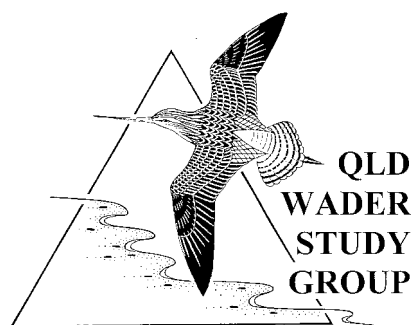


QUEENSLAND WADER



Issue number 057

September, October, November 2006

Newsletter of the Queensland Wader Study Group (QWSG), a special interest group of Birds Queensland Incorporated.

MEMBERS' SUGGESTIONS – ALLOCATION OF BEQUEST FUNDS FROM NIGEL ROBERTS ESTATE

There has been an overwhelming response from members making their suggested options for the allocation of funds from Nigel Roberts' bequest. The money bequeathed to QWSG was invested pending a project worthy of Nigel's name. The funds have now increased to over \$42,000 with interest. In all, a total of 67 members took the time to respond to our request for project suggestions. The 67 members did not include the QWSG committee, who had previously discussed the options. Thank you all for your responses and also to Ivell and Jim Whyte for initiating and organising the letter to the membership.

I have summarised the responses in the table below. The three preferences are not shown separately as about half of the respondents did not prioritise their suggestions, but simply ticked or crossed their listed preferences. Many members took the time to add other related suggestions and comments on the lower half of the page. Several thanked the committee for the opportunity to make their suggestions on this matter. Some expressed concern about the potential for this process to commit QWSG to fund activities that may require additional money. This concern was noted during subsequent committee discussions.

A summary of the preferences of 67 QWSG members for the use of Nigel Roberts' bequest. N = the sum of all preference ranks for each option presented, including new options submitted by members. The most preferred option is highlighted in bold.

Options	N	% total
Permanent display at Port of Brisbane Visitors Centre	29	15
A \$5000 honours scholarship	32	16
An annual scholarship for postgraduate studies	56	29
A dedication in QWSG book and purchase photos	17	9
Produce posters on waders for local distribution	13	7
Informative signage	6	3
Purchase telescopes/tripods and donate to schools	7	4
Spend money in Asia to raise shorebird conservation	21	11
Project to save threatened endemic species	9	5
Other - pay lobbyist for wader conservation influence	1	1
Other - banding and migration studies	1	1
Other - international conservation of habitats	1	1
Other - dedicated signs and naming for Manly Roost	1	1
TOTAL	194	100

The committee met on 22 June to consider the responses and unanimously agreed to support the preference of the majority of members. This was to provide funds to support postgraduate student projects (including honours) with an annual allocation of funds. However, your other preferences and suggestions will be kept in mind when considering future projects and activities for the group. I have already had discussions with Mark Barter from the Australasian Wader Study Group about how QWSG might contribute to wader conservation in eastern Asia.

The level of support for the research grant will be between \$3,000 - \$5,000/year, depending on the quality of the application and its relevance to wader conservation. There have been too few student projects on waders in Queensland in the last 10 years. Thus, the committee felt that the scope of the award should be broadened beyond waders to include studies of their wetland habitats and food organisms. Projects in these areas will improve our understanding of the ecosystems that support waders and benefit the birds as well.

The committee agreed that the soon to be released book written by QWSG members on "Shorebirds of Australia: Their Biology and Conservation" and published by CSIRO will have a dedication to Nigel as well. Other options favoured by members such as a permanent display at the Port of Brisbane were felt to be more difficult to achieve as the Port management would make the final decision on display content.

The next step in the process is for the committee to draft an advertisement to be sent to all the Queensland universities. These will be displayed in the zoology departments of each institution and will ask students to apply for funds from the Nigel Roberts wader research grant scheme. Applicants will be ranked on academic merit and the relevance of the proposed project to waders and their conservation. So, if you know of students studying waders, or thinking of studying waders, now is the time to suggest they contact QWSG, either by mail to:

Nigel Roberts Wader Research Grant Scheme,
QWSG Chair,
xxxxxxxxxxxxxxxx
xxxxxxxxxxx 4xxx Qld

Ph: (07) xxxx xxxx
Or email: xxxx@xxxx.com.au

David Milton, Chairperson QWSG

High numbers of shorebirds in North West Tasmania

People who participated in the annual summer wader count in the northwest of Tasmania during the Australia Day holiday long weekend were treated to spectacular numbers of migratory and resident shorebirds, with the total count approaching 23,500 birds.

Highlights during the day's counting included a minimum count of 400 Bar-tailed Godwits, 1500 Red Knot, 2300 Curlew Sandpiper, 800 Pied Oystercatcher, 100 Grey Plover and estimates of up to 190 Eastern Curlew, 1300 Ruddy Turnstone, 280 Pacific Golden Plover and 16,000 Red-necked Stint (including 11,000 at Shipwreck Pt). The highest count was at Shipwreck Point on the far northwest tip of Perkins Island where almost 13,800 birds were present during the high tide roost.

The count was the highest ever for the Robbins Passage/ Boullanger Bay wetlands, and reinforces the importance of these wetlands as high national and international conservation value, with more shorebirds present in the wetlands than the rest of Tasmania combined at any time of the year. Sincere thanks to all who assisted on the day.

DELAWARE BAY 2006

By Clive Minton & Susan Taylor

We apologise that this year we were not able to send you periodic reports of events during our three and a half week visit to Delaware Bay to assist the New Jersey Fisheries & Wildlife Department Endangered Species Unit with the migratory shorebird studies. Time pressures meant that we rarely had any free time on most days. This report hopes to make good some of the communication deficiency by summarising the main results of the total northward migration season, from early May to the end of the first week in June. However it will unfortunately lack the excitement of the day to day unfolding of events, and uncertainties of eventual outcomes, which were a feature of previous years' reports.

Activities and Objectives

The intensive, co-ordinated, multi-aspect studies followed a similar course to previous years. Fieldwork activities were:

- a) regular aerial counts, supplemented by local ground counts, of the wader populations in the whole of Delaware Bay and on adjacent Atlantic coasts, particularly at Stone Harbor;
- b) monitoring the timing of arrivals, arrival weights, rates of weight gain, the timing of northward departures, and departure weights; achieved by catching and banding and by visual observations.
- c) intensive telescope scanning of feeding and roosting flocks to identify engraved leg flags. These are the basis of survival rate calculations.
- d) applying radio-telemetry devices to Red Knot and monitoring their length of stay and local/Atlantic coast movements during their stopover.

