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# Newsletter for the Asia Pacific Flyways

No 22: August 2011

### In this issue:

NW Australia Wader and Tern Expedition	1
Flagged Shorebirds from Thailand	2
Birds Flagged in Chukotka	2
Geolocator Tracking of Shorebirds	3
Chongming Dongtan Banding Report	3
Award for Beach-nesting Birds Project	6
Heritage Expeditions & Spoon-billed Sandpipers	7
Mangroves to Protect Shorebird Habitat	9
Concerns about Leg-flagging of Waders	10
Declines in Moreton Bay Shorebirds	11
Dam Proposal Poyang Lake	12

Tattler is the quarterly newsletter of the Australasian Wader Studies Group. Contributions are welcome and encouraged for all working with shorebirds and their habitats along the East Asian - Australasian Flyway.

Please contact the editor for more information.

### **Editorial**

Since August 2007, Lisa Gale has done a wonderful job of editing the Tattler, gathering input from contributors and collating several issues each year. She has helped to keep us all up-to-date on a diverse range of issues affecting shorebirds. We thank her for her efforts and wish her well in juggling parenthood and a new job.

This edition of Tattler invites you to participate in the 2012 Wader and Tern Expedition to NW Australia – a great opportunity to mix with like-minded enthusiasts while working closely with shorebirds. Other features highlight the importance of community engagement and corporate sponsorship in implementing programs to protect shorebirds. Results of leg-flagging are discussed and the need for regular monitoring of shorebirds is emphasized – without the hard evidence provided by these programs, governments are unconvinced about the urgent need to protect and conserve shorebird habitat along the entire Flyway.

Now that southward migration has commenced, the excitement of spotting flagged shorebirds is an added bonus to our bird-watching - and every re-sighting helps to fill in the missing links in the migration maze.

# Northwest Australia Wader and Tern Expedition 2012

A series of special expeditions has taken place over the years to undertake comprehensive long-term studies of the waders and terns in NW Australia. A further major NW Australia Wader and Tern Expedition will take place from **Saturday 18th February to Saturday 10th March 2012**.

A large number of people will be needed if a satisfactory team is to be available throughout this three-week period. Anyone interested in participating in the next expedition is encouraged to participate.

### **Objectives**

The fieldwork program will, as usual, principally consist of regular banding and appropriate counting of waders and terns at two locations (Broome and 80-Mile Beach).

The specific objectives of this Expedition are:

- To obtain an estimate of the relative breeding success in the 2011 Arctic breeding season of all the main species of migratory waders. This is achieved by measuring the proportion of juveniles in catches.
- To catch additional samples of species which are less frequently caught in NW Australia, e.g. Black-tailed Godwit, Whimbrel, Grey Plover, Greenshank, Oriental Plover, Eastern Curlew, Little Curlew, Oriental Pratincole.
- To continue the program of putting individually lettered/numbered Yellow leg flags on all the main medium/large migratory wader species caught at Broome. This is to facilitate the collection and calculation of survival rate data in the future. The use of engraved flags has also been extended to some "freshwater" species of waders mist-netted at Roebuck Plains.

Compiled and published by the Australasian Wader Studies Group

A Special Interest Group of Birds Australia www.awsg.org.au

### **Itinerary**

A proposed itinerary for the 3-week period of fieldwork is available (see below). In summary:

- Broome/RoebuckBay(includinginlandlocations)
  8 days
- 80 Mile Beach/Anna Plains 9 days
- Travel between locations 2 days
- Rest day 1 day

### Costs

Participants will be responsible for the costs of travelling to join or leave the expedition at Broome or 80-Mile Beach. When in NW Australia costs for participants will be:

- a) a charge of **\$32 per day** to cover the cost of food, gas, laundry, other consumable items (electrical fuses, batteries etc.) and other equipment costs/ overheads;
- b) a charge of **\$270 per week** for local transport costs (hire of 4WD, fuel, servicing of other vehicles);
- c) camping or accommodation costs at Broome Bird Observatory. **Accommodation bookings should be made directly with the BBO; a deposit may be required** PHONE: +61 8 9193 5600 E-mail bbo@birdsaustralia.com.au.
- d) "use" charge at Anna Plains of **\$10 per person per night** (expedition will pay to the station on your behalf but we need to cover the cost). We hope to be able to use one of the buildings at the Anna Plains homestead as our base (as usual).

The above charges (a) and (b) and (d) are collected periodically by the expedition "treasurer". Cash or cheques are equally acceptable (no credit cards). BBO accepts credit cards for charges under item (c) above. All participants, other than local residents, will be expected to be full members of the team, residing at the one location. "Self catering" is not permitted.

### **Travel**

Broome is easily reached by air (direct from Perth, Darwin, Melbourne or Sydney). Connections from Queensland (Brisbane or Cairns) usually go via Darwin. Buses also run from Perth and Darwin.

People are strongly encouraged to come for **the whole period of three weeks**. This maximizes efficiency with everyone becoming fully integrated into the team. It maximises enjoyment and benefits, and enables everyone to contribute as well as to learn.

