



# MINUTES TO MIDNIGHT

## Time is running out for our migratory shorebirds

Globally, shorebirds are in trouble; serious trouble. In almost half the populations with known trends, shorebird numbers are declining. Nowhere is this decline more pronounced than in our own region where shorebirds migrate via the Australasian East-Asian Flyway.

By Jan Lewis and Alison Russell-French

### The situation in the Yellow Sea

The area around the Yellow Sea is home to over 600 million people and is the site of huge infrastructure developments, new ports and intense industrial activity, producing amongst other things, the consumer goods and electronic equipment so popular in our own society. With such high population density, finding room for industrial expansion is a challenge and enormous areas of intertidal mud flats have been converted to industrial land.

Sadly, it is these tidal flats that are the prime feeding habitat for hundreds of thousands of shorebirds. By 2009, land reclamation along the Korean Peninsula had reduced the national area of intertidal wetland by more than 70 per cent. Of even greater concern is the China Marine Environment Monitoring Centre's estimate that 1,000 km<sup>2</sup> of land were reclaimed *each year* in China between 2006 and 2010. The shores of the Yellow Sea are the key staging site on shorebirds' annual migration from Australasia to their Arctic breeding grounds. On northward migration this coastline, bounded by China and North and South Korea, supports more than 30 per cent of our Flyway's population for 25 shorebird species and carries almost the entire Flyway population for another 15. The loss of these crucial habitats has seen a dramatic decline in shorebird numbers across the Flyway.



Proof of the magnitude of the threat is exemplified by two shorebird species—Great Knot and Eastern Curlew—that spend the non-breeding season here, feeding on the mudflats in such places as Roebuck Bay and Eighty Mile Beach in Western Australia. Count data analysed by the Shorebird 2020 team has revealed that Great Knot numbers have declined by 50 per cent in the last 25 years, a decline so dramatic that the species has had its official conservation status on the IUCN's Red List of Threatened Species (the most objective and authoritative system for classifying species in terms of the risk of extinction) upgraded from being of Least Concern to Vulnerable. The Great Knot is now considered to be at 'high risk of endangerment in the wild'. Similarly, the status of the Eastern Curlew has also been reclassified as numbers have declined by 20 per cent in the last five years.

Case studies from the Bohai Sea exemplify the situation. This shallow embayment in the north-western corner of the Yellow Sea is the study site for annual research conducted by the Global Flyway Network. The study site abuts the massive new development of the Caofeidian Industrial Zone which houses a major port receiving iron ore and coal from Australia, as well as the Beijing Steelworks which were permanently moved from Beijing as a means of curbing air pollution during the 2008 Olympic Games. This development itself occupies 65 km<sup>2</sup> of former tidal mudflat, but the devastation does not end there. The fill used in the

creation of reclaimed land often comes from mud pumped in from adjoining tidal zones, lowering the levels of the mudflats so that they are no longer exposed at low tide, rendering them useless as shorebird habitat. Caofeidian is not the only development; land reclamation continues unabated and vital habitat is being lost at an alarming rate.

It would be difficult to find a more polluted large water body on earth than the Bohai Sea. It absorbs nearly 5.7 billion tonnes of sewage and 2 million tonnes of solid waste each year; 43 of the 52 rivers that flow into it are heavily polluted. Yet in the spring of 2010, over 80,000 Curlew Sandpipers were recorded at the study site. Identifying leg-flags on some of the birds showed they had come from India, Thailand, Singapore, Sumatra, Taiwan, Shanghai and six sites in Australia, highlighting how birds from a wide range of non-breeding sites in the Flyway concentrate in the ecological bottleneck of the Yellow Sea. Furthermore, in 2009, 25 km of its shores were used by over 45 per cent of two subspecies of the world's population of adult Red Knot (*race rogersi* that migrates to *Chukotka*, and *piersmai* that breeds on the New Siberian Islands).

The simplistic view (often advanced), that shorebirds will just move to other tidal flats, is not accurate given the specialist feeding needs of many species and the reality that most tidal flats have already reached their carrying capacity. In 2010, more birds were counted on the tidal flats that remained; probably forced there as others were destroyed.

A marked increase in people collecting shellfish for food was also noted. In the past this activity was done by hand, only possible when low tide exposed the mud flats. In 2010 collecting was

#### Who to write to

Mr Tony Burke  
Minister of the Environment  
GPO Box 787, Canberra ACT 2601  
Ph: (02) 6274 1111  
Fx: (02) 6274 1123

Senator Bob Brown  
Leader of the Australian Greens  
GPO Box 404, Hobart TAS 7001  
Ph: (03) 6224 3222  
Fx: (03) 6224 2999

Mr. Chen Yuming  
Chinese Ambassador to Australia  
15 Coronation Drive  
Yarralumla ACT 2600

Mr Kim Woo-Sang  
Ambassador from the Republic of Korea to Australia  
113 Empire Circuit  
Yarralumla  
ACT 2600