A key objective was to determine whether there is a preferential use of the beaches of the Bay over Atlantic coast marshland and barrier islands by Red Knot from wintering areas in southern South America. Also, conversely, whether there is a preferential use of the Atlantic coast marshland and barrier island habitats by Red Knot from wintering areas in Florida and northern Brazil. This is a particularly important issue as evidence to date suggests that the wintering populations of the former have a higher mortality rate and have therefore suffered the greater population decline. If a preferential use of stopover habitats can be proved then it is further strong evidence that the lack of Horseshoe Crab eggs to feed on in Delaware Bay is the prime cause of the Red Knot decline in the flyway.

Red Knot was the priority species because of the recent massive changes in its population, but Ruddy Turnstone and Sanderling were also studied in considerable detail. A small team under the auspices of the New Jersey Audubon Society (but also financed through the NJ Fisheries & Wildlife Division) operated separately, as usual, carrying out similar studies on Semi-palmated Sandpiper and Least Sandpiper.

This Year

This was the 10th year of shorebird studies on Delaware Bay and, yet again, it was markedly different from all previous years. The timing and extent of Horseshoe Crab spawning, the timing of arrivals and departures of the three main study species (and their weights), the numbers and distribution of birds around the Bay and on the Atlantic coast and the weather conditions all varied significantly from earlier seasons.

Crabs spawned well from the 11th to the 19th of May and again from the 26th of May to the 2nd of June. These periods corresponded with either calm weather conditions or offshore winds on the NJ side of the Bay and with the full moon and new moon spring tides respectively. In the intervening period (19th to 26th May) the weather was unsettled with seas far too rough for crabs to come ashore to spawn.

Overall May was colder than normal with no settled anticyclonic weather until 26th May. One benefit for the team was the absence of the usual biting insects ("no-see-ems"). The week of anticyclonic weather in the last five days of May and the first two days of June was perfectly timed as far as northward migratory departures were concerned, allowing birds to leave whenever they were ready, *ie.* when they had accumulated sufficient weight.

The first major arrivals of all three species were around 10th to 14th May. Unlike other years, there were no major arrivals apparent after about the 20th May, at least on the NJ side of the Bay. This year arrival weights and weights in mid-May were generally good, especially on Red Knot. For most of May, Red Knot weights remained slightly above the average of the previous nine years and Sanderling weights also tended to be on

or just above average. Only Ruddy Turnstones were slightly below average weights at times, particularly early in the period.

Northward departures were also much more on time than in recent years with the main Red Knot departures occurring on 28th-30th May and with many Sanderling and Ruddy Turnstone departing between 30th May and 2nd June. Almost all birds had left by 6th June, whereas in 2005 there were still many thousands of each species present on this date.

The **big problem** in 2006 was the further decline in Red Knot numbers and an apparent massive decline in Ruddy Turnstones. In contrast Sanderling numbers were rather higher than in 2005.

The main conclusions from the 2006 fieldwork were that birds that came to Delaware Bay or the nearby Atlantic coasts this year fared well, with good food available, weight regimes being more than satisfactory and departure weights/timing being much nearer to the ideal schedule. **But**, as predicted, the massive reduction in Horseshoe Crab eggs for the birds to feed on in recent years is causing a continuing decline in populations.

This is one of the most fundamental factors in wildlife – the natural regulation of wildlife numbers through the adjustment of population levels to meet the available food supplies. It is uncertain what proportion of this decline is caused by more birds dying, or by less successful reproduction or by birds going elsewhere. Continuing research may help resolve this, but it is clear that we are still on the downward slope. Turning matters around will take a long time, especially considering that the recovery in the breeding Horseshoe Crab population, even if satisfactory remedial measures are taken, will be slow because Horseshoe Crabs do not reach breeding maturity until their tenth year.

Banding

Catching and banding went very much according to plan on the New Jersey side of the Bay. Within Delaware Bay a total of 13 catches was made. A catch was made on each day a net was set, though on a couple of occasions a net had to be moved before a catch was finally made. The average catch size was 112 birds; the largest catch was 269 birds, on 17th May. Often two species were caught in targeted numbers and on one occasion all three species.

The target quota of around 350 new birds during May for Red Knot and Ruddy Turnstone was adhered to (360 and 331 respectively). A higher proportion of the quota of 700 Sanderling for both sides of the Bay was deliberately caught in New Jersey (541) because opportunities for catching Sanderling on the Delaware side of the Bay are limited. Catches were nicely spaced thus enabling arrival weights, weight gain rates and departure weights to be closely monitored. There were seven catches of each of the three study species which were greater than 30 – a figure which facilitates a fairly accurate mean weight and gives an indication of the weight profile of the population sampled.

This year increased emphasis was placed on making catches of Red Knot feeding on the Atlantic shores. However the geography of Stone Harbor, the area closest to Delaware Bay, makes catching there much more difficult. It took six attempts to make two successful catches there, totalling 100 birds (93 of them new).

A highlight of this year's fieldwork was a visit to the coast of Virginia (about three hours drive plus a one-hour ferry south of Delaware Bay). Work in 2005 by personnel from the Nature Conservancy and the Virginian Institute of Marine Science (VIMS) had shown several thousand Red Knot present on the barrier islands during the latter half of May and early June. Our help was requested to catch some of these birds, principally so that radio-transmitters could be attached.

The creeks and open sea areas were a joy to traverse as we were boated out some 10 km off shore to Hog Island. The outer barrier island has some similarities to parts of Corner Inlet in Victoria, Australia. The weather was glorious. There were some 3000 Red Knot on about five miles of ocean beach and three catches totalling 92 Red Knot and 54 Sanderling were made. We also enjoyed staying in a most beautiful Nature Conservancy house surrounded by lawns, fields and deciduous woods.

Birds caught at Stone Harbor and in Virginia were not counted in the Delaware Bay quotas. Including these, and also re-traps of birds banded previously at Delaware Bay or elsewhere in the Flyway, meant that our final catch totals were 684 Red Knot, 461 Ruddy Turnstone, 855 Sanderling and 12 other birds, giving an overall total of 2012 birds handled.

