MIRANDA NEWS

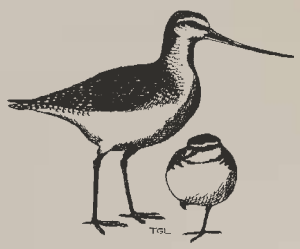
Naturalists' Trust

August 2007 Issue 66

Saemangeum 2007

Black-billed Gulls endangered

Godwit Migration - the detail



August 2007 Issue 66

Upcoming Events

August 11
Winter Pot Luck Dinner
6pm speaker Finn Buchanan.

August 12
Working Bee 10.00
Annual maintenance of the shorebird centre

September 11-13 2007
The Management of New Zealand Dotterel and other shorebirds.
Tutor: John Dowding, of the Dotterel Recovery Group.

Sept 30th
Welcome to the Birds
11:00, high tide at 9am so come early and go birding first. Speaker Christine Prietto (see page 13 for details)

October 13-14
2007 Field Sketching.
Tutor: Sandra Morris

November 10-11
Wader ID Weekend
Main tutor: Keith Woodley

November 18
OSNZ Firth of Thames Census
Contact the centre for meeting time.

21 - 27 January 2008
The 10th Miranda Field Course.

Change of Date: please note the Wader ID workshop scheduled for 27-28 October has been rescheduled for 10-11 November.

For Course Details see Page 13

Cover: Black-billed Gull and chicks at Seagroves Shellbanks in the Manukau Harbour Photo Ian Southey.

Correction: Observant readers may have noticed the godwit on the back cover of the last issue of the news was a Black-tailed Godwit, not a Hudsonian. Sorry John!

From the Blackboard 1 August 2007

Arctic Migrants

Bar-tailed Godwit	700
Hudsonian Godwit	1
Turnstone	1
Red-necked Stint	2

New Zealand Species

Pied Oystercatcher	
Wrybill	2300
NZ Dotterel	45
Banded Dotterel	44
Variable Oystercatcher	
Black-billed Gull	
Red-billed Gull	
White-fronted Tern	
Caspian Tern	
Pied Stilt	
White Heron	2
Spoonbills	13

A word from the editor

The little things add up. Being involved isn't always about the big things. It doesn't matter if you don't have time to get involved in an organisataion, like Miranda, in a big way. You do what you can, hope other people are doing what they can and sometimes that's enough to get the job done. Somewhat unexpectedly in this issue with so many big articles I found a theme - do the little stuff. Go to the website www.restoresaemangeum.com and register (see page 7), tell your friends about the godwit migration (page 19), come to the working bee, and, if you've got time for something a bit bigger then think about attending the new volunteer days organised by Keith and myself (details on page 13).

Because conservation of migratory shorebirds is never going to be like conservation of Kakapo. We can't pick a spot and say we'll protect them here and that will keep them safe. Our birds, whether they be local migrants or the arctic migrants, need a different plan. And from my perspective having as many people as possible doing just their little bit leads to organisations like the MNT and to small safe sites for the migrants in Korea (page 18), and that is a huge part of the plan.

The deadline for the next issue of Miranda Naturalists' Trust News is 20 October. I would welcome your contributions.
Gillian Vaughan

CONTENTS:

SAEMANGEUM SHOREBIRD MONITORING PROJECT: 2007 UPDATE

Keith Woodley

From the seawall at Okgu on the Mankyeung estuary it is a familiar scene. Behind us the network of single lane white concrete roads through intense green rice paddies has led us to this vantage point. Before us lie the deep banks of drying mud extending out to the main river channel. Two Terek Sandpipers and a Common Greenshank forage along the mouth of a tiny creek flowing immediately in front of us, and a Grey Heron wades just off shore. Out further, somewhere in the murky distance there should be a lot of birds. Almost exactly a year ago, to the day, there certainly were.

On that occasion, 28 April 2006, Adrian Riegen and I stood on the edge of the main channel here, and watched the most enthralling shorebird spectacle I have ever seen. Two hundred metres away across the channel, 40,000 Great Knot had taken to the air. The sky literally darkened as the flock swerved close by, the sound that of a giant engine starting up. In a coiling, undulating mass the flock moved as one, flashing alternately dark and silver as each bird turned for its pale belly to catch the sun and back again. But I also recall watching this sublime pageant with growing unease.

The birds before us, along with many other shorebirds, had come here to refuel during their long migration between northern Australia and the arctic tundra of Siberia. For thousands of years the rich benthic life in tidal flats of Saemangeum, had supported countless generations during this vital time. But the mud on which I stood was already drying out, its animal life forced to the surface to die. For these birds in the air above us, food was still plentiful. But what would they find next year, when they once more arrived here to refuel?

Now in April 2007 we had returned to Ogku. Walking out onto the flats, the changes since last year were quickly obvious. The surface we walked on was smooth, flat, hard and dry. A broad swathe of litter and debris, six metres wide, extended as far as we could see. We were walking out on a huge spit formed by the main channel to our left, and a broad tidal inlet extending along the seawall to our right. Along this inlet, much of which was still damp, small flocks of Dunlin, a scattering of Grey Plover, Mongolian Dotterel and a few Bar-tailed Godwits foraged. There were also birds scattered along the main channel, again mainly Dunlin with a few Terek Sandpipers, Red-necked Stints and Great Knots. But of the big flocks of last year there was no sign. Our total count for the entire site mustered around 3,500 birds, most of which were Dunlin. Nothing could bring into sharper focus the level of catastrophe for shorebirds here at Saemangeum.

Adrian Riegen at Ogku, the debris of the last tide is obvious and unforgettable. Photo K Woodley

Commenced in 1991, the massive reclamation at Saemangeum, on the west coast of South Korea, encloses 41,000 ha of sea-shallows and tidal-flats. It is the largest single reclamation in the world. The estimated 400,000 shorebirds believed to use the area during northward migration made it the single most important site in the Yellow Sea region. This ecological significance led to widespread opposition to the project both in Korea and abroad. Lobbying by groups within Korea eventually met with some success in 2005 when work on the project was held up by court action. However this was

Top: Restaurant at the end of the sandspit.
Left: A part of the team R Sajahan Sorder (Bangladesh) Nial Moores (Birds Korea) Siriya Sripanomyom (Thailand) Nigel Milius, Adrian Riegen, Richard Chandler (UK).
Middle: the samplers and the sampled.
Below: the new seawall, a road and a tourist attraction. Photos K Woodley

short-lived; on 16 March 2006 the Supreme Court ruled that work on the development could continue, and on April 21, 2006 the 33 km outer seawall was completed.

Recognizing the implications of this project, together with the pressing need for baseline data on shorebird numbers and movements through the migration period, Birds Korea and the Australasian Wader Studies Group (AWSG) resolved in 2005 to establish a shorebird monitoring programme to gather such data. Commenced in 2006 and scheduled to run until May 2008 the Saemangeum Shorebird Monitoring Program (SSMP) has, to date, drawn participants from within Korea and from nine other countries along the flyway. A parallel project, the Monitoring Yellow Sea Migrants in Australia (MYSMA) program had already been initiated by the AWSG in 2004. Apart from providing data on the relative status of shorebird populations within the region, both projects were seen as useful tools with which to gauge the impacts of the Saemangeum development.

Count data from the first two years of the program already reveal disturbing declines in shorebird numbers. Until mid-April 2006 there was still almost normal tidal flow in much of the Saemangeum area, but within days of the seawall completion the tidal range dropped from seven metres to just one metre. Much of the benthic fauna started to die off, which provided a one-off feast for shorebirds during the migration period. The SSMP in 2006 recorded a minimum of 198,031 shorebirds at Saemangeum during northward migration, with at least 15 species present in internationally important numbers. But the area is also important during southward migration; in 2004 192,856 shorebirds, including a peak count of 123,745 Great Knot were recorded during this time. Conservative estimates therefore show that Saemangeum supported between 300,000 and 400,000 shorebirds each year.

By the second year of SSMP fieldwork, in April 2007, habitat degradation at Saemangeum was widespread. Enormous areas of tidal-flat had dried out, there had been a mass die-off of shellfish beds, and many still wet tidal flats could only be reached by boat. Pollution affected most tidal creeks and dead shells littered the landscape, along with stranded fishing boats.

Between 2 April and 28 May 2007 regular shorebird counts were made throughout Saemangeum, at Gomso Bay immediately to the south and at the Geum Estuary to the north. A total of 53 people from nine countries assisted with the counts. Such a comprehensive survey over a large and complex area is labour intensive and requires simultaneous counts by discrete counting teams at all the high tide roosts in the wetland system. The aim is to obtain comprehensive surveys with no risk of double-counting individual birds. Counts also need to be carried out through the entire migration period, to account for different shorebird species that pass through the region at different times. In 2006 it was found that, in most species, numbers of staging shorebirds built up through April, reaching a peak by mid-May before birds departed for the breeding grounds.

Numbers of birds within the Saemangeum reclamation area in mid-April were broadly similar in the two years, with 71,711 in 2006 and 68,743 in 2007, but in mid-May when the peak abundance was expected, a dramatic decrease was noted - from 176,955 in 2006 to only 51,768 in 2007. A slight increase in numbers at adjacent sites at that time was recorded, with 66,627 at the Geum estuary in mid-May 2006, increasing to 69,263 in mid-May 2007, and a total of 2681 at Gomso Bay in mid-May 2007, compared to only 767 in 2006. But with 244,369 shorebirds counted within the Saemangeum-Geum-Gomso Bay study area in mid-May 2006, and only 121,201 in 2007, the slight increase in shorebirds at adjacent sites combined accounts for less than 4% of the 120,148 decline in the mid-May total for the three sites combined,

Of all Saemangeum species Great Knot show the most dramatic decline. The total number of this bivalve specialist fell from 116,126 in mid-May 2006 to 83,403 in 2007. The most significant decline was within the Saemangeum area itself. In mid-April 2006 27,258 Great Knot were recorded, and by mid-May that number had increased to 86,288. These included some birds that had been banded in China a few weeks earlier, suggesting birds were using Saemangeum as their final staging area before departure toward the breeding grounds. In mid-April 2007 numbers of Great Knot were similar at 31,737, but by early-May had decreased to 8,131 with a further decline to 3,566 evident by mid-May. Thus the total number of shorebirds at the three sites combined throughout the whole of northward migration fell from 283,203 in 2006 to 207,178 in 2007.

