these and other coloured flags have continued to roll in at impressive rate and have added considerably to our understanding of migration, although sometimes one is left with more questions than answers. New regions of the flyway have starting flagging waders and we are already seeing the results of these. With so many sightings in the past two years we only have room for a selection of the most interesting ones.

### Turnstone

#### *White from North Island NZ*

Date	No	Site	Country/Region	Observer
11.05.03	1	Mokpo city	Korea	Jeong-sik Lee
07.10.03	8	Taramaire	Firth of Thames	P Battley
06.02.04	13	Kaiaua	Firth of Thames	P Battley

Sightings from overseas are few and far between with the only three sightings to date all in South Korea. The 13 at Kaiaua are probably part of the 25 we flagged at Miranda on 17.02.02

#### *Orange from Victoria*

26.12.02	1	Kaikoura	Canterbury	N Allen
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Only the 6th Victorian Turnstone sighting from New Zealand, the others all from Manukau Harbour and Firth of Thames.

#### *Orange/Yellow from South Australia*

16.02.03	1	Tapora South	Kaipara	G Pulham et al.
01.11.03	1	Kaitorete Spit, L.	Ellesmere Cant.	C Hill
11.12.03	1	Kaiaua	Firth of Thames	P Battley

There have now been eight sightings in New Zealand of South Australian flagged Turnstone with the Lake Ellesmere bird being the only one outside the Auckland region.

### Pied Oystercatcher (SIPO)

#### *White from Miranda*

452 SIPO have been white flagged but very few are reported with just five sightings in the past two years all by Phil Battley at Miranda.

### Curlew Sandpiper

#### *White from Karaka*

Two birds were flagged at Karaka, Manukau Harbour on 01.03.03. Both have been seen on a regular basis always at Karaka with one staying through the winter. This is a very rare winter species in New Zealand.

### Bar-tailed Godwit

#### *White from North Island NZ*

A total of 389 sightings have been reported since 1992. Large numbers are recorded at Miranda; the main flagging site, which is to be expected, but it shows that people are out looking for flags. D Lawrie saw 29 at Miranda on 26.01.03, 57 on 07.02.04 by Tony Habraken and 30 on 04.03.04 by P Battley.

#### *From the rest of NZ came the following sightings.*

19.03.03	1	Raglan Harbour	Waikato	N Milius
03.04.03	1	Ohiwa Harbour	BOP	B & B Woolley
02.10.03	1	Mangawhai	N Auckland	G Pulham/G Gorbey
25.10.03	1	Farewell Spit	Nelson	P Field
11.11.03	1	Manawatu Est	Manawatu	I Saville
02.01.04	1	Farewell Spit	Nelson	P Field
11.01.04	1	Wanganui Est	Taranaki	I Sutherland
12.03.04	1	Omaha	N Auckland	G Pulham/S Chamberlin

Raglan, Mangawhai, Wanganui and Omaha were new sites for white flagged godwits.

#### White flag sightings from the rest of the flyway included:

##### *Australia:*

23.11.02	1	80 Mile Beach	NWVA	Via Chris Hassell
16.03.03	1	Dora Point, George's Bay	Tas.	H & P Britton, M Barter
04.10.03	1	Great Sandy Straight	QLD	J Knight
04.10.03	1	Great Sandy Straight	QLD	J Knight/E Lyons
10.10.03	1	Toorbul, near Bribie Isl	QLD	D. Stanbridge

The first sighting in NW Australia although some flagged in NW Australia have been seen in New Zealand. The Tasmanian sighting is also a first.

*Alaska:*

Eight were seen at Tern Mt on the Yukon Delta by S Connors and H Swensen between 16.08.03 and 05.09.03. Bob Gill and Dan Ruthrauff saw another seven on Egegik Bay, Alaskan Peninsula between 02.09.03 and 05.09.03. All these birds were at major staging sites just prior to their departure for New Zealand.

*South Korea:*

15.04.04	2	Hongsung	South Korea	Kim Hyun-tae
17.04.04	1	Hongsung	South Korea	Kim Hyun-tae
19.04.04	1	Hongsung	South Korea	Ji In-Sook/Ham In-ja
25.04.04	1	Hongsung	South Korea	Kim Ju-heon

There have only been a few sightings from South Korea but it is likely many more occur there on their way to Yalu Jiang at the northern end of the Yellow Sea.

*China:*

Eight seen at Yalu Jiang, China between 20.04.04 – 25.04.04 by the Miranda team and several were also seen by David Melville and Pete Collins during their banding work at Yalu Jiang. As was reported in the last Miranda News Yalu Jiang is a major staging site for New Zealand Bar-tailed Godwits.

