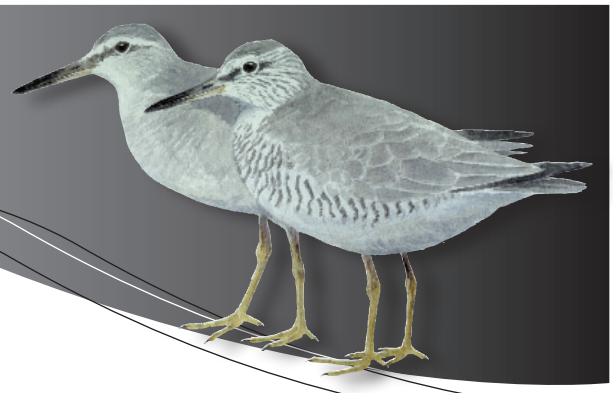
Tattler



Newsletter for the Asia Pacific Flyways

Editor: Liz Crawford Email: tattler@awsg.org.au No. 31 February 2014

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Editorial

People are connected to birds for many different reasons and in many different ways. For some it is a sublimation of the hunting instinct - to hunt and collect through binoculars, telescopes and cameras; for others it is the desire to study, understand, and perhaps control or at least arrest the ongoing population declines; to have the satisfaction of counting and searching for flags; to rejoice in the sheer beauty of the birds and their landscapes; to marvel at the feats of endurance that are undertaken annually; to wonder about the mechanics of flight .... All these aspects of human-bird interaction and influence are covered in some way in the articles in this edition of *Tattler*.

Although Australian government funding for shorebird programs has faded, BirdLife Australia will continue to support well-established projects like Shorebirds 2020 and Beach-nesting Birds. WWF-Hong Kong will continue to prepare a conservation plan for shorebirds and advocate for its implementation. Hopefully the politicians will become involved.

9th Australasian Shorebird Conference 20-21 September 2014

The 9th Australasian Shorebird Conference will be held in Darwin on Saturday 20th and Sunday 21st September 2014. The conference will be 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 East Asian-Australasian Flyway. We hope you will join us.

Conference Deadlines:

15 March 2014 Symposia submission deadline – closing soon!

30 April 2014 Abstract submission deadline

1 July 2014 Early registration deadline

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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

Mark Barter Travel Award

The AWSG Committee recently initiated an Award to honour the late Mark Barter. Shorebird workers and others will be aware of the tremendous contribution that Mark made to the understanding and conservation of shorebirds in the East Asian-Australasian Flyway over many years. In view of Mark's substantial contributions through monitoring, training and education focussed on the Yellow Sea region, it is proposed that this Award should seek to build on this work by encouraging the further experience and development of young people who have demonstrated an interest in shorebirds and their conservation.

Scope of Award

The recipient of this Award would be sponsored to the next Australasian Shorebird Conference (ASC) which will be held in Darwin, Northern Territory, Australia, 19 - 21 September 2014. The conference will be held at the Charles Darwin University. Following the Conference an opportunity will be given for the recipient to undertake further specific training and/or field experience which may include visiting another Australian city. The Award will include:

Return air fares, all internal transportation and accommodation and all conference registration costs.

Selection Criteria

As the Award is focussed on the Yellow Sea region, applications are sought from interested people from China and the Republic of Korea. Applicants should have a demonstrated interest in shorebirds and supporting their conservation through a scientific approach. It would be of benefit if the applicant would be prepared to make a presentation to the ASC.

Applications

Applications with supporting information should be forwarded to Ken Gosbell at **ken@gosbell.id.au by 31 March 2014**. At least two referees should be nominated in the application.

Autumn 2013 Survey for Spoon-billed Sandpiper in Rudong, China

Spoon-billed Sandpiper and fishermen share the same kind of habitat - the fishermen promote its protection. Photos Christophe Zockler

For the second time, a comprehensive autumn survey was carried out in the Rudong mudflats. The Spoon-billed Sandpiper (SBS) Task Force, supported by an international team of members from Russia, Korea, Myanmar, the US and Europe, together with the local conservation network 'SBS in China', conducted the 2nd coordinated survey of Spoon-billed Sandpiper stopping over in Rudong from 15-19 October 2013. The team surveyed the coast of Rudong and Dongtai in the Jiangsu Province, a stretch of roughly 120 km of mudflat and found a sensational record total of 143 Spoon-billed Sandpiper and 1200 Nordmann's Greenshank, two of the rarest and most threatened birds of the world. The SBS Task Force believes the **entire world adult population** of both Spoon-billed Sandpiper and Nordmann's Greenshank are staging at the highly productive intertidal flats on the coast of Rudong.

The survey confirmed the outstanding international conservation importance of intertidal wetlands along the 120km of coastline between Dongtai and Rudong, Jiangsu Province. Many of the most important intertidal wetlands along the Jiangsu coast are threatened by continuing reclamation for agricultural and industrial development. However, local and provincial authorities now recognise the international importance of the area as shown by their announcement of the

Autumn 2013 Survey for Spoon-billed Sandpiper in Rudong, China cont.

creation of a new protected area for Spoon-billed Sandpiper. This, together with two shellfish reserves which overlap with most of the wader feeding areas give the first protection to this vital link in the chain of wetlands that these two species depend on to get from their breeding areas in the arctic to the wintering sites in tropical SE Asia. It is hoped that these fledgling reserves will eventually achieve protection at provincial and national level.

The survey was followed by a two-day workshop co-hosted by the Rudong government, Jiangsu Province and the Spoon-billed Sandpiper Task Force. Workshop participants were encouraged by the commitment of local and provincial government officers to stop illegal hunting along the coast and to designate a protected area for the Spoon-billed Sandpiper. Local and national NGOs assisted in the workshop and WWF-Hong Kong and the Paulson Institute in particular announced their interest and assistance in collaborating with the local government and SBS in China to conserve the crucial tidal flats.

As part of this work, Prof. Chang Qing, of Nanjing Normal University, who advises the Forest Department of the Jiangsu Province on environmental issues, hopes to create a working group of local government and NGOs that involves all stakeholders in the future planning of wetland reserves and their management.

We are grateful for Baz Scampion, Brad Anders, Elena Lappo, Evgeny Syroechkovskiy, Fang Yang, Gavin Thomas, Nial Moores, Ren Nou Soe, Saw Moses, Xiang Le, Xiong Wei and Yang Yang for their support and observations.

Tong Menxiu, Nigel Clark, Zhang Lin, Jing Li, Christoph Zöckler

Sourced from http://www.eaaflyway.net

Surveying Spoon-billed Sandpipers in Rudong, October 2013

A Personal Account

The plight of the Spoon-billed Sandpiper has been big news in the conservation world for a number of years now and I've followed it with interest. Bitten by the Spoony bug after seeing six individuals in Thailand in January 2012, I was keen to support any conservation efforts for this special little bird. With my first choice of winter surveys on their Burmese wintering grounds falling through, another opportunity was soon in my sights – helping the Spoon-billed Sandpiper Task Force to survey Spoonies on the Rudong coastline in eastern China.

I arrived in Rudong on 14 October 2013 and met with members of the Task Force. Our hotel was on the main drag along the edge of the harbour in Yangkou, very atmospheric especially early in the morning with fishing boats moored up as far as the eye could see, armies of fishermen tending their nets whilst street food vendors prepared a selection of deep fried breakfast items across the road. The surrounding landscape was hardly picture postcard however with factories and industry dominating the surrounding area.

Our first morning dawned somewhat unsettled. The wind had swung northerly and picked up to strong breeze with a little rain. We had been split into groups and allocated sections of the Rudong coastline to survey. Our group was despatched to the northern area of Yangkou, one of many stretches of the Jiangsu Province coastline undergoing great change, in particular reclamation of the intertidal flats, one of the major threats to Spoonies and the wealth of other species which rely on this part of the globally important East Asian–Australasian Flyway. Vast areas of coastal marsh and intertidal flats have already been lost and reclamation is ongoing. Indeed, our survey area resembled a building site, the new seawall and impounded areas behind it blanketed in dust, sand and grit, much of which was finding its way into our eyes and optics!

Despite the streaming eyes, we managed to find our first two distant Spoon-billed Sandpipers roosting amongst several thousand Kentish Plovers and Dunlins on one of the recently reclaimed areas. It was really special to get re-acquainted with the species!

The weather the following day was kinder; dry, overcast and far less windy. Concentrating on counting waders required serious self-discipline as large numbers of birds were on the move, from ducks over the sea to hirundines and passerines streaming overhead. Pipits, larks, wagtails and buntings were a constant distraction and as if this wasn't enough, a few Saunders's Gulls and then a Relict Gull (a bird I'd missed on a previous trip to China) arrived as tide peaked and the waders began to flock together. It was clear that after the strong northerlies and passing cold front yesterday there was some serious re-orientation and migration going on!

The third day of the survey saw us at the southern end of our survey area at Dongling. Thousands of waders were present on the incoming tide and also a staggering 2300 Saunders's

Surveying Spoon-billed Sandpipers in Rudong, October 2013 cont.

Gulls, 10% of the world population according to current figures! Many of these birds moved onto a large lagoon just behind the new seawall over high tide. Only a small proportion of the waders touched down here but nonetheless within just 600 small waders on its south shore there were four Spoon-billed Sandpipers! Three of these were watched feeding over most of the high-tide period, not ideal as hunters who use poisoned fishmeal baits reportedly work this pool. Evidence of this was found in the form of several dead waders and a rather sickly looking Red-necked Stint. As I sat watching the Spoonies, a hunter was setting nets and decoy ducks on the far side of the lagoon, behind him was a reclaimed landscape devoid of natural habitat, dominated by intensive aquaculture ponds and set amongst a forest of huge wind turbines and electricity pylons. The threats to the birdlife here were clear to see…..

