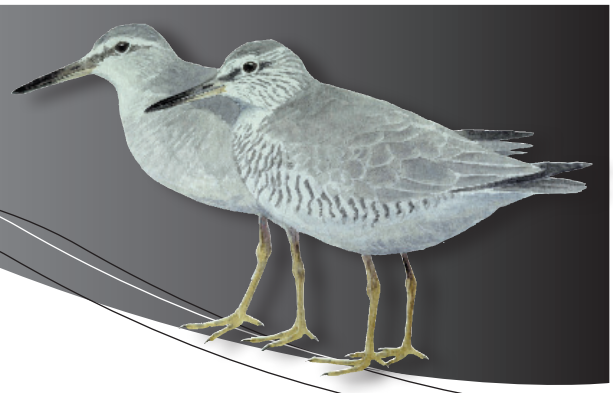
Tattler



Newsletter for the Asia Pacific Flyways

Editor: Liz Crawford Email: tattler@awsg.org.au No. 33 July 2014

In this issue:

Editorial

Northward migration to the breeding grounds has taken place, with several reports in this *Tattler* from observers in the main stopover sites in the Yellow Sea. Sightings of engraved leg flags continue to throw more light on the intricacies and variations in individual bird's migration strategies while satellite transmitters are revealing some of the secrets of Little Curlew migration. What an exciting era we are living in when such amazing technology is available to help unravel migration and to highlight critical stopover and staging sites.

On the down side are the results of research into tidal flat loss in the Yellow Sea and the realisation that shorebirds are declining rapidly in Tasmania, the southernmost extent of the East Asian-Australasian Flyway.

But on the up side is the first return to the breeding ground of a hand-reared Spoon-billed Sandpiper, confirming the on-going success of the internationally supported Spoon-billed Sandpiper Recovery Program.

And good results for Horseshoe Crab eggs and Red Knot on beaches augmented by sand in Delaware Bay. Although we are busy destroying habitat all over the world, there are some small advances in assisting shorebirds. Let's build on those.

Marsh Sandpiper at Bohai Bay, northern Yellow Sea. Photo ***Adrian Boyle***

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

Australasian Shorebird Conference

Please join us at the 9th Australasian Shorebird Conference in Darwin, Northern Territory on **20–21 September 2014**. There's nothing stint-sized about this conference! There will be 40+ presentations under the themes: constructed wetlands, policy, threats and monitoring, community participation, and ecology and migration of shorebirds. It will be a packed two days with exciting opportunities to engage with leading shorebird researchers from the Australasian region. Conference delegates can relax in the tropical climate of the Top End and will have the chance to see migratory waders as they pass through northern Australia.

Earlybird Registration closes on 31 July 2014, so register now to take advantage of this opportunity, at **http://www.awsg.org.au/australasian-shorebird-conference.php**

See you in September!
The Australasian Shorebird Conference Committee
Contact: Amanda Lilleyman email: conference@awsg.org.au

Proposed banding activity following Australasian Shorebird Conference

The AWSG Biennial Scientific Conference takes place in Darwin on the weekend of 20 - 21 September 2014. Amanda Lilleyman, a first-year PhD student at Darwin University, is the local organiser. We have offered to remain in Darwin after the conference in order to help catch and mark with engraved flags a variety of wader species to aid Amanda's studies.

We plan to have a small team cannon-netting (and, if appropriate, mist-netting) from Monday 22 September to Monday 29 September inclusive. It is hoped that the main cannon-netting equipment can be brought to Darwin from Broome. We are still investigating options for accommodation – when we made a similar visit in 2008 we stayed in on-site caravans at the Lee Point Caravan Park. Amanda is also seeking ways of having sufficient local transport available for the team and the equipment. Would anyone interested in participating in this banding activity please make contact with us now **mintons@ozemail.com.au** if you have not already done so. If you have any specific questions please let us know. We hope to be able to circulate fuller information within a month.

Clive Minton, Roz Jessop, Maureen Christie

Australasian Shorebird Conference Sept 2014 PLENARY SPEAKERS

Dr Richard Fuller

Why are Australia's migratory shorebirds disappearing?
Millions of migratory shorebirds migrate from Arctic Russia and Alaska to Australia and New Zealand. There are population declines in our flyway of staggering severity and rapidity, with some populations crashing by 80% in 20 years. Data from Moreton Bay in Eastern Australia show that migratory shorebirds are declining while resident species are not, and there is huge spatial heterogeneity in population declines across the continent, suggesting that the causes might lie outside Australasia. Using satellite data we have documented rapid loss of intertidal wetlands in eastern Asia, a region known to be of critical importance as stopover habitat for many migratory shorebirds. Our modelling work suggests that habitat loss in this region could have profound implications for shorebird populations at a flyway level, and comprehensive analysis of Australasian shorebird data indicate severe declines in several species dependent on East Asian stopover sites.

Dr Judit Szabo

What are we doing to halt declines in migratory shorebirds in the East Asian-Australasian Flyway?
Migratory waterbirds connect far-away countries by covering immense distances during their annual migration. This mobility makes their conservation especially challenging, particularly when the same individual has to cope with various pressures at breeding, staging and wintering sites. There is urgent need to identify robust and workable conservation solutions. The East Asian-Australasian Flyway Partnership brings together 30 governmental and non-governmental partners to address this issue of habitat loss and species declines and is working to develop solutions. One initiative is creating Flyway Network Sites along the Flyway. All of the current 113 sites and 900 potential sites host migratory waterbirds in internationally important numbers, but only some of these are protected. After an overview of monitoring and management of Flyway Network Sites, I will give examples of conservation work and government involvement and discuss current activities in different countries in Communication, Education, and Public Awareness, as well as our efforts to influence policy in China and South Korea.

Little Curlew satellite transmitter project

Background

Over the last 30 years the Australasian Wader Studies Group (AWSG), Victorian Wader Studies Group (VWSG) and other wader study groups in Australia have gradually built up, from banding and leg flagging, a knowledge of the migratory routes, key stopover sites and ultimate breeding destinations of the main species of migratory shorebirds which visit Australia. Such information is now available on 28 species, although on half of these the data is still limited.

Although around 1500 Little Curlew have been banded in northwest Australia in recent years, and around 1100 flagged, the only recaptures and resightings of flagged birds have been within the northwest Australia region. There have been no overseas reports at all of marked birds. Furthermore, very few Little Curlew have ever been recorded on migration in Asia. Thus negligible knowledge exists on the Little Curlew's migration strategy and its movements between its known breeding areas in the taiga region of central Siberia and its non-breeding areas in northern Australia.

The majority of the world population of Little Curlew is thought to spend the non-breeding season in Australia. In the light of the major declines reported in the populations of many species of migratory wader we have some responsibility to gain more knowledge on the lifecycle of this species, particularly on its migration route and stopover sites. It is noteworthy that the two conspecifics of the Little Curlew in other flyways are now both extinct. In North America the Eskimo Curlew has been extinct for more than 50 years whilst in Europe the Slender-billed Curlew, which spent the winter around the Mediterranean shores, has become extinct in the last 10 years.

The AWSG/VWSG have successfully employed leg flags and geolocators to study migration routes of a number of species. Recoveries and flag sightings give snapshot information on the location of a particular bird, but are dependent on people seeing or recapturing a bird. The advent of light-weight light-level geolocators (<1 g) five years ago enabled much more detail of an individual bird's migration strategy to be determined because the location of the bird was recorded each day. But the need to recapture a bird to remove the geolocator in order to access this stored data has meant that only a few species – those with high recapture rates – could be studied with this method. Data on Ruddy Turnstone, Greater Sandplover, Eastern Curlew, Sanderling, Great Knot, and a little data on Red Knot has been collected using geolocators.

The recent advent of light (5 gram) satellite transmitters means that these can now be carried successfully by large and medium-size shorebirds. The AWSG decided that the most appropriate species to deploy these on initially was the Little Curlew.

Deployment of satellite transmitters on Little Curlew

The AWSG (North West Australia Wader expeditions) deployed satellite transmitters on five Little Curlew at Roebuck Plains, near Broome, in early November 2013. The solar-powered transmitters were attached to the backs of the birds using 'leg-loop harnesses', which have been widely used around the world over the last 10 years on a number of species. Within the last year they have also been successfully used to attach satellite transmitters to Banded Stilts in South Australia by Reece Pedler (part of his Deakin University PhD studies) and he carried out the attachment to Little Curlew at Broome. Weights of birds caught ranged from 130 to 170 g and the birds selected to carry transmitters had weights in the upper half of this range. In the days following deployment, all five birds were seen at various locations on Roebuck Plains and all transmitters satisfactorily sent signals for downloading every 2.5 days (as programmed).

Little Curlew with satellite transmitter attached and yellow leg flag engraved BH. Photo - *Robert Bush*

Tracking the Little Curlew

The birds roamed over Roebuck Plains until late January when extremely heavy rains completely flooded Roebuck Plains. Signals from two birds were lost at this time and they gradually faded away as the solar-powered transmitters failed to continue to be recharged (the bird above - BH - was one of these). It is not clear whether they died, were predated, or shed their harnesses. One of the eventual locations was in the pindan woodland, suggesting that the bird may have been predated.

At the end of January 2014 the three remaining

Little Curlew satellite transmitter project cont.