Mr Greg Hunt  
Shadow Minister of the Environment  
PO Box 6022, Canberra ACT 2600  
Ph: (02) 6277 2276  
Fx: (02) 6277 8446

Dr Geoff Raby  
Australian Ambassador to China  
21 Dongzhimenwai Dajie,  
Sanlitun, Beijing, China

Mr Sam Gerovich  
Australian ambassador to the Republic of Korea  
KPO Box 562  
Seoul 110-605  
Republic of Korea



## Minutes to midnight

**Previous:** A huge pump spews out mud from a former mudflat onto a land reclamation site, Bohai Bay, China. Photo by Adrian Boyle

**Far left:** Map of the Yellow Sea region, a vital staging area for our migratory shorebirds.

**Centre:** Almost 50 percent of Red Knot populations in the Australasian East-Asian Flyway are concentrated on the one ever decreasing site in Bohai Bay. Photo by Jan van de Kam

**Right:** Bar-tailed Godwits in flight—another species heavily dependant on the Yellow Sea. Photo by Jan van de Kam

primarily done using noisy, smoky petrol-driven machines that could work at any tide, sucking up everything in their path and pumping the mud through a sieve which collected all shellfish, thereby destroying the smaller-sized shells eaten by Red Knots.

Obviously, preservation of the remaining tidal flats in the Yellow Sea is essential for conservation of all shorebirds species in the East Asian–Australasian Flyway, but preservation of the remaining tidal flats of Bohai Bay is of critical importance to the conservation of Red Knot in the Flyway.

### The situation here

Australia, China and the Republic of Korea (South Korea) are signatories to the Ramsar Convention on Wetlands, an international agreement which promotes the conservation and wise use of wetlands. The Convention defines ‘wise use’ of wetlands as: *their sustainable utilization for the benefit of humankind in a way compatible with the maintenance of the natural properties of the ecosystem.*

Australia also has bilateral agreements on migratory birds with both China (CAMBA) and the Republic of Korea (ROKAMBA); the agreement with South Korea being signed as recently as 2007. Regular meetings are held to discuss how each country is adhering to the requirements of the bilateral agreement. The meetings, however, are not open to the public and little information about matters discussed, actions agreed or decisions taken is revealed to the general public.

With a sustainable future for our shorebirds so imperilled, it is vital that we take action and demand that our governments honour the commitments they have signed up to at the international level.

Thinking of how to achieve this as an individual can engender a sense of powerlessness, but there are now numerous examples where people-power has made a difference. We need to make our leaders take notice. As Tony Burke, the Minister for Sustainability, Environment, Water, Population and Communities is new and does not have a background in shorebird migration, letters from Birds Australia members raising concerns about the loss of Yellow Sea habitat and the impacts on migratory shorebirds are timely. This Minister has the future of shorebirds in his hands; he needs to understand that initiating and leading robust debate at future international meetings has to become one of his priorities.

As the inspiring final sentence of the book *Invisible Connections: Why Migrating Shorebirds need the Yellow Sea* declares:

“Like the shorebirds that rise into the air to cross continents and oceans, so too we must all rise to the challenge—to secure a future for the birds, the tidal flats and the living world which we all share.”

The situation is alarming and urgent. Please write on behalf of our shorebirds.

### Further reading

Jan van de Kam (et al). (2010) *Invisible Connections: Why Migrating Shorebirds Need the Yellow Sea*, CSIRO Publishing, Collingwood

*Birds Korea Blueprint 2010*, [www.birdskorea.or.kr](http://www.birdskorea.or.kr)

Hassell, Chris J. (2010), *Bohai Bay northward migration report April & May 2010*, [www.globalflywaynetwork.com.au](http://www.globalflywaynetwork.com.au)

Rogers, Danny I. (et al), (2010) “Red Knots (*Calidris canutus piersmai* and *C. c. rogersi*) depend on a small threatened staging area in Bohai Bay, China.” *EMU 110* (4) pp 307-315

### What you can say

- Preservation of the remaining tidal flats in the Yellow Sea is essential for conservation of the remaining shorebirds in our Flyway—the Australasian East-Asian Flyway.
- That at future meetings of the bilateral migratory bird agreements (eg CAMBA and ROKAMBA), Australian delegates should ask their counterparts what is being done in their country to ensure sufficient appropriate habitat remains to ensure that birds can successfully stage there on migration.
- That the Australian government should advocate for the issue of shorebird habitat to be listed as a standing agenda item at each Conference of Parties of Ramsar, the Convention on Biological Diversity and the Convention on Migratory Species (the Bonn Convention).
- That the Minister for the Environment requests and lobbies for the issue of the reclamation of shorebird habitat in the Yellow Sea to be included as a major agenda item on the program for the next IUCN World Congress to be held in the Republic of Korea in late 2012.
- Request that the House of Representatives Joint Standing Committee on Treaties undertakes a parliamentary review of Australia’s performance in maintaining its obligations to international environment treaties.