The following day I was at the far north end of the survey area at Dongtai. We approached the sand flats along a new road, through many square miles of recently reclaimed land. On reaching the new seawall a huge billboard depicting the full scale of this massive reclamation project greeted us. This project alone dwarfed anything I've ever seen before and made comparatively small areas of habitat I've seen lost back home seem almost insignificant. Looking out to sea, huge areas of intertidal flats remained but for how long? Dongtai was to prove the most productive area so far. I'd also counted no fewer than 140 Nordmann's Greenshank and at least 12 Spoon-billed Sandpipers! The waders wasted no time in returning to the sand flats as soon as the tide had started to drop again and included a couple of Spoonies busily feeding on small pools left behind by the ebbing tide.

Saturday 19th was the final day of the survey period and my patch was the Yangkou port area. The intertidal area held many waders but most had already left for their high-tide roost nearby so we followed. 15,000+ waders were found roosting at close range on the main lagoon here. A single Spoony and 133 Nordmann's Greenshank accompanied the 200+ Great Knot and numerous other waders totalling nineteen species. Wanting to spend more time here would have to wait as the Task Force had to return to the hotel to prepare for an important workshop with various stakeholders and local Government officials in Rudong. The team were heading to this workshop having recorded a minimum of 141 Spoon-billed Sandpipers and 1200 Nordmann's Greenshanks in just five days along a 120 km stretch of coastline without a single statutory designated site along it! Clearly that has to change if these wader spectacles are to continue to grace this remarkable coastline…..

With the rest of the survey team gone, Baz Scampion and I continued to survey the area. Early morning of 23rd saw us on the intertidal flats southeast of Yangkou. Five Spoonies were present, including two birds feeding close to the seawall. We both filled our boots and memory cards as the birds fed at close range in what by now we'd come to realise was prime Spoony foraging habitat - the shallow flashes on the sandier flats often quite high up the intertidal zone. It was fascinating watching them feed at such close range, picking from the surface of the water but also probing and sifting through wet mud and sand. And despite seeing them feeding in fresh or brackish water within the newly reclaimed areas behind the seawalls, they would also forage amongst algal and plant material on pool edges as well as belly deep in water, picking food items from the surface. One of the most animated birds I encountered almost appeared to be listening for prey in the sand, running around in circles, almost on tip-toe at times to gain extra height, and peering so intently at the surface on one occasion that a Mongolian Plover ran towards it to see what all the fuss was about and flushed it before it could locate its quarry! On another occasion I watched and videoed a Spoony catch a small crab, wrestle with it in its bill for a good minute before swallowing it whole!

Another site which proved to be really attractive to waders, including Spoonies, was a set of fishponds and lagoons to the southeast of Haiyin Temple. Here we were treated to incredibly close views as we lay on our bellies on the windward edge of one particular pool where the breeze was clearly depositing ample food items on the shore. One particularly aggressive bird defended a 15 metre stretch of shore, constantly running from one end of its chosen patch to the other, feeding along the way, but finding plenty of time to attack Red-necked Stints and Dunlins that attempted to feed in the same area, all whilst we lay beside them only three metres away at times!

October 24th saw us back for more. Hundreds of small waders were again feeding on the pools and around lunchtime I positioned myself on a bank where I could see four pools at once. I did a quick sweep through all the flocks and was staggered to count 38 Spoonies! Most were feeding on the pool edges with others in the main wader flocks loafing and preening. Later in the afternoon all the waders had again flown to just one of the pools after being flushed by a Peregrine. One group of Spoonies was particularly vocal with lots of trilling and interaction going on. Then suddenly part of the flock took flight with other waders, flew overhead doing a couple of circuits of the

Surveying Spoon-billed Sandpipers in Rudong, October 2013 cont.

area, gained height and headed off towards the coast calling frequently. I'd taken a few photos of the flock as they flew overhead but it wasn't until I was back in the hotel that evening that I'd realised I had a few shots of a flock of 23 Spoon-billed Sandpipers flying overhead! The next day, there were far fewer waders at the fishponds and only three Spoonies remained. Had I witnessed a pre-migration gathering? Difficult to be sure but their behaviour and vocalisations were certainly striking.

Our last morning was a little depressing. East of Yangkou we encountered a hunter working several kilometres of nets on the upper foreshore. He erected a couple more sections then walked the length of the nets already erected, which contained about a dozen waders including Dunlin, Kentish and Mongolian Plovers. People in this part of China rely on trapping and hunting as well as fishing and cockling to make a living. So what would you do, ignore it, release the waders or destroy this guy's nets? I decided it was my place solely to observe. The hunter took two live Dunlin from the nets and threw them both to the ground. One bird was unharmed and flew away but the other couldn't fly and was left lying on its back moving its legs back and forth trying to stand up. I was shocked. Were Dunlin too small for the pot and simply unwanted by-catch? This seemed a senseless waste and they could easily have been Spoon-billed Sandpipers, and likely have been in the past. This was just one line of nets on one area of coastline in one vast country. With this practice going on all along the flyway, it's clearly a major issue especially where critically endangered species are involved. What if that flock of 23 Spoonies I'd seen heading towards the coast had flown into these nets? It doesn't bear thinking about. I subsequently found out that this area of the coastline was a locally 'protected' reserve and that wader trapping was illegal. Local Task Force representatives visited the site the next day and confiscated the nets but they can't do this everywhere.

Surveying Spoon-billed Sandpipers along the Rudong coastline was a valuable and memorable experience. There were many highs and a fair few lows. If you're looking for beautiful landscapes, fine cuisine and a safe standard of driving then it's probably not going to be your first choice destination. But if you're looking for warm, friendly people, spectacular birding and want to contribute to an inspiring international conservation effort then book yourself on a flight to Shanghai. It's rewarding knowing that our survey efforts will help raise the profile of the area and ideally, ultimately lead to site designations and effective, enforced protection of these staggeringly ecologically rich intertidal zones. The Task Force needs all the help it can get in surveying Spoonies and the endangered and vulnerable species that use the East Asian –Australasian Flyway, so please support the partnership in any way you can.

Gavin Thomas, Lancashire, England, UK

Sourced from the *Spoon-billed Sandpiper Task Force News Bulletin* No. 11, January 2014

WWF-Hong Kong Workshop on Conservation Planning December 2013

In response to the declining status of migratory shorebirds, WWF-Hong Kong has initiated a project to develop a strategic conservation plan for priority migratory shorebirds in the East Asian-Australasian Flyway (EAAF). The main objective of the project is to "*ensure a flyway-wide Conservation Plan is in place to guide governments, conservationists, environmental NGOs and researchers to implement priority actions to conserve migratory shorebirds in the EAAF*".

The project has been divided into the following phases:

- Desktop-based Status Assessment Report (second draft completed)
- Stakeholder Workshop (held in Hong Kong 3-5 December 2013)
- Production of the Plan
- Promotion and Implementation of the Plan.

In early December 2013, WWF-Hong Kong convened a three-day workshop in Hong Kong that brought together 23 key stakeholders to guide the development of the Conservation Plan. Participants represented two Government agencies, seven non-government organisations with international conservation programs for migratory waterbirds, three waterbird conservation networks and three shorebird research organisations. The workshop was facilitated by Doug Watkins.

The workshop involved a range of presentations, group discussions and breakout sessions. These built on the desktop-based assessment of the status of migratory shorebird populations, developed in the first phase of the project, which provided the basis for selecting 20 priority shorebird populations (**Table 1**).

WWF-Hong Kong Workshop on Conservation Planning December 2013 cont.

Table 1. Priority Shorebird Populations with threatened staging locations

Priority Populations		**Staging**
Black-tailed Godwit	*Limosa limosa melanuroides*	
Bar-tailed Godwit	*Limosa lapponica baueri*	Yellow Sea
Bar-tailed Godwit	*Limosa lapponica menzbieri*	Yellow Sea
Whimbrel	*Numenius phaeopus variegatus*	Yellow Sea
Eurasian Curlew	*Numenius arquata orientalis*	Yellow Sea?
Far Eastern Curlew	*Numenius madagascariensis*	Yellow Sea
Spotted Greenshank	*Tringa guttifer*	Yellow Sea
Grey-tailed Tattler	*Heteroscelus brevipes*	Coastal (NE Asia)
Asian Dowitcher	*Limnodromus semipalmatus*	Yellow Sea
Ruddy Turnstone	*Arenaria interpres interpres*	Coastal (NE Asia)
Great Knot	*Calidris tenuirostris*	Yellow Sea
Red Knot	*Calidris canutus piersmai*	Yellow Sea
Red Knot	*Calidris canutus rogersi*	Yellow Sea
Dunlin	*Calidris alpina actites*	Yellow Sea?
Curlew Sandpiper	*Calidris ferruginea*	Yellow Sea
Spoon-billed Sandpiper	*Eurynorhynchus pygmaeus*	Yellow Sea
Grey Plover	*Pluvialis squatarola squatarola*	Yellow Sea
Lesser Sand Plover	*Charadrius mongolus mongolus*	Yellow Sea
Lesser Sand Plover	*Charadrius mongolus stegmanni*	Yellow Sea
Greater Sand Plover	*Charadrius leschenaultii leschenaultii*	Coastal (S China, SE Asia)

The following guiding principles for the Conservation Plan were developed:

- Focus on the key threats to coastal wetlands of the Yellow Sea in China and the Republic of Korea as these support the largest concentrations of the priority populations and are under the highest threat.