Little Curlew flew about 200 km south to Anna Plains station, adjacent to 80 Mile Beach (see Figure 1). After a few days one subsequently moved another 230 km to near Port Hedland. Birds remained at these locations until early March 2014. By 8 March 2014 most of the major floodwaters on Roebuck Plains had subsided and the two Little Curlew from Anna Plains returned there between 8 and 15 March. Surprisingly, one came via a roundabout route spending a day in the Fitzroy River floodplain on the way, 300 km northeast of Anna Plains and 200 km east of Roebuck Plains. Between 21 and 23 March the bird from Port Hedland moved up to Anna Plains and eventually returned to Roebuck Plains between 25 and 30 March 2014.

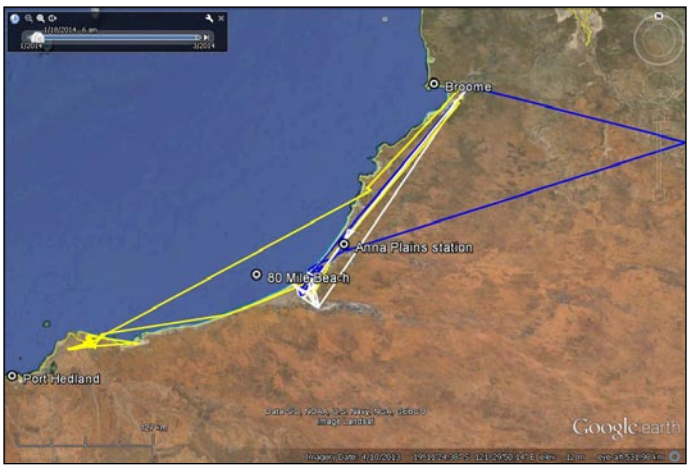


Figure 1 - Tracked movements of three Little Curlew in NW Australia from the end of January through to the end of March 2014.

Eventually the Little Curlews departed on northward migration, the first around 22 April and the other two around 8 May 2014, much later than expected. The first Little Curlew (131945 - flag engraved BD) spent about 10 days in the Philippines and made shorter stopovers in China before arriving on the Central Siberian breeding grounds on 25 May 2014. It had flown almost 10,000km in a month. It is breeding at the extreme north-western edge of the breeding range shown in the recent Russian Atlas, at 70°N 100°E (Figure 2).

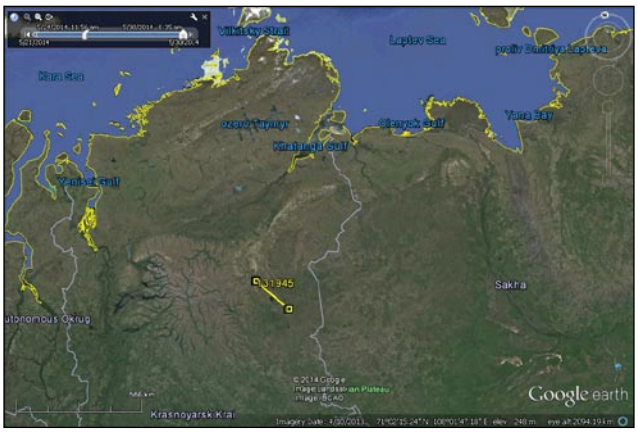


Figure 2 - Little Curlew (BD) on breeding ground in Central Siberia.

The second Little Curlew (131947 - flag engraved BB) has been tracking very closely to the path of the first (BD), albeit about 2 weeks behind; on 16 June 2014 it was in China.

The third Little Curlew (131943 - flag engraved BC) spent almost three weeks on Lombok, Indonesia before finally moving further north on 10 June. It flew 1700 km before landing on the tiny island of Mapun, Philippines, near Lake Sapah. A few days and 650 km later it stopped again on the Philippine island province of Palawan, where it is using an agricultural area. It will be very interesting to see if this bird continues northwards. Literature suggests this species arrives at breeding grounds at the end of May, so it may be too late for this bird to continue its migration.

The transmitters are programmed to download location information every 2½ days, and tracks and updates on the progress of the migrating Little Curlews are available on several websites:

BirdLife Australia: **http://farewellshorebirds.org.au/the-flyway-map/**

EAAFP website: **http://www.eaaflyway.net/our-activities/working-groups/shorebirds-working-group/little-curlew-satellite-transmitter-project/**

Rick Simpson's blog: **http://www.waderquest.org/**

Costs and Donors

The five satellite transmitters had a total cost of $22,121. Since the units were deployed in early November we have been incurring Argos satellite charges of approximately $500 per month. With a potential life of up to two years, download charges could eventually total $20,000.

So far donations and other contributions towards the cost of this project total $29,000. Major donations have been received from the Yulgilbar Foundation, Deakin University, Charles Allen, David Seay and Bob Hall. These have covered half of the above total with the remainder being covered by accumulated reserves from North West Australia (NWA) wader expeditions over the past 15 years and by a specific contribution from the NWA 2013 expedition.

The future

It is fascinating to follow the migratory paths of the Little Curlew on their northward migration and in particular, to see where they make migratory stopovers. Every data point is completely new information on this species.

Little Curlew satellite transmitter project cont.

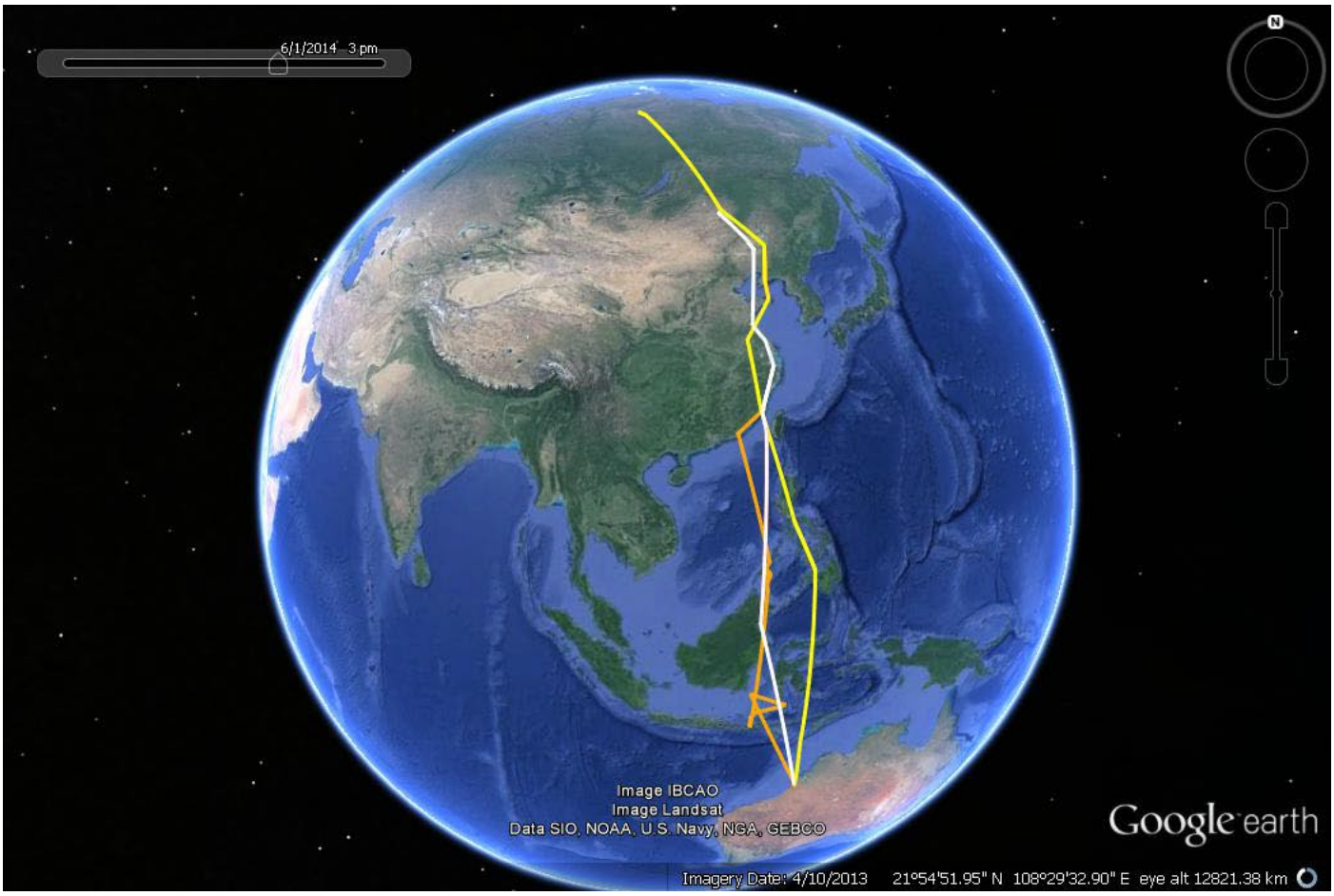


Figure 3 - Northward migration tracks of Little Curlew with satellite transmitters on 2 July 2014. Little Curlew BD (yellow track) has reached the Central Siberian breeding ground. Little Curlew BB (white track) has reached China and may continue on to the breeding ground. Little Curlew BC (orange track) has reached southern China.

