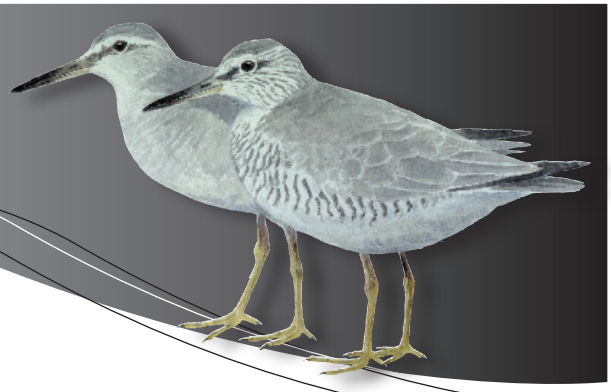
Tattler



Newsletter for the Asia Pacific Flyways

Editor: Liz Crawford Email: tattler@awsg.org.au No. 30 October 2013

In this issue:

Editorial

Southward migration is in full swing and those who monitor flagged shorebirds wait hopefully for their 'regulars' to reappear after this year's breeding event in the northern hemisphere. Articles in this Newsletter emphasise that all the links in the migration chain need protection - from the wetlands near Port Fairy, Victoria frequented by Latham's Snipe to the mudflats and saltpans of Bohai Bay, China used by thousands of knots on migration, and further north to the tundra breeding grounds where oil and gas exploration is underway. Research focuses attention on critical staging sites, such as Delaware Bay in the US, and provides sound argument for changing human behaviour to help protect shorebird species. It's a desperate situation when a species declines by 75% since the 1980s and is only now being proposed for protection! There's cause for celebration in the recent Banded Stilt breeding event - it will be interesting to see where the blue-flagged chicks turn up.

Banded Stilts at Lake Victoria, Point Lonsdale, Victoria taken early this year by Stewart Monckton.

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

Compiled and published by the Australasian Wader Studies Group
www.awsg.org.au

A special interest group of BirdLife Australia

News from the Chair of AWSG

The annual AWSG Committee meeting, held on 9 October 2013, considered a number of national and international activities and achievements over the last 12 months.

The main **national** activities included:

- **Monitoring** - the MYSMA (Monitoring Yellow Sea Migrants in Australia) project in northern Australia has continued for another year and some funding was obtained to support analysis and publication of monitoring efforts. Owing to very efficient budget management, there will be carry-over funds to cover the costs of summer surveys in November and December 2013.
- **Shorebirds 2020** - Funding for Shorebirds 2020 has not been continued by the Australian Government in the latest round of *Caring for our Country* grants. However, BirdLife Australia will continue the program in a reduced capacity and guided by different priorities. There has also been a change of staff responsibilities at BirdLife Australia with Golo Maurer, who was the Shorebirds 2020 Project Manager, moving to the position of Business Development Manager and the role of Project Manager will be taken by Dan Weller.
- **Global Flyway Network** - AWSG works closely with Chris Hassell and his work with the Global Flyway Network (GFN). The work that GFN is doing in Bohai Bay (China) is providing a vitally important insight into the situation affecting shorebirds across the Yellow Sea. Chris provides regular information on the work of GFN.
- **Banding** – Banding activities have been actively pursued over the past 12 months. Almost 500 geolocators have been placed on waders through the geolocator program with Australia probably leading this activity globally. This work is primarily done by the volunteer efforts of the Victorian Wader Studies Group (including the team from southeast South Australia), the Queensland Wader Studies Group, the AWSG and the GFN with some support from Deakin University. Satellite transmitters will be put on Little Curlew in the November 2013 Broome expedition to provide much needed data on migration of this little known species. The terrific contribution by Clive Minton and volunteers, both financially and with commitment of their time, needs to be recognized as a hugely important element in the success of the banding activities.
- **Leg Flag and Banding Databases** - Following the very sad loss of Heather Gibbs last year, we have faced a critical situation with respect to the future of these databases that Heather managed. They are a vital source of information on shorebird movements in the Flyway that must be maintained. We have been very fortunate to have one of our volunteers, Roger Standen, pick up the very challenging task of reviewing the databases and recommending ways for future development of the databases for AWSG to consider.
- **Conservation** - Following the resignation of Dr Joan Dawes after 2 solid years of hard work in the national conservation officer position, we are currently looking at measures to both fill the national conservation position and work more cohesively within the BirdLife Australia conservation framework to maximize efforts to manage the wader conservation agenda. Particular thanks to Joan for all her hard work and dedication in the conservation work she undertook during her time in the position. Joan will continue with her conservation work in NSW.
- **AWSG Scientific Committee** - The Scientific Committee is considering future research directions and is working on the development of a position paper to focus on the priorities that researchers need to undertake to support shorebird conservation in the Flyway. This is being considered in the context of "How do Shorebirds react to Habitat Loss?" The Scientific Committee has also actively collaborated with Richard Fuller and his team from Queensland University who are conducting the 3 year Australian Research Council-funded project that is examining Flyway-wide trends in the abundance of waders and the extent of their habitat.

The main **international** activities involving AWSG included:

- **The East Asian – Australasian Flyway Partnership (EAAFP)** – the Meeting of the EAAFP was held in Alaska in June 2013 with AWSG represented by Ken Gosbell in his role as Chair of the Shorebird Working Group, Phil Straw (Vice-Chair of AWSG) participating in the CEPA (Communication, Education and Public Awareness) Working Group, and myself as Chair of AWSG. The meeting was hosted by the United States Fish and Wildlife Service's Migratory Bird Management Division.
- Two major elements that focused on shorebird conservation included:

  ➢ the report which listed and prioritized important sites in the Flyway providing guidance and tools to assist in the nomination of high priority sites not yet listed: and

  ➢ a Science Workshop led by Dr Richard Fuller of Queensland University assisted by Dr Judit Szabo, the new Science Officer of the Partnership, focusing on issues ranging from population collapse in migratory shorebirds in Australia, new methods of assessment

News from the Chair of AWSG cont.

of tidal flat losses in the Yellow Sea, and understanding migration routes through use of geolocators to cost/benefit of habitat loss.

- The Partnership now has 30 Partners including national governments (15), inter-government organisations (4), NGOs (10) and the international business community (1). Three new partners were welcomed at the meeting – Malaysia, the Conservation of Arctic Fauna and Flora (Arctic Council), and the Wildlife Conservation Society.

- AWSG has been elected to the EAAFP Management Committee that advises the Partnership Secretariat.

Committee Changes

AWSG is now a Special Interest Group of BirdLife Australia following the merger of Birds Australia and BOCA. This required new Rules of Operation for AWSG which the Board of BirdLife Australia approved early in 2013. The new Rules provide the flexibility to co-opt up to 4 additional members to be able to formally take advantage of a broader range of skills and expertise. Dave Milton, Maureen Christie, Jon Coleman and Penny Johns are the current 4 co-opted members. Arthur Keates took on the role of Treasurer after the resignation of Brian Speechley and Dr Birgita Hansen is now the editor of *Stilt*. She has also taken on responsibility for AWSG membership as we are very keen to increase our membership base.
AWSG is building a stronger working relationship with BirdLife Australia and this is particularly important in the context of funding. BirdLife Australia is working to build a more secure financial base for the organisation as a whole and AWSG will be part of this effort. Funding for wader research, the databases and ongoing monitoring and banding are our critical areas of funding needs.

Future activities - The next Australasian Shorebird Conference will be held on 20-21 September 2014 in Darwin. More information on the Conference will be forthcoming in the near future.

Mark Barter Award - AWSG has taken steps to establish an Award that will celebrate the outstanding contribution by Mark Barter to migratory waterbird conservation in the East Asian – Australasian Flyway. Mark did much to raise awareness globally about the importance of protecting and maintaining migratory waterbird populations. His on-ground banding and counting efforts in China, Japan and the Republic of Korea and mentoring of young researchers and community members were truly inspirational. The long-term nature of the Award will need to be developed but as a first step and in recognition of Mark's emphasis on training and education, funds are to be provided to cover the costs of attendance at the Shorebird Conference and some specific training in Australia post the Conference for a young researcher from either China or Korea, with emphasis on the Yellow Sea.