**Orange flags from Victoria**

There have been 178 sightings of orange flagged Bar-tailed Godwit in New Zealand to date, many from the usual roost sites on the Kaipara Harbour, Manukau Harbour and Firth of Thames with one to three birds seen on most occasions however eight were seen at Karaka on 31.08.03

Orange flagged godwits have been seen at the following sites in the past two years. Whangarei Harbour, Mangawhai Est, Whangapoua Est on Great Barrier Island, Colville Harbour, Opoutere, Raglan Harbour, Manawatu Est, Farewell Spit, Motueke Sandspit and other Nelson and Golden Bay sites, Avon-Heathcote Est, Washdyke Lagoon and Papanui Inlet on the Otago Peninsula.

**Green flags from SE Queensland:**

Only 48 sightings but no flagging has been undertaken there since about 1999, however, a few green flagged godwits are still being seen including these:

10.10.02	1	Matarangi	Coromandel	B Mackereth
12.03.03	2	Clifton Bay	Auckland	T Habraken
11.10.03	1	Farewell Spit	South Island	P Field
11.10.03	1	Totara Ave	Golden Bay	P Field

**Yellow flags from NW Australia:**

Just 20 sightings and generally speaking the Bar-tailed Godwit in NW Australia are the sub-species *menzibieri* from eastern Siberia, which don't normally get to New Zealand.

The origin of yellow flagged godwits in New Zealand is still unclear.

16.02.02	1	Motueka Sandspit	Nelson	D Melville
14.10.02	1	Miranda	Firth of Thames	B Keeley
20.01.03	1	Tapora South	Kaipara	G Pulham
12.03.04	1	Omaha	N Auckland	GPulham/S Chamberlin

**Green/White flags from Nelson:**

Small numbers of Bar-tailed Godwit have now been flagged green over white in the Nelson region. As yet none have been seen in the North Island although a couple have been seen as far away as Alaska.

**Blue/White from Tokyo Bay, Japan:**

To date just one bird seen on 26-27.02.04 on Farewell Spit by R. Schuckard and P. Battley.

**Green/Orange from Yalu Jiang, China:**

74 were flagged at Yalu Jiang in April 2002 during northward migration and since then there have been at least 49 sightings of this flag combination in New Zealand at Omaha, Kaipara Harbour, Manukau Harbour, Firth of Thames, Ohiwa Harbour, Manawatu Est, Nelson Haven and Golden Bay. It is with these sightings especially at Miranda and the white flags seen at Yalu Jiang that the Miranda Naturalists' Trust has been able to forge the sister site relationship.

**Orange/Yellow from South Australia:**

Only a few have been flagged in S Australia so to have one turn up in New Zealand is a bonus.

29.12.03	1	Awarua Bay	Southland	G Vaughan/I Southey
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The huge number of flag sightings really does help us better understand the movement of Bar-tailed Godwit around the flyway. Of particular interest in the number of sites at which orange flagged godwits are seen in New Zealand compared to white flags. The indication is that young birds flagged in Victoria wander widely in search of a suitable non-breeding site whereas the majority of godwit flagged in the Auckland region do tend to stay put. Most godwits banded in Auckland are aged as adult and they seem fairly site faithful.

**Red Knot**

The story with Red Knot is just as fascinating if not more so. Being a more elusive species in Asia there are few sightings of white flagged birds from the Asian part of the flyway and even Australia produces few sightings. Red Knot in New Zealand are less site faithful at least in the Auckland region than godwits as can be seen in Phil Battley's study.

**White from North Island NZ:**

To date there have been 198 sightings of white flagged Red Knot with only 55 from outside the Auckland region. The following are all sightings outside the Auckland region over the past two years.

### *Rest of NZ:*

06.10.02	2	Farewell Spit	Nelson	R Schuckard
20.03.03	8	Farewell Spit	Nelson	D Melville et al
21.03.03	3	Farewell Spit	Nelson	D Melville et al
22.03.03	3	Farewell Spit	Nelson	D Melville et al
23.03.03	1	Farewell Spit	Nelson	D Melville et al
24.03.03	1	Farewell Spit	Nelson	D Melville et al
25.03.03	1	Manawatu Est	Manawatu	R Heather
02.10.03	1	Mangawhai N	Auckland	G Pulham/G Gorbey
15.11.03	1	Whangarei Har	Northland	G Grant/M Twyman

### *Australia:*

01.09.02	1	Manly Har. Moreton Bay QLD	A & S Keates/ D Edwards
14.09.03	1	Toorbul, nr Bribie Is QLD	D Wells/P&L Cross
22.09.03	1	Toorbul, nr Bribie Is QLD	P & L Cross
26.09.03	1	Toorbul, nr Bribie Is QLD	D Wells
29.10.03	1	Penrhyn Rd Est Botany Bay NSW	I. Chapman

All but one from SE Queensland. Since 1992 there have been only 19 recorded sightings in Australia. 16 from Queensland, one each from NW Australia, NSW and Victoria.