"It is assumed that many of the missing birds left or over-flew the area in late April and early May, trying to stage at sites elsewhere in the Yellow Sea."

It is not known what happened to these 'missing' birds. Few dead birds were found in 2006 and frequent aggressive encounters between feeding Great Knots were observed in 2007, but there was no evidence of mass mortality. It is assumed that many of the missing birds left or over-flew the area in late April and early May, trying to stage at sites elsewhere in the Yellow Sea. Given that such alternative sites are likely to be already supporting high numbers of birds, it is also assumed they will prove to be sub-optimal for birds displaced from Saemangeum.

THE GEUM ESTUARY

It is still dark as we clamber down the rock embankment to the small boat. All around us are the indications of a busy port city – wharf pylons and cranes, ships lining the river bank, with warehouses and silos behind. Along the south bank of the Geum River sprawls the city and port of Gunsan. A few hundred metres away on the opposite bank, the contrast is dramatic. Within minutes the boat has deposited us on Yubu, a small island adjoining vast areas of tidal flats near the river mouth. Here there are only a few modest dwellings and not a few vociferous dogs. But here also are many shorebirds.

We walk along an old seawall, crumbling in places and heavily overgrown. From this vantage point in the early light we can see the tide pushing birds into the bay. Once more I am witness to the spectacle of massed shorebirds in flight, but it is different in several ways. For one, the backdrop on this occasion is the industrial sprawl of Gunsan just across the river. For another, this flock, again comprised mainly of Great Knot is less than half that of the flock at Ogku in 2006. Nevertheless, here was stark evidence of the importance of the Geum, now that Saemangeum, a few kilometres to the south was so degraded.

Developers of Saemangeum have claimed that displaced birds will find alternative sites elsewhere, particularly at two sites immediately adjacent to the development area. Gomso Bay to the south of Saemangeum is a large harbour that supports few shorebirds. In 2006 only Whimbrel were found in internationally important numbers. However, surveys at Gomso Bay in April 2007 found shorebirds in numbers not seen at this site before. The count on 6 April of 1,805 shorebirds, 1,627 of which were Dunlin, increased to 2,941 shorebirds on 19 April, of which 1,664 were Great Knot, 580 Dunlin and 315 Far Eastern Curlew. This compares with only a single shorebird found at the same site on 15 April 2006! By 1 May 2007 numbers had declined to 726 shorebirds of which 368 were Whimbrel. Of particular note was that only 2 Great Knot were seen, which suggests this sandy bay is largely unsuitable for this species and those birds found in mid-April had been obliged to move elsewhere. By mid-May, numbers at Gomso Bay had increased again, and the 2,681 shorebirds counted, including 1,876 Great Knot and 362 Whimbrel, is apparently a record for this site.

At the Geum Estuary in 2006 the SSMP recorded a minimum 82,990 shorebirds, with 13 species recorded in internationally important numbers. Among these were two species of high significance. A population of the Eurasian Oystercatcher, *Haematopus ostralegus osculans*, isolated in range from other forms by several thousand kilometres and with an estimated population of only 10,000, is found in significant numbers on the Geum, with up to 5,700 recorded in mid-winter. The sighting on 7 May 2006 of 69 Nordmann's Greenshanks, one of the world's most endangered shorebirds, also underlines the importance of this site.

Successive counts by the SSMP indicate the manner in which numbers of birds build up on the Geum as the migration period advances. On 4 April 25,982 shorebirds were counted, including Dunlin (16,641), Great Knot (2,872), Bar-tailed Godwit (2,462), Grey Plover (1,081) and Far Eastern Curlew (786). On 15 April, the total was 50,560 shorebirds, the most numerous being Great Knot (28,554), Dunlin (13,050), Bar-tailed Godwit (4,029) and Far Eastern Curlew (1,405). By 6 May numbers had built to a minimum of 91,119 shorebirds, including Dunlin (38,664), Great Knot (36,251), Bar-tailed Godwit (5,532), Grey Plover (3,542), Mongolian Plover (2,101) and Far Eastern Curlew (1,387). Within the Geum the most significant site is Yubu Island where a total of 79,002 shorebirds were counted on 6 May.

By mid-May 2007, shorebird numbers had declined in the Geum Estuary, though they still slightly exceeded those seen in 2006. A total of 69,263 shorebirds were found (see table) Highlights included a flock of 51 Nordmann's Greenshank at Yubu Island (the site where 70 were recorded in 2006), and a minimum of eight Spoon-billed Sandpipers.

SSMP counts of the The Geum Estuary are significant in three ways. For the first time bird numbers on the Geum greatly exceed the numbers counted throughout the whole of the Saemangeum system, emphasizing the Geum Estuary's extreme international importance while highlighting the decline in value of Saemangeum.

There was an absolute increase in numbers of shorebirds there, with the early May count of 91,119 far exceeding the peak counts of 2006 (58,693 in late April and 66,627 in mid-May), though numbers had declined by mid-May. The total number using the Geum during northwards migration in 2007 is estimated to be at least 120,000 shorebirds (with no upward correction for migratory turnover).

Numbers of shorebirds seen in the Guem Estuary in 2007 with 2006 numbers for comparison.

	2007	2006
Great Knot	26,664	29,838
Dunlin	22,460	20,150
Mongolian Plover	4,385	1,691
Bar-tailed Godwit	3,821	3,338
Grey Plover	2,995	3,004
Terek Sandpiper	2,268	1,629
Red-necked Stint	2,127	719
Black-tailed Godwit	1,202	930
Sharp-tailed Sandpiper	642	1,014
Ruddy Turnstone	603	695
Broad-billed Sandpiper	272	11

While Great Knot are considered likely to reach a peak in this region in mid-May before mass departure in mid-late May, their numbers recorded during the May count cycles of 2007 fell well below those counted in late April 2006. While there has been no evidence of mass mortality (of this or other shorebird species), it seems that many Great Knots have been displaced by the Saemangeum reclamation, and that not all of the missing birds have been able to relocate or persist at Gomso Bay or the Geum Estuary, despite official claims that shorebirds displaced by the Saemangeum reclamation will simply move to these adjacent sites. Lacking evidence to the contrary, it seems most likely that the displaced Great Knot will have staged at less optimal sites elsewhere in the Yellow Sea. Those birds that are unable to put on sufficient mass during the remainder of the month will likely be unsuccessful breeders, contributing to long-term declines in this species. Future research, including increased intensity of counts in Australia during the non breeding season and the 2008 SSMP, are well-placed to detect resultant significant declines at the population level of this species.

References

Most of the data presented here is from the following sources:

Moores, N. 2007 The Saemangeum Shorebird Monitoring Program 2006-2007; Background, results and successes of the SSMP to date. Australasian Shorebird Conference, Newcastle, Australia, July 2007

Moores, N., P.Battley, D.Rogers, M-N Park, H-C Sung, J van de Kam, & K Gosbell. 2006 Birds Korea-AWSG Saemangeum Shorebird Monitoring Report, Birds Korea Publication, Busan.

SO WHAT NEXT?

The official view of negative ecological impacts of the Saemangeum development is that birds could go elsewhere. Evidence from the SSMP to date suggests that some are doing just that. But those birds are very few, accounting for less than 4% of the total decline in bird numbers at Saemangeum between April 2006 and May 2007. In addition the most important of the two adjacent sites has long had hanging over it the shadow of development. Already considerably modified, the Geum Estuary is the site for a planned 10,000 hectare reclamation for an industrial park. However, indications are that data gathered by the SSMP, along with considerable international media attention – much of which was subsequently reported within South Korea, has borne fruit.

In September 2006, at the exact same time that the SSMP 2006 report was being released, the Ministry of Maritime Affairs and Fisheries (the main ministry with responsibility for identifying areas fit for reclamation as well as fit for conservation) announced their public opposition to the reclamation of the Geum Estuary. In mid-May 2007 a press release on Saemangeum and the SSMP by the RSPB and the AWSG for World Migratory Bird Day won huge international coverage and was well reported in South Korea. A few days later the Seocheon local government, the administrative authority over much of the Geum tidal-flat, then announced for the first time their opposition to the Geum Estuary reclamation.

While this is very good news for the Geum, the battle for shorebirds is not yet won. A campaign has become to ensure legislative protection for the Geum as well as nominating it as a Ramsar site. This is of particular significance as South Korea is hosting the Conference of Contracting Parties to the Ramsar Convention in October 2008. In addition, intense lobbying has begun to try and keep the sea-gates at Saemangeum fully opened, which would allow at least some tidal areas to be restored.

You can help Saemangeum and the Geum Estuary.

As reported elsewhere in this issue, the satellite tagging of New Zealand godwits earlier this year made headlines around the world. Significantly, several birds made stopovers in South Korea. Simultaneously, the Saemangeum Shorebird Monitoring Project was also generating wide interest in the international media. There are strong indications that this media attention has had some effect on decision makers in Korea. However, more needs to be done to ensure protection for the Geum, and whatever restoration may still be possible at Saemangeum.

A website has been launched to support this campaign, and you can play a part. The aim of the website is to have 41,000 letters delivered to Korean government ministers and ambassadors, one letter for every hectare of habitat being lost at Saemangeum. You can support these objectives by visiting the following website and sending a letter. www.restoresaemangeum.com

It is not too late to make a difference in South Korea. It is not too late to ensure that Bar-tailed Godwits from New Zealand, along with thousands of other shorebirds , still have a future on the tidal flats of Korea.