Alison Russell-French

Notice of Election of Committee Members

In accordance with the Rules of the Australasian Wader Studies Group (AWSG), notice is given that:

(a) a new AWSG committee is to take office on 1 June 2014; and

(b) nominations of AWSG members who are members of BirdLife Australia for committee positions are invited.

A nomination must be:

(a) written (including fax and email); and

(b) seconded by an AWSG member; and

(c) given to the AWSG secretary before 31 January 2014.

9th Australasian Shorebird Conference - Save the Date!

The next Australasian Shorebird Conference will be held in Darwin on 20 and 21 September 2014 and hosted by the Research Institute for the Environment and Livelihoods at Charles Darwin University's Casuarina campus. We encourage you to submit symposia proposals and abstracts on key issues concerning shorebirds along the EAAF. We hope you will join us.

Conference Deadlines:
15 March 2014 Symposia submission deadline
30 April 2014 Abstract submission deadline
1 July 2014 Early registration deadline

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Avian Migrants feature in Northern Pacific Conference

A conference and workshop entitled "Avian Migrants in the Northern Pacific: Breeding and Stopover Sites in a Changing Earth" was held in Yuzhno-Sakhalinsk, Russia on 3-7 September, 2013.

Over 200 species of migratory waterbirds occur on Sakhalin Island and other parts of Far East Russia, including cranes, ducks, shorebirds and seabirds. Many of these species are threatened, often facing multiple threats in different countries. Some, like the Baer's Pochard *Aythya baeri*, Spoon-billed Sandpiper *Eurynorhynchus pygmeus* and Siberian Crane *Grus leucogeranus* are on the brink of extinction. Among the long-distance migrants, several shorebirds have declined precipitously in recent years, such as Nordmann's Greenshank *Tringa guttifer*, Eastern Curlew *Numenius madagascariensis*, Great Knot *Calidris tenuirostris* and Black-tailed Godwit *Limosa limosa*. Sites in Sakhalin are important for both breeding and passage waterbirds.

The conference was supported by the Far Eastern Branch of the Russian Academy of Sciences, the Government of Sakhalin and Exxon Neftegas Ltd. The aim of the conference was to create a scientific forum to present results, share ideas and establish new collaborations on migratory birds travelling through the Pacific region. Researchers from nine countries and several Russian research centres and protected areas from beyond Sakhalin participated. There was one representative from the government and one from Exxon.

Issues that came up during the conference:

An Australian-banded Sanderling with a geolocator was recently "recovered" by hunters, and they passed on the geolocator, flag and band to the Minister of Environment who gave them to me. Ken Gosbell is currently trying to get the information out of the geolocator (**Figure 1**). The minister is open to continue to collaborate with Australia by returning bands, flags and geolocators collected by hunters.

Figure 1. Sanderling with geolocator "recovered" by hunters on Sakhalin Island. Data from the geolocator is currently being investigated by Ken Gosbell.

This led to a discussion about hunting of non-target species. There are over 20,000 registered hunters on Sakhalin Island. They often shoot non-target species, including small migratory waders. Walking on the beach in the southern part of the island we found several bodies (**Figure 2**). Discussing this issue with participants of the roundtable discussion, the common ground we found was that hunters could be open to receiving educational material, i.e. a small booklet in Russian, with drawings of target and non-target species, what to do with bands on birds, maybe something on lead poisoning.

Figure 2. Small migratory wader shot by hunters on Sakhalin Island.

There is also substantial interest in receiving a monitoring manual in Russian.
Another issue was the need for statistical guidelines for analysing wader counts (these could be based on the paper by Wilson HB, Kendall BE, Fuller RA, Milton DA, and Possingham HP (2011). Analyzing Variability and the Rate of Decline of Migratory Shorebirds in Moreton Bay, Australia. *Conservation Biology* **25**, 758-766.)

Judit Szabo
(Science Officer, East Asian-Australasian Flyway Partnership, science@eaaflyway.net)
http://eaaflyway.net/

The EAAF Partnership aims to protect migratory waterbirds, their habitat and the livelihoods of people dependent upon them. Our 30 partners include 15 countries, 4 intergovernmental agencies, 10 international non-government organisations and 1 international business sector.

Editor's note: Sakhalin Island is the largest island in Russia, approximately 948km long and home to a population of over 500,000 people. It hosts a wealth of wildlife, including migratory shorebirds. It is also home to the Sakhalin-1 and Sakhalin-2 Projects. Sakhalin-1 Project is a consortium to locate and produce oil and gas on Sakhalin Island and immediately offshore. It is managed and operated by Exxon Neftegas Limited. Sakhalin-2 is one of the largest integrated oil and gas projects in the world and is managed and operated by Sakhalin Energy Investment Company Ltd. A brief article on monitoring and conservation at the Sakhalin-2 Project is in the March/April 2013 issue of the magazine Eco which can be found at the following link: **http://www.bluetoad.com/publication/?i=151089&pre=1**

2012 Shorebird Banding at Chongming Dongtan National Nature Reserve

In 2012 at Chongming Dongtan National Nature Reserve (CDNNR) (31°30'N, 122°05'E), China, northward migration shorebird banding (NMSB) lasted from 24 March to 7 May and the southward migration shorebird banding (SMSB) was from 13 August to 30 September. 22 species (987 birds) were banded in NMSB, while 29 species (883 birds) were banded in SMSB; in total 33 species (1870 birds) were banded in 66 banding days.

The species with the largest number banded in 2012 is Great Knot *Calidris tenuirostris* (403 individuals), which accounted for 21.55% of the total. The next 10 species with the largest numbers are Long-toed Stint *Calidris subminuta* (17.27%), Dunlin *Calidris alpina* (14.06%), Red-necked Stint *Calidris ruficollis* (11.02%), Terek Sandpiper *Xenus cinereus* (6.68%), Sharp-tailed Sandpiper *Calidris acuminata* (3.69%), Bar-tailed Godwit *Limosa lapponica* (3.16%), Greater Sand Plover *Charadrius leschenaultii* (2.67%), Common Redshank *Tringa tetanus* (2.41%), Broad-billed Sandpiper *Limicola falcinellus* (2.19%) and Black-tailed Godwit *Limosa limosa* (2.09%). These 11 species accounted for 86.79% of all banded birds while the other 22 species only accounted for 13.21%. For more details please refer to the **Appendix** (List of Shorebirds Banded in Chongming Dongtan Nature Reserve in 2012).

As in every year of banding, there is a difference between the species compositions of the two migration seasons. Almost all Great Knots (more than 99%) were banded in NMSB; only 6 individuals were banded in SMSB. All Long-toed Stints, Common Redshanks and Black-tailed Godwits were banded in SMSB (**Figure1**).

Another interesting phenomenon is that more than 88% of banded individuals in southward migration season are juveniles. This could indicate different migration strategies for different wader species: some large size species or adults might take the strategy of "jump", flying nonstop to wintering grounds, and some small size species or juveniles might take the strategy of "skip" or even "hop", with more stops during southward migration season. There is another possibility that most adults had passed through here before our SMSB. Further research is needed to clarify this. For more banding details please refer to the **Appendix**.

In 2012, 28 banded individuals from 8 species were recaptured or re-sighted at CDNNR. 15 birds were banded in CDNNR, and 13 birds from 4 species were banded in North Western Australia (NWA) (including 1 Whimbrel re-sighting). The species with the largest recaptured number is still Great Knot with 14 individuals. 68% recaptures (4 species, 19 individuals) happened in NMSB while 9 individuals were recovered in SMSB (**Table 1**).

Photo 1: Recapture of Great Knot with yellow engraved leg flag "WWA", originally flagged in North West Australia (Photo owned by CDNNR).