For full details see:

www.awsg.org.au/pdfs/NWA-Expedition-2012.pdf or contact Clive Minton, 165 Dalgetty Road, Beaumaris, VIC. 3193. Australia. Phone 61-3-9589 4901 <a href="mailto:mintons@ozemail.com.au">mintons@ozemail.com.au</a>, or Chris Hassell, Ph. 61-8-9192 8585 turnstone@wn.com.au

# Flagged Shorebirds from Thailand

Between 2007 and the present, over 10,000 waders have been flagged and banded in Thailand by the Department of National Parks, Wildlife and Plants Conservation under a national program for wild bird surveillance. This has resulted in well over 100 foreign re-sightings of Thai-flagged waders, most from the coasts of E and NE China, with others from Malaysia, Singapore and Indonesia. Roughly half of all waders flagged are Greater and Lesser Sand Plovers, for which Thailand holds internationally important wintering populations. We have yet to receive any re-sightings of either species in any country to the north of Thailand. Since the race(s) of Lesser Sand Plover that winter in Thailand are in the "atrifrons group" (probably mostly Charadrius mongolus schaeferi), which breeds in Central Asia [along with Greater Sand Plover], this lack of re-sightings is understandable, given the huge land areas and the paucity of observers in that region. We appeal to observers making birding trips in Mongolia, Western China, and other central Asian countries in the summer months to look carefully at any waders they see in order to search for birds bearing coloured legflags. Thailand uses a black flag placed above a green flag. It is important to record both the shape of the flag (oblong or triangular), and whether the flags are on the right or left leg. (The flags may be both on the tibia, or with the black flag on the tibia and the green flag on the tarsus - precise position of the flags on the leg is not relevant to the re-sighting). We should be most grateful for any reports of flagged waders. Re-sightings of flagged birds may be reported via the Australasian Wader Study Group web-page using the form provided <a href="http://www.awsg.org.au/reportform.">http://www.awsg.org.au/reportform.</a> php or direct to Ms Duangrat Phothieng, Department of National Parks Wildlife and Plants Conservation, Bangkok, Thailand <pothieng@hotmail.com>

Philip D. Round, Regional Representative, The Wetland Trust, Assistant Professor, Department of Biology, Faculty of Science, Mahidol University, Rama 6 Road, Bangkok 10400 Thailand Tel. 66-2-201-5278 (office); 66-2-445-7306 (home) Fax 66-2-445-7307 mobile 081-914-8675

# Birds Flagged in Chukotka

Pavel Tomkovich has banded birds at Meynypoligyno, South Chukotka, Siberia 2011 with the light green (lime) Chukotka flag and some with a three-letter engraved white flag.

**Red Knots:** 11 white 3-letter engraved leg flags deployed all start with CK. (Of note, CKT was used but looks like CKI on one side.) 4 of these, all males, carry yellow data-loggers 1 male has a lime flag and a yellow data-logger. 20 chicks were banded and have lime flags.

**Pacific Golden Plover:** 8 are carrying data-loggers. It is anyone's guess where they might turn up but worth looking for.

Please report any sightings to Adrian Riegen on <a href="mailto:riegen@xtra.co.nz">riegen@xtra.co.nz</a> and to the Australasian Wader Studies Group.

# More News on Geolocator Tracking of Shorebirds

The world's attention was drawn to the highly successful plotting of the return migration route of a Ruddy Turnstone from South Australia, to its high Arctic breeding grounds in Siberia via Taiwan and the Yellow Sea, and then back. The interesting thing is that this bird flew across to Alaska before crossing the Pacific back to South Australia, stopping off on the Pacific island of Kiribati. Now we had a pattern for the migration of the Ruddy Turnstone, or so we thought! While the northward migration appears straightforward the return migration is highly variable. During the southward flight in 2010 one bird flew inland to Mongolia before returning to Australia, several flew back the same way they went and two crossed to Alaska before returning. One of these was the now famous bird that crossed the Pacific with a single stop on southward migration in 2009, but this time (2010) the bird stopped at the Marshall Islands and Vanuatu on its way south. The other bird crossed directly to Papua New Guinea from Alaska (8000km) before returning to its capture site.

The behind-the-scenes work has been rather hectic, and often very frustrating. Firstly the birds to be tracked have to be caught and fitted with geolocators, that's the easy bit (comparatively speaking). The next stage is catching the same bird on its return to Australia, not so easy! Once this has been achieved the data has to be downloaded and analyzed, usually the job of Ken Gosbell with backup from the British Antarctic Survey (BAS) team. This is where the frustration sets in.

Of the 105 geolocators deployed in March/April 2010, 60 have been seen since birds returned from their migration to the Northern Hemisphere; 41 of these have been retrieved by recapture and removed from the birds. However it is possible that more geolocators will be recovered as time goes by.

Disappointing news was that all Mark 12 units fitted to Greater Sand Plover in NW Australia had failed within six weeks of being fitted, enough time to track them to their breeding grounds. However, two of these units used on Ruddy Turnstone from King Island, in Bass Strait, gave complete migration records. However, the good news is that the nine complete migration records on Ruddy Turnstone provided excellent information.

The geolocator program was expanded in 2011 with 122 new geolocators applied in February/April 2011 - 46 on Ruddy Turnstone, 29 on Greater Sand Plover, 24 on Sanderling and 23 on Eastern Curlew. A different geolocator (Mark 10B), as well as some new test units, were fitted to Greater Sand Plover in NW Australia and more geolocators have been fitted to Ruddy Turnstone.

The work carried out by the AWSG in partnership with Marcel Klaassen (Deakin University) would not have been possible without funding from Kimberley Clark, Nature Foundation S.A, the Wettenhall Foundation and Deakin University.