Re-captures

81 Red Knot already carrying bands were re-captured. 31 of these had been banded in New Jersey and 27 on the Delaware side of the Bay. This indicates the considerable mobility of Red Knot within the Bay, presumably to exploit the highly variable food resources optimally.

11 had previously been banded in Argentina, four in Florida and one in Brazil. One bird dated back to the initial visit to Delaware Bay in May 1997 (present age therefore a minimum of 11 years).

There were 35 Ruddy Turnstone re-captures. All of these were on the same side of Delaware Bay as they had been banded originally. Ruddy Turnstones therefore are markedly more faithful to a particular section of the Bay. There was one re-capture of a bird originally banded in Brazil. Also there was one bird which was originally banded in May 1997 and which would now be a minimum of 11 years old.

There were 64 re-captures of Sanderling. 56 of these had been banded on the New Jersey side of the Bay but seven had originally been marked in Delaware. Given that many more Sanderling have been banded in New Jersey over the years (11,621) than in Delaware (1,690), these figures indicate that Sanderling are, like Red Knot, relatively non-site faithful within Delaware Bay.

Weights

In the first four catches between 14th and 19th May, the mean weight of Red Knot was well above the average of the previous nine years, with the first two catches in particular being the highest weights ever recorded for the mid-May period. This indicates that the birds present at that time had either arrived from South America in much better condition than normal or alternatively were birds which had only come a relatively short way from wintering grounds in Florida. Evidence suggests that the latter is the more likely explanation as several Florida-banded birds were caught or seen at this time. Also population counts then, and subsequently, suggested that many of the birds which normally fed in Stone Harbor had temporarily come into the Bay, attracted by the excellent early Horseshoe Crab spawning in the Cook/Kimbles beach area in mid-May.

Abdominal profile information also suggested that the Stone Harbor birds were much more advanced in their weight gain process than birds in Delaware Bay. This was confirmed by the 25th May catch sample at Stone Harbor, which had the highest average weight ever recorded for this date.

As usual, after the main migratory departures the mean weights of the remaining birds were much lower, with the final sample of 30 Red Knot on 4th June only having an average weight of 150 grams (some 30 grams below the threshold take-off weight of 180 grams). This late season reduction of the average weights, after the cream of the population has left, is because the remaining birds are probably a mixture of late-arriving individuals, young birds migrating for the first time and a small proportion of "sick" birds. It is unlikely that many of these late birds will successfully contribute to Arctic breeding activities in 2006.

Ten Red Knot were captured twice during May/early June 2006. The highest rate of weight gain by single birds was 52 grams in ten days (i.e. about 5% per day). Two other birds showed approximately 4% per day weight gain rates (38 grams in ten days and 32 grams in seven days).

All seven good samples of Ruddy Turnstone showed mean weights which were close to the average of the nine previous years. The highest average weight of 155 grams was reached on 1st June. This is about 60% above the average weight of Ruddy Turnstone outside the migratory season. Seven Ruddy Turnstones were caught twice during the May/early June period. The highest rates of weight gain were 5.7 grams per day (34 grams in six days) and 5.2 grams per day (26 grams in five days). These represent weight gain rates of about 6% per day.

The first seven catch samples of Sanderling all had average weights above the mean for the previous nine years. Peak average weights of around 85 grams were reached on 30th May and 1st June, with some individuals being over 100 grams. As usual, Sanderling remaining after the peak departures had a lower than average weight with quite a number of individual birds showing virtually no weight accumulations at all. Sanderling do tend to stay until a few days later than Red Knot and Ruddy Turnstone each year but, nevertheless, quite a few of these low-weight individuals will not be likely to contribute to successful breeding activity in 2006.

There were seven same year re-captures of Sanderling. Highest rates of weight gain were by one which gained 26 grams in 11 days and another which gained 27 grams in 13 days. These rates correspond to an increase of 4-5% per day.

Aerial surveys/population estimates

The peak aerial survey count of Red Knot on the Bay was an estimated 13,445 on 30th May. This is lower than the peak of 15,345 on the 24th May count in 2005. The peak evening high-tide roost count at Stone Harbor, where most of the Red Knot on Delaware Bay come to roost at night with the birds already present at Stone Harbor, was 16,000 on 26th May. This was again lower than the peak count of 20,000 in 2005.

In contrast, there were rather more birds feeding in Stone Harbor (up to 4,000 on many days) than in 2005 when the population was more typically less than 1,000.

A reduction in Red Knot numbers in 2006 was also recorded along the Virginia coastline – from a peak of 9,000 in 2005 to an estimated 5,000 in 2006.

If the count totals from Delaware Bay, Stone Harbor and Virginia are added together then an estimated 29,000 Red Knot population in 2005 has fallen to an estimated 21,000 in 2006. Whichever way one looks at the figures, it does seem that the Red Knot occurring both in Delaware Bay and this general region on the east coast of America during the northward migration have further decreased. We had been hoping that the decline may have been halted, given similar numbers counted in Tierra del Fuego in the last two non-breeding seasons. But it appears that we are still on a downward slope in the overall size of the population.

Ruddy Turnstone numbers crashed in 2006. From a typical peak of 43,000 in 2005 the maximum number counted during the 2006 aerial surveys was 18,585 on 30th May. This shortage of birds was apparent throughout the whole month with, for example, only 12,000 counted on 23rd May this year compared with 15,000 on 18th May in 2005 and 43,000 on 24th May, with still 42,000 on 1st June. There is no obvious reason for this marked decline. There are no counts on wintering areas to assist in interpreting the situation.

In contrast, Sanderling numbers were higher for the whole period between 16th May and 30th May than at any time in 2005. The peak count was 16,740 on 23rd May, which compares with a peak of 12,765 on 24th May 2005. As usual, the majority of the Sanderling were on the New Jersey side of the Bay.

Radio-tracking

A successful outcome of the 2006 fieldwork program was obtained from 20 Red Knot to which radio-transmitters were applied in the catch at Stone Harbor on 18th May and 45 Red Knots to which transmitters were applied at Hog Island, Virginia, on 20th and 21st May. These birds were tracked daily by aerial flights, by Sarah Carpanty of VIMS, around the whole of the shores of Delaware Bay and of the Atlantic coast between the northern parts of Virginia and the southern part of New Jersey. They were also monitored by 20 automatic radio-tracking stations installed on the New Jersey shores of Delaware Bay and around Stone Harbor and also by hand held mobile tracking stations (operated by Humphrey Sitters).