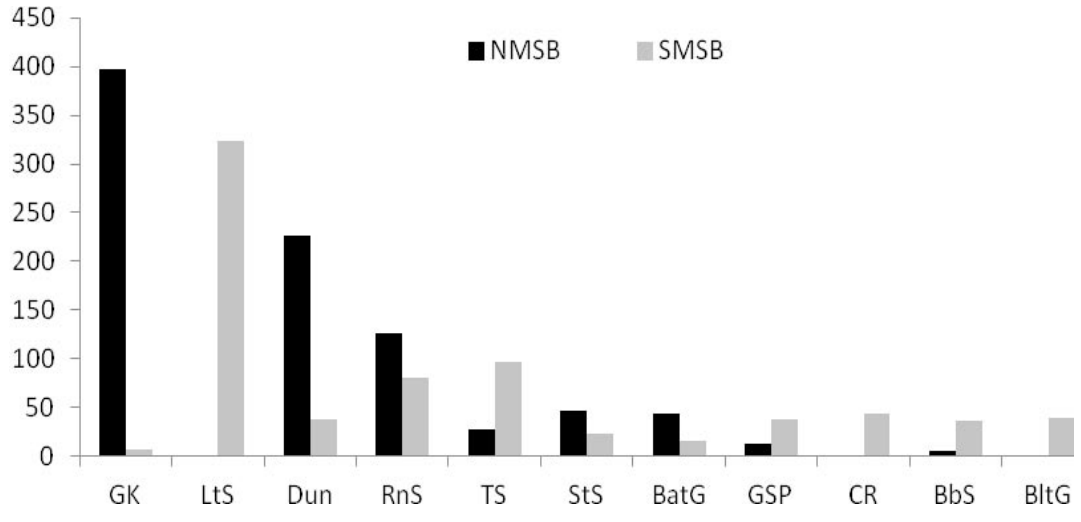

Figure 1: The eleven most commonly banded species in the 2012 northward and southward migration seasons at Chongming Dongtan National Nature Reserve, China.
Note: GK: Great Knot; LtS: Long-toed Stint; Dun: Dunlin; RnS: Red-necked Stint; TS: Terek Sandpiper; StS: Sharp-tailed Sandpiper; BatG: Bar-tailed Godwit; GSP: Greater Sand Plover; CR: Common Redshank; BbS: Broad-billed Sandpiper; BltG: Black-tailed Godwit.

2012 Shorebird Banding at Chongming Dongtan National Nature Reserve

Table 1: The recovery of banded shorebirds in 2012 at CDNNR

Scientific Name	Species	Recovery Method	CDNNR	NWA	Total
Calidris tenuirostris	Great Knot	Recapture	5	9 (2 ELF)	14
Calidris subminuta	Long-toed Stint	Recapture	3		3
Xenus cinereus	Terek Sandpiper	Recapture		2 (1 ELF)	2
Calidris alpina	Dunlin	Recapture	5		5
Calidris canutus	Red Knot	Recapture		1 (colour ring)	1
Tringa totanus	Common Redshank	Recapture	1		1
Tringa nebularia	Common Greenshank	Re-sighting	1		1
Numenius phaeopus	Whimbrel	Re-sighting		1 (ELF)	1
	Total		15	13	28

Note: CDNNR: Chongming Dongtan National Nature Reserve; NWA: North West Australia; ELF: engraved leg flag.

Photo 2: Recapture of Red Knot with colour rings (2RLRL), originally flagged in North West Australia, but the yellow flag has faded (Photo owned by CDNNR).

Photo 3: Recapture of Terek Sandpiper with yellow ELF "58", originally flagged in North West Australia (Photo owned by CDNNR).

As in previous years, black over white engraved leg flags (ELF) were used in 2012 banding. We changed the old ELFs that always lost ink to new ELFs made in Taiwan and invented by the Taiwan Wader Study Group (TWSG). In total, 179 ELFs were put on 7 species including Great Knot (106 individuals), Bar-tailed Godwit (22 individuals), Whimbrel (18 individuals), Red Knot (14 individuals), Sharp-tailed Sandpiper (13 individuals), Grey Plover *Pluvialis squatarola* (3 individuals) and Common Greenshank (3 individuals). But we seemed to have a new problem with these new ELFs, because the small black pieces in the middle of the flags always dropped when heating for shaping, so we had to glue the small pieces again before using. However, TWSG seems to have no problem with them.

Photo 4: The new ELF used in 2012 shorebird banding made by TWSG (Photo owned by CDNNR).

Photo 5: Red Knot with new ELF re-sighted in November 2012 by Chris Herbert and Liz Crawford at Hunter Estuary, NSW (Photo by Chris Herbert).

2012 Shorebird Banding at Chongming Dongtan National Nature Reserve

Appendix: List of Shorebirds Banded in Chongming Dongtan Nature Reserve in 2012

Scientific Name	Common Name	NMSB	SMSB	Total	%	CMDT Birds Recovery	Overseas Recovery
Calidris tenuirostris	Great Knot	397	6	403	21.55%	5	9
Calidris subminuta	Long-toed Stint	0	323	323	17.27%	3	
Calidris alpina	Dunlin	226	37	263	14.06%	5	
Calidris ruficollis	Red-necked Stint	126	80	206	11.02%		
Xenus cinereus	Terek Sandpiper	28	97	125	6.68%		2
Calidris acuminata	Sharp-tailed Sandpiper	46	23	69	3.69%		
Limosa lapponica	Bar-tailed Godwit	44	15	59	3.16%		
Charadrius leschenaultii	Greater Sand Plover	12	38	50	2.67%		
Tringa totanus	Common Redshank	1	44	45	2.41%	1	
Limicola falcinellus	Broad-billed Sandpiper	5	36	41	2.19%		
Limosa limosa	Black-tailed Godwit	0	39	39	2.09%		
Numenius phaeopus	Whimbrel	17	18	35	1.87%		1
Charadrius alexandrinus	Kentish Plover	9	21	30	1.60%		
Calidris canutus	Red Knot	17	6	23	1.23%		1
Charadrius mongolus	Lesser Sand Plover	6	14	20	1.07%		
Arenaria interpres	Ruddy Turnstone	19	0	19	1.02%		
Pluvialis fulva	Pacific Golden Plover	2	16	18	0.96%		
Tringa glareola	Wood Sandpiper	0	18	18	0.96%		
Calidris alba	Sanderling	16	2	18	0.96%		
Tringa nebularia	Common Greenshank	1	14	15	0.80%	1	
Pluvialis squatarola	Grey Plover	9	1	10	0.53%		
Heteroscelus brevipes	Grey-tailed Tattler	1	9	10	0.53%		
Tringa erythropus	Spotted Redshank	0	7	7	0.37%		
Tringa stagnatilis	Marsh Sandpiper	0	6	6	0.32%		
Charadrius dubius	Little Ringed Plover	0	4	4	0.21%		
Calidris ferruginea	Curlew Sandpiper	3	0	3	0.16%		
Phalaropus lobatus	Red-necked Phalarope	0	3	3	0.16%		
Calidris temminckii	Temminck's Stint	0	2	2	0.11%		
Glareola maldivarum	Oriental Pratincole	0	2	2	0.11%		
Tringa ochropus	Green Sandpiper	0	1	1	0.05%		
Calidris minuta	Little Stint	1	0	1	0.05%		
Philomachus pugnax	Ruff	1	0	1	0.05%		
Chlidonias leucoptera	White-winged Black Tern	0	1	1	0.05%		
Total		987	883	1870	100.00%	15	13

Report by **A.J**
A.J [xuewenjie@gmail.com]

Red Knot Northward Migration through Bohai Bay, China

Field Trip report April-June 2013 - Extracts

Introduction

The ecology of the enigmatic long-distance migratory shorebird Red Knot *Calidris canutus*, despite a lot of study, is still not fully understood in the East Asian-Australasian Flyway (EAAF). It is represented in this flyway by three subspecies *piersmai, rogersi* and *roselaari* (the latter is not part of this study as it only breeds on Wrangel Island and migrates to the Americas) *piersmai* and *rogersi* breed in different locations in the Siberian Arctic and share non-breeding locations in Australasia (Rogers *et al.* 2010). One of the mysteries of the species was where they stopover during their northward migration. Surveys of the Yellow Sea by Mark Barter and Chinese colleagues failed to find significant numbers of the species despite extensive searching. They did record 14,277 in the NW Bohai Bay region during spring migration 2002 (Barter 2002). During a brief 6-day visit in late April 2007 Chris Hassell (CH) from Global Flyway Network (GFN) counted a single flock of 10,650 Red Knot in the same region. In September 2007 Yang Hong-Yan (YHY, Beijing Normal University) commenced a PhD project on the food, foraging and stopover ecology of Red Knots in the area. She has been conducting regular counts since 2003 during the spring period of northward migration and her work shows that numbers of birds in the study area have increased over the years, presumably due to habitat destruction elsewhere and consequently birds moving in to the study site (Yang *et al.* 2011). It is clear from our current knowledge this site is the single most important site for Red Knot on northward migration in the EAAF. The Southward migration route of Red Knot is still a relative mystery to us. The attachment of geolocators to Red Knot in Roebuck Bay North West Australia, New Zealand and Chukotka, North East Siberia will hopefully help us unravel this piece of the Red Knot puzzle.