- Emphasis be given to identifying an initial set of internationally collaborative activities at specific sites around the Yellow Sea.

- The collaboration sites be used to demonstrate, to local government and coastal Provincial/Prefectural Governments around the Yellow Sea, how key biodiversity values could be better integrated in coastal management.

- The proposed collaboration sites identified are: Geum Estuary (Seocheon County / Gunsan City), Yalu Jiang (Donggang County, Dandong, Liaoning), Luannan Coast (Luannan County, Tanghai, Hebei) and Jiangsu Coast (including mouth of the Yangtze).

- It was recognised that in addition to the site-based actions, a broader program of complementary activities was needed to address: awareness raising, capacity building, enhanced monitoring, migration research and best practise in coastal management.

- Other issues highlighted at the workshop included the need for further research on the migration routes of shorebirds that spend their non-breeding periods in Southeast Asian countries.

Considerable attention was given to the potential implementation mechanisms and the implications of these for the development of the Conservation Plan. Participants agreed that the EAAF Partnership provided the most appropriate framework for the implementation of the Conservation Plan. The implication of this is that the two key regional National Government agencies involved in the Partnership, State Forestry Administration (China) and the Ministry of Environment (Republic of Korea), need to be engaged and supportive of the Conservation Plan as it will propose international collaboration on site-based activities in their respective countries.

A consultation document is expected to be available by mid 2014, and the final plan itself launched at the next meeting of the EAAF Partnership to be held in January 2015. Opportunity will be taken to promote the Plan to international meetings later this year such as the Bilateral Bird Agreements meetings in China (late 2014), Convention of Biological Diversity (Convention of Parties 12) in Pyeongchang, Republic of Korea (Oct 2014), IUCN World Parks Congress in Sydney, Australia (Nov 2014) and of course among Partners.

WWF-Hong Kong Workshop on Conservation Planning December 2013 cont.

Thanks to WWF-Hong Kong for proposing this initiative and sponsoring this important Workshop. The contact in WWF-Hong Kong is Mr Bena Smith **bsmith@wwf.org.hk**, Conservation Manager, Regional Wetland Projects.

Ken Gosbell
AWSG International Liaison Officer

Further information on the WWF Conservation Plan for Migratory Shorebirds can be found at the following link: **http://www.wwf.org.hk/en/whatwedo/conservation/wetlands/flyway/**

Focus is fading on shorebird conservation in Australia

It has taken a lot of effort to bring to the attention of governments in the East Asian-Australasian Flyway (EAAF) the declines in shorebird populations, which have occurred largely as a result of massive habitat loss and other threats, especially along the coastlines of the Yellow Sea. The situation is receiving more attention by governments thanks to international efforts of the increasing number of bird and environmental groups both in the EAAF and beyond. This includes the recent IUCN situation analysis of East and South East Asian intertidal habitats with particular reference to the Yellow Sea. It found that 'observed rates of declines of waterbird species of 5-9% per year (and up to 26% per year for Critically Endangered Spoon-billed Sandpiper *Eurynorhynchus pygmeus*) are among the highest of any ecological system on the planet.'

A lot of resources have been put into the Flyway in an effort to improve the situation, including funds from well outside the Flyway. For example, action and funding from the Royal Society for the Protection of Birds and the Wildfowl and Wetlands Trust in the UK as well as funds raised at the British Bird Fair.

It was disappointing not to have a similar dedication of funding in Australia where shorebird conservation was dealt a blow on several fronts during 2013. After all, Australia provides the most important non-breeding grounds for up to seven months of the year for many species of migratory shorebirds in the EAAF, including threatened species listed under the IUCN.

Well established projects such as the BirdLife Australia Beach-Nesting Birds and the Shorebirds 2020 projects failed to attract any ongoing government funding despite huge returns for nesting and migratory shorebirds respectively since 2006. To see both of these projects come to an end is not really an option after the involvement of dedicated staff and so many volunteers produced many times more in-kind resources than funding grants. BirdLife Australia continues to hold these projects together but is desperately in need of support.

At the last Meeting of Partners of Ramsar at Bucharest, Romania, the World Wetlands Network awarded six Blue Globe awards for well-managed wetlands, and five Grey Globe awards for wetlands under threat. Towra Point Ramsar site in Sydney suffers from many issues common to other urban sites such as multiple ownership, pollution, and encroachment from invasive species and a large-scale decline in migratory shorebirds that depend on the site during the non-breeding season: it was a recipient of a Grey Globe award. The results of one of the most intensive site surveys in Australia found the lowest ever counts of migratory shorebirds in Botany Bay during the 2013/14 season.

As a result of the nomination of the Grey Globe award, representatives of Commonwealth and state government and NGOs met to inspect the site. This was followed by a recommendation by all involved to the site managers that they make grant applications for urgent weed eradication and site restoration. Although a prime applicant for Commonwealth funding it too failed to attract any funds.

Other threats to shorebirds in Australia in 2013 included an approval for a housing development at the most significant site for Latham's Snipe in the country, and extensive habitat loss at one of the largest coastal development projects in Australia at the controversial Port of Gladstone expansion.

While it must be admitted the greatest loss of shorebird habitat is along the coastlines of the Yellow Sea, destruction and degradation of habitat in Australia is likely to result in many birds departing on migration in sub-optimal condition. Whether these birds are able to fully recover at staging areas along the Flyway or arrive at their breeding grounds in sufficient condition to successfully breed is something that has not been sufficiently researched.

Let us hope that 2014 proves to be a much better year for shorebirds in Australia.

Phil Straw, World Wetlands Day, Sydney

Farewell shorebirds? Well Yes and No

Yes, well almost, if you're a shorebird preparing for your journey up to the cranial extremities of the earth but; **No,** if you're involved with Shorebirds 2020 in any shape or form, where thanks to BirdLife Australia business is more or less continuing as usual. In lieu of Caring for our Country (CFOC) funding, BirdLife Australia will be continuing to support this successful, influential and simply critical conservation program and have committed to the continuation of the program until further grant funding is identified.

The agenda set for the program under the previous CFOC funding scenario will, however, have to be adjusted to the new funding situation. We are aiming to use recognition of Shorebirds 2020 sites in the Federal Government's National Wildlife Corridor Plan as an overarching theme for the project. We also continue to be committed to the revision of the National Wildlife Conservation Plan for Migratory Shorebirds, also currently being undertaken by the Federal Government's Department of the Environment.

On-ground work will focus on working with, maintaining support for and building capacity of:

- Existing S2020 count volunteers and coordinators around the country;
- Observers in Northern Australia, especially Indigenous Groups;

As well as:

- Coordinating the National biannual count;
- Management and maintenance of the count database;
- Preparation and delivery of relevant reporting and publications (i.e. *Stilt* Summaries, newsletters, Shorebird Conservation in Australia etc);
- Recruiting new observers in areas where we currently have the longest and best data series;
- Identifying coverage gaps and continue to target workshop training to these areas;
- Continuing to maintain and update geospatial data;
- Continuing to offer various levels of educational engagement;
- Working more closely with the AWSG; and
- Improving communication and feedback channels.

Although the unsuccessful CFOC outcome has been somewhat demoralising, it also presents opportunities to bring the Shorebirds 2020 program back to its roots, refocus objectives and get back on-track with deliverables such as the *Stilt* Summary and other integral components that may have slid down the priorities list due to obligatory deliverables tied to grant funding.

Late last year we ran an online volunteer survey which resulted in 95 people responding. Some of the main findings of the survey are:

1. Our program continues to succeed in attracting new volunteers who quickly learn a lot about shorebirds through the program and from their more experienced fellow birders (Figs.1 & 2).

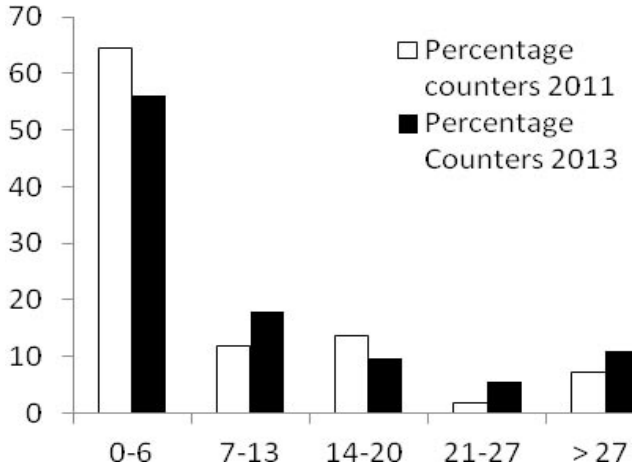

Fig.1 Counter experience in years

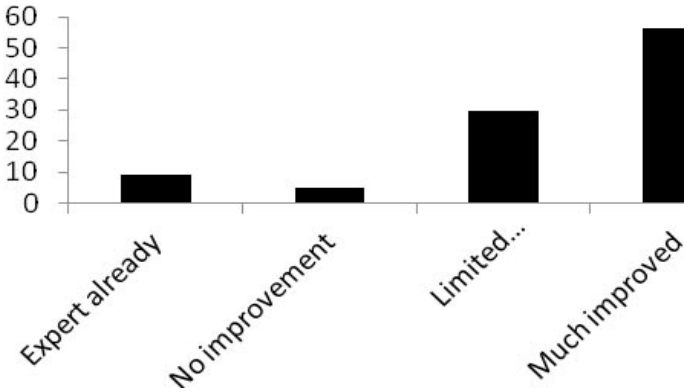

Fig. 2 Percentage counters who improved their skills

2. Shorebirds 2020 has helped 70% of our volunteers to communicate better with each other.

3. The majority of volunteers find that Shorebirds 2020 helps with conservation locally (Fig. 3).

Farewell shorebirds? Well Yes and No cont.

