

# Threatened Species of the Northern Territory

## GREAT KNOT

### *Calidris tenuirostris*

#### Conservation status

Australia: Critically Endangered

Northern Territory: Vulnerable



Photo: J. Barkla

#### Description

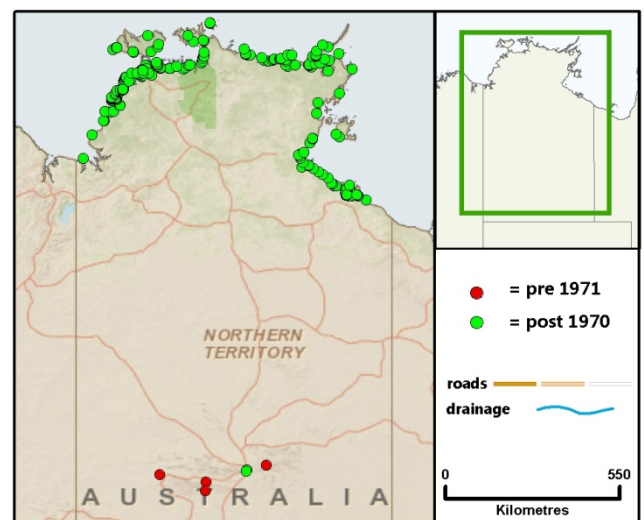
The Great Knot is a medium-large shorebird with relatively short legs and a slender medium-length bill. In non-breeding plumage (typical of Australian visitors) the upperparts are grey with lighter feather margins. There is heavy grey flecking and streaking over white on the head and neck, and across the chest. The underparts and rump are white with some flecking along the flanks. The tail tip is grey.

#### Distribution

The Great Knot breeds in north-east Siberia (Russia). Annual southerly migration takes them to south-east Asia, southern Asia and Australia. Most that reach Australia settle along the northern coastline between north-west Western Australia and the Gulf of Carpentaria, but significant numbers reach eastern Queensland and there are reports of them from most Australian coastal areas. The one inland location for the species in Australia is at Alice Springs, presumably used by transiting migratory birds (Garnett et al. 2011).

*Conservation reserves where reported:*  
Barranyi National Park, Casuarina Coastal Reserve, Charles Darwin National Park,

Djukbinj National Park, Garik Gunak Barlu National Park, Kakadu National Park, Keep River National Park and Limmen National Park.



Known locations of the Great Knot

#### Ecology

Great Knots breed in sub-arctic alpine tundras of north-eastern Siberia and migrate southwards along the East Asian-Australasian flyway to overwinter in Australia. During this non-breeding season (the austral summer) birds settle on large sheltered intertidal mudflats and sand-flats, especially in mangrove areas (Chatto 2003). They are often in flocks with Red Knots. Great Knots are specialist bivalve hunters (Geering et al 2007)

but also eat crustaceans and a range of other invertebrates (Garnett *et al.* 2011).

### Conservation assessment

The status of this species in Australia and globally was reviewed in 2010 (by Garnett *et al.* (2011), and Birdlife International (2011), respectively). Both concluded that direct counts at key sites (e.g. Rogers *et al.* 2010) show a population decline of >30 percent over the last 10-20 years, most probably associated with habitat loss on migration staging points (Barter 2002; Moores *et al.* 2008; Hassell 2010). Garnett *et al.* (2011) rate its Australian status as Vulnerable, and Birdlife International (2011) rate its global status as vulnerable.

Birds visiting the Northern Territory (NT) probably comprise a substantial proportion of the global population of this species: Chatto (2003) estimated that the minimum Top End population of great knots was 122,000 individuals; BirdLife International (2011) estimates the current total global population at 290,000 individuals.

The NT population can reasonably be assumed to have suffered a reduction of similar proportion to that in Australia as a whole. So, in the NT, this species qualifies as **Vulnerable** (under criterion A2a), based on:

- population reduction of >30 percent over three generations (c. 22 years) observed in the past; and
- where the causes of reduction have not ceased and may not be reversible.

### Threatening processes

The main acute cause of population decline for birds migrating to Australia is habitat loss at migratory stop-over grounds, particularly around South Korea "Recent reclamation and development of wetlands in South Korea have led to a decline in the observed counts of non-breeding populations, mostly notably including dramatic declines at the Saemangeum wetland which previously held

c.20-30 percent of the global population on migration. Despite there being no observed declines within the Chinese portion of the Yellow Sea, further declines at smaller staging grounds in Japan and at major wintering grounds in Australia make it clear that the population is declining overall" (BirdLife International 2010).

The main acute cause of population decline for birds migrating to Australia is habitat loss at migratory stop-over grounds (mudflats in the Yellow Sea area: Barter 2002; Moores *et al.* 2008; Hassell 2010), but habitat degradation has also occurred more gradually across most of its range.

The non-breeding grounds of the species in eastern and southern Australia are threatened by habitat degradation, loss and human disturbance (Garnett *et al.* 2011), but those in the north are generally free of such disturbances.

### Conservation objectives and management

In the NT, the primary conservation objective is to maintain stable non-breeding populations by retaining healthy intertidal mudflat habitats.

Secondarily, the Australian Government should be supported in its international endeavours to promote conservation of shorebirds along the East Asian-Australasian flyway.

### Compiled by

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### References

- Barter, M.A. (2002). *Shorebirds of the Yellow Sea: importance, threats and conservation status*. Wetlands International Global Series 9, International Wader Studies 12, Canberra, Australia. [http://wwf.panda.org/what\\_we\\_do/where\\_we\\_work/yellow\\_sea/](http://wwf.panda.org/what_we_do/where_we_work/yellow_sea/)

- Birdlife International (2011). Species factsheet: *Limosa lapponica* Downloaded from <http://www.birdlife.org> on 04/10/2011.
- Chatto, R. (2003). *The distribution and status of shorebirds around the coast and coastal wetlands of the Northern Territory*. (Technical Report 73, Parks and Wildlife Commission of the Northern Territory, Darwin.) [http://www.nt.gov.au/nreta/publications/wildlife/science/pdf/2003\\_shorebirds\\_rpt76.pdf](http://www.nt.gov.au/nreta/publications/wildlife/science/pdf/2003_shorebirds_rpt76.pdf)
- Garnett, S.T., Szabo, J.K., and Dutton, G. (2011). *The action plan for Australian Birds 2010*. (CSIRO Publishing/Birds Australia, Melbourne.)
- Geering, A., Agnew, L. and Harding, S. (2007). *Shorebirds of Australia*. (CSIRO Publishing, Melbourne.)
- Hassell, C. (2010). Bohai Bay northward migration report April & May 2010. Global Flyway Network. <http://www.globalflywaynetwork.com.au/reports/Final-Bohai-Report-2010.doc>
- Moore, N., Rogers, D., Kim, R-H, Hassell, C., Gosbell, K., Kim, S-A, and Park, M-N. (2008). *Saemangeum Shorebird Monitoring Report*. Birds Korea, Busan. <http://www.birdskorea.org/Habitats/Wetlands/Saemangeum/Downloads/Birds-Korea-SSMP-Report-2006-2008.pdf>
- Rogers, D., Hassell, C. Oldland, J. Clemens, R., Boyle, A. and Rogers, K. (2010). *Monitoring Yellow Sea Migrants in Australia (MYSMA): North-western Australian shorebird surveys and workshops, December 2008*. (Department of Water, and the Arts. Heidelberg, Victoria, Arthur Rylah Institute.)