In concert with the work by YHY, studies by GFN have continued during the northward migration seasons of 2009 to this year, 2013. These field studies have concentrated on searching for individually marked birds and have been remarkably successful. In view of the many human-related threats, to what would seem to be the single most important staging area for two subspecies of Red Knot, encompassing all Red Knots wintering in Australia and New Zealand, it seemed of utmost importance to continue the survey work. This need was recognized by WWF-Netherlands and WWF-China who have continued to fund the field work in 2013 through their association with GFN (CH remains supported by Vogelbescherming-Netherlands). Beijing Normal University also funded aspects of the project. Here we report on what we have achieved in April - June 2013.

All the migratory birds mentioned in this report are covered by the China-Australia Migratory Bird Agreement (CAMBA) and it should be a source of embarrassment to both governments that this destruction of critical habitat to migratory birds is happening unregulated and unabated.

The Study Site

The centre of the study site is situated at 39° 03′ 35″N 118° 12′ 33″E. It is near Nan Pu Development City, situated on the edge of Bohai Bay, 190 km south-east of Beijing, China. (See **Figure 1**).

Figure 1: Interpreted satellite image of Bohai Bay, China

Red Knot Northward Migration through Bohai Bay, China cont.

The image shows the 4 study sites and the Caofeidian New Area Industrial Park. This enormous area will have destroyed 142km^2 of inter-tidal mudflat at its completion in 2020 (Yang *et al.* 2011). It has already covered >75% of its planned area. The mudflats of the 4 study sites used to give a 25km long and 1-3km wide (on the lowest tides) foraging area for shorebirds. This is no longer the case as most of the Zuidong mudflats have been claimed for industry. The mudflats are separated by a man-made seawall from the Nanpu Salt Ponds. These are reputedly 'the largest salt works in Asia'. This area, that is adjacent to the mudflats, is also critical habitat for birds to forage and roost but is also being lost to industrial development.

Summary

The fieldwork season commenced on 9 April and finished on 6 June 2013. We recorded 4,615 marked shorebirds from throughout the East Asian-Australasian Flyway (EAAF).

Included in the total flag sightings were 873 that we could identify to an individual bird, within those were 613 sightings of colour-banded birds from North West Australia (NWA), the main focus of this study, and this gave us 285 recognizable individuals. This was of course dominated by Red Knot with 269 individuals, Great Knot 13 and Bar-tailed Godwit 3. This reflects the vital importance of the area for the Red Knot *piersmai* subspecies. Most researchers would be thrilled with this result if they saw this number of 'their' birds at the marking location. GFN are recording these birds some 6400km away from where the birds were marked!

The importance of the vast area of commercial salt ponds adjacent to the inter-tidal area was again evident for both feeding and roosting opportunities for migrant birds. We had stunning counts on 16 May 2013 of 95,000 birds in a single pond. There were 61,891 Curlew Sandpipers which is 34% of the EAAF estimated population. In an adjacent pond on 29 May 2013, 34,200 Red Knot were counted equal to 33% of the entire EAAF population and more than 50% of the worlds' population of the subspecies *piersmai*. As in 2012, we estimated that at least 40,000 White-winged Black Terns are in the area at any one time. The population estimate for this species in the EAAF is vague but 40,000 would equate to anything from 4 to 40% of the EAAF population, perhaps more if turnover of migrants is taken into account! The salt works area hosts all the migrant birds at high tide when the mudflats are inundated by the sea, making the area a critical component of the Luannan Coast Shorebird Site. The salt ponds should be included in any conservation initiatives.

A table of species recorded in internationally important numbers has been compiled from GFN studies over the previous 7 northward migration seasons. It is an effective way to represent the immense importance of the Luannan Coast Shorebird Site. The continuing pressures on the inter-tidal area are obvious with the continuing development of industrial and housing areas adjacent to and on the inter-tidal area. The direct destruction of the inter-tidal area had slowed this season but huge building projects are taking place in former salt pond habitat.

Collaborative conservation efforts by various NGOs, spearheaded by WWF-China Beijing office, continued with a meeting of shorebird and wetland scientists from China and the EAAF. It was very well attended and received media coverage. An important aspect of any conservation action is media coverage and we were lucky to have science journalist Jane Qiu with us during part of our fieldwork. [A summary of the media coverage and links to articles is provided in Appendix 6 of the online report.]

Future studies at the site will continue. GFN will continue to document the fates of four shorebird species at their non-breeding sites in NWA and throughout the flyway with an emphasis on Bohai Bay. From this work we will be able to assess the effects of human-induced habitat change through survival analysis and statistical work. GFN will continue conservation efforts at Bohai Bay in conjunction with WWF-China and other organisations. A Masters student, Miss Ying Chi Chan, will analyse GFN data under the supervision of Theunis Piersma. Tamar Lok, a postdoctoral researcher, has been employed by GFN and commenced sophisticated analyses on the GFN data with the aim to publish papers in high-end biological journals.

Habitat Destruction

The field work at the study sites is challenging, not so much from a practical point of view as there are good roads towards the sites and accessible tracks along the sea wall, but it is mentally challenging to work in an area that is having prime shorebird habitat destroyed as we watch the birds. The sense of a rapidly growing economy (progress or destruction?) is palpable.

This year the destruction of the inter-tidal flats themselves had slowed. However the development adjacent to the mudflats was still in full-swing with a six-lane highway having been completed to and along half of the Zuidong seawall, this can only herald plans for further destruction of

Red Knot Northward Migration through Bohai Bay, China cont.

the inter-tidal areas to the north west, further in to the critically important areas of the Luannan Coast Shorebird Site.

Factories and apartment blocks have been and are being built on recently claimed land at Zuidong and some filled-in ponds at Beipu have preliminary work being done within them. The race to conserve the area is still on. It is assumed that the dispute with the mud-pumping companies will be resolved and once more precious, bio-diverse mud will start to be pumped from the inter-tidal area over the seawall into the salt ponds thereby damaging two habitats in one process. Enormous areas of inter-tidal mud flats have been converted to industrial land in this way. Between 1994 and 2009, approximately 453 km^2 of sea area in Bohai Bay was lost to development. This included 156 km^2 of intertidal mudflats being destroyed, a 36% loss of the total area of 428 km^2 mudflats (Yang *et al*. 2010). This scenario is playing out all along the Yellow Sea coast of China not just in Bohai Bay. It is a real challenge for Governments and other organisations to find a balance between development and conservation reserves before shorebird populations reach critically low levels from which they will not be able to recover.

Chris Hassell, Adrian Boyle, Matt Slaymaker, Ying Chi Chan and Theunis Piersma

Appendix 2
Securing the Luannan Coast

Wetlands International has been involved in efforts to maintain the wetlands of the Luannan coast and Tanghai area for over a decade. The first shorebird surveys of the area were led by Mark Barter for Wetlands International in 2002. With the commencement of the construction of Caofeidian Port in 2005, Wetlands International organised a multi-stakeholder workshop with the County and Provincial Government to promote awareness of the importance of the area for migratory waterbirds.

In recent years, with the excellent work of Ms Yang Hong Yan (Beijing Normal University) and the Global Flyway Network team, the outstanding international importance of the area has been more comprehensively documented. In response, Wetlands International has increased its efforts to secure the values of this area. The first challenge has, and will continue to be, to address the need for decision makers and the local community to value the international importance of the area.

In 2011, Wetlands International proposed the establishment of a Wetland Centre adjacent to existing tourism facilities in Tanghai Nature Reserve (5 km inland from the coast). This facility would be easily accessed from the main expressway that services Caofeidian Port. The Centre would focus on the international importance of the area in supporting waterbird migration across the East Asian–Australasian Flyway. The Centre is considered to be a core element in successfully securing the biodiversity of the area. It would service the need for building environmental awareness, environmental education and wetland management skills. A Wetlands Centre would also provide employment opportunities and increase tourism revenue for the local community.