Available weight data suggests that Little Curlew only make pre-migratory fat additions of 30-40% to their fat-free weight, much less than many other migratory shorebirds departing Australia at this time. So it is not surprising that their initial migratory flight was not as long as some other species'. It will also be interesting to see just when these birds arrive at their Siberian breeding grounds and where the birds from northwest Australia breed. The southward migration will be of particular interest because of the relatively late arrival of Little Curlew back in Australia (mostly in October). Do they stop and carry out a partial wing moult on their southward journey? And will they return again to Roebuck Plains?

Lots of questions – let us hope that our three tracking birds provide some of the answers!

Acknowledgements

Huge thanks are due to those who so generously provided funding to cover the purchase of the expensive satellite transmitter units and the ongoing costs of the Argos satellite downloading of data. Those who took part in the relevant field work, especially in early November 2013, are also greatly thanked. The Western Australia Parks department is thanked for providing appropriate research permits.

Clive Minton and Inka Veltheim

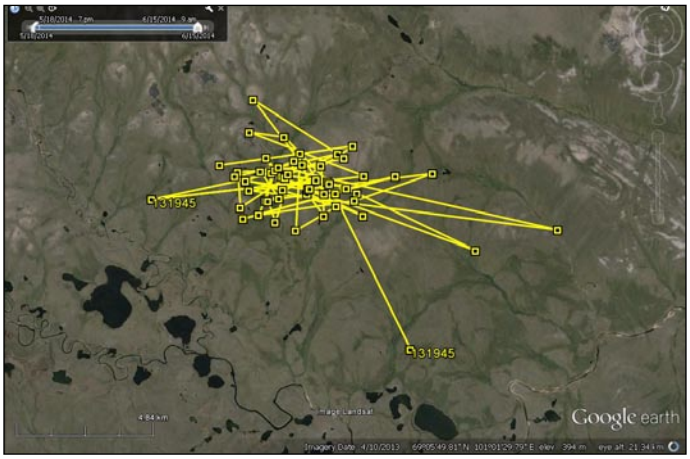


Figure 4 - Movements of Little Curlew BD on breeding ground in Central Siberia.

China Coastal Waterbird Census

For 2 weeks from mid-April, I took part as a volunteer in the China Coastal Waterbird Census focusing on the northern shorebird migration at the Shuangtaizi National Nature Reserve, the location of which is shown on the Google Earth image.

I was based at a small town about 80 km south-west of the city of Panjin, in the Liaoning Province on the northern coast of the Yellow Sea. I was joined by Victorian Wader Study Group member, Surong Gunn, whose bi-lingual skills were indispensible. For the first two days, Jing Li, who coordinated the surveys, joined us. Mr Zhang Ming, an eminent member of the Panjin Birdwatching Society, who had arranged access to the Reserve, met us on site to advise us on how best to go about the surveys and the use of the area by shorebirds.

Approaching the Reserve, wind turbines in the fields signalled we would not encounter calm conditions. In fact, we had only one day without a strong cold wind.

On entering the Reserve, the vast expanse of mudflats is broken only by the constructed walls projecting into the sea taking vehicles to and from the oil wells tapping into the apparently plentiful supply. The shorebirds seem to be accustomed to the traffic and while it is not a pristine environment, the mudflats provide a food source for shorebirds and critical roosting habitat above the high-tide mark.

By the end of the survey period we were in a routine; take the bumpy 45-minute drive to the Reserve to arrive about an hour before the peak of high tide to conduct the count. Afterwards, we would don full-length waders and trudge out onto the mudflats following the birds on the outgoing tide scanning for leg flags. During the many hours spent scanning, we ended up with about 150 sightings of leg-flagged birds, although this includes multiple sightings of the same individual birds. The majority of the sightings were of birds banded in North West Australia, Victoria and New Zealand. Seeing them so far from home is just awe inspiring.

Of the shorebird species at the Reserve, Bar-tailed Godwit and Great Knot were the most abundant and our focus was on them when scanning for leg flags. Both *menzbieri* and *baueri* subspecies of Bar-tailed Godwit were present, confirmed by our leg-flag sightings. Again, although present in only small numbers, both subspecies of Red Knot, *piersmai* and *rogersi* were observed.

Of the larger species, both Eurasian and Eastern Curlews were observed but only a few Whimbrel.

Shuangtaizi National Nature Reserve is on the northern coast of the Yellow Sea.

Shorebird surveyors counting shorebirds against a backdrop of oil rigs. Photo *Surong Gunn*.

Common Greenshank at Shuangtaizi NNR. Photo *Surong Gunn*

Bar-tailed Godwit at Shuangtaizi NNR. Photo *Surong Gunn*

China Coastal Waterbird Census cont.

Most of the smaller species (apart from the numerous Dunlin) like Lesser Sand Plover and Red-necked Stint were only just starting to arrive as our time came to an end and we did not see Curlew Sandpiper. A surprise find on our first day was a Eurasian Woodcock which obligingly stayed on the rock wall to be photographed.

Eurasian Woodcock on rock wall. Photo *Surong Gunn*.

The Reserve includes a breeding area set aside for Saunders' Gull, about 6,000 of them. The reed paddocks nearby attract a variety of ducks and shorebird species. Here we recorded Pacific Golden Plover, Grey-headed Lapwing, Black-tailed Godwit, Ruff, Marsh Sandpiper, Wood Sandpiper, Green Sandpiper, Common Snipe as well as Eurasian Oystercatcher, Pied Avocet and Black-winged Stilt.

Common Snipe at Shuangtaizi NNR. Photo *Surong Gunn.*

Apart from shorebirds, we had ample time to look for other bird species, notably waterbirds, raptors and passerines. As we neared the Reserve one day, we witnessed a spectacular performance by a pair of Peregrine Falcon working in tandem, first attacking a Pied Avocet and then a Eurasian Pied Oystercatcher, surprisingly without success. On another occasion, a male Pied Harrier was another treat. The Reserve, being on the northern shore of the Yellow Sea, seems to act as a passerine trap for migrating birds. A rather handsome looking Mongolian Lark seen on one of the walls on our first day was apparently the first record for the Liaoning Province and a beautiful male Siberian Rubythroat also made an appearance on the same wall a few days later.

The highlight for me was seeing shorebirds in full breeding plumage. What a transformation Grey Plover make from the drab non-breeding plumage that we see in the southern hemisphere to the stunning black and white underparts and spangled silver upperparts of their breeding plumage. I have always admired the Red Knot in breeding plumage but I was struck by the full breeding plumage of the Great Knot, particularly the white-fringed chestnut and black scapulars. Certainly there is no difficulty in identifying the knot and sand plover species and you see why our smallest shorebird is named Red-necked Stint.

Grey Plover in spectacular breeding plumage contrasting beautifully with dark red vegetation. Photo *Sun Yan-yan.*

I encourage shorebird enthusiasts to take part in future surveys. While it can be challenging and, at times, frustrating, it is a rewarding experience and a great opportunity to learn from, and share time with, shorebird enthusiasts in other parts of our flyway. As for the food, well it is scrumptious, plentiful and inexpensive.

My special thanks to Jing Li for making the arrangements for travel and accommodation during our stay.

Arthur Keates

Dunlin foraging at Shuangtaizi NNR. Photo *Surong Gunn.*

Searching for 'Spoonies' in Rudong, China

Twenty minutes after high tide on 2 May 2014, I stepped onto the mudflats at Dongtai, Rudong, northeast of Shanghai. For the next twenty-two days the mission was to search for the highly endangered Spoon-billed Sandpiper. The tide here retreats at walking pace away from a massive artificial seawall that now blocks the tidal flow from marginal wetlands. These are wetlands used by waders for roosting at high tide. Within a few years these wetlands will become reclaimed land and the roosting sites may disappear unless there is concerted conservation action.

I was with Guy Anderson, manager of research at the Royal Society for the Protection of Birds (UK) along with James Phillips and Adam Gretton from the organization, Natural England, and Andrew Baksh from New York. With expert local support from Zhang Lin and coordination by Jing Li we were the Rudong Team for the 2014 China Coastal Waterbird Census.

Three hundred metres out from the seawall I focused my scope on water pools and their wet margins and scanned through flocks of Red-necked Stint and Dunlin. I had never seen a 'Spoonie' except in a field guide. This is methodical work. To the untrained eye 'Spoonies' can look similar to other small waders until the bill is spotted. With experience, the moulting plumage differences that distinguish them from Red-necked Stint became a key feature to look for in a dense mixed flock where the bill can't be seen.

After forty minutes one was in my scope. It had a lime green flag on the upper left leg with the numeric '05'. It was feeding energetically by pecking lightly on the mud surface. Spoon-billed Sandpipers' bill sweeping motion seems only to occur when in shallow water. In 2013 just eight Spoon-billed Sandpipers caught on their nesting grounds were flagged with lime green numeric flags.

Pavel Tomkovich from the Department of Ornithology, Zoological Museum, Moscow State University reported to us on the history of 'Lime 05'. It is a female caught on her nest near Meinypilgyno Village, southern Chukotka, Russian Far East, on 20 June 2013 (band no.: MOSKVA KS18825). Her eggs were taken for artificial incubation and captive chick rearing before release on the breeding grounds as part of the Head-Start Project. This bird then successfully produced a second brood on the nest. Later 'Lime 05' was observed and photographed on its wintering grounds at Khok Kham, Samut Sakhon Province, Inner Gulf of Thailand on 30 November 2013 where it remained until at least 6 March 2014.