Results available so far indicate that the birds marked at Stone Harbor largely remained in that area feeding during the day. The results from the birds marked in Virginia show that most of these remained at or around Hog Island until late in the month when they departed on northward migration. It had been postulated that the Red Knot arriving on the Virginia coast may have been birds which could not quite make it to Delaware Bay or Stone Harbor, and that they would continue their migration to these locations after a short stopover. On the basis of this year's results, and the excellent weights and obviously bountiful food available on the Atlantic shore in Virginia, it is possible that these birds may be deliberately using the Virginia coast as a stopover location each year. Whilst some of these birds are undoubtedly from non-breeding areas in South America (because of Argentinian/Chilean/Brazilian flags seen) it may well be that a significant proportion are "Florida" (or "Atlantic coast") birds. Thus, when studying the Red Knot populations, it is important to include the Virginia birds in the future as they are now a significant proportion of the total population.

The New Jersey Endangered Species Unit and VIMS personnel will be visiting the Arctic in late June to search extensively for these birds carrying radio-transmitters. It is possible that this may show some difference in breeding regions between "Atlantic Coast" Red Knot and those from South America. It will be possible retrospectively (via stable isotope analysis of feathers collected from each bird) to determine the non-breeding area origin of each of the individual birds carrying a radio-transmitter.

Scanning for leg flags

A huge effort was put in on both sides of the Bay in searching for engraved leg flags on all three study species. Some scanners were able to identify more than 200 different birds in a day. Data is still being compiled but approximately 8,000 sightings of engraved flagged birds were made. Since the non-breeding area of most of these individuals can be determined by stable isotope analysis of feathers taken when birds

were originally banded it should be possible to obtain vital additional information this year on the relative survival rates of the two populations.

Gull exclosures

Work continued this year to try and develop an exclosure which would keep gulls off the beach and thereby facilitate shorebirds having a greater share of the available Horseshoe Crab eggs. The principle is that used to deter gulls from landing on swimming pools at hotels etc. in coastal areas. Fine nylon fishing line is erected on metal poles above the beach and this acts as a deterrent for birds, which are frightened when they fly into the unseen line. The hope was that gulls would be more deterred than shorebirds because when disturbed they rise more vertically. Low-flying shorebirds could potentially escape when disturbed without impinging on the nylon lines, some 8-10 feet above beach level.

An exclosure was set up in the same area of north Reeds Beach as in 2005. The total length was 150m and the width about 25m. A set of steel poles at each end and across the middle held the nylon lines in place with a space of approximately half a metre between each line. A second exclosure was set up on south Kimbles Beach, but in this case it was a single span of 100m by 25m structure parallel to the beach and at right angles to the main shoreline.

Regular observations showed that the structures at both locations were effective at keeping birds out of the area. Unfortunately shorebirds were excluded almost as much as gulls! The only exception to this was a flock of 100-300 Semi-palmated Sandpipers which regularly fed within the exclosure on north Reeds Beach. Only small numbers of Red Knot and Ruddy Turnstone (less than 100 at a time) penetrated into the exclosure where they were generally rather nervous, easily disturbed and then slow to return. A small number of gulls became habituated and regularly entered the exclosures towards the end of the period, deftly flying out between the nylon wires when disturbed.

It is clear that the current designs are not yet achieving the ideal goal of excluding gulls but letting in shorebirds. Various suggestions have been made for alternatives to be tried in 2007 (including possibly decoys and tape lures). The benefits to Horseshoe Crabs of the exclosures are also being examined. However results are not yet available of egg sampling carried out within the exclosures and on adjacent sections of the beach.

Other activities

Considerable assistance was given to a veterinary team from Georgia, which is examining the incidence of avian-borne diseases in shorebirds and gulls. Many hundreds of cloacal swabs and blood samples were collected. Data collected in 2005 has shown a relatively high incidence of previous exposure to flu type viruses in the Ruddy Turnstone population in Delaware Bay compared to populations elsewhere and to other shorebird species. It will be particularly interesting to see if a similar result comes out of the 2006 work.

There were numerous visits by the media who now have a great interest in the Red Knot decline and the battles in recent years to try and decrease the level of Horseshoe Crab harvesting. Just before the current migration season the Atlantic Coast Fisheries Marine Council rejected a request for a complete moratorium on all Horseshoe Crab harvesting. Instead they allowed a catch of 100,000 male only Horseshoe Crabs in each state from June 7th. However, New Jersey has created legislation which may override this. There was also a visit by seven Congressional aides from Washington who came to familiarize themselves firsthand with the Horseshoe Crab problem and the shorebird studies.

In addition, a most successful one-day conference was held at the Forsyth National Wildfowl Refuge Centre. with 12 members of the New Jersey "team" making presentations. Eight of these covered various aspects of the studies carried out over the last ten years on Delaware Bay and four, for comparative purposes, covered studies in the East Asian/Australasian Flyway. The latter were by Chris Hassell (banding at Chongming Dao in China), ChungYu Chiang (shorebird studies in Taiwan), Clive Minton (the results of wader studies in Australia) and Dick Veitch (wader studies in New Zealand).

The future

It is currently planned that shorebird studies will be continued for several more years on both sides of Delaware Bay, and on the Stone Harbor and Virginia sections of the Atlantic coast. The first major target is a halt in the population declines, with actions designed in the light of the extensive research information being generated. It is clearly going to be a long-term process to significantly reverse the decline and get populations moving back towards their former levels. Convincing everybody that it will require even tougher conservation methods than currently in place is still a major obstacle to success.

The Book is Coming: the Details



Shorebirds of Australia

Andrew Geering Queensland Wader Study Group

Lindsay Agnew

Sandra Harding

Illustrations, Tables, Bibliography, Index

216 pages, 248 x 170 mm

Publisher: CSIRO PUBLISHING

January 2007 **FORTHCOMING**

Description

Shorebirds of Australia brings together the latest information about the evolutionary history, taxonomy, migration and breeding and feeding ecology of shorebirds found in Australia.

Complete with colour photographs and up-to-date distribution maps, it provides descriptions and tips to assist with the identification of all species of shorebird in Australia, which comprise about 10 per cent of Australia's total avifauna. In addition to information about their habitats, their most significant threats are mentioned, as well as actions in place to help conserve these birds.

The book is a valuable reference for a broad range of people, from the amateur birdwatcher and field naturalist to professional ornithologists and land managers entrusted with the responsibility of managing Australia's natural resources, especially its wetlands and coastal regions.