You can also visit the Birds Korea website and register as a supporter. www.birdskorea.org

There is no charge for this, but the more supporters that register, the stronger the mandate we can give Birds Korea to continue their important work.

THE SPOON-BILLED SANDPIPER – and other thoughts from the SSMP

Nigel Milius

To a keen birder such as myself, there are a few species of birds around the world which take on an iconic status. Antarctica has the Emperor Penguin, South America its Condor and Torrent Duck, the Far North; Stellers' Sea Eagle and Ross's Gull ,whilst here in New Zealand we have the Kiwi and Kakapo. On seeing another for the first time, the famous American ornithologist Robert Cushman Murphy wrote, "I now belong to a higher cult of mortals for I have seen the (Wandering) Albatross".

Birds move people to powerful emotions. Recently, whilst volunteering with the Saemangeum Shorebird Monitoring Project (SSMP), I was fortunate enough to see a further member of that revered group, the Spoon-billed Sandpiper.

A rather diminutive shorebird, about the size of the Red-necked Stint, it is one of the worlds rarest waders (population c.800 and declining alarmingly for reasons unknown) and has the most amazing and peculiar looking bill from which it gets its name. A few pass through the Saemangeum area each year on their northward spring migration, usually in May, and whilst this is one of its key staging sites, even here, catching a glimpse of one is no easy task.

21st April 2006 marked the final closing of the Saemangeum seawall. Now, instead of wading to survey sites through wet mud accessible only at low tide, we were walking (or in some cases even driving!) over hard, cracked mud, vegetation already springing up. The strandline from that last tide a year ago was clearly visible, the remains of dead crabs and other creatures dotting the mud. I recalled video footage of 60-70,000 birds here in 2006, now we were looking at 5 or 6,000. Difficult to imagine it was the same place, visually and emotionally. As a reclamation project a success, for many bird species a disaster, for the small sandpiper I was so keen to see possibly fatal. Surely a bird this rare can ill afford this scale of habitat destruction at such a key site?

Our small, multi-national team of volunteers, (in which it was sad to note Koreans were almost as rare as "Spoonies", the involvement of local people is vital to any project of this nature), were always kind enough to allow me the pick of the sites, but I still reached the final full day of our stay without having seen *Eurynorynchus pygmeus.*

To the north of Saemangeum, the Geum estuary is included in the SSMP as it is an area to which supporters of the reclamation prophesised the birds displaced would relocate to. Though much smaller than Saemangeum, the mudflats already hold tens of thousands of birds. Whether they can support any more is unknown (though probably unlikely), something the SSMP hopes to ascertain. It was the last area we were to survey.

Included in this estuary is the small sandy island of Yubu, considered as likely as anywhere to attract our bird, so I duly found myself in the small team designated to head out there whilst others counted the nearby mainland sites. After a very early start, there was just enough daylight to see the birds by the time we reached our stations, though the tide had already turned, (with seven meters to go, when it goes here it goes quickly) and with over 25,000 birds in front of me (mostly Dunlin, but a nice selection of others) I had to work fast. Having just about completed my counts there was a few minutes to check for flags and colour bands and also to check again through the smaller birds for anything important I may have missed. There was, of course, one very important species I had missed. Imagine my delight when I found myself staring down the barrel of my scope at one! I leapt with joy, punching the air, and then looked again. It was true, a Spoon-billed Sandpiper in full breeding plumage, feeding right in front of me. What a stunning little bird, and what an amazing bill! I too, now felt I belonged "to a higher cult of mortals"!

Wonderful too was sharing that feeling of elation with other members of our group. Some seemed even happier than me that I had seen one, though I doubt there was any realistic possibility of that being the case! But there was also a keen sadness. It had been my last chance on this trip to see this wonderful bird, more alarmingly, possibly my last chance ever. Saemangeum has now gone, even demolishing the wall wouldn't help, the mudflats have died. A key site for this rare bird has ceased to exist. Maybe the species itself will soon follow it into oblivion? The joy I took from seeing that bird was a joy I was able to share, it is depressing indeed to think that the reason for that feeling of euphoria may simply not be there in the future. It is too late for Saemangeum, but maybe, just maybe, the work in which I have recently played such a small part can help us to learn from the mistake and ensure we don't do it again elsewhere. It is not too late yet (though it may be close) for the Geum or the Spoon-billed Sandpiper.

An urban New Zealand pigeon nest - the sequel David Medway

In MNT News 56 (February 2005) I mentioned that the young New Zealand pigeon (*Hemiphaga novaeseelandiae*) which had fallen from its nest on our urban property was taken to the local zoo (at Brooklands Park in New Plymouth) where it was still alive and doing well on 24/1/05.

The immature pigeon ate well on various broken-up fruits and other items on which it was fed. It especially liked peas! However, its development was slow, and it was not until 12 May 2005 when it was almost 5 months old that it was flying well enough to be released in the vicinity of the zoo. It was not marked to enable individual recognition in the wild. However, the young lady who had very patiently raised the pigeon over the previous months noted it was unusual in that it had dark-feathered, not white-feathered, underparts.

Five New Zealand pigeons were active near the zoo when I visited that area on 24 August 2005. The tail of one of them had very short feathers on one side that did not seem to have developed properly. It had dark-coloured lower breast and belly feathers, but in all other respects looked like any other New Zealand pigeon. Shortly afterwards, while I was photographing it, this pigeon flew from its nearby perch and landed on my head where it remained for a few seconds before flying off. I concluded from this behaviour, and because of its unusual dark-coloured lower breast and belly, that this was the pigeon which had been hand-reared at the nearby zoo. It is the only New Zealand pigeon I have seen that has not had pure white lower breast and belly feathers. Presumably, the dark-coloured lower breast and belly of this pigeon, which are obvious in the accompanying photo (see back cover), have something to do with the diet on which it was fed during the months it was being artificially reared. It is considered that diet may be a factor in cases of melanism and other plumage pigment abnormalities in birds.

After it departed my head, the pigeon flew to a nearby small tree from which it was able to reach and eat several large flower buds of an adjoining *Aloe plicatilis*. This is the only time I have seen a New Zealand pigeon eating the flower buds or flowers of any species of Aloe. When it had finished at the Aloe, the pigeon went to a large Magnolia x soulangeana where it spent several minutes eating flowers of that plant before flying off into nearby trees where I lost sight of it.

Until at least 23 November 2005 this pigeon, readily recognized by its dark-coloured lower breast and belly, visited the plant nursery adjacent to the zoo twice every day where it was fed by some of the staff who knew it as "Woody". They observed that the pigeon was gradually losing the dark colouration of its lower breast and belly, and that all of its tail feathers had eventually developed properly. The nursery was closed down and its buildings removed soon afterwards, and I have no further records of the pigeon from there. However, my observations on 24 August 2005 indicate that it was able to fend for itself in the wild. Hopefully it is still doing so, but it may not be possible to distinguish it now from any other adult New Zealand pigeon.

Book Review - by Stella Rowe

Ghosts of Gondwana
by George Gibbs
Craig Potton Press 2006

Ghosts of Gondwana, an irresistible title! One that resonates for anyone with a curiosity about New Zealand's first 80 million years and the origins of its unique flora and fauna. Better still, the book itself fulfils the promise of its title. George Gibbs presents a well-informed and highly readable account that brings the reader up to speed with all that is known to date about New Zealand's complex biogeographic history, the study of what lives where and why.

The first section takes examples of our curious fauna to illustrate the uniqueness of these islands. The next chapters seek some explanations; drawing on New Zealand's geological history, the fossil record and the latest ground-breaking research in molecular biology. The third part enlarges on landmarks in New Zealand history and how major events, singly or in combination, may have affected the biota. Chapters deal with the lack of mammals, the Gondwanan founders, the Oligocene near-submergence, trans-oceanic immigrants, the up-thrust of mountain ranges, Pleistocene glaciations and the arrival of humans. Section four reviews some striking evolutionary achievements in more detail: the remarkable story of our cicadas for instance, our tuatara, frogs and lizards, the evolutionary relationship between divaricating plants and browsing moa about which there has been much debate.

The final chapters look at New Zealand's biogeography from a southern hemisphere perspective, recognizing that land separated by oceans pose different challenges and demand very different explanations from the connected lands of northern continents. The concluding chapter, in a broad overview, sums up nicely the position New Zealand has reached so far.

And are there any true ghosts of Gondwana left? Read the book and make up your own mind from this fascinating window on our past.

Chairman's Report

David Lawrie

The Annual General Meeting was held in the middle of May when the usual business was transacted and the annual accounts approved for the year. Following the formal business a lively discussion took place about the future development of buildings at Miranda with a proposal being submitted by Past Chairman, Stuart Chambers, for a facility to be located closer to the old limeworks site which would become the public face of the Trust, leaving the existing facility for members only.

The other option that has been considered by the Council is to upgrade the facilities at the present site including the provision of a lecture room and a small café. Each of these options had supporters and the general feeling appeared to be evenly divided.

Both of these are options that the Council has previously considered, the discussion enabled a wider range of members to put forward their views and this will add further weight to the Council discussions in the future.

During the Annual General Meeting Nora Peachman who, along with her son Robert, has been a long standing members of the Trust presented us with a tapestry of the Miranda foreshore area. This is a very detailed work that is currently hanging in the main building and we thank Nora for her dedication in producing such a magnificent piece of work. Nora has previously been very active on the gardening committee and undertook much of the work in that area for many years largely on her own. We are therefore proud to accept this work from such a dedicated member. Since it appeared on the wall it has attracted much attention.

Appointment of Chairman:

Unfortunately at the first Council meeting following the Annual General Meeting I was several minutes late and in that time the Council had re-appointed me as Chairman for a further term.