# 2010 Shorebird Banding - Chongming Dongtan National NR

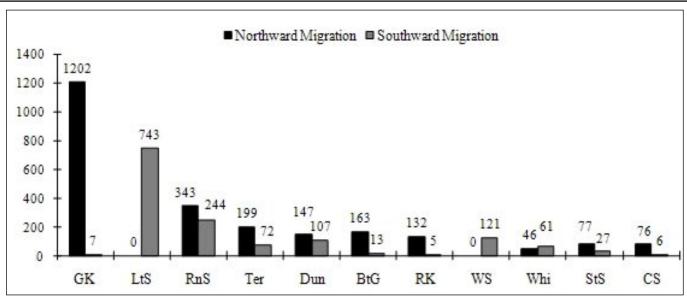
Chongming Dongtan National Nature Reserve (CDNNR) (31° 30′N, 122° 05′E) is located on the eastern end of Chongming Island, which is in the Yangtze River estuary. As an estuarine wetland, consisting of salt marshes and mud flats, Chongming Dongtan has about 102 km² available area for shorebirds and other wildlife, and it is part of the East Asia-Australasia Flyway as an important stop-over area for migrating birds. It is estimated that Chongming Dongtan supports as many as 250,000 migrating and wintering waterbirds every year. CDNNR has been recognised as a Ramsar site and listed as one of BirdLife's 'Important Bird Areas'.

From 2002, we have conducted shorebird banding twice a year, respectively called northward migration season banding (NMSB) in spring and southward migration season banding (SMSB) in autumn. Our 2010 NMSB lasted from Mar 24 to May 20 and the SMSB from Aug 10 to Oct 14. In 2010, 26 species, (2,691 birds) were banded in northward migration banding season, while 42 species, (1,829 birds) were banded in southward migration banding season; in total 43 species and 4,520 birds were banded in 123 banding days.

The species with the largest banded number in 2010 is Great Knot *Calidris tenuirostris* (1,235 individuals),

which accounted for 27.3% of all birds banded. The other 10 species with the largest numbers are Longtoed Stint Calidris subminuta (16.4%), Red-necked Stint Calidris ruficollis (13.0%), Terek Sandpiper Xenus cinereus (6.0%), Dunlin Calidris alpina (5.6%), Bar-tailed Godwit Limosa lapponica (4.0%), Red Knot Calidris canutus (3.1%), Wood Sandpiper Tringa glareola (2.7%), Whimbrel Numenius phaeopus (2.4%), Sharp-tailed Sandpiper Calidris acuminata (2.3%), and Curlew Sandpiper Calidris ferruginea (1.8%). These 11 species accounted for 84.6% of all banded birds while the other 32 species only occupy 15.4%. For more details please refer to the Appendix (List of Chongming Dongtan Banded Birds in 2010).

Some interesting differences are noticed between our two seasons' banding work: fewer days (58 days), more birds (2,691 birds) and fewer species (26 species) in NMSB while more days (65 days), fewer birds (1,829 birds) and more species (42 species) in SMSB. The species compositions of the two seasons are also different. Almost all Great Knots (more than 99%) were banded in NMSB; only 7 individuals were banded in SMSB. All Long-toed Stints and Wood Sandpipers were banded in SMSB (**Figure 1**).



**Figure 1**: Sum of 11 species with largest banded numbers in northward and southward migration seasons of 2010 at Chongming Dongtan National Nature Reserve Note: GK: Great Knot; Lts: Long-toed Stint; RnS: Red-necked Stint; Ter: Terek Sandpiper; Dun: Dunlin; BtG: Bar-tailed

Godwit; RK: Red Knot; WS: Wood Sandpiper; Whi: Whimbrel; StS: Sharp-tailed Sandpiper; CS: Curlew Sandpiper

Another interesting fact is that almost all banded birds in NMSB, 2010 are adults except Dunlins, while more than 88% banded individuals are juveniles in SMSB, 2010. This could be a result of different migration strategies of different wader species: some large-sized species or adults might take the strategy of "jump", and some small-sized species or juveniles might take the strategy of "skip" or even "hop" during southward migration season. There was another possibility that most adults had been passing through here before our SMSB. As for this, further research is needed. For more details please refer to the Appendix (List of Chongming Dongtan Banded Birds in 2010).

During the 2010 banding, 36 individuals of 4 species listed as Near Threatened Species in IUCN Red List were banded, including 3 Eurasian Curlews *Numenius arquata*, 31 Black-tailed Godwits *Limosa limosa*, 1 Asian Dowitcher *Limnodromus semipalmatus* and 1 Swinhoe's Snipe *Capella megala*.

In 2010, 7 species, 40 banded individuals were recaptured. 14 birds were banded in CDNNR, and 26 birds were banded in Australia including 1 Great Knot from Queensland; 4 species, 4 birds from Victoria; 4 species, 21 birds from Western Australia. The species with largest recaptured number is still Great Knot with 18 individuals banded in Australia. 87.5% of recaptures (6 species, 35 individuals) happened in NMSB while only 5 individuals, which were originally banded in CDNNR, were recaptured in SMSB (**Table 1**).

**Table 1**: The recapture of Banded Shorebirds in 2010 in CDNNR

	Species		AUSTRALIA			
Scientific Name		CDNNR	WA	VIC	QLD	Total
Calidris tenuirostris	Great Knot	8	17		1	26
Limosa lapponica	Bar-tailed Godwit		2	1		3
Calidris canutus	Red Knot		1	1		2
Calidris ruficollis	Red-necked Stint		1	1		2
Calidris acuminata	Sharp-tailed Sandpiper			1		1
Calidris alpina	Dunlin	4				4
Charadrius alexandrinus	Kentish Plover	2				2
	Total	14	21	4	1	40

The oldest 3 individuals among our recaptures are 1 Red Knot and 2 Great Knots. The former was banded in 1995 in Victoria and aged as a juvenile. So it was 16 years old when it was recaptured. The other two are 2 Great Knots banded in 1998 in Broome and Queensland respectively, and they were both more than 15 years old because they were both identified as 3+ years old in 1998.





