

NEW ZEALAND WADER STUDY GROUP

In association with
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COMMENT

1999 has already been a good year for New Zealand waders. In April and May there were important sightings of New Zealand banded Red Knot and Bar-tailed Godwit in Australia and China. In June, the Ornithological Society Of New Zealand published a long awaited, special edition of their journal *Notornis*, that was devoted to papers on New Zealand wader studies. The volume was published in the memory of two great waderologists, Dick Sibson and Barrie Heather. For those readers who are not members of the OSNZ, the volume contained 17 papers on waders, including ones on New Zealand Dotterels and Banded Dotterels, the National Wader Census, held between 1983-1994. Two papers on the waders of the Manukau Harbour and Firth of Thames and a paper on the banded Arctic waders.

The paper on Arctic waders was the results to date, of wader banding studies carried out by the Miranda Banders and the NZWSG since 1979. As with most science, new data is coming in faster than it can be published and that is certainly the case with the migrant waders.

The Australasian Wader Studies Group help a conference on the 12 and 13 June 1999 at Phillip island, Victoria, which I attended. The conference was sponsored by the Phillip Island Nature Park which runs the world famous Penguin Parade, which, even on a cold winters night attracted several thousand tourists. Also there from New Zealand was Phil Battley, although at the moment he is completing his PhD in Australia. There was good range of talks and papers covering a wide variety of wader studies being undertaken throughout the flyway. Of particular interest were a series of talks on the Hooded Plover and the problems they face as a beach nesting species in Australia. The fox is a major problem to ground nesting birds in Australia, fortunately that is one animal that was not introduced to New Zealand.

The conference also provided an ideal opportunity to get together with so many other wader people and discuss future wader study plans.

GULF OF CARPENTARIA APRIL 1999

Q. Do New Zealand Red Knot and Bar-tailed Godwit use the Gulf of Carpentaria on northward migration?

A simple enough question and we have suspected for a long time that at least the Red Knot do use the Gulf, however getting the proof has taken a good deal of time.

A. It appears Red Knot do use the Gulf but not the Bar-tailed Godwit.

INTRODUCTION

The southeast region of the Gulf of Carpentaria in northern Queensland, Australia, is known to be internationally important for about 20 species of wader, notably Great Knot, Red Knot, Black-tailed Godwit and Red-necked Stint, many using the Gulf as a staging site during northward and southward migration.

Peter Driscoll, Chairman of the Queensland Wader Study Group (QWSG) is conducting a three year study of the waders in the Gulf of Carpentaria. The QWSG has been contracted by the State Government to undertake the work and funding has come from the National Heritage Trust, through Queensland State Government. It is very pleasing to see Government funding for such projects. Those taking part between February and April 1999 were, Peter Driscoll (QWSG), Mark Barter and Jim Wilson (AWSG), Brian Venables and Karen Welch (QWSG) and Adrian Riegen (NZWSG).

Also involved were scientists from Australian Quarantine Inspection Service (AQIS), who were taking blood samples from some of the birds caught, to look for avian viruses, which the waders might be bringing from Asia.



Gulf, looking south from Brannigans river

In late February radio transmitters were fitted on 14 birds, 5 Black-tailed Godwit on 25 February 99. 2 Red Knot and 7 Great Knot on 27 February 99. These were fitted to monitor their movements around the Gulf and hopefully determine approximate departure dates.

On 16 April 1999, the last day of field work eight birds were still in the Gulf. There were one adult and one juvenile Red Knot, three adult and one juvenile Great Knot and two juvenile Black-tailed Godwits.

I was very privileged to be able to join the expedition for the first half of April, after Jim Wilson and Mark Barter had departed for China, to monitor the birds there. I had been led to believe that the Gulf was a very hostile place, crawling with crocs, mossies, sandflies and other nasties in the sea, and vast mangrove swamps, and all in an area cut off from the outside world for weeks at a time during the wet season, by great floods - Most of this is true!