That will provide a lesson for me to ensure that I am more timely in arriving at future meetings. I do however take some consolation that the Council has sufficient faith in me to continue the long standing work that I have undertaken for the Trust. As I have mentioned before the only reason I am willing to continue is because of the tremendous support I receive from all of the members and also the excitement I receive at the outcomes that such a small group of people have achieved.

Council Membership:

As noted in my previous report Dr Phil Battley and Nanette MacLauchlan had not put their names forward for the Council elections. Kathy Barrow also decided not to have her name submitted, and that ends a lengthy spell on the Council. As many of you will be aware Kathy's personal circumstances have dramatically changed during the past year and she has now assumed the role of Matriarch of a very active family and that is taking more of her time. However I am sure that Kathy will still be a regular attender at Miranda and we know she will also be keeping a watching brief.

With the three withdrawals there was space for three new members and these were filled during the Annual General Meeting. The new members are Keith Thompson, Emma Stanyard and Estella Lee.

Keith will be well known to many members as in his role as a lecturer at Waikato University he often brought classes to Miranda to show them the marine wetland system on which the birds are so dependent.

Nora Peachman and David Lawrie with the tapestry now on the wall in the centre. Photo G Vaughan

Emma is a graduate of the 2007 Field Course and will bring a youthful aspect to the Council deliberations and her qualifications as a geotechnical engineer will not go amiss as the Council considers the development of the property along the road.

Estella is a graduate of the 2006 Field Course and is well known for her work with the Chinese community in Auckland. Estella was the driving forces behind the formation of the Chinese Conservation Education Trust and she made use of Miranda as an example when that group was being formed.

Forward Planning:

As I have mentioned in the past the Council is undergoing an ongoing examination of forward planning to ensure that the Trust does not stagnate and that it remains relevant in the future. Over the past couple of years we have prepared a strategic plan which has identified areas in which we need to complete further investigation. The first of these examined under the present Council was the role of volunteers and how to better organise and empower them. This discussion has led to the formation of a small group who will be reviewing the way that volunteers are organised and utilised at the Centre. The Council is mindful that volunteers play a tremendously important role in the continued running of the Centre operation and is always looking for further support, and so if any member believes that they can contribute in any way, they should please contact Keith at the Centre to register their interest. The Council would also be interested in any ideas that members may have on how the role of volunteers can be expanded and better supported.

The next area that the Council intends to discuss is the encouragement and management of research opportunities in the Firth of Thames. This is a role for which Keith Thompson has agreed to be the prime contact and there is no one better qualified to undertake this task. In the past the research in the Firth of Thames has been largely left to Ecoquest but the Council wishes to ensure that research is done in areas that we believe will provide the greatest outcomes to ensure that the birds keep coming into the Firth.

Godwits:

The godwit migration story has been well told in recent articles in the newsletter and I will not repeat the basics in this brief report. However who cannot have been impressed at the wonderful migration achievements of such small birds and the immediacy with which we were able to watch on the internet their migration across the Pacific and to the breeding grounds in Alaska?

While this answers many aspects of the migration puzzle it leads to many other questions that require further research, that is the nature of this type of enquiry.

It also lends much greater emphasis on the work that is being undertaken in China and at other stopover points along the flyway.

While on this topic I am disappointed to advise that our application to the ASB for funding for the godwit migration DVD was declined. We believe that this migration story is one that deserves to be told to a much wider audience and an educational DVD would have been the ideal medium. However the Council will explore other possibilities including possible big business sponsorship, and so if any member knows of suitable companies or has contacts please let me know at the earliest opportunity.

Australasian Wader Study Group Meeting:

I recently took the opportunity to travel to Newcastle in Australia to attend the Australasian Wader Study Group Meeting on 7 and 8 July. This was the first of those meetings that I had attended and it gave me opportunity to put faces to the names of people that I had heard about from Adrian Riegen and Keith Woodley. Also present was Adrian, who is a member of their committee, as well as Keith and the key note speaker was our former Council member Dr Phil Battley.

Everyone I spoke to at the conference knew of Miranda and the work that the Trust is doing even if they did not know where in New Zealand Miranda was situated. While that group of people is not typical, as they have an interest in waders, it brought home to me the fact that the activities of the Trust are probably better known overseas than they are in New Zealand. The role that the Trust is playing in the advocacy for migratory shorebirds far and away exceeds the size of our organisation.

One of the guest speakers was Zhang Guangming who members may remember was one of the first of the Yalu Jiang Reserve staff who spent time at Miranda late in 2005 and early 2006. Those of you who met him will remember his stumbling English but this time he gave a very competent talk based on the work that is being done at the Yalu Jiang Reserve with full recognition of the support that they have received from the Miranda Naturalists' Trust.

Hunter Wetland Centre – Australia

Following the Australasian Wader Study Group meeting in Newcastle I had arranged to spend a day at the Hunter Wetland Centre along with Keith Woodley. The purpose of the visit was to meet the key people associated with the Centre and also examine their building and activities on their site.

The direct association with Miranda is that the Trust which runs that Centre was established at about the same time as the new building was erected at Miranda. The founder of the Australian Centre, Max Maddock, was the guest speaker at the opening of our building at Miranda. Unfortunately we did not have an opportunity to meet Max and that was the one disappointment of our visit.

We did however spent some time with the Chief Executive Officer, Tara O'Connell who has visited Miranda and also with Christine Prietto, the Chairman of the Hunter Wetland Centre Trust. At this stage Christine is scheduled to be our guest speaker at the Spring Migration Day at the end of September.

Both Keith and I found the discussions held with those Tara, Christine and Carolyn Gillard was very valuable and informative. We both came away from the meeting with heads buzzing with ideas and initiatives that we will examine and implement at Miranda if relevant.

It is my belief that it is essential that Miranda involves itself in the network of centres that is being established, not only in Australia but also throughout the world as there are clear benefits in sharing experiences and networking opportunities.

Tara had also arranged for us to spend the morning birding with Paddy Lightfoot, one of the founders of the Hunter Trust and Neville McNaughton from the Hunter Bird Observers Club, and it would have been rude to refuse!! Unfortunately, it rained and was cold, a bit like a census day, and we did not get to enjoy the experience as much as we could, but a bad mornings birding is still better than working!

David Lawrie,
Chairman

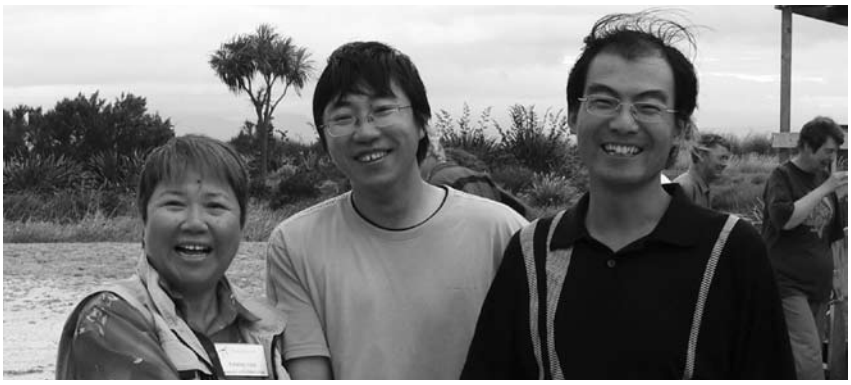
New Council Members

Three new people were voted onto council at the last AGM, biographies of the other two will be in future issues of the news. Pictured above Keith Thompson and Emma Stanyard. (photo David Lawire) and below new councuil member Estella Lee (left) with Zhang Guangming andLu Yong in 2006. (photo Keith Woodley)

Emma Stanyard

Hi! My introduction to all things 'nature' started as I grew up in deepest darkest North Wales. However my interest was soon swayed to the ornithological side of things by my father. Ever since I was old enough to carry the weight of a cannon, keeping cages etc (i.e. be useful!) he'd take me out on cannon netting sessions with the SCAN ringing group. Helping to carry oystercatchers, dunlin and turnstone mostly from the net to the cage is not a privilege you forget easily! We'd also mist net passerines in the garden several times a year. There was a slight lull in devotion to the cause as I enjoyed a few years at university and starting out in my career as a geotechnical engineer but a few years later we decided to migrate to New Zealand and a year and a half ago that's exactly what we did. With a whole new suite of birds to grab my attention it wasn't long before I joined the OSNZ, was out on beach patrols and censuses and soon enough I was a regular at Miranda. In January I attended the field course at Miranda (an excellent, if exhausting week!) and as tradition seems to dictate was then 'recruited' to council.

I've now attended a couple of council meetings and found the amount of hard work that goes on behind the scenes by the volunteers and council is quite staggering and I hope to do my bit. No doubt I'll meet those of you I haven't already at the centre or shell banks soon!



At the Centre

Courses

21 - 27 January 2008

The 10th Miranda Field Course.

The Miranda Field Course is perfect for any naturalist, budding or experienced. The main focus is on shore birds, their ecology, identification and conservation, with hands-on experience of netting and banding. Other topics include the geology, botany and entomology of the Miranda area.

Price: $490. This includes all materials, teaching, accommodation and full catering. All tutors experts in their fields. Limited to 12-14 students (age range so far 14 to 82) For details of the 2008 course contact the Centre.

September 11-13 2007

The Management of New Zealand Dotterel and other shorebirds. Tutor: John Dowding, of the Dotterel Recovery Group.

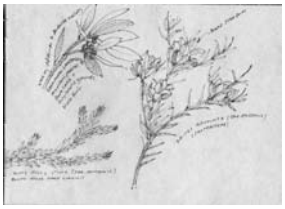
Topics include species ecology, management strategies, pest control, data collection. Invaluable for all those involved in shorebird protection. Contact the centre for details - oversubscribed last year. Price $290 Subsidies may be available for private individuals.