Economic development, international trade and waterbird migration all intersect in the area of the Luannan coast. The coast is a critical staging area for several species that migrate to and from Australia. Much of the iron ore and coal that is now landing at Caofeidian Port is from Australia. In particular, Rio Tinto is one of the largest exporters of iron ore and coal from Australia to China. With this trade and biodiversity context, discussions were started with Rio Tinto to seek their involvement in being part of a Wetland Centre concept adjacent to Caofeidian Port. In late 2011, Rio Tinto agreed to support the "concept development" phase of the project.

During 2012, the first phase of the project was implemented, involving a range of consultations with County, City, Provincial and National Government agencies in China. The outcomes of this stage were:

- Support from all levels of Government for the Wetland Centre concept
- An undertaking to allocate a site of 350 ha for the development of a Wetland Centre
- Development of a detailed concept for the Wetland Centre
- Agreement on the importance of protecting the Luannan Coast and to commence a formal evaluation of the establishment of a coastal Nature Reserve.

In making the proposal for a protected area to local, city and provincial Government, Wetlands International recommend the coastal habitats be included in the core of the Nature Reserve and the adjacent saltfields be zoned as buffer. It is recognised that much of the proposed core zone is presently under the administration of Luannan County and the saltfields by Hebei Provincial Government. As such, the conservation proposal may need two stages to deal with the two levels of Government.

An evaluation of the potential establishment of a Nature Reserve is now being conducted by Hebei Forestry Department, Tangshan City Government

Red Knot Northward Migration through Bohai Bay, China cont.

and the two relevant local Governments (Luannan County and Caofeidian Administration).

Three major issues remain before the wetland centre project can move to the next stage. One is a successful outcome from the evaluation of the Nature Reserve proposal. The second is obtaining support from PetroChina which is extracting oil from under the area and refining it on-site. The third is to secure the funding to continue to develop the Wetland Centre. Continuing progress on the Wetland Centre project will increase support for the new Nature Reserve along the Luannan Coast (**Figure 1**).

Doug Watkins

Figure 1. The proposed core area (outlined in light green) and the adjacent coastal strip are primarily under the administration of Luannan Local Government; the remaining proposed buffer area is controlled by Hebei Government (outlined in yellow). The existing Tanghai Nature Reserve is outlined in dark green.

Appendix 5
New Zealand Red Knot in Bohai Bay, China
A brief review

The New Zealand Wader Study Group (NZWSG) started banding Red Knot in the mid 1980s in an effort to understand, among other things, the Red Knot's migration routes. Up to 1991 only a metal band was used, which relied on someone finding the bird and returning the band, to learn anything of its movements. In the first few years about one overseas recovery for every 350 birds banded, was received. There were few birdwatchers in Asia in the 1980s and even fewer looking for marked waders. Staging sites in China were generally out of bounds to foreigners and to a greater extent not even known.

In the early 1990s Mark Barter started searching the Chinese coast for wader staging sites and in 2000 with Yang Hong-Yan, who was studying Red Knot in Bohai Bay, found some 25,000 along the northern shores of Bohai Bay. At the time the estimated Red Knot population was at least 220,000, so this find amounted to around 10% of the population. Where were the rest? In 2005 the NZWSG started using white flags engraved with three black letters. It was hoped that with more birdwatchers in Asia and foreign wader people visiting East Asia, these flagged birds would be seen and thus help identify more staging sites.

The results show that few sites outside Bohai Bay appear to hold significant numbers of Red Knot (see **Table 1**). In 2009 the Global Flyway Network team, led by Chris Hassell started fieldwork that focused on the north-west Bohai Bay region, primarily looking for Red Knot during northward migration that they had colour-banded in NW Australia. The spin off was that they not only found many of their birds but large numbers of New Zealand colour-banded and engraved-flagged Red Knot as well.

Their impressive efforts over the past 5 years have generated a huge amount of data and clearly shown that the small area of the north west Bohai Bay is by far the most significant staging site for Red Knot on the East Asian-Australasian Flyway during northward migration. The flyway population of Red Knot was revised down in 2010 to around 110,000 (Rogers *et al*. 2010), and it now appears that most of the flyway's Red Knots stage in Bohai Bay during northward migration.

Of the 376 individuals seen, 55 have only been

Red Knot Northward Migration through Bohai Bay, China cont.

seen in the Bohai Bay and a further 29 have been seen outside New Zealand, in at least two countries.

Putting the Bohai sightings into context

1,001 Red Knots have been fitted with white engraved flags. A total of 846 have been seen at least once, therefore the number seen in Bohai Bay represents about 44% of all birds seen - a remarkable total as the marking and resighting sites are some 10,000km apart. There have been 3,864 engraved flag sightings recorded so the 803 from Bohai Bay represent 20% of all sightings.

This is an impressive contribution to the knowledge of New Zealand Red Knots during northward migration, and the NZWSG is extremely grateful to all those involved with the GFN project and their principal funders. We hope they are able to continue this work and that the focus they have put on the area will help to save it from complete destruction. Already 50% of the Red Knot population in New Zealand has been lost over the past 15 years. It will be a tragedy if this trend continues. The importance of Bohai Bay for Red Knot cannot be overstated and without these feeding and staging grounds the outlook for their future is very bleak.

Table 1. All overseas sightings of individual New Zealand engraved flagged Red Knot on north and south migration

Location	Sightings
Bohai Bay - China	376
Newcastle - NSW, Australia	14
Gulf of Carpentaria - Australia	4
SE Queensland - Australia	3
Chongming Dao - China	2
Japan	2
NSW (other than Newcastle) - Australia	1
North West Australia	1
Chukotka - Russia	1
South Korea	1
Yalu Jiang - China	1

Table 2. Number of different engraved flagged New Zealand Red Knot seen in Bohai Bay

Year	Sightings	No. of Birds
2007	1	1
2008	5	5
2009	21	21
2010	90	79
2011	191	136
2012	153	117
2013	343	184

Table 3. Total Red Knot all years seen in Bohai Bay and a breakdown of subspecies

Sightings	803
Individual birds	376
rogersi	289
piersmai	46
Recorded as *rogersi* & *piersmai* on different occasions	16
Subspecies not recorded	25

Adrian Riegen
Convenor, New Zealand Wader Study Group

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The full 33 page report can be found at:
http://globalflywaynetwork.com.au/wp-content/uploads/2013/06/GFN-Bohai-Report-2013.pdf

Recent Literature

Ma, Z., Hua, N., Peng, H., Choi, C., Battley, P. F., Zhou, Q., Chen, Y., Ma, Q., Jia, N., Xue, W., Bai, Q., Wu, W., Feng, X. and Tang, C. (2013), Differentiating between stopover and staging sites: functions of the southern and northern Yellow Sea for long-distance migratory shorebirds. *Journal of Avian Biology.* doi: 10.1111/j.1600-048X.2013.00213.x

Partial Abstract: Evidence-based protection of migratory birds at flyway levels requires a solid understanding of their use of 'stopping sites' during migration. To characterize the site use of northward-migration great knots *Calidris tenuirostris* in China, we compared length of stay and fuel deposition during northward migration at areas in the south and the north of the Yellow Sea, a region critical for migrating shorebirds.

Sighting of Geolocator on Great Knot at Serangan, Bali, Indonesia

On 10 September 2013, one adult Great Knot was sighted with engraved leg flag (right tibia), geolocator (left tibia) and ring (left tarsus). It was seen foraging with a younger individual of the same species on a grass field which during the rainy season would become a brackish-water swamp. This individual foraged for 1.5 hours then flew eastward. When the Great Knot was foraging, a few other species were also seen at the location: six Oriental Plovers *Charadrius veredus*, more than twenty Javan Plovers *Charadrius javanicus* and two Pacific Golden Plovers *Pluvialis fulva*.

It is a first sighting of a geolocator. According to the AWSG database, this bird was marked or tagged using a geolocator at Wader Spit, Roebuck Bay, Broome, Western Australia. The person responsible for the tagging is Chris Hassell. Geolocator is a miniature, lightweight archival tag that records significant light-level information which can be processed to provide the latitudinal and longitudinal data of a location. This device is small, light and attractive, it is also durable and low-cost.

