

# Threatened Species of the Northern Territory

## RED KNOT

### *Calidris canutus*

#### Conservation status

Australia: Endangered

Northern Territory: Vulnerable



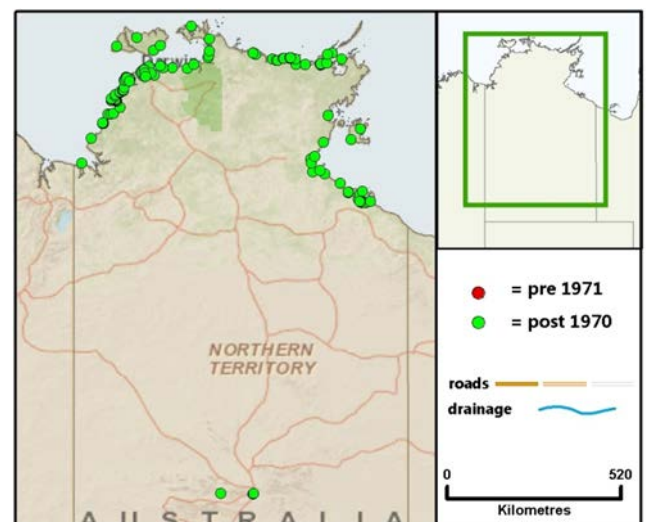
Photo: BirdLife Australia\*

#### Description

The Red Knot is a medium-sized stocky shorebird with relatively short legs and a short straight bill. In non-breeding plumage (typical of Australian visitors) the head and nape are light grey with brown flecking and this continues over the side of the neck and across the chest. There is a distinct white eye-brow. The upperparts are grey with only faint brown streaks and scalloping. The underparts are white with some flecking along the flanks. The rump and base of the tail are finely barred and the tail tip is grey.

#### Distribution

The Red Knot breeds in high arctic areas and has a broad non-breeding range including all the southern hemisphere continents. Garnett et al. (2011) distinguish between two subspecies of Red Knot that migrate to Australasia and one that is a vagrant here. Both *C. c. piersma* and *C. c. rogersi* breed in north-eastern Siberia (Russia), and the majority of populations of both subspecies migrate each year to Australasia (*C. c. piersma* mostly to north-western Australia, *C. c. rogersi* to south-eastern Australia and New Zealand). Small numbers of vagrant *C. c. canutus* are occasionally seen in Australia. No attempt will be made to distinguish between the distribution and status of these three subspecies in this document.



Known locations of the Red Knot

The north-west and south-east of Australia are the most important areas for this species during the non-breeding season, but the Gulf of Carpentaria is an important staging area for birds migrating to the south-east and to New Zealand. Other areas important for the species in the Northern Territory (NT) reported by Chatto (2003) were between the Daly River and Bynoe Harbour, and the northern Arnhem Land coast from Boucaut Bay to Buckingham Bay.

There is only one inland location for the species in the NT, at Alice Springs, presumably used by transiting migratory birds (Garnett et al. 2011).

Conservation reserves where reported:

Barranyi National Park, Kakadu National Park and Limmen National Park.

## Ecology

Red Knots that overwinter in Australia breed in high-arctic tundras of north-eastern Siberia and migrate southwards along the East Asian-Australasian flyway. During the non-breeding season (the austral summer) birds settle on large sheltered intertidal mudflats and sandflats and are rarely encountered far from the coast. They are gregarious, often in large tight flocks, and often intermingle with Great Knots, especially at high-tide roosts (Geering et al 2007). Red Knots specialise on eating bivalves, probing the mud or sand for them along the waterline as the tide recedes. They also eat crustaceans and a range of other invertebrates.

## Conservation assessment

The status of this species globally and in Australia was reviewed in 2010 (by BirdLife International (2011), and Garnett et al. (2011), respectively). Globally, BirdLife International (2011) considers the species to be declining but not to a sufficient degree to trigger threatened status. However, for those subspecies that use the east Asian-Australasian flyway there has been recent major decline associated particularly with habitat change in the Yellow Sea area (Barter 2002; Moores et al. 2008; Hassel 2010). As a result of this, Garnett et al. (2011) rate the two subspecies of Red Knot that predominately migrate to Australia to be Vulnerable.

In Australia, direct counts at key sites (e.g. Rogers and Hassell 2009) have shown a population decline of >30 per cent over the last 20 years. Birds occurring in the NT are a component of this migratory population, and can reasonably be assumed to have suffered a reduction of similar proportion.

This species qualifies as Vulnerable in the NT (under criterion A2a), based on:

- population reduction of >30 per cent over three generations (c. 30 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 in East Asia, particularly in Bohai Bay, China. Reclamation and development of wetlands in this area have led to declines in the observed counts of non-breeding populations (Rogers et al 2010). More generally, pollution, hydrological and human disturbance and hunting have reduced habitat quality at East Asian stop-over sites (Barter 2002; Moores et al. 2008; Hassel 2010).

The non-breeding grounds of the species in south-eastern 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

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\*BirdLife Australia [www.birdlife.org.au](http://www.birdlife.org.au)

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