October 13-14 2007

Field Sketching. Tutor: Sandra Morris

The sketchbook is a visual artists most valuable tool. It fulfills many functions but its most notable characteristic is its privacy, it is somewhere you can experiment, take chances and make mistakes! A sketchbook is a great place to work on observational and drawing skills. Sketching regularly improves your visual memory and drawing skills.

At this workshop we will explore the environment around the centre, recording what delights we discover- be it insects, plants, birds, animals, clouds, landscapes etc. We will also take a look at other sketchbooks and journal writing. You do not have to be a successful artist to keep a nature sketchbook/ journal! This course is for anyone interested in looking more closely at the world around them and recording it in their own way. Come and be inspired.



Fully catered, comfortable bunkroom accommodation. Price $150

November 10-11 2007

Wader ID Weekend. Main tutor: Keith Woodley

Unravel some of the knots of wader identification with the expert help of Keith Woodley and others,

Fully catered, comfortable bunkroom accommodation. Price $150

The Volunteer Day

A new initiative at Miranda, a regular training day for volunteers will be held once a month. Over the course of the year we'll cover the basics of running the shop and the Shorebird Centre, we'll have guided walks from bird and plant experts, help on giving talk to groups, updates on the latest research, bird identification sessions as well as joining other ongoing activities. Each day will also have opportunities to brush up on the cash register skills! Each weekend will have some old hands staying for the weekend, so you can stay for some one-on-one if you'd like.

There is no requirement to attend every session, come when you can, we'll start at 10 on Saturday, (there may be some changes if the tide is important for a session). The only requirement is that you be willing to make some commitment to volunteering at other times, in the shop, on the shellbank, when there are school groups, or in the garden.

To get involved contact Keith Woodley (09) 232 2781 shorebird@xtra.co.nz. We'll be setting up a regular contact schedule, so even if you can't come to our first weekend please get in touch so we can keep you informed about future plans. If you are interested in car pooling please let us know and, we'll let you know if there is anyone else in your area who you could get in touch with. Upcoming Dates are Sept 1, Sept 22, Oct 27 Nov 24.

Spring Migration Day

Christine Prietto will be the speaker at the Spring Migration Day on 30 Sept 2007.

I have worked as an Environmental Education specialist since 1990 The strong thread of wetland education in my work has been due my location at the Hunter Wetlands Centre, formerly Shortland Wetlands Centre, a community-owned and restored wetlands in the Hunter Region, NSW, and Australia's first "wetlands centre".

I have been on the Board of HWCA since 1996 and am currently Chairman. I represent HWCA on the Board of Wetlands International-Oceania and on the Reference Group of Australian Wetlands Alliance. From 2000-2002 I oversaw the Ramsar nomination process for Shortland Wetlands.

I coordinate an international specialist group for wetland education that delivers services to the Ramsar Convention and was involved in drafting and negotiating the passage of the Ramsar Convention's communication education and public awareness program, 2002-2008.

Since 2006 I have been a member of the Ramsar Convention's Scientific and Technical Review Panel as a thematic expert for education. This is a new position approved in 2006.

Christine Prietto

Black-billed Gulls

another threatened species in the Firth of Thames

Ian Southey

Ian Southey

Several recent reviews of conservation in New Zealand wildlife have discussed Black-billed Gulls. They have been declared to be in "serious decline" by the Department of Conservation and they have found even greater fame globally now that the IUCN class them as Endangered ("at very high risk of extinction in the wild"). This is the highest threat ranking given for any of the world's gulls.

It all seems like a lot of fuss for a bird that seems reasonably common locally, turning up sooner or later on most shorebird roosts around Auckland and often scrounging outside the fish and chip shops at Kaiaua and Kawakawa Bay. Unfortunately there is good reason for this concern. In "The State of New Zealand's Birds 2006", a review by The Ornithological Society of New Zealand, Rachel McClellan, of Otago University, collated counts of Black-billed Gulls at breeding colonies from Southland to show an impressive population crash in recent decades. The high IUCN ranking reflects the size of this decline and the fact that it is not expected to cease in the near future, but the Miranda story is a bit different.

In the North Island

In the North Island Black-billed Gulls may be relatively recent arrivals. Although they had been recorded from the Rotorua Lakes in the 1800s, in 1930 Oliver recorded them only as visitors to the southern districts. This soon began to change. In 1932 they were noticed breeding in a colony with Red-billed Gulls at Rotorua and they soon increased to more than 400 active nests. When the pioneer birders began exploring Miranda they found 250 to 300 Black-billed Gulls at the mouth of the Miranda Creek on August 3rd, 1941. They found them along the Miranda coast each winter, usually in one or two big flocks. Their fortunes were well documented in the early issues of Notornis and by census counts shown in figure 1.

In those days Black-billed Gulls began to trickle in during late March, became obvious in early April, then departed between late September and early November. It was thought that the birds were coming from the Rotorua colony which

had already become quite large. The pattern of occurrence in the Firth of Thames fitted in with the movement away from Rotorua which became noticeable in mid April with only a few stragglers remaining by the end of May. These stragglers remained around Rotorua over the winter until the returning flock began to appear in August with the last returning by early November. In addition a period of relatively low counts at Miranda between 1952 and 1957 matches a documented run of very poor nesting success at Rotorua up to at least 1955. This was due to a variety of causes, the harvest of eggs, disturbance by tourists entering the colony to take photographs and 'maul' eggs and chicks, predation and disturbance by dogs and just plain vandalism as well the floods and predators we would expect today. Through the 1940s the best winter counts at Miranda were usually up to about 300 birds but they slowly increased even though the fortunes of the source colony fluctuated. By the 1960s the main flock on the Miranda coast was usually about 850 birds and sometimes reached almost 1000 (figure 2).

At first these birds were clearly coming for the winter. The first seen to stay over the summer were two birds in the 1949-50 season but by 1960 Ross McKenzie and Dick Sibson noted that "a few could be expected in summer now". During the 1960s as the winter flock size peaked a small summer flock became regular, usually at Kaiaua or Taramaire. Almost all of these were obviously immature and the few that appeared to be adults showed no signs of breeding. It was not until November 1967 that Dick Sibson observed indications of "a breeding urge". The following season two adults were found sitting on their bulky nests on the shellbank at Taramaire. Unfortunately they were not successful in rearing any young but in 1969 there were three nests and the first two flying chicks were seen. With the odd setback, the colony increased after this and has nested in a number of sites around the Firth of Thames between Taramaire and Coromandel Harbour.

Around the Auckland area Black-billed Gulls were slow to spread further. Although a few Black-billed Gulls had been noticed at Clevedon and Kawakawa Bay since 1949, nesting was not observed until November 1991 at Mataitai where they now breed regularly. The earliest recorded sighting on the Manukau Harbour was a single bird reported from Clark's Beach on 18/11/1965. There were only three or four more records of single birds until January 1989 when six were seen at Karaka. Soon small groups were being seen increasingly often and the first nests were found at Karaka in January 1994 but chicks were not reared until the following season. The colony had mixed success before moving to the higher shellbanks at Clark's Bay and they have now become regular breeders there. In the Kaipara Harbour they had not been noticed at all until Gwen Pulham found a few pairs breeding in November 1992. They have become regular breeders in the Kaipara too, if in smaller numbers, mainly using Papakanui Spit. Over the last five years the numbers of Black-billed Gulls counted on census in the three main harbours around Auckland average 815 in summer and 524 in winter. The numbers of breeding birds varies considerably but probably at least 300 pairs make the attempt in most seasons.

These colonies are now the northernmost breeding Black-billed Gulls, but they were only part of a wider expansion in the North Island. In the 1944-5 season they were also nesting at Porangahau in Hawkes Bay and in January 1954 colonies were found at Gisborne Harbour and the Ngaruroro River mouth near Napier. At the same time as the post breeding flock from Rotorua was coming to Miranda Black-billed Gulls were also seen over the winter in the Bay of Plenty. Although the records are poorer there appear to have been just a few birds in the 1940s but a flock of 1000 was recorded at Kaituna in 1966. The spread through the North Island seems to have been accelerating at this time with breeding first noticed on Matakana Island in Tauranga Harbour in 1967, at Miranda the following year and confirmed on the Manawatu River by 1972. As in the Firth of Thames, these colonies have succeeded and further colonies have been founded around them. Although the colonies may move around locally from year to year, breeding has been recorded for at least 25 sites in the North Island. These colonies are still small by South Island standards and are not all regular nesting sites but the increase in numbers and range seems to have been slow and steady in spite of setbacks.

The history of Black-billed Gulls around Auckland shown in figure 2 has been episodic and early on probably determined by fortunes of the colonies at Rotorua. It was only during the 1960s when the summer flock became regular that there was any chance for breeding to occur. Soon after this the numbers of birds wintering at Miranda fell quite quickly. A comment that the numbers of Black-billed Gulls at Whakarewarewa were "greatly reduced" supports the idea that the source colonies were not doing well at this time. During the 1980s the numbers of Black-billed Gulls in the Firth of Thames were at their lowest ebb but began to increase slowly. In the 1990s they increased faster but the pattern had changed with more birds being present in summer than winter. Not surprisingly, this indicates that

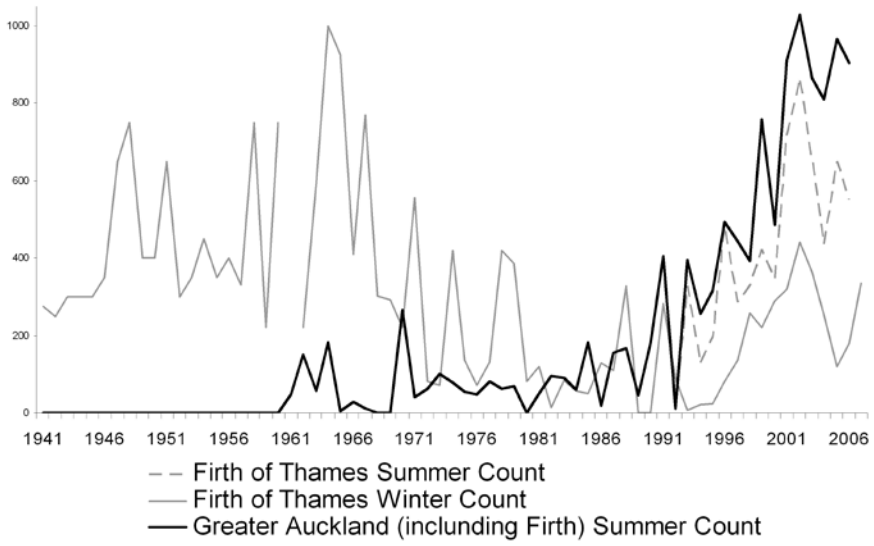


Figure 1. The numbers of Black-billed Gulls counted in the Firth of Thames on OSNZ winter and summer census and combined figures for the Firth of Thames, Manukau Harbour and Kaipara Harbour in summer.