As well as the geolocator, the Great Knot bore an engraved leg flag. This is the second individual seen with an engraved leg flag. The first one, a Terek Sandpiper, was found at Labu Beach, Medan by Hasri Abdillah on 12 October 2010. The flag originated from Mai Po, Hong Kong, China.

In the past, Serangan was an individual island separated from Bali. But for these past few years Serangan and Bali have been connected by a bridge located near Benoa Port. Serangan is located at 8°44.520'S Latitude and 115°13.426'E Longitude. The habitat includes sandy soil at north, muddy sand at south and muddy sand with a lot of sea slug shells on eastern part.

This place used to be a birdwatching location. Some species of shorebirds observed are: Whimbrel *Numenius phaeopus*, Eastern Curlew *Numenius madagascariensis*, Eurasian (Western) Curlew *Numenius arquata*, Red-necked Stint *Calidris ruficollis*, Ruddy Turnstone *Arenaria interpres*, Wood Sandpiper *Tringa glareola*, Common Sandpiper *Actitis hypoleucos*, Lesser Sand Plover *Charadrius mongolus*, Greater Sand Plover *Charadrius leschenaultii*, Javan Plover *Charadrius javanicus*, and Pied Oystercatcher *Haematopus longirostris*. Those birds were seen on 14 September 2010 by Cathy Gilfedder, Mat Gilfedder, Nick Brickle and Andry Khusnul Ichsan.

Acknowledgements

The authors are grateful to: Roger Standen and Chris Hassell for the information about the geolocator and leg flag; Fransisca Noni Tirtaningtyas and Indri Hapsari for corrections; and Yuyun Yanwar for pictures of Great Knot.

Great Knot with geolocator (© Golkariadi)

Two Great Knots forage (© Yuyun Yanwar)

Iwan "Londo" Febrianto[1] and Golkariadi[2]

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Banded Stilt banding update - Please keep an eye out

In recent weeks several thousand Banded Stilt chicks have dispersed from Lake Torrens South Australia and are turning up at a range of southern sites. Chicks from this breeding event were banded in July 2013. Thanks to the efforts of the Victorian Wader Studies Group and a team of other local volunteers, 947 of them are sporting blue leg flags on their upper left leg!

Small groups of these juvenile stilts have been seen at Port Augusta and between Snowtown and Redhill in mid north of South Australia. In each of these flocks up to 10% of the chicks have been wearing blue flags and nearly half of these are engraved with individual numbers/letters, making it well worth the effort of stopping to scan through a group of stilts with the telescope. Blue-flagged Banded Stilts have also been sighted in the Coorong, South Australia, on 6 October 2013.

I am really interested in any sightings you may have. By getting an idea of the proportion of flagged juveniles in dispersing flocks we can estimate the fledging success from this breeding event as well as document the dispersal patterns of the flocks and movements of individual stilts with unique numbered flags. Please report your sightings to **reece.pedler@deakin.edu.a**u

Many thanks, **Reece Pedler**
PhD Candidate
Deakin University
Centre for Integrative Ecology, School of Life and Environmental Sciences

Note: Alastair Wood, a member of one of the blue-flag banding teams, has written an interesting account of the banding effort, available on:
http://www.theglobaldispatches.com/articles/the-banded-stilt-project

Figure 1. Dispersing juvenile Banded Stilts at Price Salt Fields, South Australia 23 September 2013.

Figure 2. Some Banded Stilt chicks at the time of banding on Lake Torrens, during July/August 2013

Figure 3. Banded Stilt chick with engraved leg flag

Victorian oystercatcher re-caught after 25 years

Catching oystercatchers is never an easy task, even when they walk right into the catching area, as happened on 12 August 2013 as the Victorian Wader Studies Group attempted to catch oystercatchers on Point Smythe at the entrance to Andersons Inlet, in Cape Liptrap Coastal Park.

A flock of 23 Sooty and 2 Pied Oystercatchers arrived on the point after being twinkled off one of the sand bars in Andersons Inlet. The two Pieds, who were the local resident pair, took exception to the Sooties crowding up their point and began to harass the Sooties. This had the effect of herding most of the Sooties into the catching area.

Disappointingly, only three Sooty Oystercatchers and one Pied Oystercatcher were caught. The Pied Oystercatcher was a re-catch, having been originally caught in May 1988 at Inverloch as a 3+ adult, making it at least 28¼ years old, and one of the oldest Pied Oystercatcher on record in Australia. Its old coloured rings were replaced with a flashy new blue flag engraved A4.

Jonathon Stevenson

Snipe habitat lost at Powling Street Wetlands, Port Fairy, Victoria

Our national laws are failing Australia's birds. A series of poor decisions could be all it takes to push threatened species into extinction. BirdLife Australia believes a merits review under the Commonwealth *Environment Protection and Biodiversity Conservation (EPBC) Act* is needed to ensure decisions are supported by good science.

For example, Moyne Shire Council and the federal government recently sacrificed part of the Powling Street Wetland Complex in Port Fairy, an internationally significant site for Latham's Snipe, for a handful of houses. A developer now has approval to build houses and roads on 40% of the Wetland System – despite compelling evidence that this will have a significant impact on Latham's Snipe using the wetland. The decision is contrary to the Department of Sustainability, Environment, Water, Population and Community's draft guidelines and ignores the recommendations of a study commissioned by the Department. It also flouts Australia's international obligations under JAMBA, CAMBA, ROKAMBA and the Bonn Convention. (The draft EPBC Act *significant impact guidelines* state that important habitat for Latham's Snipe occurs at sites that support at **least 18** individuals of the species. On 114 occasions, more than 18 birds have been counted at Powling Street Wetland.)

"The entire area known to be utilised by Latham's Snipe should be considered as a whole. As a result of this study, it is recommended that as much of the [PEMS] land as possible is retained for conservation of the Latham's Snipe. Loss of any snipe habitat from this area is likely to impact on the population that uses this wetland complex.' (GHD 2012).

Australia supports the entire population of Latham's Snipe - estimated at 36,000 - during its non-breeding period. The Powling Street Wetlands in Victoria constitute one of the greatest known concentrations of this usually dispersed species.

Nowhere else in Australia do Latham's Snipe congregate so regularly in such large numbers to feed before their journey back to Japan. One hundred or more snipe have been counted at the site on 38 occasions, including 430 birds on 19 September 2010. Yet, the houses are going up and there is nothing we can do to stop them.

However, we have started a petition to the Federal Environment Minister, Greg Hunt, calling for stronger national laws with a merits review. The petition can be found at the following link: **http://www.savethebirds.org.au/save-our-birds-from-bad-decisions-and-weak-laws/**

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Chukotka Red Knot turns up in the Hunter Estuary, NSW, Australia

Chukotka Red Knot: Chris Herbert

A Red Knot with a white flag engraved CUE and a lime green band above the flag was seen at the Hunter Estuary from 18 September to 9 October 2013. This bird was banded as a 4-day-old chick at Meinypilgyno, Chukotka, Far East Russia on 7 July 2012. Six days later it was caught again and the leg flag and colour band added. It is now 14 months old and probably on its way to New Zealand. The reason we think it's headed for NZ is that its father had a geolocator strapped to his leg for the summer of 2011/12 and results from that showed he spent the austral summer in the North Island of New Zealand - perhaps this youngster will follow in its father's footsteps! Thanks to Pavel Tomkovich for banding and geolocator information.

Liz Crawford & Chris Herbert

Beach-nesting birds need our support

BirdLife Australia's Beach-nesting Birds Program is currently facing real uncertainty about its future. We were unsuccessful in the first stage Expression of Interest for *Caring for our Country* (CFOC) funding.

While this cycle of CFOC appeared like a perfect fit for the program because a key target area was the Australian coast, the lack of recognition of any resident shorebirds as nationally significant has really let them down. The irony is that the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* has greater powers for protecting migratory species, due to international agreements, than it does shorebirds who reside only in Australia.