### *Taiwan:*

14.04.03	1	Han-Pao, Changhua Cty Taiwan	Chung-yu Chiang
25.04.04	1	Auku, Chiay County Taiwan	Chwan-Jyh Lin

Taiwan has small numbers of Red Knot during northward migration probably birds dropping out before reaching the Asian mainland.

### *South Korea:*

27.08.02	1	Dongjin Est	Korea	Jin-Young Park
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This is the fourth sighting from South Korea and the first during southward migration

### *China:*

17.04.04	1	Zuidong nr Tanshang Hebei - China	Hongyan Yong
04.05.04	1	Nanpu, Tanshang Hebei - China	Hongyan Yong
21.05.04	1	Nanpu, Tanshang Hebei - China	Hongyan Yong
22.05.04	1	Zuidong nr Tanshang Hebei - China	Hongyan Yong

This is the best haul from China to date and shows clearly that when people start looking at suitable sites, flags are seen.

### **Orange from Victoria**

At least 365 sightings since 1992 with 147 in last two years. Many from the Auckland region but they continue to be seen at most sites where Red Knot occur in New Zealand. Rangaunu Harbour – Far North, Maketu – Bay of Plenty, Avon-Heathcote Est. – Christchurch and Lake Wainono – Canterbury, being added to the list of sites during this period.

### **Yellow from NW Australia:**

22 sighting in the past two years perhaps accounting for about six birds in total

06.10.03	2	Miranda	Firth of Thames	P Battley
09.11.02	1	Mangawhai	N Auckland	G Pulham et al
15.11.03	1	Whangarei Har	Northland	G Grant/M Twyman
27.12.03	1	Karaka	Manukau	D Lawrie et al
01.01.04	1	Mangere Sewage	Ponds Auck.	G Pulham/R Clough
08.01.04	2	Tapora South	Kaipara	G Pulham
18.01.04	1	Maketu	BoP	J Groom
06.02.04	1	Papakanui Spit	Kaipara	G Pulham

### **White/Orange from South Korea:**

31.08.03	1	Karaka	Manukau	D Lawrie/T Habraken
10.10.03	1	Miranda	Firth of Thames	P Battley
15.10.03	2	Miranda	Firth of Thames	P Battley

The first South Korean flagged Knot to be seen in New Zealand

### **Blue from Hokkaido Japan**

The first Red Knot seen in New Zealand from northern Japan was observed at various roosts on the Firth of Thames between 24.10.03 and 04.03.04 by P. Battley, A. Riegen and T. Habraken

### **White/Black from Chongming Dao, China:**

Flagging started in 2003 at Chongming Dao near Shanghai in China. Whether these sightings are of one bird as it moved down the country is unclear. There have been reports of birds with just a black or white flag on species not banded in New Zealand so it is assumed they are Chongming birds and are losing one of their flags.

08.11.03	1	Mataitai	Firth of Thames	T Habraken
16.11.03	1	Waihou R	Firth of Thames	T Habraken et al
14.12.03	1	Manawatu Est	Manawatu	I Saville
07.03.04	1	Farewell Spit	Nelson	R Schuckard

(Black only on right tarsus)

Finally the icing on the cake

### **Yellow/Orange from SW Australia:**

Gwen Pulham reported seeing a Red Knot at Papakanui Spit, Kaipara Harbour on 20.03.04 with yellow over orange flags. This is the combination for SW Australia but it was believed that no Red Knot had been flagged there. Gwen was adamant that is what she saw. Further investigation revealed that just one Red Knot; a first year bird had been banded and flagged at Oyster Harbour near Albany in SW Australia on 13.01.03. In the one year and two months it had travelled at least 5020km. This is typical of many Red Knots in Australia, which end up in New Zealand as young birds. This bird was not seen again in New Zealand.

However, the story does not end there because a report came in from Broome in NW Australia that on 17.07.04 Chris Hassell and Adrian Boyle saw and photographed a Red Knot with yellow over orange flags. If indeed only one bird was flagged with that combination then this second year old bird has departed New Zealand for the winter and returned to NW Australia. We often thought birds too young to breed might still leave New Zealand for the winter and probably end up in Queensland. Will this bird return to New Zealand this summer? If it does there is a very good chance it will be seen by one of the dedicated flagophiles.

More and more people are reporting flags and bands and we are very grateful to all of them for the time and effort they put into observing and reporting their finds.

Adrian Riegen