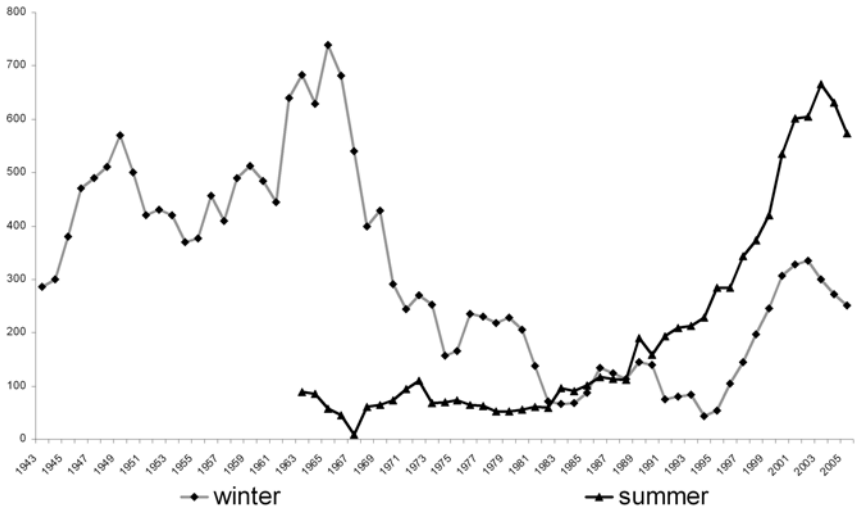


Figure 2. The long term trends in Black-billed Gulls counted on OSNZ census in the Firth of Thames. Each point is the average of the counts made over the five years centred on the year shown to smooth the curves.

the population has become a local one with a breeding season peak and some winter dispersal away from the main harbours. It also suggests that the pattern of dispersal from the Rotorua colonies has changed.

This does not look like the story of a declining species but it is only a small part of the picture. In fact the current population of Black-billed Gulls is not small. There appears to be 115,000 to 150,000 birds now and most of them are in the South Island.

In the South Island

Ornithological Society counts between 1995 and 1997 found about 70% of the population breeding in Southland with perhaps 25% in Canterbury and Otago. However in the 1990s the population was already in decline. In the Southland stronghold figures analysed by Rachel McClellan show the numbers of breeding Black-billed Gulls on four key rivers plummeting from 147,000 birds in 35 colonies in 1977 to 11,000 birds in 11 colonies in 2005. This is a decline on a frightening scale - around 90% in less than 30 years. The available information from Otago and Canterbury seems little better with once great colonies reduced to tens or a few hundred birds and some have disappeared completely.

At present the reasons for this drop in numbers are not clear. It is easy to imagine threats but much harder to work out their impacts and identify their importance. Most braided river habitats in the South Island are losing breeding habitat to weeds such as gorse and broom and probably also gravel extraction. In Southland there have been big changes in land use, most notably a substantial recent increase in the number of dairy farms. The birds are also suffering from predators, like mustelids and cats, and human disturbance. Rachel McClellan has already seen an impact from predation at the breeding colonies which lowers productivity by the loss of eggs and chicks. The currently observed levels of predation, however, do not seem sufficient to cause the observed decline so other factors need to be considered too.

Climatic events have probably also taken a toll. During the 1990s there were unusually frequent El Nino events which led to increased rainfall and more frequent flooding events; after repeated loss of colonies to floods it was noticed that further breeding attempts could cease entirely. Pasture invertebrates are important in the diet of Black-billed Gulls but the "big freeze" in July 1996 made feeding difficult and led to increased mortality as hungry birds feeding on the roads were killed by traffic. In one case 244 road killed corpses were counted in about 30 kilometres between Winton and Invercargill. There have been other cold weather events and severe droughts, which seem to have been particularly frequent in the 1970s, seem to have a similar effect. On January 27th, 1974, 326 dead gulls were counted along 16km of road near Hedgehope. This road mortality

must add up to thousands of birds but starvation probably takes a further hidden toll when times get that tough, not only through mortality, but possibly reducing breeding success if the birds are still in poor condition for spring.

It is not going to be easy to work out how to place all of these impacts in context to understand the population crash of Black-billed Gulls in the South Island. Until this happens though, it is going to be difficult to reverse the downward trend and change their threat status. Given the increasing populations of Black-billed Gulls in the Firth of Thames and other sites in the North Island at present, extinction may not be imminent. Even so, it will be a long time before the local colonies will increase enough to change the Black-billed Gull's current billing as the world's most endangered gull. Remember this next time they ask you for a chip.

Acknowledgements

In addition to all the people who have carried out counts for more than 60 years, I need to thank Tony Habraken for sharing his knowledge of the Auckland gull populations and Rachel McClellan and Wynston Cooper for providing information from Southland and discussion on the threats there. In addition the results of census counts were provided by Tony Habraken and Adrian Riegen and the graphs made by Gillian Vaughan

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The IUCN
The International Union for Conservation of Nature and Natural Resorces, go to
www.birdlife.org/datazone/index.html
and search the species list for Black-billed Gulls

Ian Southey

from the MANAGER

Keith Woodley

A key part of my role at Miranda for the last 14 years has been giving talks to diverse groups of visitors, be they primary or secondary school students, university classes, birding tours or, at the more mature end of the scale, groups such as Probus and travel clubs. Cumulatively it has been an audience of thousands.

Over that time the talk itself – basically an account of the significance of Miranda, and the nature of shorebird migration - has been subject to numerous modifications, particularly as new information on migratory birds has come to hand. Indeed, if a recording of the talk in late 1993 were available (and I am unaware of any), it would bear little resemblance to that given in July 2007. While the basic themes are still there, much of the detail is new.

In 1993 for instance, the significance of the Yellow Sea region as a migratory staging site for New Zealand birds was only suspected. Our knowledge of the flyway itself was very patchy, largely based on only those few sites from which band recoveries had been received. Ironically the most data came from sites where hunting of shorebirds was still practiced. The establishment of the East Asian-Australasian Shorebird Site Network in 1996, and the inclusion of the Firth of Thames as an inaugural site, cemented the involvement of Miranda Naturalists' Trust in the flyway. Since then of course the overwhelming significance of the Yellow Sea for shorebirds migrating north from Australia and New Zealand has been documented. Thus the talk received a further theme.

The ongoing bird banding and flagging programme at Miranda and elsewhere in the country also increased our knowledge base, sometimes exponentially. As more and more birds were banded, so more and more band recoveries and flag sightings were received from throughout the flyway. These helped illustrate examples of key sites in the region. After 2003 the colour-banding scheme directed by Phil Battley led, in a very short time, to an even more astonishing expansion of our knowledge of godwit and knot movements throughout the Asia Pacific region. Thus some more excellent factual nuggets were added to the story. But in September 2006 a hugely significant modification to what has become the central theme of the talk began.

In 1993 I would say, on the subject of godwit migration that "some people believe they could be flying back to New Zealand from Alaska direct." Over the years gradual changes were made; "it is believed", became "it is strongly believed" or "the evidence strongly suggests"; "it is highly likely" became "we are all but certain" that birds are returning here non-stop. Then of course came satellite tagging which has now conclusively established the main migration routes and stopover strategies of certain individual birds.

Since March 2007 when this project, and in particular the stunning performance of E7 – flying direct between the Piako River mouth and Yalu Jiang in just 7.5 days, hit the headlines the public response has been huge. This has really captured peoples' imaginations.

It has impacted in other ways as well. In mid April I found myself on board a Korean Airlines flight which, almost exactly, followed the path of E7 the previous month. Updates from the in flight display had us over the Coral Sea, east of New Guinea, directly bisecting Guam and Saipan in the Marianas Islands, and on to Incheon-Seoul. Each time I monitored this display, each time food or drink was brought to my seat, each time I considered the two big engines pulling the airbus north, I thought of E7 and her companions, just weeks earlier they would have been somewhere, below, pushing on entirely under their own steam.

After completing this year's program of surveys and education activities in China, three of us traveled to South Korea to assist with the the Saemangeum Shorebird Monitoring Program. While in Korea I was asked to assist with a conservation initiative in the city of Mokpo. I joined Niall Moores, from Birds Korea, and Sarah Dawkins, from RSPB in the UK, in making presentations to a local government forum on the value of conserving coastal wetlands. The impetus for this came from a campaign to protect an area of mudflat within the city, which supports migratory shorebirds. The area in question is tiny, with only small numbers of birds, but there are records of flagged birds from Australia and New Zealand. This includes one of the few overseas records of a New Zealand flagged Turnstone. Indications are there is a growing awareness in Mokpo of shorebird habitat and why such places are so important. Such is the scale of habitat destruction and degradation occurring in Korea, that any area that can be given full protection, no matter how small, is a good step forward.