Above Left: Great Knot from Queensland (age >15 years); Above Right: Red Knot from Victoria (age 16 years)

The engraved leg flags (ELF) were also used in 2010 banding. Totally, 348 ELFs were put on 6 species including Bar-tailed Godwit (155 individuals), Red Knot (108 individuals), Great Knot (25 individuals), Black-tailed Godwit (31 individuals), Grey Plover *Pluvialis squatarola* (22 individuals) and Sharp-tailed Sandpiper (7 individuals). It was exciting that about 12% of these birds had been recovered on the flyway by banders, reseachers and bird watchers in the same year they were banded. For example: Bar-tailed Godwit "5N" banded on Apr 15, 2010 was sighting recovered by Chiyeung Choi on May 6, 2010 at Yalu Jiang. We would like to mention that the work carried out by domestic and foreign banders and researchers like Chris Hassell, Adrian Boyle, Adrian Riegen, Chiyeung Choi etc. in Bohai Bay and Yalu Jiang areas highly raised the sighting recovery rate of our ELFs. Last year 21 recoveries occurred in these areas, which took 30% of all sighting recoveries. We appreciated the hard field work of all banders, researchers and other flag finders.

Table 2: Engraved Leg Flags (ELFs) Used and Recovered in 2010

Scientific Name	Species	Sum of ELFs Used in 2010	Sum of Birds Banded with ELFs then Recovered in 2010	Recovery Rate of 2010	
Calidris canutus	Red Knot	108	25	23%	
Limosa lapponica	Bar-tailed Godwit	155	10	5.8%	
Calidris tenuirostris	Great Knot	25	2	4%	
Limosa limosa	Black-tailed Godwit	31	0	0%	
Pluvialis squatarola	Grey Plover	22	0	0%	
Calidris acuminata	Sharp-tailed Sandpiper	7	0	0%	
	Total	310	37	12%	

Appendix 1: List of Shorebirds Banded in Chongming Dongtan Nature Reserve in 2010

Scientific Name	Species	Northward Migration Mar 24—May 20	Southward Migration Aug 10—Oct 14	Juveniles	Total	Percentage
Calidris tenuirostris	Great Knot	1 202	7	7	1,235	27.32%
Calidris subminuta	Long-toed Stint	0	743	743	743	16.44%
Calidris ruficollis	Red-necked Stint	343	244	185	589	13.03%
Xenus cinereus	Terek Sandpiper	199	72	69	271	6.00%
Calidris alpina	Dunlin	147	107	49+5(N)	254	5.62%
Limosa lapponica	Bar-tailed Godwit	163	13	13	179	3.96%
Calidris canutus	Red Knot	132	5	5	139	3.08%
Tringa glareola	Wood Sandpiper	0	121	121	121	2.68%
Numenius phaeopus	Whimbrel	46	61	56	107	2.37%
Calidris acuminata	Sharp-tailed Sandpiper	77	27	2	105	2.32%
Calidris ferruginea	Curlew Sandpiper	76	6	6	82	1.81%
Heteroscelus brevipes	Grey-tailed Tattler	46	23	18	69	1.53%
Charadrius leschenaultii	Greater Sand Plover	26	43	43	69	1.53%

Note: "(N)" in the cell of Dunlin juveniles means northward migration season banding.

Appendix 1: List of Shorebirds Banded in Chongming Dongtan Nature Reserve in 2010 (cont.)

Scientific Name	Species	Northward Migration Mar 24—May 20	Southward Migration Aug 10—Oct 14	Juveniles	Total	Percentage
Tringa nebularia	Common Greenshank	9	53	41	62	1.37%
Charadrius alexandrinus	Kentish Plover	13	50	30	63	1.39%
Tringa totanus	Common Redshank	17	37	34	54	1.19%
Limicola falcinellus	Broad-billed Sandpiper	21	30	30	51	1.13%
Arenaria interpres	Ruddy Turnstone	43	3	2	46	1.02%
Charadrius mongolus	Lesser Sand Plover	27	17	14	44	0.97%
Limosa limosa	Black-tailed Godwit	20	21	20	41	0.91%
Tringa stagnatilis	Marsh Sandpiper	0	35	34	35	0.77%
Pluvialis squatarola	Grey Plover	26	9	5	35	0.77%
Charadrius dubius	Little Ringed Plover	1	28	27	29	0.64%
Pluvialis fulva	Pacific Golden Plover	8	17	14	25	0.55%
Actitis hypoleucos	Common Sandpiper	0	19	13	19	0.42%
Calidris alba	Sanderling	9	1	1	10	0.22%
Gallinago gallinago	Common Snipe	0	9	9	9	0.20%
Numenius madagascariensis	Eastern Curlew	3	4	4	7	0.15%
Chlidonias leucopterus	White-winged Black Tern		4	4	4	0.09%
Tringa erythropus	Spotted Redshank	0	3	2	3	0.07%
Philomachus pugnax	Ruff	0	3	2	3	0.07%
Numenius arquata	Eurasian Curlew	1	2	2	3	0.07%
Calidris temminckii	Temminck's Stint	0	2	2	2	0.04%
Glareola maldivarum	Oriental Pratincole		2	1	2	0.04%
Numenius minutus	Little Curlew	1	1	1	2	0.04%
Charadrius hiaticula	Ringed Plover		1	1	1	0.02%
Gallinago stenura	Pintail Snipe	0	1	0	1	0.02%
Sterna nilotica	Gull-billed Tern	0	1	1	1	0.02%
Vanellus cinereus	Grey-headed Lapwing		1	0	1	0.02%
Capella megala	Swinhoe's Snipe	0	1	0	1	0.02%
Haematopus ostralegus	Common Oystercatcher	1	0	0	1	0.02%
Himantopus himantopus	Black-winged Stilt	0	1	0	1	0.02%
Limnodromus semipalmatus	Asian Dowitcher	0	1	0	1	0.02%
	Total	2,656	1,824	1,616	4,520	100.00%

# Birds Australia Beach-Nesting Birds Project Wins Award

Birds Australia (BirdLife Partner) has won the 'Natural Environment' category of the Victorian Coastal Awards for its Beach-Nesting Birds project, which has recruited local communities and land managers to improve the breeding success of the Near-Threatened Hooded Plover *Thinornis rubricollis*. The Awards recognise individuals, community groups, management committees, projects or businesses that have demonstrated a commitment to protecting and enhancing Victoria's coastal or marine environments.