Spoon-billed Sandpiper with lime green leg flag engraved 05, banded on 20 June 2013 near Meinypilgyno Village in Far East Russia and seen on 2 May 2014 at Rudong, China.
Photo *Robert Bush*

We estimated the effort needed to find a Spoon-billed Sandpiper on Rudong's mudflats involved scanning approximately 6000 small waders to find one Spoon-billed Sandpiper. Approximately 116 sightings were made and it is likely this represented 41 individual birds; two with engraved flags, 04 and 05. Our estimate of individual birds was based on careful study of differences in breeding plumage. Learning to rate breeding plumage takes time and is enhanced by constant collegiate consultation, review of photographs and referral to plumage charts provide by the Spoon-billed Sandpiper Taskforce.

Monitoring of the intertidal mudflats and roosting wetlands in Rudong re-confirms this coastal region is a vital staging point for the highly threatened Spoon-billed Sandpiper on migration to its breeding grounds around Chukotka in Far Eastern Russia.

Jing Li, China coordinator for the Coastal Waterbird Census tells me she hopes more overseas birders from across the flyway and beyond will join the survey teams along the Yellow Sea coastline, including Rudong, in the future. Being on the mudflats at Rudong for 6 to 8 hours a day is a tough business but a highly rewarding one. And, off the mud, the woods and grasslands close to the coast have the most outstanding passerine passage migrants in the spring and autumn. We made sure there was always time to check out what passerines were passing through this rapidly changing region.

Robert Bush

First hand-reared Spoon-billed Sandpiper returns to breed

The first hand-reared Spoon-billed Sandpiper has returned to breed in Chukotka, Russia, where it was hatched two years ago. The Spoon-billed Sandpiper is unique in the animal kingdom for being born with a spoon-shaped beak. Numbers have declined by a quarter year on year and it is likely that fewer than 100 pairs remain in the wild.

WWT aviculturist Roland Digby has reared 24 Spoon-billed Sandpipers over the last two summers on their breeding grounds in north-eastern Russia, giving them a head start to ensure they survived their crucial first days of life. Once released, the birds migrated 8,000 kilometres to south Asia, facing exhaustion, starvation and illegal hunting along the way. There has been a two-year wait to see if any will survive to return to breed.

Now one of the group has been seen back at its birthplace by researchers from Birds Russia, Pavel Tomkovich and Egor Loktionov. They reported that the bird is looking heavy, indicating that she is a female carrying eggs and ready to breed for the first time. After two years she could become the first hand-reared Spoon-billed Sandpiper to produce offspring in the wild and add to the species' fragile population.

The hand-rearing is an attempt to stabilise the species' population before it becomes extinct. Rearing and releasing birds on the breeding grounds increases the number of young birds in the wild in autumn by about 25%. Meanwhile conservationists are tackling the illegal hunting and habitat loss that is behind the decline.

The bird hatched on 14 July 2012 from an egg of a clutch collected for artificial incubation on 22 June. After fledging it was released on 10 August and was last seen on the Russian breeding grounds on 17 August 2012. The next sighting was on 7 April 2014 by Chung-Yu Chiang and Chin-Shi Hsu at Kinmen Island, Taiwan, on the edge of the tropics. She was subsequently seen by Pavel Tomkovich and Egor Loktionov near Meinypilgyno, on the edge of the Arctic Circle on 18 June 2014.

The project is part of a multi-pronged international attempt to save the Spoon-billed Sandpiper. In case the birds in the wild suffer further losses, the only reserve flock in the world is being reared in a biosecure facility at WWT Slimbridge Wetland Centre. In the near future, eggs from the Slimbridge flock could be flown to Russia to be hatched and released as an insurance against the species falling into extinction quicker than it can be saved in the wild.

The Spoon-billed Sandpiper conservation breeding programme is a collaboration between WWT, Birds Russia, Moscow Zoo and the RSPB working with colleagues from the BTO, BirdLife International, ArcCona and the Spoon-billed Sandpiper Task Force.

Sourced from: **http://www.saving-spoon-billed-sandpiper.com/2014/06/news/captive-breeding/first-hand-reared-spoon-billed-sandpiper-returns-to-breed/**

Northward migration from Bohai Bay, China

Migrating Asian Dowitcher (left) and Ruddy Turnstone (right) at Bohai Bay. (Photos *Adrian Boyle*)

Global Flyway Network - Bohai Bay 2014

10 April - 10 June 2014

Established in 2006, the Global Flyway Network (GFN) is a partnership between researchers worldwide who are devoted to long-term, usually demographic, work on long-distance migrating shorebirds. Initial efforts will focus on flagship species such as the Red Knot, Great Knot, Bar-tailed Godwit and Black-tailed Godwit. For details on the aims of the project see: **http://globalflywaynetwork.com.au/**

2014 is Global Flyway Network's 5th consecutive year of complete spring coverage at Bohai Bay on the Luannan Coast, China, one of the most significant shorebird staging sites in East Asia.

Salt pond scene, mixed shorebird feeding flock, Bohai Bay (Photo *Matt Slaymaker*)

Colour-bands and leg-flags are the primary target of the Bohai surveys. Some old friends are here such as two of our regular Bar-tailed Godwit, Y1YLYB originally ringed in Broome, northwest Australia and W5YWBB originally ringed in New Zealand. Both of these birds have been seen here every spring since 2010! Since the arrival of the Red Knot, these have been our main focus. There are plenty of orange flags (ringed Victoria, Australia) and white flags (New Zealand) which is what we have come to expect as the subspecies *rogersi* pass through the area first. Less regular flag combinations have included 4 birds ringed in Chukotka (including one with a geolocator), 1 from Sakhalin and 1 ringed in South Korea. The latter is the first time we have seen this flag combo at Bohai.

As regular readers will be aware, this area has a few environmental problems! On our first day in the field we hadn't even made it to the mudflats before we came across an all too familiar issue. Every year we find mist nets set up to illegally catch birds although these are usually targeting passerines. This time we noticed a line of nets set in a saltpan, the first time we have found someone actively trying to catch shorebirds here. In total we released (alive) 13 birds from the 7 nets (Sanderling, Dunlin and Kentish Plover) over 2 days and, with permission from the Wildlife and Forestry Department, we destroyed the nets. We have since heard that the man who set the nets has been visited by the authorities who issued an official warning and a fine! Good news and hopefully a deterrent to others who may be tempted to do the same.

Illegal mist nets in saltpans (Photo *Matt Slaymaker*)

Although our core study site is still the mudflats of Nanpu we regularly visit the adjoining areas of coast. These areas still host shorebirds, but they are nowhere near as productive as they have been in previous years and act as a constant reminder of how quickly things can change and how precarious is the future of the birds here. Zuidong, an area where we conducted a large proportion of our scanning during our early visits to Bohai, is now flanked by a six-lane highway and building work on reclaimed land is well underway. The small fishing village on the banks of the river is unrecognisable. To the north, birds are almost completely absent from Beipu. Small numbers spill over from the mudflats at Nanpu but the days of scanning as the birds streamed over the wall to the first available mud at this site seem a thing of the past. A little further and our view is blocked by a new wall currently under construction. One of the areas favoured by the knot in 2013 is being made substantially smaller as more than 1km^2 of mud is 'reclaimed'. In this particular area the reclamation seems to be for shrimp ponds and the area of mud taken up for this expands a little every year, slowly eating away at the birds' feeding areas. The stretch of mud where we estimated 80 000 Curlew Sandpiper in 2011 no longer exists.

Many aspects of the migration of Red Knot are still a mystery, particularly for those spending the non-breeding season in northwest Australia. We watch them leave Broome … then it all gets a bit hazy as many birds aren't seen in Bohai until several weeks later! Do they stop and if so, where? Do they fly straight here but we don't see them right away? All hard questions to answer based on colour-band sightings alone. In the last week a couple of birds have bucked the trend and seem to have done a direct (or almost

Global Flyway Network - Bohai Bay 2014 cont.

direct) flight. Thanks to the dedicated work of local Broome volunteers making regular visits to scan the shores of Roebuck Bay combined with our daily efforts on the Luannan Coast, we have several individuals seen there and here within relatively short time periods. One within 7 days, one in 8 and another in 9 days, all excellent records! As usual there are more questions than answers but it is a start…

A couple of 'new' Red Knot from Chutkotka have been seen including a second bird with a geo-locator. Interestingly, Ady saw and photographed the same individual recently in Australia. We think it is great the way these birds travel around the Flyway, linking both countries and people. Every individual has an interesting story into which we are occasionally allowed a glimpse to remind us that there is still much to learn. Where has this bird been between sightings? Where will it go next? Who will be the next observer to share this bird's world? Hopefully the device that this bird is carrying will aid our understanding but it will also raise more questions. It may help address the 'what?' but leaves many 'why?' and 'how?' questions wide open. Ever-improving technology is providing us with increasingly detailed data-sets, which not only help us to learn about and ultimately conserve the birds, but also leave us in awe at the remarkable capabilities and lives of these creatures.

New Zealand has a vested interest in some reserve status being attributed to this site as a considerable proportion of 'their' Red Knots pass through here. If the Luannan Coast strip of inter-tidal mud is destroyed then it won't only be noticed by a lack of Red Knot in northwest Australia. So the more people that get to come here and enjoy the birds is a bonus as it keeps the profile of this critical site high. Just in the last week, Google Earth has updated the images for this area for the first time since we started visiting the area and the differences are striking as industrial development closes in around us. For those of you with a scientific interest in the mudflat loss around the Yellow Sea go to http://www.eaaflyway.net/tracking-the-rapid-loss-of-tidal-wetlands-in-the-yellow-sea/ for a comprehensive paper on the subject.