For the Hooded Plover *Thinornis rubricollis* (**Figure 1**), the lag in recognition of their national threatened status and the political nature of EPBC listings has meant that they aren't currently on the list. For the Beach Stone-curlew *Esacus magnirostris*, we don't know enough to say confidently whether this species is in trouble or not, but we certainly know it is threatened in NSW and QLD, and that the supposed strongholds along Cape York, offshore islands and the Top End aren't as pristine and hence resilient as we think they are. Rising sea levels are eating away the shores of offshore islands and cays. Northern beaches of Australia are impacted by vehicle use, threatened by sand-mining development (which brings with it miners who have money to buy off-road vehicles and drive them on beaches), brumbies, wild pigs, etc. Then there are other species of terns, oystercatchers, Red-capped Plovers, even dotterels and lapwings: nesting on the ground and/or being coastally dependent are a recipe for disaster in this current climate with threats escalating rapidly.

To our knowledge the threats facing beach-nesting birds are not on the radar as an issue of concern; this is only addressed to a small degree by state and regional agencies, again limited by resourcing issues, with resourcing determined by prioritisation processes which continue to overlook resident shorebirds and seabirds.

Without the Beach-nesting Birds Program, we have the potential to lose our voice and our connection across the nation. Because these birds are highly dispersed, their conservation requires cross-border, multi-land manager approaches to conservation. As an NGO we have the capacity to bring everyone together and as scientists, independent of politics, we have the know-how to identify priorities for conservation management and get them off the ground. It is very important that localised efforts are consistent, outcomes are shared, and there is somebody to analyse data and strategise directions for national recovery of these birds.

Figure 1. Hooded Plover and chick - Glenn Ehmke

While the team here at BirdLife Australia are working very hard to apply for grants and source new streams of funding, we are very aware that time is of the essence before we lose experienced staff and the momentum we have built within our team of dedicated volunteers.

Even well-known comedian John Clarke has come onboard to express his support for the program: "I've spoken to the Hooded Plovers who nest on the beach near us," Clarke says. "They're very good about it and they never complain but it's pretty clear they can't fund their own survival. They say they've got their food and habitat organised. They just don't have a fundraising program!"

Through BirdLife Australia's Beach-nesting Birds Program, we have halted the decline in the Hooded Plover population, and birds are now returning to beaches where they have been extinct for up to 15 years. Awareness of the birds and their plight amongst beach users is as high as 77% on the central Victorian coast, an indication that we have effectively conveyed that beaches are bird habitat to a large proportion of the beach-going public (**Figure 2**). Simple actions, such as alerting beach users to the needs of these vulnerable birds through signs and temporary fencing, wooden shelters for chicks and the need to leash their dogs have improved the Hoodies' chances of **successfully raising chicks from 5 per cent to 50 per cent**. Without the spread of volunteers participating in this project, these birds could not successfully breed at the majority of Victorian sites. While people have been the detriment of this species, they are now assisting to undo the damage and bring them back from the brink.

BirdLife Australia has set up a crisis appeal at **www.savethebirds.org.au/** Every little bit will help us keep the program going!

Grainne Maguire

Beach-nesting birds need our support cont.

Figure 2. BirdLife Australia's Beach-nesting Birds Program being implemented on a popular beach - Glenn Ehmke

Red Knot proposed for Endangered Species Act Protection in US

BRISTOL, Pennsylvania - 27 September 2013. The United States Fish and Wildlife Service proposed Endangered Species Act protection today for the Red Knot, a shorebird that migrates more than 9,000 miles between the poles, from its South American wintering grounds in Tierra del Fuego to its Arctic breeding grounds in northern Canada. The proposed protection for the attractive, reddish-brown shorebird is the result of a landmark legal settlement with the Centre for Biological Diversity that requires the agency to make protection decisions for 757 species.

"The Red Knot is a testament to tenacity, but right now it really needs our help," said Noah Greenwald, endangered species director with the Centre. "With massive overharvest of the horseshoe crabs these birds need to fuel their spectacular migration, protection can't wait any longer."

Red Knots that migrate along the eastern seaboard have declined by 75 percent or more since the 1980s, in part because of dramatic declines in horseshoe crabs in Delaware Bay, which the birds rely on for food along their 9,300-mile journey from the southern tip of South America to the Arctic. Red Knots that do not put on enough weight at the Delaware Bay staging grounds perish on the final push north to the breeding grounds, or may be too weak to nest successfully once there.

The scarcity of horseshoe crabs is being caused by major harvest increases, since the 1990s, for bait in the eel- and conch-fishing industries and for biomedical use. Red Knots may also be particularly susceptible to global climate change, which is already causing pronounced changes at the high latitudes where the bird breeds and winters.

"Today's agreement gives the Red Knot hope for the protection it needs to halt its decline and begin the climb back to recovery," said Maya K. van Rossum of the Delaware Riverkeeper Network. "It would be a terrible tragedy if we lost this beautiful and remarkable bird."

The Red Knot migrates in larger flocks than most shorebirds and is highly faithful to the same stopover sites on the annual migration journey. Scientists have estimated that nearly 90 percent of the entire population can be present on the Delaware Bay in a single day. Moving in large flocks is probably an adaptation against predation, but also makes the Red Knot vulnerable to habitat change and loss of site-specific food sources, like the horseshoe crab.

Delaware Riverkeeper Network and other groups sent a petition to the Fish and Wildlife Service for emergency listing of the Red Knot in 2005. A year later the Service determined the birds warranted protection, but did not provide that protection due to lack of resources.

To date the Centre's 757 species agreement with the Service has resulted in final protection for 111 species and proposed protection for 62 species, including the knot.

The Centre for Biological Diversity is a national, non-profit conservation organization with more than 625,000 members and online activists dedicated to the protection of endangered species and wild places.

Source: http://www.biologicaldiversity.org

Hunter Estuary Shorebird Protection Program

The Hunter Estuary is the most important shorebird habitat in NSW and contains the Hunter Estuary Wetlands Ramsar Site. Some 38 species listed under the *NSW Threatened Species Conservation Act* are found in the estuary, while 22 species of marine and migratory shorebird listed under the *Environment Protection and Biodiversity Conservation Act 1999* have been recorded within the area. Bar-tailed Godwits, Pacific Golden Plovers and Eastern Curlews are among the thousands of shorebirds that can be seen roosting in the estuary during the summer months.

In 2010, WetlandCare Australia (WCA) received a grant from the NSW Environmental Trust to undertake a program to protect shorebirds in the Hunter Estuary. The program, delivered over a period of two years from August 2011 to June 2013, was supported by the Office of Environment and Heritage (NPWS Newcastle Area), the Hunter-Central Rivers Catchment Management Authority, Hunter Bird Observers Club, and the Hunter Wetlands Centre.

Through community education and engagement, WCA engaged 23 organisations and over 5,000 individuals. In all, 91 volunteers contributed 1,754 labour hours to the project. Three educational posters and a suite of postcards were produced showing the NSW Environmental Trust logo. WCA staffed a display stand and shorebird activities at annual "Welcome Shorebirds" events, "Biodiversity Day" events, the "Family Festival" on Ash Island and the "Smart Living Festival" in Lake Macquarie.

WCA also hosted a Scientific Seminar on the theme of *Shorebird Best Practice Management* which attracted 11 speakers and 60 attendees. A World Wetlands Day event in February 2012 involved 18 people in a habitat planting project and about 25 attended an educational slide show on shorebirds.

These events enabled the program manager to partner with key stakeholders in the estuary, build productive relationships, promote the program and raise awareness and understanding of the presence of shorebirds in the estuary and how to conserve them.

A community monitoring program was established for foxes and Hunter Bird Observers Club conducted monthly shorebird surveys at 17 sites across the estuary, as part of their ongoing monitoring which started in 1999. Shorebird survey results were assessed for two periods: Aug-Dec 2011 and Aug-Dec 2012, coinciding with arrival of the migratory shorebirds. There was a marked increase in shorebirds from 2011 to 2012; however this was mainly due to an increased population of endemic Red-necked Avocet in the estuary. Populations of several migratory shorebirds declined from 2011 to 2012, with many factors in the Flyway affecting their numbers.

WetlandCare Australia recruited and trained a group of volunteers to monitor foxes and other predators. Ten people from three organisations attended the training and submitted 47 observation records, which were collated and mapped to inform the location of bait stations and evaluate success of the fox-control programs.