Bar-tailed Godwit –
An Unfolding Migration Story

Adrian Riegen

In the last Miranda News *(Issue 65)* the cat was let out of the bag so to speak with news and maps showing the routes taken by Bar-tailed Godwits as they flew north to the breeding ground from New Zealand fitted with the latest in satellite transmitters technology. The migration was in full swing at the time of going to print with a few birds having just made it to Alaska. Several more birds reached the arctic and there has now been time to reflect on the vast amount of data received.

Back in the late 1980s information on godwit migration was very scarce and it wasn't until May 1991 that the first New Zealand banded Bar-tailed Godwit was recovered overseas; although the news took almost a year to filter back to us that a hunter on Bering Island east of Russia's Kamchatka Peninsula had shot one of our birds for sport. From this we surmised that the bird had travelled to Asia and was heading for Alaska to breed.

On 1 April 1992 a white flagged godwit was sighted in southern Japan, just four months after the first godwits were flagged on the Kaipara Harbour. The next flag sighting from Asia was another in Japan on 17 May 1995 followed by a banded bird found dead in northern Japan on 24 May 1996. The first white flag sightings from South Korea were in April 1998 and the first white flag sighting from China was not until May 1999 when Mark Barter visited Yalu Jiang for the first time.

This slow trickle of recoveries and sightings enabled us to gain a little insight into the godwit migration. To date over 2,200 Bar-tailed Godwits have been banded in the Auckland region but only four have been recovered on northward migration. In addition there have been 31 white flag sightings from Japan, 47 from South Korea and 69 from China, plus numerous colour banded birds sighted, all showing the importance of the Yellow Sea to the Bar-tailed Godwit during northward migration. There are no records from elsewhere in Asia on northward migration.

Piecing together the migration story was a slow process that required plenty of imagination and speculation. Bob Gill tried to answer the question of which way the birds migrated southwards from Alaska and, after years of research, found no direct evidence but plenty of circumstantial evidence for a non-stop flight across the Pacific. His subsequent paper 'Crossing the Ultimate Ecological Barrier' (*Miranda News Issue 58*) was also greeting sceptically by many but not those of us who have been studying the godwit migration for many years.

The advent of satellite transmitters small enough for godwits to carry has revolutionised migration studies and turned the trickle of information into a deluge. They have also silenced the many critics who did not believe waders like godwits were capable of such long non-stop flights. Watching last September as the few birds with working transmitters were tracked due south from Alaska and out over the vast landless Pacific was no surprise to us, just confirmation that the previous research was correct. Nevertheless it was an awe-inspiring sight as they headed for that pinpoint over the horizon that was New Zealand.

All of last years transmitters failed before they reached New Zealand and until some of the birds were seen alive and well the story was kept fairly quiet. This year though the technology has worked considerably better and once the first bird reached Asia the news was out and Phil Battley did a great job spreading the word to the world's media. The Times of London devoted its whole front page of the World section to the story.

From the 16 transmitters fitted, seven were still transmitting when they reached the breeding grounds. Four of these are highlighted here. Note: distances are minimum only and dates may vary slightly.

E7 - Female

She was heralded as 'the greatest', not only for completing the longest non-stop flight ever recorded for a land bird, of at least 10,219km, but also because she flew non-stop from Miranda to Yalu Jiang, thus linking the sister sites in a way we could only have dreamt about a year ago. So what happened to her after the 7.5 day flight to Yalu Jiang?

She stayed there for 38 days refuelling, then departed on 1 May and flew eastwards into the Pacific, well south of the Aleutian Islands, before heading northeast to briefly land at Nelson Lagoon on the Alaska Peninsula. She arrived there on 5 May having travelled 6,460km from Yalu Jiang. The track she took, although much longer than the great circle route, had more favourable winds.

The journey had taken 60 days of which 14.5 days or about 350 hours were spent flying.

From Nelson Lagoon E7 moved on to Port Heiden, also on the Peninsula, before turning north to the Yukon-Kuskokwim Delta (YKD) where she arrived near Chefornak on 12 May. She quickly moved on to Manokinak, her final destination, arriving there on 15 May, having travelled a minimum of 17,460km from Miranda. The journey had taken 60 days of which 14.5 days or about 350 hours were spent flying. The distance flown from Yalu Jiang to Manokinak was at least 7,237km. The great circle (shortest) route from Yalu Jiang to Manokinak is 5,230km.

She arrived at Manokinak the same day David Melville and I arrived on the YKD and was only 30 km away from us but due to a lack of transport it was impossible for us to get there to look for her. She appears to have nested in the Manokinak area as she was present for 63 days. On 18 July she left the breeding grounds and moved to Cape Avinof, 155km to the south.

Cape Avinof is the major staging site for godwits before they depart for New Zealand and eastern Australia so she is likely to stay there until September when she will once again head south to Miranda, we hope! Unfortunately the battery powering her transmitter is not expected to last that long but we have our fingers crossed.

E8 – Female

Another female from Miranda E8 left on 1 April, two weeks later than E7. Ironically the last satellite plot before she left had her poolside at the Miranda Hot Pools, perhaps a little R&R before departing (fixes are not entirely accurate)! She flew non-stop for 8.5 days covering at least 9,770km averaging 48kph and landed on the west coast of South Korea at Asan Bay. The great circle route from Miranda to Asan Bay is 9,610km, only 160km less. The navigational skill of these birds defies belief.

She stayed in Asan Bay for 45 days until 24 May then departed eastward. She flew across Korea and Japan before turning northeast toward the YKD, where she was battling strong headwinds, which reduced her land speed to 30kph. With less than 450km to go she turned round and flew at least 1300km westward to land on the Kamchatka Peninsula in Russia. On this leg she was travelling downwind at 70kph. This flight covered at least 8,160km and lasted a little over 6 days. Whether this change of course was due to the transmitter or was simply a survival strategy for when the going gets tough is hard to say.

She stayed in Russia for 9 days and then set off once more for Alaska, arriving on 10 June on the north coast of the YKD. Another 1,530km, making a total of 19,460km flown on migration from Miranda. By way of contrast the great circle route from Miranda to London is only 18,355km. She arrived on the YKD too late to breed and after 10 days on the North Yukon Delta she flew 400km south to join other birds at Cape Avinof where she was still present on 23 July.

Z0 – Female

A South Island bird had a transmitter implanted on 2 February near Farewell Spit and she stayed there until 19 March. She departed on a non-stop flight to South Korea, which ended on a mudflat within sight of the Incheon International Airport after 7.7 days and 10,170km. She was there for 7 days and then flew the 335km to Yalu Jiang. After a further 28 days refuelling she left on 2 May for Alaska arriving in Bristol Bay on 6 May. Bar-tailed Godwits were not known to breed this far south and east and so Bob Gill flew out there from Anchorage to find her, which he did. She appears to have bred there although after 48 days she also headed for Cape Avinof, possibly leaving the male with the chicks.

Z5 – Male

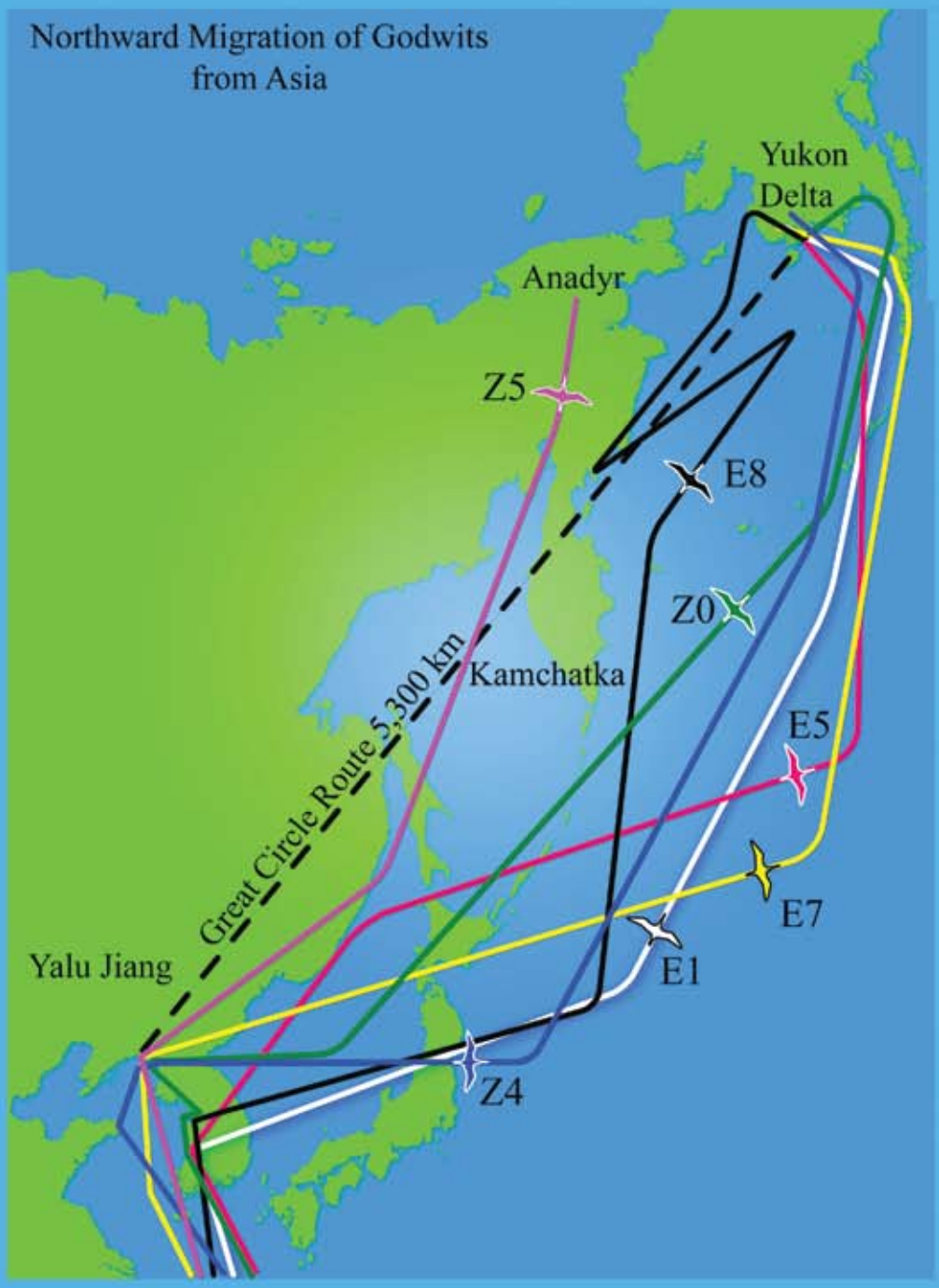
Z5 was the only male to make it to the breeding grounds with his transmitter still working. His migration strategy was very different from the others and was quite unexpected.