Features

- Colour photographs and up-to-date Australian distribution maps of all shorebirds in Australia (excluding vagrants)
- Overview of all aspects of the biology and conservation of shorebirds based on the latest scientific literature
- Information about the habitats of shorebirds, which will assist with the identification of these important birds
- Describes the most significant threats to shorebirds in Australia and the East Asian-Australasian Flyway and actions in place to help conserve these birds

Contents

Preface

Acknowledgements

List of authors and affiliations

Chapter 1 – Evolutionary history and taxonomy

Chapter 2 – Breeding ecology

Chapter 3 – Migration

Chapter 4 – Feeding ecology and habitat selection

Chapter 5 – Plumages and topography

Chapter 6 – Species descriptions

Chapter 7 – Threats to shorebirds and conservation actions

References

Readership

- Ornithologists, both amateur and professional
- Natural history enthusiasts and birdwatchers
- Professionals involved in the management or utilisation of coastal resources
- Environmental consultants
- Eco-tourism operators and educators
- Secondary school science teachers and students
- Undergraduate teachers and students
- Environment departments in federal, state and local governments

Large count of Pacific Golden Plover, *Pluvialis fulva*

It has been estimated that about 10% of the world population of 90 000 Pacific Golden Plover migrate to Australia during the non-breeding season, which is a total of about 9000 birds. However if counts of this species in recent years is any indication this species has declined quite dramatically at many count sites. For example, Moreton Bay in Queensland has been attributed with over 2000 birds and the Hunter River estuary in New South Wales with 800 Pacific Golden Plover 20 years ago. Neither of these sites regularly had more than 25% of those counts in recent years.

One site in NSW, the Shoalhaven River estuary, seems to have bucked this trend of late with regular counts in summer 2005 and summer 2006 of over two hundred birds and counts this year of over 315 birds (R. Worrell and M. Jarman, pers. comm.) The observations are similar to a maximum count for this site reported in 1990 (Smith, 1991) of 312 birds.

It is usually assumed that declines of migratory species that reach Australia are the result of impacts (for example habitat loss or hunting) within the migratory flyway rather than at over-wintering grounds in Australia. However, counts such as those at the Shoalhaven could be an indication that habitat changes at many sites in Australia could be affecting local populations. Pacific Golden Plover have an affinity to saltmarsh habitats, at least as roosting habitat, a habitat which has declined along the south eastern coastal areas where most Pacific Golden Plover counts are made. The Shoalhaven River estuary is one of the few estuaries in NSW where saltmarsh habitat has remained stable since counts started in Australia.

Saltmarsh habitat (high tide roost habitat) and sandflats (feeding habitat) has remained relatively stable in Shoalhaven River estuary for almost two decades. The relatively long (18 year) absence of large floods in the Shoalhaven River estuary may have encouraged stability and subtle accretion of the sediments supporting wader habitat. There are indications that saltmarsh areas at Comerong Lagoon important to Pacific Golden Plover, Eastern Curlew & Pied Oystercatcher are being invaded slowly by the Grey Mangrove *Avicennia marina*. It may be only a matter of time before a decline in the number of Pacific Golden Plovers occurs in the estuary unless management strategies are put in place.

Reference: R Smith (1991) The biology and management of Waders (Suborder Charadrii) in NSW NSW NPWS Species Management Report Number 9.

Phil Craven, NSW Department of Environment and Conservation, Nowra Phil Straw, AWSG

NEW MEMBERS

We welcome the following new member who have joined recently :

Amber PERRY
Owen PROWSE
Ted WNOROWSKI

Many thanks too to those who have included a donation with their renewal or membership fee. This is greatly appreciated as such donations make on-going work possible.

WADER WATCH Linda and Phil Cross, Joyce Harding**Leg Flag Banding Legend** (colour = where banded)

- Green = Brisbane/Queensland
- Orange = Victoria
- Yellow = Northern Western Australia
- White = New Zealand (some species banded in New South Wales)
- Blue = Japan

There are more leg flag sightings detailed in this newsletter.

Green leg flag sightings

In each Qld Wader issue there is quite a number of green leg flag sightings recorded within Moreton Bay, which is where the bird was banded originally. As we are now seeing more leg flag combinations from other countries in Queensland, and have limited space available for sightings, we will not be listing each individual sighting of the green flag records in Queensland unless there is a significant movement of the bird. Instead, we will list the number of flags for each species and the period in which they were seen.

Green leg flag sightings

2 Eastern Curlew – Manly Boat Harbour – Heather Smith, Kath Shurcliff & Dave Houghton – 12.08.06

1 Eastern Curlew – Manly Boat Harbour – David Milton et al – 13.05.06

Interstate & overseas Green leg flag sightings

(Errata: the record of 1 Bar-tailed Godwit – Miranda, Firth of Thames, NI, New Zealand – Tony Habraken & Phil Battley – 01.02.06, which appeared on page 10 in issue No. 56 is incorrect. The date should read 11.02.06. The record of 1 Bar-tailed Godwit – Miranda, Firth of Thames, NI, New Zealand – Phil Battley – 08.10.04, which also appeared on page 10 of issue No. 56 is incorrect. The species should read 1 Red Knot)

1 Bar-tailed Godwit – Namyang Bay (Unpyong-ri), Republic of Korea (South Korea) – Park Hun-woo – 14.05.06

1 Bar-tailed Godwit – Simpo, Republic of Korea (South Korea) – Simon Cohen, Nial Moores, Rob Schuckard, Jan van der Kam & Ken Gosbell – 28.04.06

1 Bar-tailed Godwit – Shellfishery Harbour, Republic of Korea (South Korea) – Danny Rogers – 17.04.06

1 Bar-tailed Godwit – Shellfishery Harbour, Republic of Korea (South Korea) – Nial Moores – 16.04.06

1 Bar-tailed Godwit – Miranda, Firth of Thames, South Auckland, NI, New Zealand – Phil Battley – 08.03.06

1 Bar-tailed Godwit – Whitford, Auckland, NI, New Zealand – PFB, SJM – 13.02.06

1 Bar-tailed Godwit – Kiwi Esplanade, Manukau Harbour, NI, New Zealand – Phil Battley – 30.01.06

1 Bar-tailed Godwit – Miranda, Firth of Thames, South Auckland, NI, New Zealand – Phil Battley – 03.11.05

1 Bar-tailed Godwit – Whitford, Auckland, NI, New Zealand – Phil Battley – 25.10.05

1 Great Knot – sandbank off airport, Republic of Korea (South Korea) – Adrian Boyle, Nial Moores, David Melville & Ju Yun-gi – 16.05.06