A research project on fox predation concluded that: foxes are present throughout the project area; unidentified birds make up the second most significant food group; foxes have an indirect impact on shorebirds by causing disturbance at roosting and foraging sites; and foxes are documented as risk factors for 6 species of shorebird in the estuary.

Poison baits were laid to control foxes for two weeks in the spring of 2011 and summer of 2012 and for six weeks in spring 2012 and summer 2013. In total, 1,211 baits were laid over 16 weeks at 8 sites across 6 land tenures. 233 baits were taken, with a bait-take rate of 19%. There is evidence that not all foxes in the project area were killed during the baiting programs, and that foxes immediately recruited into the areas following baiting. However, we succeeded in reducing fox numbers during the critical periods when shorebirds arrive in poor condition, and later when they are fattening up for their epic journey north.

WetlandCare Australia hosted a briefing and planning workshop for Natural Resource Management stakeholders to identify, prioritise and partner in applications for the Australian Government's *Caring For Our Country* program. An outcome of this workshop was an application led by the NSW NPWS to continue a program of education, weed control and fox control focusing on shorebird protection in the estuary, building on the success of this project.

Louise Duff
Manager Hunter Region
WetlandCare Australia

The forgotten tail of the EAAF

Migration studies and conservation of wagtails and other passerines should focus on the reversal of habitat loss

The East Asian-Australasian Flyway (EAAF) is vast and widely understudied, but its natural resources are already lost or at least widely over-committed. The environmental issues encountered on this flyway are equally mind-boggling, and so is its fascinating species set-up. While we still try to study specific flyway components and their conservation one by one, and with much effort going into shorebirds, it must be emphasized that, as yet, we have hardly covered the real breadth of the flyway species and their habitats. Passerines, for example, are a group that is widely understudied on the flyway, and will likely remain understudied for years to come. Apart from international taxonomic disputes and missing population estimates, we hardly know which species and subspecies do migrate, where and for how long on this flyway. At least it is safe to assume that many of the species numbers have already been declining for years: a serious problem that is hardly recognized, not even among EAAF practitioners! The Yellow-breasted Bunting *Emberiza aureola* is one such candidate species; Arctic Warbler *Phylloscopus borealis* is another, with some individuals migrating from Alaska across the Russian Far East down to southeast Asia for wintering. Other examples are the Siberian Rubythroat *Luscinia calliope* and the Pacific Bluethroat *Luscinia svecica*. With the Arctic already showing a dramatic change (+7 degrees Celsius over the next 100 years is predicted) and the tropics already being dramatically developed, what can such species expect, and what will pro-active management look like, considering that passerines are virtually unmanaged, but trapped and poached along the flyway and in many of the southern wintering grounds! Wagtails (*Motacilla* sp.) might be another good example: some individuals migrate from Arctic Alaska to the Tibetan plateau, and other individuals from the old world occur even in northern Australia. Overall, the EAAF easily carries over 1,500 species with a vast number of subspecies and meta-populations; all need to be managed in a sustainable fashion. Our burgeoning human population precludes sustainable management of natural ecosystems. The species which might currently 'bounce up' are the ones of early successional stages, e.g. benefitting from human impacts like urbanization, agriculture or clear-fell forestry. The picture faced by the remaining wilderness in the EAAF is one of serious decay and wholesale destruction.

Let's face it and be honest: The problems on this flyway are virtually already out of our hands, they are not really fixable anymore and we can prepare ourselves for large-scale write-offs: part of the tail will get lost one way or another. This sad reality is specifically true if we keep relying on 'business as usual', pursue a devastating global economic policy and favour amateurish and consistently underachieving approaches to conservation; all of which failed us so much already. While the public, scientists and most NGOs still promote mist-netting and basic surveys, such methods have hardly worked in the past, and will presumably be virtually irrelevant for the avian species diversity tail of the EAAF and for passerines. Geo-locators, known to be expensive, can carry quite large mortalities, and unrecoverable data will not help the situation here either, beyond a 'flash in the pan'. It's just 'business as usual' empowering failed stakeholders of the past. Whereas, acquiring habitat, *en masse*, in more than 30% of the EAAF might help. If you really want to help the birds, invest in habitat acquisition strategically, consider how to handle human dimensions, move towards a revised economy and let's celebrate a new culture. This new culture is one where the birds rule and their survival determines which economy gets implemented. That is because only an economy that is good for the earth is good for humans.

But let's also be realistic: under the current regime the EAAF and its management will NOT change dramatically, nor will it really achieve progress socially, economically and environmentally. It's a spastic elephant tumbling down a spiral. Just consider the atmospheric changes that are ongoing and not resolved for decades from now, as well as the aggressively promoted path of increased consumption and human population growth for the next 50 years and beyond. Most biodiversity along the EAAF either lacks protection or is just protected by 'paper tigers' that actually make things worse. With that, be ready to simply write off a large chunk of the EAAF flyway biodiversity as you know it; unless good changes come about any time soon most of that tail will simply get lost wholesale (sorry for the bad news…).

Falk Huettman

Guwayi the Bar-tailed Godwit

Yawuru language teacher, Maxine Charlie, remembers as a child seeing large flocks of Bar-tailed Godwits flying over the foreshore of Roebuck Bay when camping with her family. What she didn't know at the time was that these birds carry out remarkable feats of migration between Siberia and Roebuck Bay travelling over 10,000 kilometres each way.

With a keen interest in keeping the Aboriginal Yawuru language alive and strong in Broome, Maxine decided to write a book about these amazing global travellers that have a special Yawuru name. "I wanted to write a little documentary so children can learn about this beautiful bird with the special Yawuru name Guwayi and its incredible flights across the world each year." Maxine Charlie said.

The result is an outstanding children's book that shows Guwayi's migration, plumage, nesting habits and food sources on the mudflats of Roebuck Bay and the thawing arctic tundra.

Chris Hassell, a passionate shorebird researcher for 17 years with the Global Flyway Network (GFN) and Australasian Wader Studies Group (AWSG) in Broome, is impressed with the children's book that was launched at the Broome Bird Observatory recently.

"It's not just a book about the Bar-tailed Godwit in its cultural context, and it's not just a book about it in its scientific context. It is really a beautiful blend of the two and you don't often see that, and to see the blend done so beautifully was a great joy to me and to be involved in a very small way was a privilege."

The Bar-tailed Godwit is one of the easier species to identify because of its size, and is a target species to research for these ornithology groups. The research is providing valuable information on the bird's migration pattern and its survival, to better understand its biology and assist in its conservation. "They really are champion migrants. When they leave Roebuck Bay they fly 6,500 kilometres non-stop for four days, no eating, no sleeping, no drinking, just one single direct flight to the Yellow Sea on the Chinese coast." Chris Hassell said.

The ornithology researchers have been capturing and releasing godwits along Roebuck Bay for many years to collect biological data and attach individually marked metal and plastic leg bands. The leg bands provide migration data as the birds are identified along the East Asian-Australasian Flyway. Modern technology has also been deployed, as Chris explains, "we have also put satellite transmitters inside the birds using a surgical operation, then released the birds back into the wild where they were tracked by satellite on their migration."

Maxine Charlie with her children's book *Guwayi The Bar-tailed Godwit*. © Kandy Curran

"The timing of the northward migration is critical and we saw that their flights were very direct to the Yellow Sea and very direct into the Yakutia region of eastern Siberia, but on their return, a few came back directly, a few stopped off at the Philippines, and a few at Indonesia and Borneo. They sort of dribbled back as the time constraints are not as great as on their return to the non-breeding grounds. All that information has come about, from putting a metal band on the birds or using modern cutting edge technology with satellites", Chris Hassell said.

The research by the ornithologists is ongoing, with godwits and other migratory shorebirds being caught, measured, banded and then released in an effort to better understand the migration patterns, and survival rates of these truly amazing birds. Interesting data from the GFN and AWSG is at hand from the colour banding project that shows a Bar-tailed Godwit when it matures has, approximately, an 86% chance of survival to the following year. The knowledge from this research is vitally important to the future survival of these incredible migrants, and to Yawuru people like Maxine, it helped satisfy the curiosity she has had about these birds since her early childhood.

Kandy Curran
Roebuck Bay Working Group Project Manager

Guwayi The Bar-tailed Godwit is available from the Broome Bird Observatory. Email contact: broome@birdlife.org.au

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