Endemic to Australia, the Hooded Plover acts as a flagship for serious coastal issues. "Hoodies are an excellent indicator of healthy beaches where recreation is balanced with coastal needs", said Dr Grainne Maguire – Beach-Nesting Birds Project Manager. Prior to the Beach-Nesting Birds (BNB) project, annual surveys in Victoria showed that young birds accounted for only

a small proportion of the population, indicating low breeding success. Unfortunately, the species' breeding season coincides with the peak summer holiday season, when human presence on beaches is at its highest.

"Continued poor breeding success would mean we lose this species in the future", said Dr Maguire. "We are turning this around by empowering community groups through the BNB project to monitor breeding, and to recognise threats and manage them."

She says beach-nesting birds would stand no hope if it were down to a handful of people working to recover their population. "They rely on an integrated and broad-scale effort in Victoria, inclusive of all coastal residents, beach goers and land managers, to make a difference."

Birds Australia has set up "Friends of the Hooded Plover" regional groups along the Victorian coast, at Far West Victoria, Mornington Peninsula, Apollo Bay, Anglesea, Breamlea, Bellarine Peninsula, Bass Coast and Venus Bay. In 2010, the BNB project delivered workshops to many of these groups on monitoring and finding nests. 30 new volunteers have since joined, and these and most of the existing 250 volunteers have been given field training. Nest site management activities include targeting beach users in an education and awareness campaign, physically fencing and signing nest sites, developing signage for beach access points, fencing dune systems, controlling sea spurge, and using nest cameras to identify nest predators to provide advice for predator control.

Among the BNB project's achievements are the coordination and completion of the 2010 biennial count, with more coverage than in any other year. "Results show that we have increased the hoodie population in Victoria, and that it is now closer to 500 birds than 400 as in the 2008 and 2006 counts", Dr Maguire says. "Last season's production of 60 fledged chicks is double that of any other season, and shows the project is working."

The Friends of the Hooded Plover groups will continue beyond the life of the BNB project, to ensure the birds have a secure future. "These groups are becoming self-sufficient, and are absolutely amazing, seeking their own grants, coming up with new ideas for community education, and tackling broader coastal issues. Hoodies are truly a fantastic indicator of beach health."



Regional coordinator of Friends of the Hooded Plover Bass Coast group, Stephen Johnson, holding two chicks (Photo: Grainne Maguire).

# Heritage Expeditions Supporting Spoon-billed Sandpiper

Heritage Expeditions – a BirdLife Species Champion supporting <u>Spoon-billed Sandpiper</u> conservation through the BirdLife Preventing Extinctions Programme – struck gold this week when they, and the passengers they have taken to the Russian Far East, helped scientists discover a previously unknown breeding population of these rapidly declining waders.

Searching for breeding Spoon-billed Sandpipers in the vast coastal expanses of Arctic Russia is like looking for a needle in a haystack, so Heritage's passengers, guides and crew were delighted when they encountered this Critically Endangered species at a remote location on the Chukotka coast. The first sighting they made was of a pair with three eggs and another bird, they found close by, was behaving in a manner indicating it was also breeding there. A further Spoon-billed Sandpiper was found by a second search team at another suitable breeding location a little way along the coast. "We were absolutely stunned when we came across the first bird" said Chris Collins - Heritage Expeditions' tour guide and member of the survey team that found the nesting birds. "Seeing a breeding plumaged Spoonbilled Sandpiper walk towards us and settle on to its nest was undoubtedly one of my all time top birding moments and everyone on this expedition was equally thrilled when I radioed in the news our survey had been successful".

These new surveys have been carefully designed



to look for breeding birds in coastal areas where scientists predicted they should be present but had previously been unable to explore. As the only access to these remote areas is by sea, the costs of mounting searches have previously been prohibitive and so they have remained unexplored until now. When Heritage Expeditions became a Species Champion for Spoon-billed Sandpiper the opportunity unfolded and so, with careful planning in conjunction with BirdLife and Birds Russia, Heritage Expeditions' vessel



- Spirit of Enderby – provided the ideal access solution. Heritage's passengers and experienced guides, travelling ashore in zodiacs, were valuable and enthusiastic participants searching under the guidance of experts from the Spoon-billed Sandpiper Task Force.

These surveys had been carefully planned to explore areas where Birds Russia experts had predicted Spoonbilled Sandpipers should be present. The participating teams were thoroughly briefed in advance on how to undertake the surveys with minimum environmental impact and each team was led by staff experienced in avoiding disturbance to nesting birds. Throughout the surveys Heritage Expeditions ensured the highest standards of responsible ecotourism were employed.

The *Spirit of Enderby* is now sailing north to the main Spoon-billed Sandpiper study site at Meinypil'gyno where this year a conservation breeding programme is in progress for the first time.

The conservation breeding team, led by Birds Russia, the Spoon-billed Sandpiper Task Force and the Wildfowl & Wetlands Trust (WWT), is working there with colleagues from BirdLife International, the RSPB (BirdLife in the UK), British Trust for Ornithology and Moscow Zoo to protect this species, which would most likely become extinct within a decade if this urgent action was not taken now.