Spartina is a genus of grass that grows in coastal ecosystems in many parts of the world. Some species are invasive and have been known to take over tidal mudflats having serious implications on both the wildlife and the livelihoods of those who rely on an area for food and work. On the Luannan coast, there was a small *Spartina* patch by the sea wall at Zuidong but in recent years this has spread rapidly and now can be found over 5 km away at Nanpu, our main study area, posing yet another threat to the Red Knot habitat. Last week we started a trial to try to control the spread while it is still manageable. Next year we will see the results and hopefully continue the work in the remaining patches. A big thanks to David Melville and Ying Chen for initiating and organising this work.

Adrian Boyle takes on the *Spartina* (Photo *Ginny Chan*)

The season is starting to draw to a close. There comes a day when you notice that some species just aren't here anymore. There is no grand exodus, they drift away gradually but it's not until many have left that it really sinks in. You suddenly realise that you haven't noticed a Great Knot for a few days or that the Thai-flagged Godwit you see every day has disappeared. This year we have been doing some evening scanning and have seen a few birds leave, small flocks of ten to 100 birds departing to the north.

In total, since spring 2010 the 'Bohai team' has recorded over 20,000 flag and band sightings of shorebirds here. This includes nearly 2500 colour bands from Broome and thousands of engraved flags from throughout the flyway. We have seen markings from at least 23 ringing regions on at least 23 species!

Projects like this don't happen without considerable long-term funding. GFN would like to acknowledge BirdLife-Netherlands, WWF-Netherlands, WWF-China (Beijing Office), Beijing Normal University and the Australasian Wader Studies Group. And of course, we (the main Bohai Team) thank Prof. Theunis Piersma for his inspiration, continuing encouragement and support. Theunis' position as Chair in Global Flyway Ecology is possible with considerable in-kind support from the University of Groningen and the Royal Netherlands Institute for Sea Research (NIOZ).

Adrian Boyle & Matt Slaymaker

Summarised from the Bohai 2014 Updates:
http://globalflywaynetwork.com.au/bohai-bay/bohai-bay-fieldwork-journal/

NWO crowns the best scientists in the Netherlands

Migratory bird ecologist Theunis Piersma, experimental physicist Dirk Bouwmeester, archaeologist Corinne Hofman and environmental technologist Mark van Loosdrecht have received the NWO Spinoza Prize 2014 from the Netherlands Organisation for Scientific Research (NWO). The NWO Spinoza Prize is the highest award in Dutch science. An international committee selects the best researchers on the basis of internationally recognised quality, the ability to attract and inspire young researchers, and knowledge utilisation and transfer. This autumn each of the laureates will receive 2.5 million euros to spend on scientific research.

Professor Theunis Piersma (1958) is Professor of Global Flyway Ecology at the University of Groningen and is Wadden Sea biologist at the Royal Netherlands Institute for Sea Research (NIOZ). With an international research team he investigates how climate, food, predators, pathogens and historical-genetic background influence mudflat and meadow birds. For example he is investigating godwits and Red Knots. The research is taking place in the Netherlands, Africa, Australia, North and South America and Asia. Along the migratory bird routes, Theunis Piersma has built a worldwide research network. His two laboratories, one in Groningen and one at NIOZ, are recognised worldwide as the best two places for research into migratory birds. In addition, Piersma is leading research into the influence of nature conservation plans on migratory birds.

Piersma's research changed the standard ideas about flight aerodynamics (the maximum non-stop flight distance for a bird was found not to be 5000 km, but a staggering 13,000 km), has demonstrated the major role of pathogens in the life and evolution of mammals and birds, and thrown new light on how the flexibility of the

NWO-Spinoza Prize Laureates L-R: Dirk Bouwmeester, Mark van Loosdrecht and Theunis Piersma with NWO-Chairman Jos Engelen after the announcement of the NWO-Spinoza Prizes 2014 on Friday 6 June. Credits: NWO/Arie Wapenaar

phenotype - what an animal looks like or how it manifests itself - influences evolution in animal species. Piersma made the knowledge about the phenotype applicable outside his own discipline as well.

Piersma combines different research methods: sampling shellfish and worms in the Wadden Sea; interpreting satellite images to map conditions on a large scale; molecular genetic research; use of micro-transmitters to follow individual birds; and use of advanced statistical methods to unravel all of these processes. His fundamental research has led to major adjustments in natural resources management on many occasions. For example, research into soil animals and the sediment composition of mudflats in the Wadden Sea has led to a ban on the mechanical fishing of cockles and to changes in the management of the Wadden Sea.

Piersma's passion for biology is not only expressed in research: together with the multi-instrumentalist Sytze Pruiksma he developed the show *Music of Migration*; a story about the godwit. In his free time he has also written the book *De Zwaluwen van Gaast*, in which he describes his fascination for the fellow residents under his roof: the House Martin.

For more information: **http://bit.ly/SCVF6n**

New website and charity: Wader Quest

Wader Quest is a small, non-profit charity supporting wader conservation projects through both fund-raising and awareness-raising. Although it is based in the UK, it has a truly international scope on waders. Rick and Elis Simpson initiated and established *Wader Quest - a BirdLife Species Champion* originally to support the Spoon-billed Sandpiper Captive Breeding Program but widened their remit to include BirdLife Australia's beach-nesting birds program specifically supporting the Hooded Plovers in a special appeal. They are now also embarking on a project directly funded by *Wader Quest* to study the little known Magellanic Plovers of southern South America. It is easy to donate to these wader-focussed projects via links on the website where you can find information about the projects and waders in general. The latest informative blog on the site explains the differences between Baird's and White-rumped Sandpipers for example. It is still possible to join *Wader Quest* as a Founder Sponsor at very low rates that make being part of worldwide wader conservation accessible to everyone. Further information on: **www.waderquest.org**

Alaska Shorebird Group reaching out

The Alaska Shorebird Group (ASG) is a working group of researchers, managers, and other interested individuals that focuses on sharing information about shorebirds found in Alaska. ASG hosts an annual meeting with presentations on current research, discussions of shorebird issues with relevance in Alaska, and conservation projects. At the November 2013 ASG meeting, ASG decided to reach out to other organizations to let them know who we are and offer our support to those doing shorebird work around the world. We would especially like to be acquainted with groups working in the East Asian-Australasian Flyway, and the other flyways that terminate in Alaska.

Some of the actions of the group include the writing and publication of the Alaska Shorebird Conservation Plan (**http://www.fws.gov/alaska/mbsp/mbm/shorebirds/pdf/ascp_nov2008.pdf**). ASG has also written letters of support for initiatives and issues of conservation concern, such as protection of the Yellow Sea and position papers on subsistence harvest of shorebirds. Probably of most interest to readers of the Tattler, ASG compiles an annual summary of current shorebird studies relevant to Alaska. This year's summary includes an overview of the Arctic Shorebird Demographic Network as well as specific descriptions of some of the projects within the Network. In addition, the summary includes other research from across the state, ranging from migration, nest survival, feeding ecology, and other aspects of shorebird ecology. These annual reports can be seen on the ASG web page:
http://www.fws.gov/alaska/mbsp/mbm/shorebirds/working_group.html.

ASG also manages a list-serve that can be accessed at
https://www.fws.gov/lists/listinfo/ak.shorebird. If you would like more information about the group please contact Roy Churchwell at **rchurchw@alaska.edu**.

Roy Churchwell

Experts warn Tasmania's shorebirds face 'wipe out'

Migratory shorebird populations in Tasmania, Australia are in a "catastrophic collapse" that could wipe out some species from the local scene in a matter of years, warn experts.

University of Queensland researcher Richard Fuller, who is conducting federally-funded research that has documented a massive decline of migratory waders throughout Australia and New Zealand, said populations were collapsing faster in Tasmania because the island was at the end of the East Asian-Australasian migratory fly-way that started in the Arctic Circle. "It is a catastrophic and unsustainable collapse," Dr Fuller said. "We are beginning to see local extinctions in Tasmania."

BirdLife Australia spokesman Eric Woehler said the Curlew Sandpiper, a small shorebird that bred in Siberia and was present in southeast Tasmania in the thousands in the late 1980s, had "virtually vanished". He said Eastern Curlews were down 90 per cent on numbers recorded in the 1950s at some sites in southeast Tasmania.

"The loss from Tasmania of these remarkable migrants, flying up to 25,000km on a round trip every year, would mark a significant loss to our state" Dr Woehler said. "We're not talking about imminent extinction risk for species globally but we are talking about extirpation (local extinction) from Tasmania. Curlew Sandpiper numbers are down 95 to 99 per cent, and none have been seen during summer counts for several years. We may see one occasionally around the traps but we used to have as many as 1800 here in southeast Tasmania in the late 1980s, now there's essentially nil. We used to record 240 Eastern Curlews in the late 1970s, now there's fewer than 40 in southeast Tasmania."