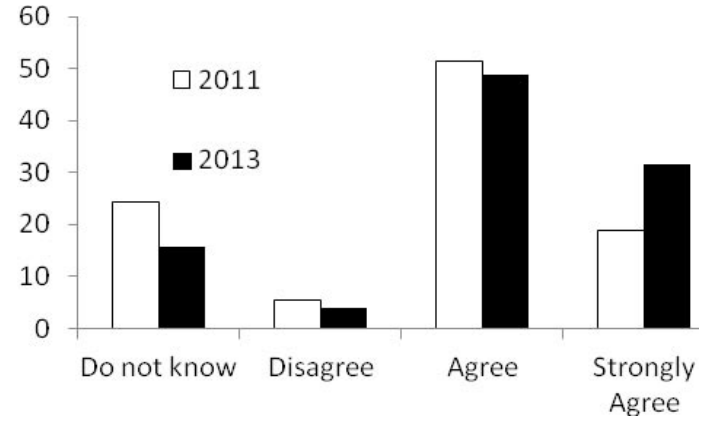

Fig. 3. Has S2020 helped with local conservation?

4. Shorebirds 2020 persists regardless of funding cycles. Like BirdLife Australia, volunteers are showing a real commitment to the project beyond funding cycles. And what makes us particularly happy is that this commitment has grown over the last 2 years (Fig. 4).

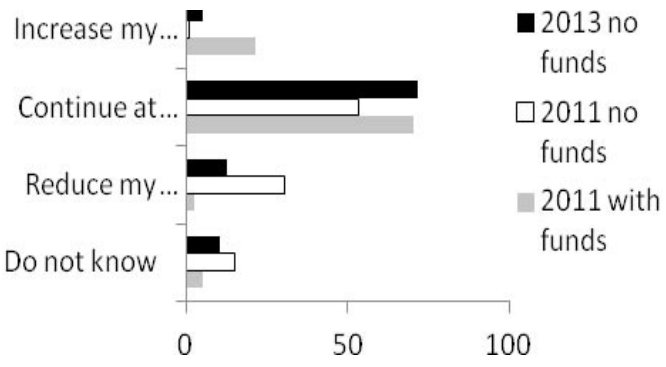

Fig. 4 How do you intend to continue your involvement in Shorebirds 2020 ?

In summary this is a great Scorecard and a real boost for us to continue our work.

In other news, this Summer/Autumn BirdLife Australia is taking a leaf out of the books of many of the Shorebirds 2020 volunteers. In the past Shorebirds 2020 volunteers around the country have been holding counts, guided tours or other activities to mark the departure of shorebirds to their breeding grounds. This year BirdLife Australia is planning join them with a national event to farewell the shorebirds. We hope this will inspire even more Shorebirds 2020 volunteers and branches to get on board wishing the birds a full tummy and favourable tailwinds.

More importantly though, we hope to get the word out to those that are awestruck by the wonders of nature flickering over the screen yet never realised that the Red-necked Stint migrates twice as far as the Humpback whale yet only weighs 1/1,000,000 of it.

"Farewell Shorebirds" is set to take place from mid April until mid May, concluding on World Migratory Bird Day (10th & 11th May 2014). The campaign will feature weekly informative webcasts as well as an interactive website, events and activities run by BirdLife branches, observatories and reserves, all supported by extensive media coverage. The aim of *Farewell Shorebirds* is to engage the public; particularly those with little or no prior knowledge of BirdLife Australia, AWSG, or the birding world, but with a keen interest in nature. *Farewell Shorebirds* aims to provide the public with a greater understanding of BirdLife, migratory shorebirds, and how they can play a part in the conservation of Australia's most well-travelled and fascinating birds.

On a final note we are now well into the summer count window, which finishes on the 31 March. If you -

- need assistance arranging a shorebird count in your local area;
- need to arrange access to the online database portal;
- would like to have a Shorebirds workshop in your local area or school;
- have any updates to your Shorebird Areas and/or Count Areas; and/or
- have any other enquiries regarding Shorebirds 2020;

please do not hesitate to get in contact with Dan Weller via phone 03 9347 0757 ext 241 or email **dan.weller@birdlife.org.au**

Dan Weller

North Western Australia Expedition in Feb-March 2014

We now have a good team for the NWA 2014 Wader and Tern Expedition which takes place at Broome and 80 Mile Beach from 16 February to 19 March 2014. Twenty-seven people are scheduled to participate and in addition there will be up to four local Rangers taking part at various times. Nine of the participants are from overseas – a rather lower proportion than usual – with five of these coming from Russia. This year we have only two participants from Asia. From within Australia there are seven people from Western Australia, four from Victoria and three from the ACT.

Would all those people who have missed out on this year's Wader and Tern Banding Expedition start preparing to put their hands up for next year's visit, which is again likely to be for three weeks in the period from mid-February to mid-March 2015.

Clive Minton

Why are migratory shorebirds declining so rapidly and what should we do?

Dedicated members of ornithological societies across Australia and New Zealand have been counting migratory shorebirds for decades, and excellent analyses of these data have been published for individual sites on both sides of the Tasman. Many published analyses of local trends reveal declines but so far there is no clear picture as to whether these trends are widespread and what this means for the future of our migratory shorebirds. Financial support from the Queensland Wader Study Group, the Australian federal and state governments and the Port of Brisbane, has enabled our project team at the University of Queensland to bring together shorebird count data generously contributed by dozens of organisations and thousands of counters to answer this big question.

The results, I am sad to report, are truly shocking. Analyses of migratory shorebird population data from Australia and New Zealand by Colin Studds and Rob Clemens reveal declines of staggering severity and rapidity, with some migratory shorebird populations crashing by up to 80% in 20 years. Curlew Sandpiper is one the most heavily impacted species, showing a steep decline across much of its distribution. Fortunately, it remains less impacted in other flyways around the world. For some species, such as the Red Knot, the decline is quite consistent in various parts of its non-breeding range, while for others such as the Bar-tailed Godwit, the decline is much more pronounced in some regions than others. In the case of the godwit, the eastern *baueri* population is declining at about 1% per year in eastern Australia and New Zealand. This is fast, but nowhere near as dramatic as the western *menzbieri* population, which is declining at something like 6% per year in western Australia. *Menzbieri* godwits pass through the Yellow Sea each year on both their northward and southward migrations, while the New Zealand birds fly straight over the Pacific on their return journey from the Arctic and are thus less dependent on stopover sites. Could this be the reason for the difference in decline? We don't know, but we are trying to establish whether dependence on the Yellow Sea explains how quickly different shorebird populations have declined.

Using satellite data we have documented rapid losses of tidal flats in eastern Asia, a region known to be of critical importance as stopover habitat for many migratory shorebirds. PhD student Nick Murray developed a remote sensing method to assess change over ~4,000 kilometres of the Yellow Sea coastline and discovered extensive losses of tidal flats, driven primarily by urban, industrial and agricultural land reclamations. Nick's analysis revealed that 28% of tidal flats existing in the 1980s had disappeared by the late 2000s. Moreover, reference to historical maps suggests that up to 65% of Yellow Sea tidal flats were lost since the 1950s. As well as land reclamation, large declines in sediment flows carried by the region's major rivers could be having a big impact, with some tidal flats simply disappearing over the past few decades. With the Yellow Sea region forecast to be a global hotspot of urban expansion, coastal development must urgently pursue a course that minimizes ecosystem loss and protects remaining coastal ecosystems.

Modelling work carried out by PhD students Takuya Iwamura and Kiran Dhanjal-Adams is suggesting that habitat loss in the Yellow Sea region could have profound implications for shorebird populations at a flyway level. For example, sea-level rise represents an additional emerging threat, in which coastal wetlands are placed under further pressure across the flyway. For migratory species, the impact of habitat loss will depend not only on its extent, but also on where it occurs. We developed a novel mathematical approach to measure how vulnerable migratory species are to habitat loss through sea-level rise. We discovered that sea-level rise will inundate 23–40% of intertidal habitat area along our shorebirds' migration routes, but cause a reduction in population size of up to 72% because of the loss of important migration bottlenecks.

We believe that an effective conservation strategy must manage the complex economic, social and economic trade-offs that drive coastal development. This means conserving natural ecosystems alongside appropriate coastal development to protect and enhance coastal settlements. We urge decision-making that simultaneously plans for coastal development and coastal conservation along the world's most rapidly developing shores. For example, places subject to near-intractable threats, such as sediment depletion and coastal subsidence, could be prioritised for development in regions where such development must occur. If carefully planned, this could ease pressure on coastal protected areas and avert catastrophic extinctions of coastal biodiversity.