The pioneering team working at the site for the last month has constructed a state-of-the-art incubation facility to hatch eggs carefully collected from a few of the nesting birds in the area. Once hatched, the next challenge will be safely transporting chicks to the port of Anadyr. Normally travel in and out of the remote study site to Anadyr is only possible by exmilitary helicopter. Scientists deemed the considerable vibration encountered during helicopter flight far too traumatic for tiny chicks the size of bumblebees so an alternative mode of transport is required. This logistical challenge was solved by Heritage Expeditions who stepped forward again and offered to provide safe onward transit by sea aboard Spirit of Enderby for both the chicks and the scientists now raising them.

If all goes to plan, once safely ashore at Anadyr, the precious cargo will be transferred to a secure site where the chicks can fully fledge and grow sufficiently robust before they are taken onwards to Moscow Zoo where they are required to enter quarantine. In a few months the chicks will be flown from Moscow to London and then transferred to a secure purpose-built conservation-breeding unit at WWT's headquarters at Slimbridge, in Gloucestershire, UK. Once there, WWT staff will rear the birds as a flock and create the ideal conditions to promote breeding. In this way we hope to raise a new population which can be reintroduced to help augment the remaining wild population in future years.

Meanwhile, much advocacy and conservation action remains necessary to address the major threats that the birds and their habitats still face throughout their flyway.

Find out all the latest news on Spoon-billed Sandpiper by visiting <a href="https://www.birdlife.org/spoonbilledsandpiper">www.birdlife.org/spoonbilledsandpiper</a>

# Mangroves to Protect Shorebird Habitat - Cemara Beach, Jambi, Sumatra

Between 2007 and 2010, the Wildlife Conservation Society (WCS) team conducted Avian Influenza Virus (AIV) surveillance in migratory shorebirds of the East Asian-Australasian Flyway at Cemara Beach, Jambi, Sumatra. In addition to the collection of samples from wild birds for AIV surveillance and banding and flagging them to gather information on bird movements, we also conducted environmental awareness education and activities with the local people and children. For example, we planted mangrove trees with local children around the school near Cemara Beach.

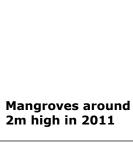
Between 2007 and 2010, a total of 2,760 individual birds were captured, sampled and banded/flagged at Cemara Beach, and the number of individual birds resighted abroad gradually increased over the years: in 2010, 18 individual birds were re-sighted and reported to the Australasian Wader Studies Group (AWSG). In 2008, five individual birds were reported abroad, while eight birds were reported in 2009.

Every year, tens of thousands of shorebirds were observed at our field site. Therefore, it is very important that we should maintain suitable habitat for them; unfortunately, the condition around this beach had deteriorated as the local people had previously cut many of the mangrove trees for building houses and fish traps. These same people reported increased erosion and subsequent flooding of their settlement during high tide in the rainy season at the end of year. In order to minimize the flood, local people and a local non-governmental organization, Gita Buana Foundation, planted mangroves around their settlement in 2008, although not as far as Cemara Beach which is 500m from the village.

In 2008, we found that seeds from mangrove trees (*Avicennia* sp.) had washed onto Cemara Beach and since that time, we tried to protect the seeds in order to regenerate the mangrove trees. In 2009, these seeds sprouted, and in early 2011, local observers reported that the sprouts have grown into 2m tall trees. These trees are very useful to protect the beach from erosion and serve as a safe haven for migrating shorebirds during high tide. It will be very important to ensure the participation from local people to protect the trees in order to maintain the mangrove habitat for both conservation and human livelihood reasons.



Lutfian Nazar and Fransisca Noni





Cemara Beach - 2007



Cemara Beach - 2008 until early 2009



Cemara Beach - end of 2009 until early 2010



Cemara Beach - early 2011

# Concerns about Leg-flagging of Waders

I am the person within the Australasian Wader Studies Group (AWSG) who collates all international flag sightings of shorebirds into a database. I am responding to the concerns regarding leg-flagging of waders that have been raised on Birding Aus (repeatedly) by Ian May.

First, can I assure you that there is still much to learn about the migration of many (if not all) species of shorebirds, even though the data generated from leg-flagging to date has already increased our knowledge immensely. In the current edition of AWSG's journal, The Stilt, there is a paper with the latest migration maps covering all of the common wader species. This includes an explanation of what more has been learned over the last five years, since the last similar report was published. All issues of *The Stilt* are made available for free, online at the AWSG web site <a href="www.awsg.org.au">www.awsg.org.au</a> However, there is a slight delay between publication and uploading to the web site, so if you would like a copy of this latest article, please email me for a copy.

I do not intend to enter into a debate about the pros-and-cons of leg-flagging waders or banding more generally. Suffice to say, it is regulated by the Australian Bird and Bat Banding Scheme (ABBBS) and through research permits granted by the states. If there was any evidence of the sort of adverse impacts from leg flagging that Ian May refers to, ABBBS would most certainly, and immediately, ban leg flagging.

However, in contrast to Ian's claims, adverse impacts from flagging seem to be incredibly rare.

I will put on the record some further information which might be relevant.

1) In response to these concerns (initially raised directly by Ian May with Clive Minton, rather than via Birding Aus) AWSG did look in great detail at the survival rates of small waders, including Red-necked Stints and Curlew Sandpipers, with and without flags (i.e. those banded only with a metal band, and comparing to those with both a band and a flag). There is no detectable difference in survival. Other analyses of survival of shorebirds cannon-netted, banded and flagged in Australia are consistent with similar studies carried out in other parts of the world, in that they show shorebirds (whether marked with metal bands, individual colour-band combinations, or leg-flags) to be long-lived birds, with high rates of annual adult survival.