1 Great Knot – Shellfishery Harbour, Republic of Korea (South Korea) – David Melville, Adrian Boyle & Kelly White – 15.05.06

Orange leg flag sightings

1 Eastern Curlew – Manly Boat Harbour – Heather Smith, Kath Shurcliff & Dave Houghton – 12.08.06

1 Eastern Curlew – Pine Rivers Wetland Reserve – Floss Wainwright & Ken Cowell – 12.08.06

1 Bar-tailed Godwit – Manly Boat Harbour – Heather Smith, Kath Shurcliff & Dave Houghton – 12.08.06

1 Bar-tailed Godwit – Toorbul – Jill Denning – 12.02.06

1 Bar-tailed Godwit – Toorbul – Jill Denning – 17.12.05

1 Red Knot – Toorbul – Jill Denning – 06.02.06

1 Red-necked Stint – Mt. Isa sewerage ponds – Barbara Gilfedder – 14.05.06

White (New Zealand) leg flag sightings

No sightings

Blue (Japanese) leg flag sightings

1 Grey-tailed Tattler – blue flag left tibia – Toorbul – Jill Dening – 15.03.06 ((Hokkaido, Northern Japan)

Other wader leg flag sightings

No sightings

Other leg flag sightings and banded birds

1 Caspian Tern – orange flag right tarsus and metal band left tarsus – Fisherman Island – David Edwards et al – 13.08.06

Interesting sightings

Please note these sightings are not authenticated records.

* = to be submitted to BQ RAC ** = to be submitted to BARC

567 Grey-tailed Tattler – Fisherman Island – Peter Rothlisberg, Jon Coleman & Pat Stockwell – 13.08.06

13 Bush Stone-curlew – Pioneer River, Mackay – Les & Dawn Thyer – 08.08.06

20+ Bush Stone-curlew – Seaforth town area – Peggy Harding & Stella Mearns – 14.07.06

78 Red-necked Avocet – Deception Bay roost – Phil & Linda Cross – 12.08.06

104 Red-necked Avocet – Trutes Bay, Tweed Heads, NSW – Marion Williams & Laurel Allsopp – 22.07.06

172 Red-necked Avocet – Fisherman Island – QWSG counters – 16.07.06

52 Ruddy Turnstone – Fisherman Island – QWSG counters – 16.07.06

6 Sanderling – Mirapool Beach, Moreton Island – Ivell Whyte et al – 14.07.06

111 Red-capped Plover – Luggage Point – Ivell & Jim Whyte – 13.05.06

21 Red-kneed Dotterel – Pine Rivers Northside – David Edwards – 13.05.06

Not waders but of interest anyway

1858 Little Black Cormorant – Fisherman Island – Peter Rothlisberg, Jon Coleman & Pat Stockwell – 13.08.06

1 White-necked Heron – Bishop's Marsh, Toorbul – Esther Townsend – 13.08.06

4 White-necked Heron – Young Ave, Kinka Beach, Yeppoon – Allan Briggs – 12.08.06

1 Australasian Gannet – diving in Bay off Manly Boat Harbour – Heather Smith, Kath Shurcliff & Dave Houghton – 12.08.06

16 Lesser Crested Tern – Manly Boat Harbour – Heather Smith, Kath Shurcliff & Dave Houghton – 12.08.06

1 Australasian Shoveler – Tweed Heads Sewerage Works – Ian Watson & Laurel Allsopp – 17.07.06

4 Eastern Reef Egret – Cooloola roost, Tin Can Bay – Kelvin & Amelia Nielsen & Dorothy Paschniak – 15.07.06

109 Australian Pelican – Sandbank No 1, Caloundra – Jill Chamberlain – 15.07.06

263 Australian White Ibis – Geoff Skinner Reserve – Peter Rothlisberg & Michele Burford – 15.07.06

500+ Magpie Goose – BP truck stop Mackay – Floss Wainwright & Ken Cowell – 11.07.06

2 Yellow-billed Spoonbill – BP truck stop Mackay – Floss Wainwright & Ken Cowell – 11.07.06

10 Glossy Ibis – BP truck stop Mackay – Floss Wainwright & Ken Cowell – 11.07.06

1 Mangrove Robin – calling in mangroves at Pioneer River Mouth, Mackay – Les & Dawn Thyer – 10.07.06 (first record for area)

123 Wandering Whistling Duck – Kingscliff Sewerage Plant – Ian Watson & Laurel Allsopp – 10.07.06

1 Boobook (juvenile) – Kingscliff Sewerage Plant – Ian Watson & Laurel Allsopp – 10.07.06

1 White-necked Heron – Trutes Wetland, Tweed Heads – Ian Watson – 07.07.06

1 Southern Giant Petrel (juvenile dark morph) – Sandy Cape, Fraser Island – Donald & Lesley Bradley – 07.06.06

1 Southern Giant Petrel (juvenile dark morph) – washed up on beach at Sandy Cape, Fraser Island and subsequently died – Donald & Lesley Bradley – 07.06.06

231 Black Swan – on water at Toorbul – Dez Wells – 14.05.06

279 Australian White Ibis – Beck Road, Caloundra – Jill Chamberlain – 14.05.06

1 Wedge-tailed Eagle – Young Ave, Kinka Beach, Yeppoon – Barry Ellis – 13.05.06

414 Chestnut Teal – Luggage Point – Ivell & Jim Whyte – 13.05.06

1 Common Noddy – Noosa River Sandbanks – Jill Dening – 14.01.06

6300 Common Tern – Noosa River Sandbanks – Jill Dening – 14.01.06

Count Programme by Linda Cross

Thank you for the quick returns of most count sheets for the **National Winter Count**. Unfortunately some sites were not surveyed, which is disappointing as this would affect the long term study of these sites and birds. It is very important that we try to ensure that the two annual national counts are conducted, so please let me know in advance if you cannot do them.

Since the last newsletter it has been relatively quiet regarding the wader numbers due to the fact that this time of year, most of them are probably in the northern hemisphere. However, the southern migration is underway now with the Eastern Curlew being the first species to arrive. One sporting an orange leg flag was spotted at Manly Boat Harbour during the August count, and another also sporting an orange leg flag seen at Pine Rivers Wetland Reserve, so clean off your scopes and get ready for the return of our most frequent flyers. Please remember to keep a look out for any flagged waders and report them to us as soon as possible.