Migratory shorebirds fly across international borders, and there is an urgent need for countries to work together to solve this problem before it is too late. We are enormously excited by the actions already underway around the flyway and our research group is trying to engage with decision-makers to help build momentum for change. We have attended meetings of government and non-government members of the East Asian-Australasian Flyway Partnership in Cambodia,

Why are migratory shorebirds declining so rapidly and what should we do?

Sumatra and Alaska over the past four years to discuss the conservation actions required to keep one of the world's largest and most threatened migratory bird flyways functioning. The Partnership is a dynamic collaboration among 14 governments across the region, together with three intergovernmental agencies, nine international NGOs and an international corporation (Rio Tinto). Prospective PhD student Eduardo Gallo-Cajiao will soon commence an internship with the Flyway Partnership to better understand the policy environment across the routes that our migratory shorebirds take to establish how best to achieve positive change.

Ultimately, without data from you, the foot soldiers of field ornithology, we would be unable to understand what is happening to our shorebirds, and unable to present compelling data to decision makers that something needs to be done. For your hard work in counting shorebirds, keep it up, and THANK YOU!

To keep up to date with our work, or download any of our papers, visit our website at **http://www.fullerlab.org** or follow us at **http://www.facebook.com/fullerlab**

Richard Fuller
University of Queensland

Hello from the AWSG leg flag sighting database operator

Unresolved flag sighting

Occasionally there are flag sightings that despite many email conversations across the flyway, I cannot get resolved.

One recent example of this was a Curlew Sandpiper seen at the Coorong in South Australia. The observers described the sighting as "…black over yellow (the yellow looked stained), over orange on the upper right leg (black was cut to point). Lower left leg had silver band."

I clarified whether these were all flags or some bands and the response came back that there were three flags and the metal band.

No-where that we know of has used this colour combination, but there must be someone out there who has done something like this and the reason I am chasing this one is that clipping the black flag is unusual and hope that someone can identify where this may have come from.

If you clip any flags, please use your imagination in case the black was originally blue or green or the orange /yellow was stained white or something else. I'd love to hear if we can sort this one out.

Call for flag sightings not yet submitted

While on the subject of flag sightings, after a year of learning about the AWSG database and catching up on a backlog of missed sightings, I am now in a position to chase any more missed sightings. So please dig through your sightings of marked waders and send them in to me if you haven't received a notification back from the AWSG about your sightings. This particularly applies to Australian flagged birds seen overseas or overseas/interstate birds seen in Australia.

When I receive overseas sightings of overseas flagged birds, not all these sightings get a formal response from the ASWG as I often send the details direct to the bander and ask them to contact the person who has sent the sighting in (particularly when engraved flags are involved as it saves double handling the information). Other times it is easier for me to process the sighting and automatically notify the bander and sighter together.
Regular contributors of sightings will soon receive an email from me seeking any sightings that haven't been submitted.

Rog Standen
Operator of the leg flag sighting database on behalf of the AWSG

Please notify AWSG of flag sightings through the AWSG website http://www.awsg.org.au/reportform.php if possible, or Email: flagging@awsg.org.au

Bar-tailed Godwit with notched orange flag - originally caught and banded with orange over green flags in the Hunter Estuary in November 2004 - it has since lost the green flag.

Monitoring Yellow Sea Migrants in Australia (MYSMA)

The huge, rich tidal flats of tropical North-western Australia (NWA) are internationally renowned as the feeding grounds of almost 650,000 shorebirds. They roost on nearby beaches with large numbers of terns, and often with many thousands more 'grassland' shorebirds (Little Curlew, Oriental Plover and Oriental Pratincole) which forage on nearby plains but roost on wave-washed beaches to avoid heat stress in the middle of the day. The spectacular roosts are a tempting target for monitoring work.

The dense and diverse flocks of non-breeding waders in NWA are a challenge to count (at least 5 species hiding in this image)

However, NWA isn't the easiest place to carry out shorebird counts. Many of the key sites are remote, and even if you can get to them, the very large shorebird numbers and high diversity (25 species occur there in internationally significant numbers) make counts a daunting prospect. It is therefore satisfying to report that in December 2013, a sweaty team of wader counters completed the 10th consecutive year of systematic shorebird monitoring in north-western Australia. These surveys have been carried out by the AWSG's **M**onitoring **Y**ellow **S**ea **M**igrants in **A**ustralia (MYSMA) project. The counting squad, led in the field by Chris Hassell, includes both volunteers and professionals.

The monitoring program builds on studies of local roosting behaviour of shorebirds. These have revealed the best time of year, and the best tide conditions, in which to carry out surveys. One survey each year is held in June-July, when adult migratory shorebirds are in the northern hemisphere and only immatures remain in Australia. More challenging are the surveys held annually between late October and mid-December; we do two each year, as a safety measure in case one count goes wrong, and to help us assess the precision of counts. The latter surveys are held in a very hot time of year, but this is when migrant shorebirds in NWA can be counted most repeatably. After the Wet Season rains begin around late December, many shorebirds move to remote claypan roosts where counts are impossible.

We have only once (in 2008) managed to secure funding to survey all the coastal shorebird sites in NWA. However each year we manage to survey three major sites:

- the postcard-settings of the northern beaches of Roebuck Bay; easily accessible, providing magnificent viewing conditions, yet difficult to count because of frequent disturbance from people and birds of prey.

- Bush Point in southern Roebuck Bay; one of the largest wader roosts in the world, but it takes a long hot trudge through scorching soft sand to get there.

- a 60km stretch of northern Eighty-mile Beach, counted in 5 km segments from 4WD vehicles.

Between them these sites hold some 250-350,000 waders, about half the NWA population. Surveys are intense experiences at all three sites, as there are no more than four hours of high tide per day in which to count a lot of shorebirds of many different species. There isn't much time to admire the view! Nevertheless, some major Australian rarities have been found on our surveys, including Sabine's Gull, Semipalmated Plover and Australia's first records of Eurasian Curlew and Nordmann's Greenshank.

Adrian Boyle (left) found a Nordmann's Greenshank on the December 2013 survey. Maarten Hulzebosche was especially pleased with him!

Monitoring Yellow Sea Migrants in Australia (MYSMA) cont.

The rarities are fun, but the real target is the more numerous species. In part we are monitoring them so we can feed into local management practices. Remote though it is, NWA is undergoing rapid economic growth that could threaten its shorebird sites. By visiting the sites regularly, and detecting changes in numbers and roosting distribution, we can identify some problems before they get out of hand. Topical issues in Roebuck Bay, for example, include increasing human disturbance, blooms of blue-green algae near Broome, and the spread of mangroves over some beaches that were previously unvegetated shorebird roosts. None of these problems has yet been completely solved, but encouraging progress is being made.

Still more importantly, so many shorebirds occur in NWA that their numbers can be considered a barometer of the health of shorebirds in the East Asian-Australasian Flyway. Are NWA's shorebird populations undergoing similar declines to those that have been found in long-term datasets in southern and eastern Australia? What species are declining most? And can the count data, in combination with ongoing demographic studies in the same region, help to pin down the causes of population changes? We are nearing the point where our data series are long enough for robust trend analyses to be carried out, so hopefully these questions can be answered soon.

Wader counters in action at Eighty-mile Beach

Acknowledgements – Huge thanks to the counters who have been essential to our surveys – there isn't space to mention them all, but Adrian Boyle, George Swann, Arthur Keates, Kim Onton, Maarten Hulzebosch, Clare and Grant Morton and Liz Rosenberg have played very large roles. We have had essential funding support from a number of agencies over the years: the Commonwealth and WA State governments, Woodside Energy, BirdLife Australia, the Australasian Wader Studies Group and the Western Australian Marine Science Institute.

Danny Rogers, Chris Hassell, Ken Rogers, Ken Gosbell

Wader numbers and distribution on Eighty Mile Beach, north-west Australia: baseline counts for the period 1981–2003

This paper by Minton *et al.* (2013) was published in *Conservation Science Western Australia* **8** (3): 345–366. The Abstract follows:

This paper analyses ground counts and aerial surveys of high-tide wader roosts conducted over the 23-year period from 1981 to 2003, at Eighty Mile Beach, north-west Australia. It provides a baseline data set with which later count data can be compared. Over the study period, Eighty Mile Beach held a maximum of around 470,000 waders in any given year. This represented around 20% of the total number of migratory waders visiting Australia each year and around 6% of the total East Asian – Australasian Flyway migratory wader population. The most numerous species were great knot (169,000), bar-tailed godwit (110,000), greater sand plover (65,000) and oriental plover (58,000). Distribution of waders along the beach was not uniform, with up to 85% occurring in the section between 25 km and 80 km south of Cape Missiessy where, at peak, numbers averaged 7000 per kilometre of shore; however, distributions for some species diverged from this pattern. Count data showed that waders arrived in north-west Australia over an extended period from July to October. The majority of these birds remained at Eighty Mile Beach throughout the nonbreeding season (austral summer) although some smaller waders used Eighty Mile Beach as a staging point. Most adult birds left on northward migration in March–April of the following year. The number of (mainly) immature birds remaining at Eighty Mile Beach over the May–July period was equivalent to 9% of the peak spring/summer population. The counts also showed that Eighty Mile Beach, especially the southern half, is important for resident wader species. Threats to its ecological integrity are identified and the introduction of enhanced long-term protection measures recommended to ensure that key sections of Eighty Mile Beach are managed for the benefit of the internationally significant numbers of waders occurring there.