Not only do flagged birds survive, they migrate and they get seen on migration. The number of birds resighted on migration is limited by the number of observers in remote places in the flyway, but when careful

searches are made, they usually result in fascinating data. Over the past 21 years, there have been over 21,000 resightings of Australian-flagged shorebirds overseas. Important patterns are emerging from these resightings. A recent example is the discovery

of the importance of a small region in Bohai Bay for subspecies *piersmai* of the Red Knot *Calidris canutus* on northwards migration: in 2009 it was used by 80% of birds flagged and individually colour-banded in north-western Australia, and by 62% of those similarly marked in New Zealand [1]. This site is rapidly being lost to tidal flat reclamation projects, and current efforts to preserve it have been driven in large part by the role that flag resightings played in discovering and quantifying its importance.

In response specifically to the Great Knot and Global Flyway network project, Danny Rogers has provided me with the following information: We have done survival analyses on the Great Knots individually colour-banded by that project (with one flag and four colour-bands)... Average annual survival of those Great Knots (i.e. the probability of their surviving from one year to the next) was 93.7%. There were some annual fluctuations (especially a dip right after the closure of the Saemangeum sea-wall, which is why we are analysing that data) but on the whole, Great Knots with colour-bands are right up there with the longest-lived birds that have been studied.

Also of relevance is that some species of shorebird which have never been banded and flagged in Australia are suffering serious declines – one particularly disturbing example being the critically endangered Spoon-billed Sandpiper.

- 2) AWSG/VWSG always welcome volunteers to come and experience banding firsthand, and programs are published in relevant newsletters where possible e.g. Birds Australia's VicGroup newsletter.
- 3) All banding studies (and most studies of any kind) do have impacts on the study species, even though great efforts are made to minimise these impacts. Regardless of how carefully you try and study something without affecting it, it is impossible to do so. The individual banders, in conjunction with the banding office, determine how best to minimise the adverse impacts on birds and whether the scientific value of a study outweighs the costs. All I can really say is that the impact of banding and flagging activities is very minimal in comparison to the impacts of natural events and other human activities on these species, and can not possibly be responsible for shorebird population declines. Of course, many of the people banding waders are also those most concerned about (and active in making a difference to) their conservation status. They do this work out of a genuine passion and commitment, and often devote more hours to this work than someone working full time (but for no pay - and often at much cost). So it is easy to criticise, but much harder to go out there and actually "do something better".

On a much brighter note, some wader-flagging study projects in this flyway have been implemented in place of shorebird hunting. So, for example, every time I see a bird with black and white flags (indicating that it came from Chongming Dao, an island near Shanghai

in China) it is a tangible reminder that these birds, which would once have been sold at local markets for food, are now being released alive with colour flags instead.

4) AWSG focuses its conservation efforts on known threats to waders, in particular stopping the destruction of their migratory stop-over sites. This is an uphill battle, but having solid science behind the need to protect these areas is critically important. As over half of the world's population lives in 'our' flyway, development pressures are intense - especially so in China and Korea.

There is an excellent article in a recent 'Wingspan' (Birds Australia's magazine) which highlights the

urgency of these threats, and the possibility that existing bilateral conservation agreements (between Australia and China, and Australia and Korea) could help stop or slow this destruction. In their words "With a sustainable future for our shorebirds so imperilled, it is vital that we take action and demand that our governments honour the commitments they have signed up to at the international level". Read the whole article at:

www.awsg.org.au/pdfs/minutes-to-midnight.pdf

Heather Gibbs Australasian Wader Studies Group

# New Study Reports Worrying Declines in Moreton Bay Shorebirds and the Value of Monthly Monitoring

Long-term monitoring of shorebirds has provided valuable data for the analysis of changes in shorebird populations. A new scientific paper, due to appear in the journal *Conservation Biology*, by Wilson *et al.* 'Analyzing Variability and the Rate of Decline of Migratory Shorebirds in Moreton Bay, Australia' uses long-term data and new sophisticated modelling techniques to detect trends in shorebird populations.

The study looked at 15 years of shorebird population monitoring data collected by Queensland Wader Study Group (QWSG) volunteers at shorebird roosts throughout Moreton Bay. It highlighted the usefulness of monthly counts and compares simple versus more rigorous analysis techniques. The monthly surveys provided data that allows trends to be identified for more species with more confidence than would have been possible with biannual counts (one in summer and one in winter). The paper uncovered strong evidence of long-term declines in Moreton Bay populations of White-winged Black Tern, Red Knot, Bar-tailed Godwit, Ruddy Turnstone, Common Greenshank, Great Knot and Whimbrel, with evidence of an increase in Rednecked Stint (probably owing to the Port of Brisbane reclamation). There was some evidence of declines in another 4 species, and some evidence of increases in another 3. Interestingly, this paper showed that if counts had only been done twice a year in Moreton Bay, declines would have been detected in only four species; the Bar-tailed Godwit, Common Greenshank, Whimbrel and Eastern Curlew. These results highlight the question: how much evidence do we need to decide when species are in decline?