Dr Woehler said the cause of the collapse appeared to be "death by a thousand cuts". It was thought climate change in the Arctic might be affecting migratory wader numbers. Human population increases and developments in Asia, such as the Saemangeum sea wall project on the coast of the Yellow Sea in South Korea, had destroyed enormous tracts of habitat. Large shorebirds such as the Eastern Curlew also were hunted and eaten in Asia. Habitat loss from developments and sea level rise were reducing suitable wetland habitat in Tasmania, and disturbance by dogs, four-wheel-drives and humans was exacerbating the problem.

Simon Bevilacqua
The Mercury 17 May 2014
Sourced from www.themercury.com.au

Research Communications - Tidal Flat Loss

Nicholas J Murray, Robert S Clemens, Stuart R Phinn, Hugh P Possingham, and Richard A Fuller (2014). **Tracking the rapid loss of tidal wetlands in the Yellow Sea**. *Frontiers in Ecology and the Environment* **12**: 267–272. http://dx.doi.org/10.1890/130260

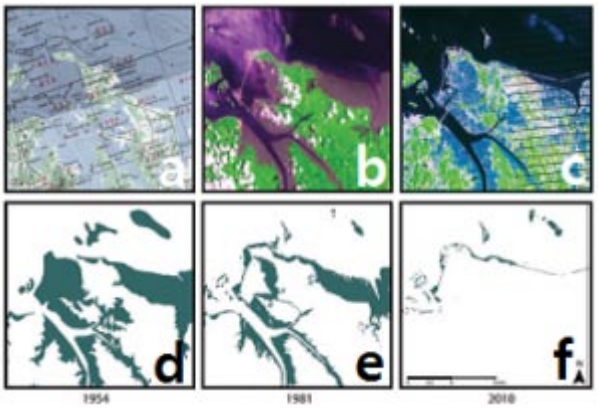


Figure 1 An example of tidal flat mapping results, showing the raw data (a–c) and mapped tidal flats (d–f). The results reveal widespread loss of tidal flats from 1954 (left) to 2010 (right). Satellite images (b) and (c) show that tidal flats present in 1981 (e) were reclaimed for agricultural and industrial land by 2010 (f).

A newly published study assesses the extent of tidal flat loss in the Yellow Sea area. It covers the coastal stretch from north Jiangsu province in China, around to the coast of North Korea to Busan in South Korea. The study analysed old maps and more recent satellite images to assess change over a 50-year period, covering around 4000km of coastline.

Yellow Sea tidal flats provide an estimated $30 billion in ecosystem services. They are important in stabilising coastlines, defending against storm surges, and providing economic opportunities to human communities. The coastal zone is home to 60 million people. This population pressure coupled with unprecedented urban, industrial and agricultural expansion has put the health of the ecosystem under severe strain and there is concern for the conservation status of the many species reliant on the tidal flats.

The team digitized the detailed topographic maps of the US Army Map Service dating back to the 1950s as their baseline, and used the satellite imagery of the Landsat Archive from the 1980s and early 2000s, estimating tides at the time of the images and using an error matrix to assess the accuracy. Results show that the extent of tidal flats in the 1980s was 545,000 ha, that has shrunk to 389,000 ha in three decades, equating to a 28% net loss. The greatest extent of loss is along the coast of China (39.8%) and South Korea (32.2%). Taking into account the 1950s topographical maps, it is suggested that this could equate to 65% decline in 50 years.

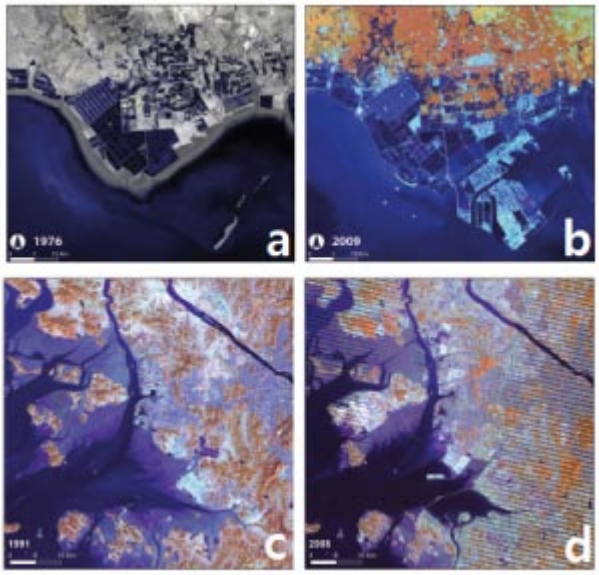


Figure 2 Examples of tidal flat conversion to alternative land uses, Landsat Archive Imagery. (a and b) Coastal reclamation for resource ponds (salt ponds) and industrial land, Bohai Bay, China. (c and d) Reclamation for urban and industrial land, Incheon, South Korea

In discussion, the loss of tidal flats is equated to that of other ecosystems, such as tropical forests and mangroves. It is also highlighted that the drivers for the decline in tidal flats are not unique to the Yellow Sea. Degradation and reclamation is happening worldwide, and seems likely to intensify. It is also mentioned that the damming of rivers, trapping sediment in reservoirs which would otherwise continue to maintain tidal flats and river deltas, combined with resource extraction and coastal development could contribute to sea level rises greater than the global average.

The Yellow Sea coastal region is of utmost importance for many migratory shorebird species, which are solely dependent on the food resources supported by the tidal flats for their survival. The Great Knot and Eastern Curlew, for example, have been deemed globally threatened by the IUCN.

Sourced from:
http://www.eaaflyway.net/tracking-the-rapid-loss-of-tidal-wetlands-in-the-yellow-sea/

Original Link: http://www.esajournals.org/doi/abs/10.1890/130260

AWSG leg flag sightings snippets

Over April/May and early June 2014, there have been 787 sightings reported from 89 observers across 18 species. Many other sightings are still to come in when people get their field books transferred to spreadsheets over the coming months. While there haven't been any unusual sightings to report, the following illustrates the range of sightings related to Australian flagged birds or birds sighted in Australia.

Several yellow flagged **Bar-tailed Godwit** from Broome, Western Australia were seen at Ola Lagoon, on the Sea of Okhotsk, in Far Eastern Russia by Russian researcher Igor Dorogoy in late May. These included a colour-banded bird, 4YLBR, that had been banded in Roebuck Bay, about 9020km away on 7/10/12 aged 2, so it was probably on its first migration back to the breeding area.

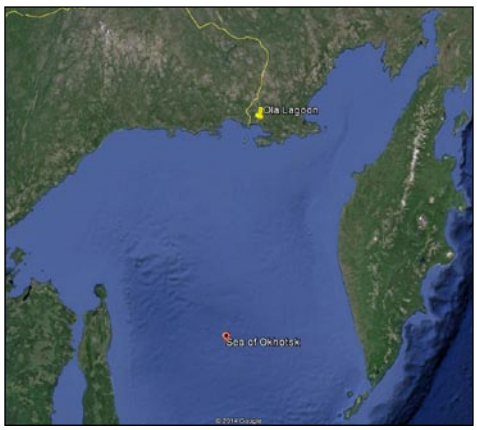
Bar-tailed Godwit on Ola Lagoon. Photo - *Igor Dorogoy*

A **Sanderling** from Canunda National Park in southeast South Australia, was seen at Hasaki Beach in Japan by Yoshiya Odaya, 8161km away on 24/5/14. The Sanderling, orange engraved / yellow 'U3' was banded on 10/11/11 aged 2+.

Arthur Keates and Hebo Peng saw **Bar-tailed Godwit** green engraved 'ASL' at Yalu Jiang, China on 1/5/14. This bird had been banded 8000km away at Toorbul, in Queensland, on 3/2/13 aged 2+.

Earlier in the year at Toorbul, on 15/3/14, Dez Wells saw a Yalu Jiang flagged and colour-banded **Bar-tailed Godwit**, green/orange 2BWYY that had been banded on 14/4/12.

Tony Habraken made many sightings of orange engraved flagged **Red Knot** over the austral summer that had all been banded in four catches between Barwon Heads and Corner Inlet in Victoria. When the banding details were checked it turned out that Tony had seen over 40% of all the birds banded at those catches, with nearly all being aged one at banding. This reinforces the understanding that many first-year Red Knot



Location of Ola Lagoon, on the Sea of Okhotsk, Far Eastern Russia

stay in Victoria initially, but ultimately move to New Zealand before they start their breeding migration.

Clare Morton saw her regular **Curlew Sandpiper** from Hong Kong white/yellow 'T8' for the last time on 2/4/14. This bird has been seen 55 times around Roebuck Bay in Western Australia over three summers since first being noticed on 3/9/11. T8 was banded at Mai Po aged 3+ on 18/4/11.

Chung Yu Chiang saw twenty individually identifiable **Great Knots** on 31/3/14 at Wang-Gong, in Taiwan, that were banded at Broome. These included yellow 'XKP' (banded 9/3/13 aged 2+) that was carrying a geolocator. Sightings of birds with geolocators are very valuable to help ground-truth the locations.

A **Great Knot** banded at Chongming Dao (black/white) was still present at Darwin on 21/4/14 and appeared to be in non-breeding plumage. It will be interesting to see if Gavin O'Brien and team saw it again.

A **Double-banded Plover** banded on King Island (orange/blue) was seen at Flinders Island on 29/3/14 by Penny Johns. It had most likely just returned from New Zealand after breeding and could have been moving on to King Island again.