The entire article can be downloaded from the Government of Western Australia's Parks and Wildlife website at the following link:
http://www.dpaw.wa.gov.au/about-us/science-and-research/publications-resources/103-conservation-science-wa-journal?showall&start=1

2013 Wader Breeding Season

This is an update on what we have found out so far from our "Percentage Juvenile" sampling in South East Australia (SEA).

Interim % Juvenile Figures for South East Australia 2013/2014

Species	Catches	Total Caught	Juvenile	% Juvenile
Red-necked Stint	8	1854	305	16%
Curlew Sandpiper	5	251	100	40%
Sharp-tailed Sandpiper	2	126	24	19%
Ruddy Turnstone	2	54	23	42%

The table above shows that, so far, we have made catches of four of the seven species which we normally monitor annually in SEA. The percentage juvenile figures for Ruddy Turnstone and Curlew Sandpiper are exceptionally high (42% and 40%), indicating a particularly successful breeding season for them in the Arctic in 2013. The figures for Red-necked Stint (16%) and Sharp-tailed Sandpiper (19%) are fairly close to the long-term average. These are particularly welcome results given that breeding productivity was relatively poor in the preceeding two years.

Further catches on all of the above species are planned (particularly needed on Sharp-tailed Sandpiper where the two samples gave markedly different results). We also hope to obtain samples of Sanderling, Bar-tailed Godwit and Red Knot over the next few weeks.

Clive Minton

"Old Birds"

The longer banding studies are conducted, the higher the chance of finding very old birds in the population (that is fairly obvious). However it is always a thrill to retrap birds that are considerably older than some of the kids helping at a catch or a bird that was living in Roebuck Bay well before I arrived here, some 18 years ago. And now with individually marked birds, the chances of finding old birds in the marked population have increased in comparison to just having the opportunity to retrap birds with metal bands or plain flags.

During catches and from resighting work, for AWSG and Global Flyway Network (GFN) projects, in the latter months of 2013 we recorded, among the thousands of resightings we get here in Broome, ten Bar-tailed Godwits with ages ranging from 18+ to 26+, three Great Knot aged 18+, 23 and 24+ and one Black-tailed Godwit aged 18+. See the **Table** below for details of their recapture and resighting dates and ages.

I have also included a Red Knot that was last seen in 2012 but is a remarkable age for a small bird that migrates some 21,000 kilometres each year and has to cope with diminishing habitat in its Yellow Sea staging areas.

Our aging convention means that we nominate all birds having their 'birthday' on 1st August each year. So a bird that is 24 is 'in its 24th year of life'. If the bird is 20+ then it is a 'minimum age of 20'. It could be considerably older. From moult analysis we can age captured birds as 1, 2, 2+ and 3+. This depends on the time of year and the species. We then retrap the bird or see it alive in the field and read its Engraved Leg Flag or colourband combination. This is how we work out its age.

Some of these birds have been sighted over 70 times in the field, including overseas, and caught up to 4 times. This data reinforces our knowledge that migratory shorebirds show high site fidelity.

These records are just a snapshot of recent work. It is not a comprehensive review of the huge AWSG and GFN datasets.

The oldest bird that we have recorded in AWSG and GFN projects was a 28-year-old Bar-tailed Godwit.

This information would not come to light without the fantastic contributions of a large number of volunteers from Broome, interstate and overseas. Members of the Broome shorebird community are particularly thanked for all the resighting work they undertake.

Chris Hassell

"Old Birds" cont.

SPECIES	BAND NUMBER	INDIVIDUAL MARK	BAND/ RECAPTURE DATE	AGE AT BAND/ RECAPTURE	LAST RESIGHTING DATE	AGE AT LAST RESIGHTING
Bar-tailed Godwit	072-61342		27/10/1998	3+		
			4/01/2001	6+		
		4LRLR	26/10/2013	18+	23/12/2013	18+
Bar-tailed Godwit	072-56541		5/03/1996	2		
			20/11/2006	13		
		4RYBL	26/10/2013	20	19/12/2013	20
Bar-tailed Godwit	072-55746		4/03/1996	2+		
		4LYBL	19/10/2013	20+	23/12/2013	20+
Bar-tailed Godwit	072-32602		27/05/1993	2+		
		4RRBY	26/10/2013	23+		
Bar-tailed Godwit	071-86463		2/04/1990	1		
		BB	1/12/2005	16	16/10/2013	24
Bar-tailed Godwit	071-87196		10/09/1992	3+		
		2LLBL	22/02/2008	18+		
			19/10/2013	24+	5/12/2013	24+
Bar-tailed Godwit	072-09313		1/10/1992	3+		
		ERK	1/04/2011	21+	8/08/2013	24+
Bar-tailed Godwit	071-86907		9/04/1990	2+		
			24/03/1996	8+		
		3YBBR	22/10/2010	23+	3/12/2013	26+
Bar-tailed Godwit	071-86928		9/04/1990	2+		
		EAY	11/03/2011	23+	27/09/2013	26+
Bar-tailed Godwit	071-85969		27/03/1990	2+		
		HW	27/08/2006	19+	3/12/2013	26+
Black-tailed Godwit	072-78230		27/10/1998	3+		
		1RBLL	8/11/2013	18+	24/12/2013	18+
Great Knot	062-43719		29/08/1998	3+		
		4YYBY	28/08/2011	16+	15/12/2013	18+
Great Knot	061-90330		13/10/1992	2		
			29/08/1998	8		
			4/03/2000	9		
		XXL	12/03/2013	22	17/12/2013	23
Great Knot	061-72422		2/09/1992	3+		
			6/11/2006	17+		
		AHA	11/03/2011	21+	18/10/2013	24+
Red Knot	051-56125		12/10/1992	3+		
			6/09/1994	5+		
		1M	29/08/1998	9+	15/01/2012	22+

Humans and Shorebirds - Collectors and Collected

As part of my creative arts PhD research, I've been following various wader study groups as they come into proximity with shorebirds during the human recreation season and the birds' non-breeding season in Australia. In other words, I've been observing a relationship between living organisms: human and bird. I was interested to see how that relationship differed when the birds were no longer alive. So, in October 2012 I joined two bird auditors, Kit Streamer and Adrian Davis, at the Macleay Museum, as they audited skins and stuffed birds dating from the early 1800s. The Macleay Museum at the University of Sydney contains over 9,000 bird specimens - the majority are study skins - stored in drawers and ordered according to Linnaean classification. Auditing the collection is a labour-intensive process that involves data collection and entry; condition reporting; and upgrading of storage conditions. Here are some of my observations:

From somewhere above me, the disembodied voices of Kit and Adrian cry out a greeting. Their office space is nested over the Museum entrance. They make their way down the hidden stairs and lead me to the back of the carpeted exhibition space, passing lit display cases to left and right. At the end, a modest metal chain about a metre wide is all that separates the public area from the narrow work spaces. We go to the very back where two work desks are pushed hard up against a dividing wall formed by more museum cases. Here the overhead fluorescent lights turn the glass panes into partial-mirrors. Beyond my own reflection I can make out plastic-wrapped animal specimens mounted on stands for display – marsupials in one cabinet, large birds in another. Stored on top of these cabinets are even larger specimens individually packed into crates made of metal frames with plastic sides – two wallabies, a brolga, an emu, a wild boar, two dingoes, and an antelope. Beyond that still, is the vaulted ceiling of the museum.

Down at floor level, stacks of tubular-metal chairs crowd the spaces between desks and cabinets. Only a small area of cement floor is free for movement. Kit and Adrian immediately prepare themselves for work: donning white Tyvek lab coats, tightly-fitting facemasks and disposable plastic gloves. I'm offered the same. Kit mentions the naphthalene that is already discernable. The curator, Jude Philp, had also forewarned me about the possible presence of arsenic dust originally used in specimen preparation. I take up the offer. There's only one window back here, closed and covered with a diffusion film that allows little natural light and no view. The air is stuffy already. I can see air-conditioning ducts in the ceiling but they're evidently not working today.

On the opposite side of the room to the desks are more cabinets but these look purpose-built for storage. They are steel-fronted, painted white, with two locking devices at the top and a frame for a typed index card. Adrian opens the door marked "CABINET B – J / HAWKS – Falconiformes / Accipter to Falco / WADERS – Charadriiformes / Irediparra to Arenaria". Behind it are rows of shallow wooden drawers, each labeled with a general description of its contents. Adrian removes the drawer marked "J8 PLUVIALIS / CHARADRIUS / ERYTHROGONYS", rotates it horizontally in the limited space and rests it on the work table. He carefully peels back the plastic cover and lays it on the table beside the drawer. The drawer is tightly packed with about 70 specimens. He begins to empty it, selecting the mounted specimens first (the ones that have been prepared to stand upright for display purposes) and places them gently along the base of the table in front of the drawer. He then unpacks the unmounted specimens (known as "skins") and places these on the sheet of plastic.

> Kit: "Not one of the easy drawers. Not as easy as a drawer full of predatory birds but not as hard as a drawer full of humming birds. That's a special kind of torture. Except they were pretty."
>
> Adrian: "Well that's true."
>
> Kit: "There's no way we'll finish with this lot by morning tea."

When the drawer is empty, the old tissue paper lining is thrown away. Kit cleans the drawer with a vacuum cleaner and Adrian re-lines it with a sheet of Mylar and a sheet of fresh blotting paper that covers the base and sides.