Many factors can affect survey counts at both local and regional scales. Disturbances and weather conditions can affect counts, while higher breeding success in one year may increase the numbers of juveniles that migrate. All these sources of variation obscure underlying patterns in bird abundances. Using a simple model, such as linear regression, will assume that all the variation comes from one source (usually the variation in our ability to count the birds accurately). However, this study compared these simple methods

with recently developed stochastic state-space models to account for many more sources of variation in bird counts, producing a much more realistic model. Simple population analyses techniques were more likely to identify population declines when there was in fact no decline happening. The more complex stochastic state-space models are less powerful at detecting change but give rise to fewer "false alarms". However, is it better to be more certain about the declines we do report, or should we identify all species that are possibly declining even if this gives rise to some false alarms? In this paper, the authors were able to identify both. They were able to distinguish between those species for which there was evidence of strong decline and those where there was some evidence of decline. The paper also demonstrated the value of monthly counts in providing greater scientific certainty regarding the changes in species populations.

This study highlights the value of the shorebird data collected by volunteers over the last 25 years. It is exciting to know that a team of researchers at the University of Queensland led by Richard Fuller, Howard Wilson and Hugh Possingham will be extending the work discussed here. Supported by QWSG, the Queensland Department of Environment and Resource Management, the Port of Brisbane, the Federal Environment Department, and the Australian Research Council, the team will determine if the results observed in Moreton Bay reflect what is happening throughout the East-Asian Australasian Flyway. More importantly, the team will also try to uncover what is driving these declines. The long-term monitoring carried out by volunteers will continue to provide valuable data for this research.

For more information or to download a pdf copy of this paper, visit <a href="https://www.fullerlab.org">www.fullerlab.org</a>

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# Dam proposal for China's biggest freshwater lake

A proposal to build a dam at Poyang Lake in Jiangxi province could result in one of the biggest ecological disasters in China. Poyang Lake is China's biggest freshwater lake, fed by five rivers and connected to the lower reaches of the Yangtze. The lake waters flow into the Yangtze during dry seasons, while in the rainy seasons Poyang is replenished by floods. The yearly changes in water level also help maintain one of the most important wetlands in the world.

Poyang Lake National Natural Reserve, which covers 5 percent of the wetlands at Poyang, became the country's first Wetlands of International Importance (Ramsar Site) in 1992, when China joined the convention as a contracting party.

According to the convention, China is obliged to maintain the near-natural state of the site. In the middle reaches of the Yangtze, Poyang is one of the only two sizable lakes that retain a natural connection to the river. All the others are already separated by sluice gates or embankments.

Its precious near-natural state is now endangered by the province's plan to build a 2.8-km-wide dam with sluice gates across the narrowest part of the channel that links Poyang and Yangtze.

The reason cited by the provincial government is that the lake and surrounding areas have suffered from low water levels almost every winter in the past decade. Zhu Lai-you, a senior water official in Jiangxi province, announced that the country's top scientists and ecologists had decided that a dam on Poyang Lake would do little harm to the environment or disrupt wildlife. However, the director of Wetlands International China, Chen Kelin, maintains that a proposal to dam Poyang Lake in winter would be devastating to wetlands and migratory birds.

Poyang's dynamic ecosystem provides a unique and critical habitat for a variety of waterbirds, many of which are endangered species. About 98% of the world's Siberian cranes depend on the lake for survival each winter, according to the International Crane Foundation. It is also home to more than 120 species of fish and 300 species of birds, including up to 100,000 shorebirds including up to 1,500 Kentish Plover, 2,000 Black-tailed Godwit, 2,000 Common Greenshank, 3,000 Common Redshank, 15,000 Pied Avocet and 58,000 Dunlin (Asian Waterbird Census 1987-2007).

"The seasonal decline in winter water level now starts earlier and lasts longer," said Wang Shengrui, who specializes in lake pollution control at the China Research Academy of Environmental Sciences. In an extreme case, parts of Poyang Lake turned into grassland in June as central China battled the worst drought in a century.

From 1952 to 2010, extremely low water levels (shallower than 8 metres) were recorded seven times. "Six of them came after 2003, when the Three

Gorges Dam started to hold back water for electricity generation", Wang said, citing official statistics.

Fifteen academicians jointly wrote to Premier Wen Jiabao in September 2009 to express their concerns about the dam. Three months later, the central government approved the plan, but not the dam. The central government then asked the provincial government to make scientific assessments of the dam's likely impacts.

So Jiangxi invited some of the academicians who had opposed the plan, among others, to research six key aspects of the potential negative impacts of the dam, such as how it would change water quality, wetlands and migrating birds, and aquatic life in the lake. The studies were supposed to provide scientific recommendations on whether the dam project should go ahead.

The reports were submitted in October 2010, but a comprehensive conclusion is yet to be completed. Meanwhile, Jiangxi water officials have actively pursued support from the water conservation, environmental protection and forestry ministries and related departments.

Controversies about the dam reflect a somewhat common dilemma in China. Provincial authorities are building hydro projects to battle water scarcity, yet those projects could worsen the situation in the long run, said Wang, who worked on one of the six studies.

For instance, the water quality in Poyang Lake's peripheral areas is likely to deteriorate because the sluice gate will slow down, if not completely cut off, the winter water flows that dilute or flush out pollutants.

"Currently the average water quality of the lake stays at fourth grade, and the major pollutants are nitrogen and phosphorus, mainly from domestic and agricultural wastes," he said.

A 2010 report by Ramsar Convention, an intergovernmental treaty for conservation and the sustainable use of wetlands, warned that the continued inflow of nutrients (particularly nitrogen and phosphorus) would transform the lake's natural ecosystems.

Too-high levels of nutrients would change Poyang's clear water and submerged plants into turbid water and high concentrations of plankton, which would result in the loss of waterbirds that feed on the submerged plants.

The significance of protecting the ecological character of Poyang Lake is all the greater given the deterioration of many wetlands and waterbird populations within the middle reaches of the Yangtze River Basin, and the extraordinary importance of Poyang Lake wetlands and biodiversity on a global level.