On the domestic front, Liz Crawford and Chris Herbert saw numbers of **Red-necked Avocet** increasing at the Hunter Estuary as they sent in their sightings of Victorian-flagged birds. Avocet increased from 519 on 23/4/14 to 1400 on 14/5/14 and to 2200 on 5/6/14. Over that time, they had all disappeared from their regularly reported Victorian spots.

Rog Standen

Custodian AWSG database
Email: flagging@awsg.org.au
If possible, please notify AWSG of flag sightings through the AWSG website:
http://www.awsg.org.au/reportform.php

Wader breeding success in the 2013 arctic summer

Reproduction rate is one of the two key parameters controlling wader populations. A full account of the results of percentage juvenile sampling of waders in south-east Australia (SEA) and north-west Australia (NWA) during the November 2013 to March 2014 non-breeding season will be published in *Stilt* and in *Arctic Birds*. The data in **Tables 1** and **2** provides estimates of wader breeding success for a range of species in the 2013 Northern Hemisphere summer.

Table 1. Percentage of juvenile/first year waders in cannon-net catches in SE Australia in 2013/14

Species	No. of catches		Total Caught	Juvenile/1st year		Long term median* % juvenile (years)	Assessment of 2013 breeding success
	Large (>50)	Small (<50)		No.	%		
Red-necked Stint	8	6	2185	379	**17.3**	14.8 (35)	Average
Curlew Sandpiper	3	2	251	100	**39.8**	9.6 (34)	Very good
Bar-tailed Godwit	2	1	152	68	**44.7**	18.5 (24)	Very good
Red Knot	0	2	19	18	**(94.7)**	58.0 (18)	(Very good?)
Ruddy Turnstone	0	18	475	179	**37.7**	9.3 (23)	Very good
Sanderling	2	1	157	33	**21.0**	10.0 (22)	Good
Sharp-tailed Sandpiper	2	0	126	24	**19.0**	11.5 (32)	Average

All birds cannon-netted in period 2 November 2013 to 25 March 2014 except Sharp-tailed Sandpiper and Curlew Sandpiper to end February 2014 only and some Ruddy Turnstone and Sanderling to early April 2014.
* Does not include the 2013/2014 figures.

Table 2. Percentage of juvenile/first year waders in cannon-net catches in NW Australia in 2013/14

Species	No. of catches		Total Caught	Juvenile/1st year		Assessment of 2013 breeding success
	Large (>50)	Small (<50)		No.	%	
Great Knot	8	3	1049	53	**5.0**	Very poor
Red-necked Stint	4	7	676	131	**19.4**	Average
Curlew Sandpiper	1	14	281	66	**23.5**	Average (Good?)
Bar-tailed Godwit	2	7	224	38	**17.0**	Good
Red Knot	3	10	392	31	**7.9**	Very poor
Ruddy Turnstone	1	7	133	41	**30.8**	Very good
Sanderling	0	4	5	1	**-**	-
Non-arctic northern migrants						
Greater Sand Plover	4	9	843	181	**21.5**	Average
Terek Sandpiper	1	9	139	21	**15.1**	Average
Grey-tailed Tattler	2	8	314	51	**16.2**	Average
Broad-billed Sandpiper	0	4	29	2	**(7.4)**	(Very poor)

All birds cannon-netted in period 1 November 2013 to mid-March 2014.

After the abysmal 2012 breeding success of most of the migratory wader species which spend the non-breeding season in south-east Australia it was particularly welcome to see that all species had a much improved performance in 2013. In Curlew Sandpiper, Bar-tailed Godwit and Ruddy Turnstone the 2013/14 percentage juvenile figure had only been exceeded twice in the 35 years of this study. Curlew Sandpipers achieved an incredible 45.3% juveniles in 1991/92. In the same year – well known worldwide for its incredible productivity – the Ruddy Turnstones produced 80.3% juveniles. High figures in Bar-tailed Godwits occurred in 1981/82 (60.5%) and 2007/08 (36%). These are a far cry from the single figure numbers obtained in these three species in 2012/13 and also in 2011/12.

The 2013 breeding outcomes for migratory wader species in north-west Australia were also generally an improvement on the previous year, but overall they were not as good as the results from south-east Australia. It was interesting that Ruddy Turnstone breeding success was of the same unusually high level in both areas suggesting that conditions were suitable for their breeding in 2013 across a wide area of their arctic breeding habitat. Red-necked Stint outcomes were also similar in the two areas (17.3% juveniles in south-east Australia and 19.4% in north-west Australia). It is of particular concern that both Red Knot and Great Knot in north-west Australia again had a low percentage of juveniles, with both species now having had similar low percentage juvenile figures for each of the last three years. It is tempting to wonder whether the extensive losses of habitat at their major stopover sites in the Yellow Sea, used especially on northward migration to the breeding grounds, are now having an effect on the subsequent breeding success when birds reach the arctic.

Clive Minton, Roz Jessop and Chris Hassell

Grey-tailed Tattler - an Australia-Japan connection

In February 2012, Lois Wooding and Alan Stuart began investigating the status of Grey-tailed Tattlers in Port Stephens on the NSW central coast. During the preparation of their first paper about their study (*The Whistler* **7**: 38)[1], the scarcity of published information on this species became apparent. They decided to use the relatively small Port Stephens population as a basis for studying behavioural aspects of the species including roosting, foraging and intra/inter-species interactions.

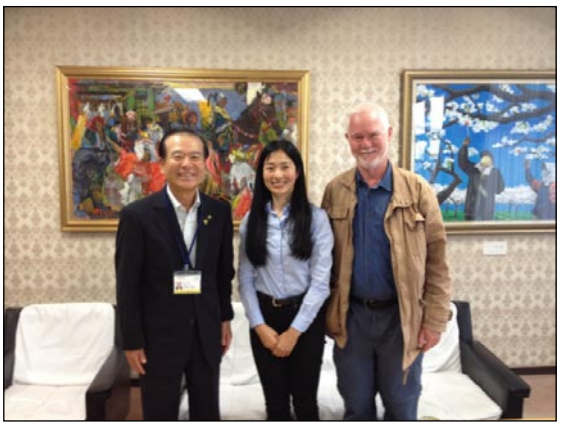
The ongoing project has accumulated data not previously documented, and observations of characteristics that appear to distinguish Grey-tailed Tattlers from most other shorebirds. Those observations will become the subject of a second paper. The species is also unusual in that it enjoys relative population stability compared to the decline in numbers of so many other shorebird species. Branson *et al.* (*Stilt* **57:** 50-58)[2] provides at least a partial explanation by establishing that Grey-tailed Tattlers avoid the rapidly depleting resources of the Yellow Sea by migrating through Taiwan and Japan. Definition of the migratory route gave rise to the possibility of extending the study to include a comparative behavioural study with staging migratory Grey-tailed Tattlers in Japan.

Alan Stuart visited Japan in July 2013, during the tattlers' southern migration, establishing local contacts at several sites where the birds were known to stage. In May 2014 Alan returned to Japan to observe the birds in northern migration, spending extended periods of time at three sites in Kyushu (Kumagawa Estuary, Arao-higata and Najima Bay in Hakata Bay) and two sites on Tokyo Bay (Sanbanze and Yatsu-higata). Yatsu-higata and Arao-higata are both Ramsar sites. Arao, only listed in 2012, was particularly remarkable for both the number of shorebirds, including tattlers, and the number of enthusiastic observers documenting their presence. Yatsu, an oasis surrounded by intensive development, proved to be another excellent site, and a tribute to the ability of local communities to influence conservation outcomes.

At all sites Alan worked closely with local shorebird experts, also enlisting their help with data collection. He also gave presentations on shorebird migration (including Grey-tailed Tattlers) to local community groups in Yatsushiro (on the Kumagawa Estuary), Arao and Najima Bay. He discussed shorebird conservation and the management of Ramsar sites in a meeting with the Mayor of Arao, and an interview with a reporter from a major Fukuoka newspaper led to a half-page article.

The degree of interest and community involvement that Alan experienced in Japan was very noteworthy. His Grey-tailed Tattler observations were productive noting several behavioural differences, some of which appear to contradict the published literature. It is expected that the exchange of information will continue, and more Japanese visits may eventuate. The possibility of a future visit to the tattler breeding grounds in Siberia is also of interest.

Alan Stuart



Alan Stuart (R) at Arao Town Hall with the Mayor Junji Maehata (L) and Dr Hiromi Yamashita of Ritsumeikan Asia Pacific University.

At a community forum in Arao.

Watching shorebirds at Sanbanze (Tokyo Bay); L to R: Mr Kei Itou, Mr Yutaka Matsukawa and Mr Hitoshi Akatsu. Photo: *Alan Stuart*

[1] **http://www.hboc.org.au/index.cfm?menukey=11**
[2] **http://www.awsg.org.au/stilt.php**

Delaware Bay Visit 10 May to 1 June 2014

Introduction

International teams of volunteers supported local wildlife and environment personnel in shorebird research at Delaware Bay in May 2014. This is the 18th consecutive year of intensive shorebird studies aimed principally at the understanding and conservation of Red Knot, which use the bay as a migratory stopover. This report covers activities on the New Jersey side of the bay.