HAZARDS AND TIDES

In spite of the hazards the Gulf is a remarkable place. One needs an aerial view to appreciate just how vast it is, and why it has taken so long to get into the area in the wet season to study the birds. Another unusual aspect of the areas are the tides. There is just one high tide a day, not the usual two we are used to at Miranda and added to this, during a neap tide period there are about 48 hours when the tide hardly moves in or out, but is stuck approximately half way. There is a period in the tidal cycle when the high tides only occur at night, so counting high tide roosts is not possible. Then there is a period when the high tides are all during the day, which is good for counting, but the birds need to feed more at night, when they may be less efficient feeders.



Red and Great Knot at Brannigans

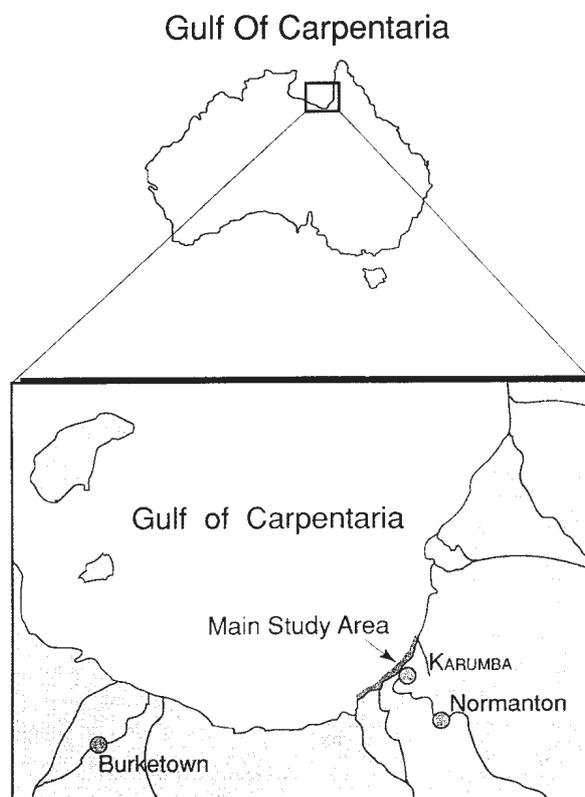
TRAVEL METHODS

Karumba is the only town directly on the Gulf and has the only sealed road access to the entire Gulf. There are few waders to be seen in and around the town and so

vehicles are pretty useless. There are no roads or tracks along the coast so we used a small open aluminium boat to get to the feeding grounds and high tide roosts. Peter owns and operates a two seater Microlight aircraft which makes an ideal platform for surveying over a much bigger area than the boat can manage.

STUDY AREA

The main study area (see map) was the coastal strip north from Karumba to the Brannigan River approximately 35km and southwest for about 25 km. Peter regularly flew further afield to survey more distant roosts from the air. We also surveyed the Karumba Plains from the Normanton road and on one occasion visited the Muttonhole cattle station near Normanton along the banks of the Norman River, which contain large areas of flood plains, lagoons and swamps.



HABITAT

The southeast Gulf comprises a vast area of very flat low lying tidal flood plains and dry clay pans edged on the seaward side for most of the coastline by a band of mangroves, which are often only 20-50m deep but in places can be 100-200m deep. There are numerous large and small rivers and creeks that drain the flood plains. These rivers generally meander considerably, so much so in fact that Normanton is only 20 km from the coast as the godwit flies, but is 70 km via the Norman River. Most rivers and creeks are also lined with a narrow band of mangroves. Along the coast there are a range of beaches and sand banks, some are behind the ever encroaching

mangroves and others like Brannigan's, are exposed to the sea. In front of the mangroves are the mud flats, which are generally more sand flats with a thin layer of mud, so walking on them is relatively easy. The numerous creeks are often deep and muddy and great for crocs.