Adrian begins with the mounted birds and reads the "Masters tag" (named after the first curator of the Museum, George F Masters who was appointed by and friend of the Museum's founder William John Macleay). The Masters tags are made of brown paper, some have darkened more than others. The writing is with black ink in Masters' hand. They're sewn to the leg with what looks like ordinary sewing cotton.

The Masters tag will generally include the genus and species name, sometimes a male or female symbol, sometimes the name of the collector: for example, G. F. Masters, and on the back, a record number corresponding to one in the handwritten records of the two volume, leather and blue buckram "Bird" ledgers kept at the Museum. The second tag to be read out and recorded is called the "first watch tag" which is written in another

Humans and Shorebirds - Collectors and Collected cont.

hand. It includes the species identification in Latin and, in brackets, the species' describer, for example, (P. P. S. Müller) and sometimes the species' common name. It usually also includes where it was collected. The "second watch tag" is small and simply contains the record number – the same as the one on the back of the Masters tag. Sometimes there's also a "MacSwing" (short for Macleay Museum swing tag), a larger tag that contains more information: the Latin Genus/ Species name, common name, collector, date of collection, place of collection, measurements of the body, wing, tail, tarsus and culmen (dorsal ridge of bill).

Adrian also notes the general condition of the specimen ("stable" or "scruffy" are frequently used adjectives). Lastly, he measures its length with a flexible plastic tape measure. The various tags and connecting threads must be carefully unwound from the birds' legs. Adrian uses tweezers for this, holding the tag at one end with the tool, and rotating it to read out the information on both sides.

> Of the third mounted bird, B4850, Adrian says:
> "It's only got a glass eye on the left side. It's stable, a little scruffy and with the wire, measures … 17 cm."

All of this information is spoken out loud so that Kit can write the details on the "Bird Collection data entry" forms that have been prepared for this audit and later used to transfer the information to the database. Adrian spells many of the words out, as there are lots of proper names and Latin words on the various tags. Sometimes he consults Kit to decipher the handwriting. Adrian pronounces the words phonetically to make it easier for Kit. He's also careful to note abbreviations, brackets, symbols, words that have been struck through and when Roman rather than Arabic numerals are used. By this, both the format of the historical information and its content are recorded.

The mounted birds are set aside from the Skins to be stored separately. Adrian then moves on to processing the Skins. The procedure is the same, but these birds are placed back in the original drawer.

After about 20 skins have been processed, Adrian and Kit swap roles. Kit wears the tape measure around her neck, like a seamstress. That way it's readily accessible when she comes to measure the bird. She wears reading glasses and needs the floor lamp on to help her read the tags. She is generally more economical in her movements than Adrian.

When all the information has been recited and recorded, the skins are placed back in the freshly lined drawer. Kit and Adrian take care not to over-pack the drawer. The birds are laid on their backs with the tags carefully arranged across their chests so that specimens can be easily found in the future and over-handling thus reduced. The birds processed and back in the drawer, the drawer back in the cabinet, the cabinet locked, Kit and Adrian return to their office eyrie for an afternoon of data processing.

Such care is taken by the auditors to record and preserve what is there but what strikes me is what is not there. Visible between each bird form lying in the drawer is smooth white blotting paper, not the sand, water, shells and vegetation of their lifetimes. Certainly not their habits of digging into sandy mud; scuttering along shorelines in search of more food; lifting off to avoid raptors; beating those long journeys north to breed in different climes and south again to escape the impending snows. Not even the contents of their last meal as every organ and bone has to be removed immediately after capture for preservation, hence the word: skins. And not even the full colours of life. Yes, the feathers are still the familiar greys and browns and chestnuts we recognize through binoculars in the field. But there is none of that pink graduating to brown of a Bar-tailed Godwit's bill or the pale olive of a Sharp-tailed Sandpiper's legs. These colours – of the so-called soft parts – fade to black just hours after death. Sometimes they're recorded on museum labels in word form, the labels lying right next to the now blackened legs. The absence of all these qualities leads me to think that these are not so much dead birds, but once-living birds become objects.

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WORKSHOP: Barbara Campbell is running a free **soft part watercolour workshop** at the Museum of Contemporary Art, West Circular Quay, Sydney on Thursday **13 March 2014**, 6pm -8pm. It's designed for bird enthusiasts and artists to share their knowledge of birds and/or love of colour. Birders: please bring your favourite bird field guide.
Reserve a place: www.tickets.mca.com.au

Geolocators used by QWSG on Grey-tailed Tattler

In the 2011/2012 wader season QWSG, partnering with the Wild Bird Society of Japan Chiba and Non Profit Organization Yachou Chiba, along with a small number of other Japanese stakeholders placed 21 geolocators on Grey-tailed Tattlers and a further 20 in 2013 to obtain detailed information on the migration strategies, stopover locations and breeding localities for that species. As with other projects of this nature (the Ruddy Turnstone project in Victoria and South Australia for instance) the devices are small enough and light enough to be glued onto the leg flag where they capture data about the birds' locations at regular intervals and we can then remove the device from the leg flag when the bird returns.

Grey-tailed Tattler with geolocator, ready for release
(c) 2011 Jon Coleman

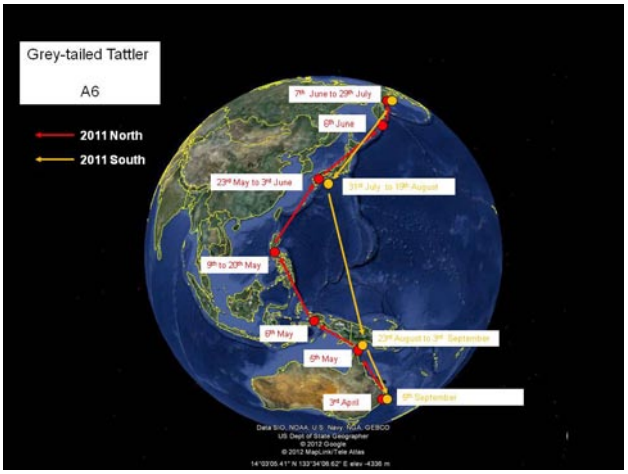
Given the well publicised declines in a number of species recently, this type of data is becoming increasingly important in trying to understand the changes we are seeing and, more importantly, addressing them.

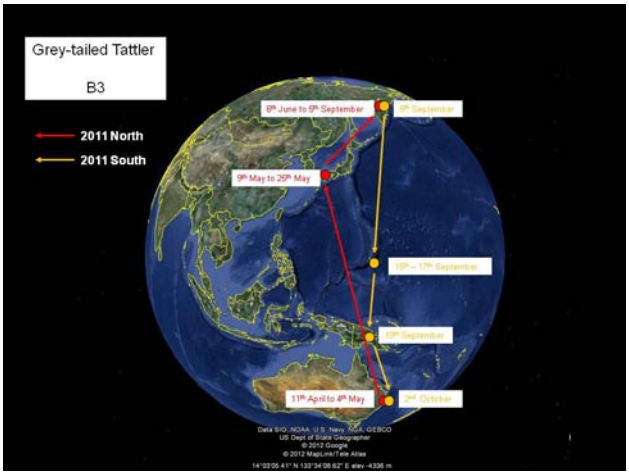
Of the birds banded we have recovered 3 to date. The geolocators were supplied by the British Antarctic Survey (BAS) in the UK and more recently from Migrate Technology (also in the UK). The project is a joint project between QWSG, Wild Bird Society of Japan Chiba and Non Profit Organization Yachou Chiba, with those parties and the Port of Brisbane Corporation being the major financial providers.

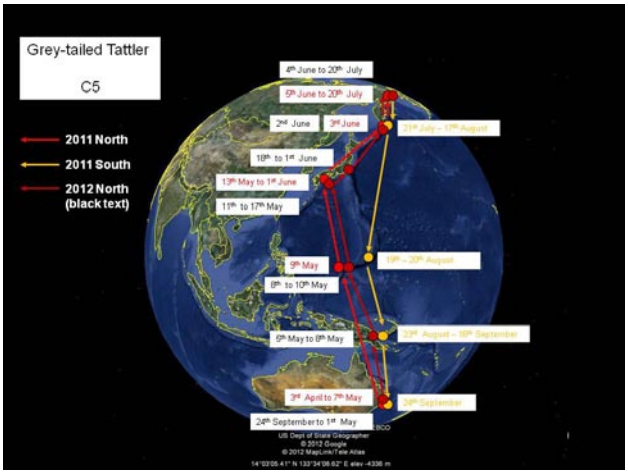
BAS Geolocators

We have managed to capture three birds and retrieve the geolocators, with more catches planned this season. The three birds caught did very different things on their northward migration:

- A6 went from Brisbane, to the Gulf, then the Philippines, then Japan staging in all of those locations en route. From Japan the bird then headed up to the Kamchatka peninsular to breed before commencing its southward migration.
- B3, a Japanese-banded bird, caught at Manly in Queensland and fitted with a geolocator took a much more direct route, travelling from Brisbane to Japan where it staged before heading up onto the Kamchatka peninsular to breed.
- C5 also took a direct route but appeared to stop off mid Pacific on both northward and southward migration. The northward tracks recorded before the geolocator's battery went flat appear to show that the bird's migration route is remarkably consistent between seasons.







Sourced from:
http://www.waders.org.au/studying-waders/banding-shorebirds/satellite-transmitters-and-geolocators/

An Australian ringed bird seen in Kutch, India

A tagged Sanderling was photographed at Modhva coast of Mandvi, Kutch district, Gujarat, India on 21 November 2013. [Coordinates **22.81°N 69.36°E**].