There is also another important survey that counters can do during their counts, which will help assess the breeding results of the birds. When doing your count remember to check for juvenile birds in the flock and record the figure on the count sheet. Godwits are one of the easier birds to do during this exercise because the young birds have the spotting, which really helps distinguish between adult and juvenile bird.

The east/west migration of Double-banded Plover should be completed before most of the arrival of north/south migratory waders. Although not all count sheets for August have arrived yet I have extracted details from those counts already received. A large number of the species were seen in near full breeding plumage.

Double-banded Plover

Fisherman Island – 8 on 13.08.06 and 23 on 16.07.06
 Cooloola roost, Tin Can Bay – 1 on 13.08.06
 Geoff Skinner Reserve – 14 on 12.08.06 and 26 on 15.07.06
 Manly Boat Harbour – 20 on 12.08.06 and 47 on 15.07.06
 King Street, Thorneside – 11 on 12.08.06 and 4 on 15.07.06
 Shallow Bay, Tweed Heads – 13 on 22.07.06
 Tony's Island, Tweed Heads – 10 on 15.07.06
 Sandbank No. 2, Caloundra – 6 on 15.07.06
 Day's Gutter, Moreton Island – 4 on 14.07.06
 Reeders Point, Moreton Island – 44 on 14.07.06
 Mirrapool Beach, Moreton Island – 1 on 14.07.06
 Maroochy River – 23 on 14.07.06
 Caboolture River Mouth – 10 on 13.05.06, 14 on 14.07.06
 Noosa River Banks – 34 on 25.06.06

During the winter months Black-fronted and Red-kneed Dotterels are seen at a number of sites. We have a few records of fairly large numbers of Red-kneed Dotterels using the Pine Rivers Northside site during past years, and in May a total of 21 were seen during the count.

Black fronted Dotterel

5 at Tin Can Bay Sewerage Works on 13.08.06
 2 at Geoff Skinner Reserve on 12.08.06
 2 at Point Halloran Reserve on 12.08.06
 5 at Tin Can Bay Sewerage Works on 15.07.06
 3 at Cooloola roost, Tin Can Bay on 15.07.06
 5 at Tin Can Bay Sewerage Works on 14.05.06
 6 at Young Ave, Kinka Beach, Yeppoon on 13.05.06

Red-kneed Dotterel

3 at Pine Rivers Northside on 12.08.06
 21 at Pine Rivers Northside on 13.05.06
 4 at Luggage Point on 13.05.06

Breeding records

Only one breeding record of: Masked Lapwing – one bird sitting on 4 eggs – Maaroom – 13.08.06
 Happy counting Linda.

WADER ID DAYS for 2006

Sunday 24th September 2006 at Toorbul

High tide at 10:26 (plus 30 minutes later for Toorbul) of 2.04m. Meeting time 09:00am.

Take the Bruce Highway north from Brisbane to the Donnybrook/Toorbul exit (a large billboard advertising Humble Pie is on the left just prior to the exit. Turn off here and head east over the highway overpass. Continue on this road to Toorbul. Turn right at the T-junction then first left and then right, which brings you onto the Esplanade. Follow this road to the end (approximately 2kms); we will be on the left.

Bring water, food and a chair. It is a good idea to have a hat, sunscreen and insect repellent. Most importantly bring your binoculars or telescopes. Hopefully we can provide the answers to all your questions.

Please contact either Phil & Linda Cross (07) xxxx xxxx or David Edwards (07) xxxx xxxx if you have any questions.

Saturday 11th November 2006 at Toorbul

High tide at 13:42 (plus 30 minutes later for Toorbul) of 2.11m. Meeting time 12:00noon.

Take the Bruce Highway north from Brisbane to the Donnybrook/Toorbul exit (a large billboard advertising Humble Pie is on the left just prior to the exit. Turn off here and head east over the highway overpass. Continue on this road to Toorbul. Turn right at the T-junction then first left and then right, which brings you onto the Esplanade. Follow this road to the end (approximately 2kms); we will be on the left.

Bring water, food and a chair. It is a good idea to have a hat, sunscreen and insect repellent. Most importantly bring your binoculars or telescopes. Hopefully we can provide the answers to all your questions.

Please contact either Phil & Linda Cross (07) xxxx xxxx or David Edwards (07) xxxx xxxx if you have any questions.

New Wader Study Group for South Australia

In South Australia there is a network of 'Friends of the Parks' volunteer groups under the umbrella of the state Department of Environment and Heritage. It is as part of this network that we have formed a new group in the South East of South Australia. One of our aims is to bring together various groups, and individuals, who have been working with shorebirds in the south east (SE) for many years. Jeff Campbell, a past editor of Stilt, is President and Maureen Christie is Secretary. The group works closely with the Australasian Wader Studies Group (AWSG), Victorian Wader Study Group and Birds South Australia, with members and projects overlapping.

Activities are varied, and include AWSG Population Monitoring at two sites, counting of the wetlands between the Coorong and the Victorian border, banding and flagging, monitoring of Little Tern and a research project on local movement and site fidelity of Ruddy Turnstone.

Perhaps the most exciting aspect of our work to date, has been our involvement with fieldwork in the Coorong during the Red-necked Avocet and Banded Stilt breeding event. We have also coordinated the monitoring of a small colony of breeding Little Tern near Port MacDonnell.

Anyone interested in any aspect of our work is invited to contact the Secretary, Maureen Christie, on 08 xxxx xxxx.

QWSG CONTACTS

QUEENSLAND WADER

The Official Quarterly Publication of
Queensland Wader Study Group

MEMBERS OF THE MANAGEMENT COMMITTEE OF THE QWSG

<u>CHAIRPERSON:</u>	David Milton	(07) xxxx xxxx	
<u>TREASURER:</u>	Sheryl Keates	(08) xxxx xxxx	or xxxx@xxxx.com.au
<u>SECRETARY:</u>	Peter Rothlisberg	(07) xxxx xxxx	
<u>NEWSLETTER EDITOR:</u>	David Edwards	(07) xxxx xxxx	
<u>COUNT COORDINATOR:</u>	Linda Cross	(07) xxxx xxxx	

COMMITTEE MEMBERS:

Dawn Beck	Ken Cowell
Andrew Geering	Joyce Harding
Sandra Harding	Des Wells
Ivell Whyte	

CORRESPONDENCE

All correspondence to:
The QWSG Chairperson,
xxxxxxxxxx.,
xxxxxxxxxx
QLD 4xxx

CHANGE OF ADDRESS

Please notify the Treasurer as soon as possible of any change of address so that your Newsletter can be dispatched correctly.