OBJECTIVES

The objectives of the studies were not just to see if Red Knot from New Zealand were using the Gulf, but to achieve a better understanding of the role the southeast Gulf of Carpentaria plays for migratory waders, particularly during the northward migration. The information will help us better understand wader migration and the data gathered will be used to prepare a Ramsar nomination for the site. Peter Driscoll will no doubt prepare a full report of the results in due course.

THE WADERS

During April, 27 species of wader were recorded in the study area, which are listed below. Totals were quite different in February and March, when it was a good deal wetter. The Red Knot numbers did not build up until the first few days in April, which tied in well with the later observed departures from New Zealand and a large anticyclone in the Tasman that extended a ridge of high pressure from northern New Zealand to the Gulf, providing the birds with favourable winds for the flight. The list below shows all wader species seen during April with totals for all birds counted during two, two day counts, that covered most roost sites.

Species	6-7 April	12-13 April
Great Knot	12,810	13,335
Red Knot	5,088	10,075
Black-tailed-Godwit	1,760	738
Bar-tailed Godwit	1,034	7
Pied Oystercatcher	47	218
Whimbrel	88	75
Mongolian Plover	1	132
Greenshank	53	52
Marsh Sandpiper	78	3
Red-necked Stint	0	77
Sanderling	4	65
Eastern Curlew	29	31
Large Sand Plover	9	46
Terek Sandpiper	34	4
Grey Plover	31	5
Sharp-tailed Sandpiper	1	20
Black-winged Stilt	11	3
Grey-tailed Tattler	0	6
Ruddy Turnstone	6	0
Oriental Plover	3	0

Broad-billed Sandpiper	1	1
Common Sandpiper	2	0
Curlew Sandpiper	2	0
Masked Lapwing	0	0
Red-capped Plover	0	0
Black-fronted Plover	0	0
Little Whimbrel	0	0
Australian Pratincole	0	0

From this it is easy to see that, the two species of Knot were by far the most numerous, with Black-tailed Godwits third. Counts in the late 1970's and early 1980's showed huge numbers of Black-tailed Godwits, but not this year ... so are they in decline or simply using other staging sites? A significant difference in the number of Bar-tailed Godwits between the two counts probably indicates they had departed on migration between the two counts.

BIRDS IN GENERAL

While the primary reason for being in the Gulf was to survey waders, it would be impossible to miss the huge number of water and other birds in the area. A total of 177 species were seen in the area during April. Some of the more interesting worth mentioning included a flock of around 5,000 Glossy and Straw-necked Ibis seen on the Karumba Plains. Many hundreds of Pied Herons and Intermediate Egret. Hundreds of White-winged Black Terns, although in March there had been many thousands of them. Over 1000 Lesser Crested Terns were seen at one roost site and 80 Great Egret (Kotuku) were feeding in the shallow sea one day. Great-Billed Herons were seen most days along with Jabiru Storks, including a pair and 4 juvenile birds. 13 species of bird of prey were seen and at night Barking Owls and Tawny Frogmouths feed well on the vast numbers of flying insects that swarmed everywhere each night.

SUMMARY

It is too early to say just how the Gulf is used by the different species and if the weather, which can be very variable from season to season has any bearing on the numbers of waders. The lack of Black-tailed Godwits this year is a mystery, and more work will be needed to understand why.

From a New Zealand perspective it was very pleasing to see up to 10,000 Red Knots and four white flagged birds among them and for them to arrive after ideal migrating weather from New Zealand. Smaller numbers of Red Knots were seen earlier on, so there is still the question of what happened to all the birds that left New Zealand earlier in March. Did they use a part of the Gulf that was not surveyed, or did they go directly to Irian Jaya?

Peter Driscoll will be making more visits to the Gulf to gather data at different times of the year. There is still a great deal to do in the area.