Horseshoe Crabs

Horseshoe crabs spawned extensively on almost all night-time and daytime high tides throughout May, irrespective of the forecast tide height and the state of the moon. There was only one really rough windy day when spawning did not take place. Whilst there were some days with moderate onshore winds, and corresponding stronger wave activity, this was not sufficient to unearth successfully buried horseshoe crab eggs. For the first time for several years, there was no period when there were masses of horseshoe crab eggs floating on the water's edge or deposited on the shore. Thus feeding shorebirds (and gulls) were largely dependent on eggs spilled or unsuccessfully buried during the spawning process. Adequate egg supply seemed to be available for the birds because the number of crabs spawning was continuously good throughout the shorebird period. The beaches replenished with sand to rectify losses caused by Superstorm Sandy in November 2012 proved particularly popular with the crabs and shorebirds

Red Knot

The first flock of Red Knot (500) on the New Jersey side of the bay appeared at Reeds Beach on 10 May 2014. Numbers built up over the next two or three days to 2,000 and then to 7,000 in the Reeds Beach/Cooks Beach/Kimble's Beach/ Pierce's Beach section. By 20 May numbers briefly reached 12,000 in this area, where extensive sand replenishment of the beaches was carried out following Superstorm Sandy.

With such large numbers of Red Knot distributed at a range of locations it was not difficult to obtain satisfactory samples at regular intervals to monitor weights. These showed that newly arrived birds were all in good condition. Furthermore new arrivals ceased rather earlier than usual. Thus the whole population was gaining weight rapidly as almost a single cohort. Mean weights of Red Knot increased from 128g on May 14 to 132g on May 16, to 144g on May 18, to 174g on May 23, and finally to 181g on May 26. The mean weight on 23 May was the highest ever recorded (in 18 years) on this day. 180g is considered a "good" weight with all birds of such weight being ready for migratory departure.

Between 16 May and 23 May the rate of increase in the mean weight of birds was 6g/day – a sure indication of good feeding conditions and a lack of further new arrivals. One of the 11 "within season" re-traps gained 59g in 10 days (16 to 26 May). The track of mean weight was above the long-term average for almost the whole of the monitoring period and even above the "desirable" weight from 18 May onwards. The final average weights achieved were the best for ten years. Several individual birds exceeded 200g, with one reaching 215g.

The first visible migratory departures occurred on the evening of 25 May – as early as ever recorded for this species. Birds exited each subsequent night with the last large major cohorts departing on 30 May.

Overall 970 Red Knot were caught (816 new birds) – a higher than usual total because of the need to reverse the noticeable decline in the proportion of the population carrying leg flags. Birds were mainly caught in seven catches equally spaced between 12 and 27 May. There were 19 captures of Red Knot banded elsewhere – nine from Argentina, four from Brazil, four from Chile and two from Canada. The oldest locally-banded re-traps were one from 2000 and two from 2001. Two birds were recaptured for the fourth time. One of these had been captured in 2004, 2006, 2011 and now 2014.

A major excitement was the resighting, on Reeds Beach, of B95 (orange engraved flag). This Red Knot was originally banded as an adult during the first catch at Rio Grande in Tierra del Fuego, Argentina, in February 1995. It is now a minimum of 21 years old. It was seen in the same place on Delaware Bay last year. Another old bird, banded in 1998 at San Antonio in Argentina, was also resighted this year on Delaware Bay.

Four Red Knots carrying geolocators – deployed at a range of locations – were recaptured. Because most of these were two or more years old (with their batteries now flat), they were sent back to the UK manufacturers for downloading.

Bay-wide ground censuses and aerial surveys were carried out on 25 and 28 May. All the evidence suggests that on the first date the whole of the Red Knot population which visits the bay was present, but some had certainly departed by the time of the second survey. Data is currently being collated but it appears that there was another small increase in Red Knot numbers,

Delaware Bay Visit 10 May to 1 June 2014 cont.

with approximately 24,000 present on the New Jersey side of the bay and a further 5,000 on the Delaware side.

Ruddy Turnstone

In contrast to Red Knot, Ruddy Turnstone arrivals on the New Jersey side of the bay were somewhat delayed this year with the largest numbers not appearing until after 20 May. A few of the weights of arriving birds were low (down to 82g) suggesting that they had experienced less favourable migration conditions or fattening conditions in their non-breeding areas (mainly in the Caribbean). Average weights of samples were close to the average for the 17 previous years of the study and satisfactory weights were achieved by the end of May. Migratory departures did not commence until 29 May and there were still quite good numbers of birds present on 31 May and even 1 June.

Population levels were censused on 25 and 28 May with a total of only about 17,000 present. It does appear that this species is currently exhibiting a significant population decline similar to that which occurred in Red Knot 10 – 20 years ago. Since the crab population/egg food available on Delaware Bay now seems to have stabilised (albeit at a lower level than historically) it would seem that a shortage of horseshoe crab eggs may not be the prime reason for any recent Turnstone population decline. Maybe it is associated with the high level of disease which Turnstone captured on Delaware Bay exhibit? The extensive data which the "bleeders and poopers" (virologists) from the University of Georgia have collected may throw further light on this.

Overall a total of 479 Ruddy Turnstone was captured, of which 420 were new birds. This figure is slightly down on other recent years, mainly because of the relative dearth of Turnstones on the bay until after 20 May. Only four good catches (over 50 birds) were made, but these were nicely spaced over the three-week period (the last being on 30 May).

Two Ruddy Turnstone carrying geolocators (one put on in Brazil) were re-trapped. The oldest re-trap was a bird from May 2000. The good rate of weight gain was achieved by a re-trap which went from 87g to 132g between 14 and 21 May (6.5g per day). Another individual put on 65g in nine days (7.2g per day).

Sanderling

As usual, much less emphasis was given to Sanderling in banding and flag-sighting activities. Four significant catches were made, spread evenly between 14 May and 31 May. The total of 597 birds contained 548 newly banded birds.

As for Turnstone, weights followed closely the average for the previous years of the study. The average take-off weight of 85g had been reached by the time of the last catch on 29 May.

There were quite a number of within-season recaptures. These showed rates of weight gain lower than achieved by Red Knot and Turnstone with most averaging one or two grams per day. The highest rate achieved was a bird which went from 56 to 79g between 24 and 31 May (3.3g per day).

Sanderling populations were also counted on 25 and 28 May. It is difficult to obtain accurate figures for this species because they are sometimes mixed with large numbers of Semi-palmated Sandpipers. Although there is a significant size difference between these two species, close-packed roosting or flying flocks make the numbers/proportions of each species difficult to determine when they are in mixed aggregations.

Breaking News

Since the end of this year's fieldwork it has been announced that there will be a further $5million grant towards beach replenishment on the New Jersey bay shores. This is excellent news and should further aid the consolidation of improvements now being recorded in horseshoe crab spawning and the Red Knot population. A grant has also been awarded for sand replenishment at Stone Harbour – a major Red Knot night-time roosting area.

Clive Minton
20 June 2014

Mark Barter Award 2014

Mr Zhang Lin has been awarded the Mark Barter Award for 2014. AWSG established this Award in honour of Mark whose contribution to shorebird research, particularly in the Yellow Sea, was invaluable. The Award enables the recipient to be sponsored to the Australasian Shorebird Conference in Darwin in September and to enable any follow-up training that may be relevant. Zhang Lin is a very worthy and appropriate recipient as he has spent over 8 years undertaking surveys on the China coast of the Yellow Sea, particularly in Jiangsu Province, a region that so many of our shorebirds use as a stopover on migration.

Ken Gosbell

artIS... studio & gallery

Invites Entries for an October Exhibition/Competition
The Inaugural

"Birds:
Heather Gibbs Memorial Art Prize"

Entries close Friday 19 Sept 2014
Opening Night – Friday 10 October 6pm – 7.30pm
Exhibition continues until Friday 31 October 2014

Heather Gibbs, a gifted woman, was lost to her loved ones in November 2012. She was an unassuming, gentle person who was a bird lover, researcher, photographer, active environmentalist and custodian of the AWSG leg flag sightings database. She loved nature and its wonders. To capture some of the beauty of the bird world in art will be a constant reminder to us all of the fragility of this beautiful world. The Art Prize is created in her memory for her beloved children, Dominic and Amy.

Further enquiries – Jan Synot **art is...gallery**,
Level one, 64 Little Malop Street, Geelong, Victoria 3220
Mobile: 0421 969 230 **www.artisgeelong.com.au** for entry forms

North West Australia Wader and Tern Expedition 2015

A series of special expeditions has taken place over the years to undertake comprehensive long-term studies of the waders and terns in North West Australia. The next major NW Australia Wader and Tern Expedition will take place from:

Friday 6 February to Saturday 28 February 2015

Participants are of course welcome to arrive early or stay afterwards if they wish, but please plan to participate in the **full** expedition. A large number of people (ideally 25-28) will be needed for a satisfactory team throughout this 3-week period. You are strongly encouraged to come and take part. Contact details for the expedition leaders are given below.

As usual, the fieldwork program will principally consist of regular banding and appropriate counting of waders and terns at two locations (Broome and 80 Mile Beach). Additional effort will again be put into scanning for leg flags and colour bands, particularly at 80 Mile Beach. The specific objectives are:

- To obtain an estimate of the relative breeding success in the 2014 Arctic breeding season of all the main species of migratory waders. This will be 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 and several species at 80 Mile Beach. This is to facilitate the collection and calculation of survival rate data in the future and to enhance the information obtained from flagged birds seen overseas.

If you would like to participate, please contact:
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