A yellow flag engraved DBP on right tibia and an aluminium ring on its left tarsus were seen. The Sanderling was observed for 3 minutes walking not so normal like other Sanderlings. It was seen alone and not with the flock - we usually see Sanderlings in flocks.

The Australasian Wader Study Group informed us that the Sanderling was ringed on 2 March 2013 at 80 Mile Beach, North West Australia.

This is an important record, providing interesting information in the field of bird migration.

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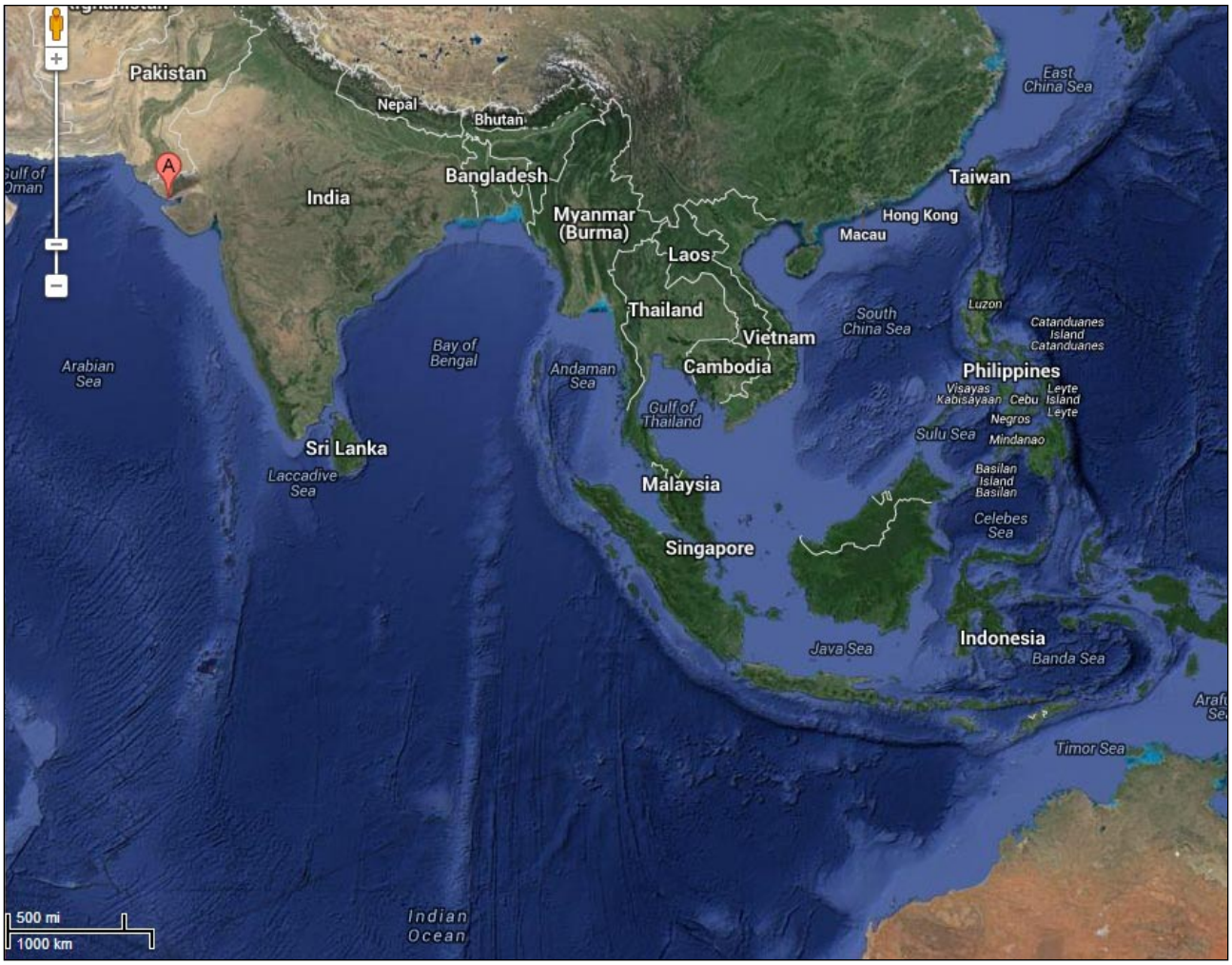
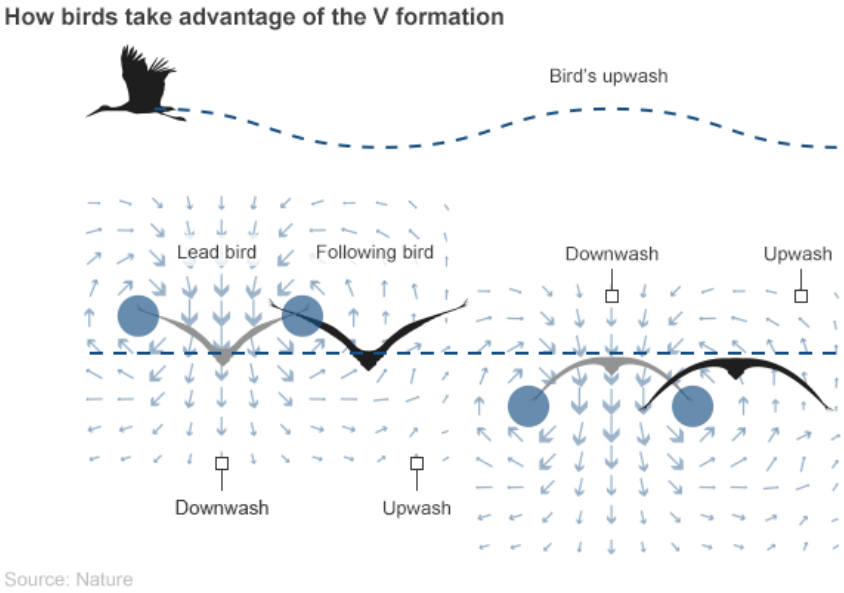
Sanderling ringed in Australia and seen at Modhva coast of Mandvi, Kutch district by Jugal Tiwari



Location of Sanderling sighting in Kutch, Gujarat, India

Fly like a bird - the V formation explained

Scientists from the Royal Veterinary College fitted data loggers to a flock of rare birds that were being trained to migrate by following a microlight. This revealed that the birds flew in the optimal position - gaining lift from the bird in front by remaining close to its wingtip. The study, **published in the journal Nature**, also showed that the birds timed their wing beats. A previous experiment in pelicans was the first real clue to the energy-saving purpose of V formations. It revealed that birds' heart rates went down when they were flying together in a V formation.



Birds put themselves in the best possible position to make the most of upward-moving air - or "upwash" - generated by the bird in front

As a bird's wings move through the air, they are held at a slight angle, which deflects the air downward. This deflection means the air flows faster over the wing than underneath, causing air pressure to build up beneath the wings, while the pressure above the wings is reduced. It is this difference in pressure that produces lift.

Flapping creates an additional forward and upward force known as thrust, which counteracts the weight and the "drag" of air resistance. The downstroke of the flap is also called the "power stroke", as it provides the majority of the thrust. During this, the wing is angled downwards even more steeply. You can imagine this stroke as a very brief downward dive through the air - it momentarily uses the animal's own weight in order to move forward. But because the wings continue to generate lift, the creature remains airborne. In each upstroke, the wing is slightly folded inwards to reduce resistance.

But this latest study tracked and monitored the flight of every bird in the flock - recording its position, speed and heading as well as every wing flap. This was possible thanks to a unique conservation project by the **Waldarappteam in Austria**, which has raised flocks of northern bald ibises and trained them to migrate behind a microlight. The aim of this unusual project is to bring the northern bald ibis back to Europe; the birds were wiped out by hunting, so the team is retraining the birds to navigate a migration route that has now been lost. Fitting tiny data loggers to these critically endangered ibises showed that the birds often changed position and altered the timing of their wing beats to give them an aerodynamic advantage.

Lead researcher Dr Steven Portugal explained: "They're seemingly very aware of where the other birds are in the flock and they put themselves in the best possible position." This makes the most of upward-moving air generated by the bird in front. This so-called "upwash" is created as a bird flies forward; whether it is gliding or flapping, it pushes air downward beneath its wings. "Downwash is bad," explained Dr Portugal. "Birds don't want to be in another bird's downwash as it's pushing them down." But as the air squeezes around the outside of the wings, it creates upwash at the wingtips. "This can give a bit of a free ride for the bird that's following," said Dr Portugal. "So the other bird wants to put its own wingtip in the upwash from the bird in front."

The other really surprising result, the researchers said, was that the birds also "timed their wing beats perfectly to match the good air off the bird in front".
"Each bird [kept] its wingtip in the upwash throughout the flap cycle," Dr Portugal explained. "What these birds are able to do is amazing.
"They're able to sense what's going on from the bird in front, where this good air is coming from and how to position themselves perfectly in it.
"So from a sensory point of view, it's really incredible."

By Victoria Gill Science Reporter, BBC News

Sourced from: http://www.bbc.co.uk/news/science-environment-25736049

Reference

Portugal, S.J., Hubel, T.Y., Fritz, J., Heese, S., Trobe, D., Voelkl, B., Hailes, S., Wilson, A.M. and Usherwood, J.R. (2014). Upwash exploitation and downwash avoidance by flap phasing in ibis formation flight. *Nature* **505**: 399-402.