“OUR” WADERS IN CHINA, APRIL-MAY 1999

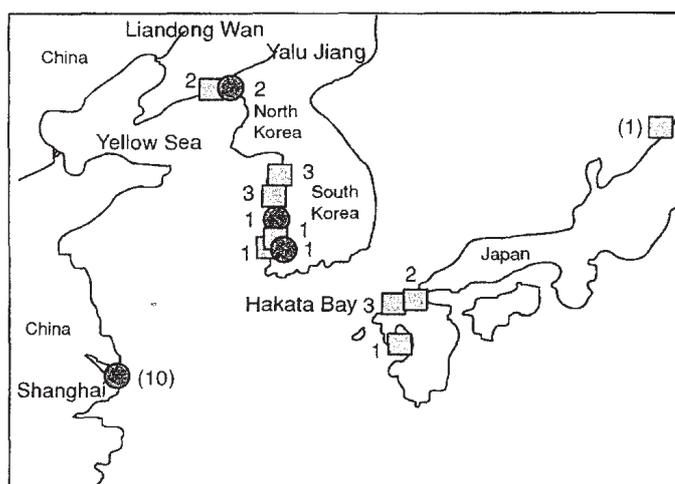
Mark Barter and Jim Wilson of the AWSG have been visiting northern China for several years, searching for the key stopover sites where large numbers of waders are assumed to be staging during northward migration. They were back there in April and May 1999, covering the most northern mudflats in China. The reason NZWSG is so interested in this area is because, it is a likely to be the final staging sites for Red Knots and Bar-tailed Godwits from New Zealand before they reach the breeding grounds.

In January this year the NZWSG made a special effort to flag as many Red Knots and Bar-tailed Godwits as possible to give those people surveying on the flyway a chance to see some of them. As we have seen this effort paid off well, with the four white flagged Red Knot seen in the Gulf. The effort also paid off in northern China where Jim and Mark sighted two Red Knot and two Bar-tailed Godwit with white flags at the Yalu River mudflats (see map). It is interesting that the New Zealand birds were seen on the eastern most mudflats, indicating they use a more easterly route, which makes sense if New Zealand Godwit are going to Alaska and Knot to far eastern Siberia.

The north coast of the Yellow Sea were first anticipated in 1997 to be of major importance to migrating waders from Australia and New Zealand although observations on waders were almost entirely lacking. For the first time parts of the north Yellow Sea coasts of China were counted in May 1998 and April to May 1999. Two main areas were counted: The Liadong Wan and the Yalu Jiang. In the Liadong Wan 103,000 waders have been counted, including 10 species of international significance. The most numerous were Great Knot with possibly 42,000. At Yalu Jiang 151,000 waders were counted in 8 days in 1999, including eight species of international significance. The most numerous were Bar-tailed Godwit 52,000 and Great Knot 54,000. The first flags from au and nz have now been found on the north coasts of the Yellow Sea (18). It is possible that the final staging site for at least half of the nz / au Bar-tailed Godwit was found on the Yalu Jiang. Also it might prove to be the final staging site for nz Red Knots. The mudflats on the North Korea side of the Yalu River are much more extensive than in China. It is provisionally estimated that about 1,000,000 waders could be using the Yalu River Estuary and the adjacent coastlines. It is possibly on of the worlds top 10 wader sites.

The bulk of the Red Knot have still to be found at their final staging site. It would appear that they are using very few sites which adds to the urgency of finding them. With so much development taking place in east Asia we need to be very concerned for ‘our’ birds.

Flag Sightings and Recoveries of New Zealand Banded/
Flagged Red Knot and Bar-tailed Godwit



- | | | |
|--|-------------------|---------------------------------------|
| | Bar-tailed Godwit | Number of flag sightings at each site |
| | | Recoveries in () |
| | Red Knot | Number of flag sightings at each site |
| | | Recoveries in () |

The following is a brief summary presented by Jim Wilson, at the AWSG Conference in Victoria, 12-13 June 1999.

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