SUBSCRIPTIONS

Annual subscription rates:
Single: \$15:00
Student/Pensioner: \$10:00
Family \$25:00

Receipt will be forwarded with next edition of Queensland Wader.

Forward application to:
QWSG Treasurer,
xxxxxxxxxxxxxx
xxxxxxxxxx
NT 0xxx

Members are reminded their membership expires on the date shown on the newsletter address label, and the membership joining/renewal form is now on the back page. Note that your subscription will fall due twelve (12) months after date of joining the QWSG or date of renewal. Only one further newsletter will be sent after expiry of your subscription.

Copy Deadline for the next issue of Queensland Wader is November 18th 2006

Contributions should be addressed to:

David Edwards, The QWSG Editor, xxxxxxxxxxxxxxxxxxxxx, Qld 4xxx
or E-mail to: xxxx@xxxx.com.au

Computerised contributions should be in IBM Word, ASCII or Rich Text.

Opinions expressed in Queensland Wader are those of the individual contributors and are not necessarily those of the Queensland Waders Study Group, nor the Queensland Ornithological Society Inc.

Advertising Rates are \$20:00 for one quarter page and \$25:00 for a third of a page.

PRINTED BY: Mr Bob Durrington of J.R. Durrington & Sons Pty Ltd.

Other Conservation Activities of Interest



QWSG is a special interest group of the Birds Queensland Inc. whose object is: "To promote the scientific study and conservation of birds by all means possible, with particular reference to the birds of Queensland".

Separate membership is required. Contacts: President, David Niland (07) xxxx xxxx; Secretary, John Holt (07) xxxx xxxx; Treasurer, Les Taylor (07) xxxx xxxx.

Monthly Meetings Birds Queensland - 7.45pm
 1st Thursday each month except January, when there is no meeting.
 Royal Geographical Society Meeting Room, 237 Milton Road, Milton.
 Arrive after 7:15pm for a 7:45pm start.

QWSG MERCHANDISE

Should you wish to purchase any of the QWSG Merchandise, items may be purchased at BQ Inc meetings held 1st Thursday of the month at the Royal Geographical Society Rooms OR....

Contact or E-mail at xxxx@xxxx.com.au

Postage is not included in the prices quoted.

Books \$19:80 Shorebird Conservation in the Asia-Pacific Region.
 \$ 3:30 A Guide to Waders of Moreton Bay (through Birds Queensland)
 \$24:00 Slater Field Guide to Australian Birds

No longer in stock: Birds of Bribie Island, Pumicestone Passage and Environs
 Wildflowers of Bribie Island
 However, can be obtained from BIEPA by contacting
 Kathleen Catalan on 07 xxxx xxxx
 A Birdwatcher's Guide to Redcliffe, Pine Rivers and Caboolture Shire.
 However, can be obtained from WPSQ Caboolture branch by contacting
 Brian & Eileen Rigden on 07 xxxx xxxx
 Polo Neck Shirts.
 CD Bird calls of the Broome region (includes 42 Wader Species).
 Cloth Badges.

POLO SHIRTS, CLOTH BADGES & METAL BADGES

We are currently looking at organising new stock of polo shirts and badges from new suppliers and would like to hear from members who are interested in purchasing any of the two items mentioned. This will be particularly helpful for us when placing the order in relation to sizes, colour etc. People who contacted us previously with their choice of colour and size need to contact us again please as there will be colour changes.

The polo shirts will be two or three tones in colour and can be purchased with a pocket or without a pocket. At this point in time we do not have a costing for them and are therefore unable to give you a price. We have 5 Polo Shirts left from previous stock (all are large size - 4 Beige and 1 Jade) and we are clearing them out at below cost price of \$15 + postage and handling. If anybody is interested please contact Linda.

We have new metal QWSG logo badges available for sale. The badge has been made like the logo that appears on the front top right corner of this newsletter with pale grey for the sand, blue ocean/sky and the godwit is pale grey, black/brown with a little white. They are 3½ cm in size and are very stylish. Price is \$5 + postage and handling.

Please contact Dawn Beck on 07 xxxx xxxx or Ivell Whyte on xxxx xxxx



Count Activities 2006

QWSG High Tide – Monthly Count Programme – 2006

Sat 9th Sep 2.16m at 10:30
 Sat 7th Oct 2.25m at 09:24
 Sat 4th Nov 2.27m at 08:17
 Sat 9th Dec 2.29m at 12:25

Port of Brisbane Count Dates – 2006

Sun 10 th Sep	2.22m at 11:16	Meet 09:25
Sun 8 th Oct	2.35m at 10:09	Meet 08:20
Sun 5 ^h Nov	2.40m at 09:03	Meet 07:15
Sun 10 th Dec	2.18m at 13:06	Meet 11:15

PLEASE CHECK TO SEE IF YOUR RENEWAL IS DUE!



MEMBERSHIP/RENEWAL APPLICATION

I / We wish to join / renew: (Single \$15; Family \$25; Student/Pensioner \$10)

Title..... First name:Surname Name:.....
 Address:..... Membership: \$.....
 Postcode:..... Donation: \$.....
 Phone: (Home) (Work) Payment enclosed: \$.....
 Fax / e-mail:
 TOTAL \$.....

How did you hear about QWSG
 Are you a member of Birds Queensland?.....
 What activities do you wish to participate in? (Please circle)
 WADER COUNTS, FIELD TRIPS, SCIENTIFIC DATA COLLECTION, SURVEYS, CLERICAL,
 OTHER (specify.....)
 SIGNATURE: DATE:.....

Post to: QWSG Treasurer, xxxxxxxxxxxxxxxxxxxxxx NT 0xxx
 Cheques to be made out to: Queensland Wader Study Group

For a direct credit, please use the following details. An email advice to Sheryl Keates xxxx@xxxx.com.au would be appreciated.

Account name: Qld Wader Study Group
 Account number: xxxxxxxx
 Financial Institution: Uni Credit Union
 BSB: xxxxxxxxxxxx