While the females with implanted transmitters seemed to have coped very well with their additional load the males appear to have had problems with their backpack type transmitters. Several had fallen off quite early and others had behaved in odd ways.

Z5 left Farewell Spit on 17 March and flew a straight course up the Pacific but stopped short of Asia, choosing to rest on the small island of Yap. Google Earth could not have come at a better time, as it enabled us to zoom in and have a look at Yap to check whether it has any suitable habitat for waders. It seemed it does and efforts were made to find a birdwatcher living on the island or someone who could visit, including trying to contact a birding cruise ship heading that way from New Zealand. Alas no one got to see Z5 on Yap and after 12 days there he flew on to Okinawa where a contact of Bob Gill's was able to find the bird and see that it looked fine.

Just 4 days later he was off again flying to Yalu Jiang. The journey from Golden Bay had taken 27 days. After 19 days at Yalu Jiang he flew north not to Alaska but to Anadyr in the Russian Far East. Pavel Tomkovich heard the news and suggested that where he had landed was a known breeding area for Bar-tailed Godwits but which subspecies breeds there is not so clear. It was believed that all the godwits fitted with transmitters in New Zealand were adults of the *baueri* subspecies, all of which are thought to nest in Alaska. Little is known about the godwits breeding in the Anadyr region and there is some thought they may be another subspecies *anadyrensis* but more work is needed to fully understand this. Z5 travelled the shortest distance for

Z5 travelled the shortest distance for any of the birds, a mere 15,150 km.



From top E7 at Manokinak on the YKD, Z5 on Yap, E8 at the Miranda hot pools, images prepared by USGS. Left ZO in Alaska, Photo Bob Gill, left top the migration routes used from the Yellow Sea to Alaska.

any of the birds, a mere 15,150 km.

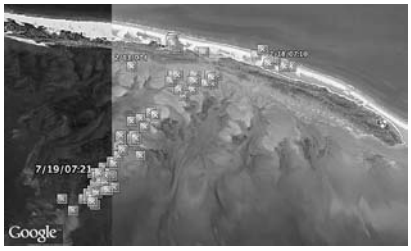
It would appear that Z5 has bred successfully as on 23 July he was still within a 10 km radius of where he first arrived. As his transmitter is solar powered it should keep transmitting for much longer than the implanted ones; we may well see him make a southward migration.

Just these four birds have taught us far more about the northward migration of Bar-tailed Godwits from New Zealand than has been learnt in the last 100 years or so. Even those of us involved in migration studies over the past 20 years are in awe of these remarkable birds and this will only strengthen our resolve to protect E7, E8, Z0, Z5 and all other Bar-tailed Godwits.

Y3 – Female

There is one other godwit still transmitting, Y3, who has quite a different idea of what is expected. She has stayed at Farewell Spit the whole time and although she did not migrate this year she has given us valuable information on how site faithful godwits can be. For the past 155 days she has been on the central part of Farewell Spit feeding on the exposed sand flats at low tide and retreating to the nearby dunes at high tide.

We have been very privileged to be involved in these studies undertaken by USGS with funding from the Packard Foundation and I would like to thank Bob Gill and Lee Tibbits in particular for keeping us so well informed and answering all our questions.



To keep up with this and other shorebird monitoring projects run by the USGS check out www.werc.usgs.gov/sattrack/shorebirds/overall.html

Australasian Wader Studies Group (AWSG)

The AWSG is Special Interest Group of Birds Australia established in 1981 and although probably not that very well known in New Zealand it is an important wader study organisation in our region.

Its objectives are:

- To monitor wader populations through a programme of counting and banding in order to collect data on changes on a local, national and international basis.
- To study the migrations of waders through a programme of counting, banding, colour flagging and collection of biometric data.
- To instigate and encourage other scientific studies of waders such as feeding and breeding studies.
- To communicate the results of these studies to a wide audience through the Stilt the Tattler, other journals, the internet, the media, conferences and lectures.
- To formulate and promote policies for the conservation of waders and their habitat, and to make available information to local and national governmental conservation bodies and other organisations to encourage and assist them in pursuing this objective.
- To encourage and promote the involvement of a large band of amateurs, as well as professionals, to achieve these objectives.

The AWSG although Australia based has become more involved in the East Asian-Australasian Flyway, like the Miranda Naturalists' Trust it realized the pressures on migrating waders was huge, particularly in East Asia and that there was a need to take an active roll in research, education, wader monitoring and advocacy work along the flyway. Most notable has been its involvement in the Saemangeum Shorebird Monitoring Programme in South Korea where the impact of the reclamation is being documented over three years (2006-2008). Several Miranda members have been involved in this work.

AWSG has two regular publications, 'Tattler' a quarterly newsletter with contributions from all along the flyway and 'Stilt' its journal (two issues annually). This started life in 1981 as a hand typed, photocopied journal back in 1981 but has morphed into a high quality publication today, which recently published its 50th issue. This is a landmark issue with contributions from nine countries along the flyway and several Australia states, covering a wide range on topics in 26 papers and over 300 pages, including papers on:
Waders of Russia's Sea of Okhotsk, Full survey results from China's, Yalu Jiang National Nature Reserve conducted with the help of Miranda Naturalists' Trust, Northward migration of waders through Saemangeum in South Korea, An overview of migrant wader in Sumatra, Waders in the Gulf of Thailand, Wader monitoring in Queensland, The breeding of Banded Stilts and Rednecked Avocets in South Australia, Waders in New Zealand and many more.

I hope this brief introduction to AWSG might encourage Miranda members who are not already AWSG members to join this very important organization.

Some copies of 'Stilt 50' are available at the cost of a years membership A$35

More information can be found on the AWSG website
http://www.tasweb.com.au/awsg/index.htm

Adrian Riegen

All of the NZWSG News are now available online at
www.miranda-shorebird.org.nz

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Phil Hammond	Sue Reid
Wendy Hare	Gillian Vaughan

Keith Thomposn
John Gale (Ex officio)

Bequests

Remember the Miranda Naturalists' Trust in your Will and ensure that our vital work in education and protection of the migratory shorebirds can continue. For further information and a copy of our legacy letter contact the Shorebird Centre.

Situated on the Firth of Thames between Kaiaua and the Miranda Hot Pools, the Miranda Shorebird Centre provides a base for birders right where the birds are. The best time to see the birds is two to three hours either side of high tide. The Miranda high tide is 30 minutes before the Auckland (Waitemata) tide. Drop in to investigate, or come and stay a night or two.

Accommodation

The Shorebird Centre has three bunkrooms for hire plus two self-contained flats:

Per bed / night member $ 12.50	Hire of flat member $ 40.00
Per bed / night non-member $ 17.50	Hire of flat non-member $ 50.00

For further information contact Keith at the Shorebird Centre, RD3 Pokeno
Phone /Fax (09) 232 2781

Help support the Trust's efforts to educate and promote conservation awareness.

Membership of the Trust entitles you to:	Membership Rates:
Four Miranda News issues per year.	Ordinary Member - $ 35
A $ 5 discount on overnight accommodation	Family Member - $ 40
Invitations to Trust Events	Overseas Member- $ 40
The right to attend the AGM	Life Member, under 50 - $ 1050
The right to vote for council members	Life Member, 50 & over - $ 525

Want to be involved?

Friends of Miranda

A volunteer group which helps look after the Shorebird Centre. If you'd like to help out contact Keith. Helping out can be anything from assisting with the shop, school groups or meeting people down at the shellbanks. Regular weekends for volunteer training are held on the fourth weekend of every month except December.

Long term Volunteers

Spend four weeks or more on the shoreline at Miranda. If you are interested in staffing the visitor centre, helping with school groups or talking to people on the shellbank for a few weeks contact Keith to discuss options. Free accommodation is available in one of the bunkrooms. Use of a bicycle will be available.

The Miranda Garden

If you want an excuse to stay at Miranda for a couple of week nights free of charge, come and help a small team of gardeners maintain the gardens. It is satisfying and worthwhile work in the outdoors. We make the time enjoyable especially when we down tools at high tide and go and watch the birds on the shell banks. If interested phone Keith on 232 2781 who will put you in touch with a gardener!

Firth of Thames Census

Run by OSNZ and held twice a year the Census days are a good chance to get involved with ongoing field work and research.

The Magazine

Never forget you are welcome to contribute to the MNT NEWS!

The Newsletter of the Miranda Naturalists' Trust is published four times a year to keep members in touch, and to bring news of events at the Miranda Shorebird Centre and along the East Asian-Australasian Flyway.

New Zealand Pigeon with unusual coloring see page 9
Photo David Medway
Black-billed Gull fledgling "herd" see page 14 Photo Chris Garden

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