

# First recovery of a Red Knot *Calidris canutus* involving the breeding population on New Siberian Islands

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We report the sighting of a male Red Knot in NW Australia that was colour-banded on its nest on the New Siberian Islands. This is the first recovery involving a bird known to be from this breeding population. Together with data on movements within the Australian–New Zealand region and the East Asian–Australasian Flyway, it suggests that the non-breeding area for the New Siberian Islands population is situated mainly in NW Australia.

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## INTRODUCTION

Red Knots *Calidris canutus* have a High Arctic circumpolar breeding distribution. Several discrete breeding populations have been identified. For some of them, unambiguous conclusions about subspecies status have not yet been drawn, partly because the connections between breeding populations and wintering populations are unknown (Piersma & Davidson 1992). One such population is breeding on the New Siberian Islands off the northern coast of Siberia. Based on studies of plumage characteristics, Tomkovich (1992) suggested that these birds form one out of two or three populations within the *canutus* subspecies, and that the New Siberian Islands birds migrate to wintering grounds in Australasia. However, the migration routes and wintering grounds have not yet been described. In this note we report the first recovery of a Knot ringed as a breeding bird on the New Siberian Islands. It was sighted on several occasions at Broome, on the northwest coast of Australia. We briefly discuss the importance of this finding for understanding the Red Knot migration pattern in the Pacific region.

## BANDING CIRCUMSTANCES ON NEW SIBERIAN ISLANDS

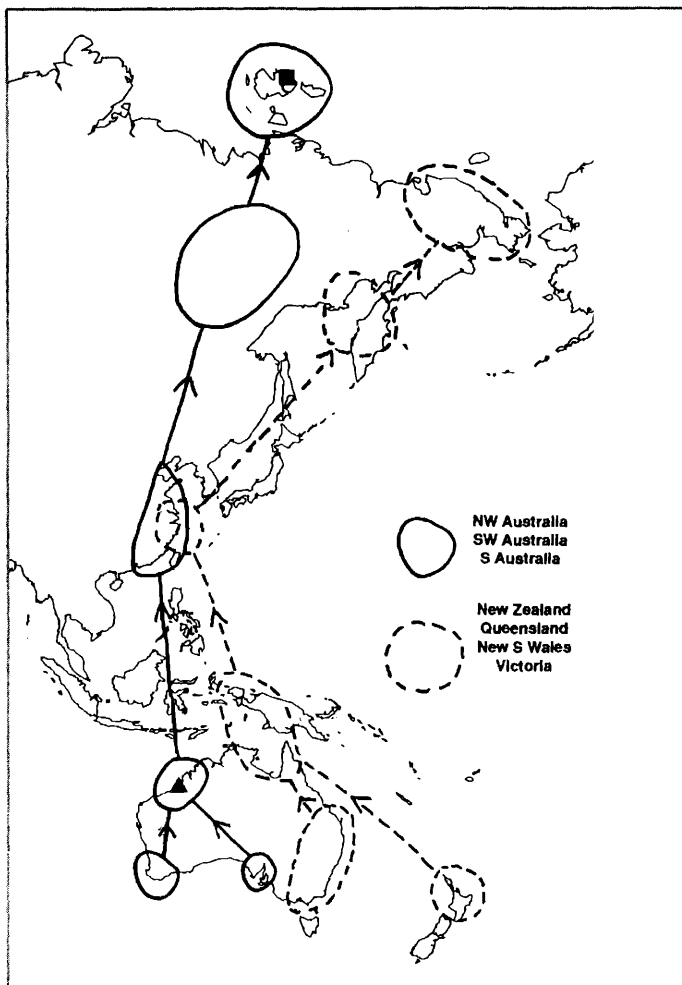
During the Swedish–Russian shipborne expedition in summer 1994, “Tundra Ecology Expedition –94” (Grönlund & Melander 1995), a two-day visit was paid to the northwestern part of Faddeyevski Island (75°33'N, 143°50'E), one of the New Siberian Islands. On 10 July, ÅL and SB spent the

afternoon and evening walking around on the gently undulating tundra, looking for breeding waders. Red Knots were displaying seemingly everywhere and together with singing Sanderlings they dominated the acoustic scene. Although we regularly saw single Knots walking around on the ground, we spent many hours in vain waiting for birds to return to presumed nests.

At 1940 local time, a Knot suddenly appeared about 4 m in front of our feet, showing the characteristic wader distraction display, obviously leaving its nest. The nest was soon found, containing four eggs. After about 15 minutes the bird had entered our nest-trap. The bird was ringed with one stainless steel ring (RIKSMUSEUM STOCKHOLM 4363204) and three colour rings: pink over metal on the right leg, white over pale blue on the left leg. The bird had the following morphology: wing (maximum chord) 161 mm, bill 31.7 mm, total head 62.0 mm, tarsus 33.2 mm, tarsus+toe (including the claw) 62 mm and weight 124 g. We did not sex the bird.

This was the only Red Knot ringed on the New Siberian Islands and one out of ten ringed during the expedition (4 pulli and 6 adults). A quite extraordinary coincidence is that exactly four hours later we observed a colour-ringed Sanderling that turned out to have been marked in southern Australia.





**Figure 1.** Map showing tentative northward migration routes and stopover locations for the Red Knot populations in the East Asia – Australasian Flyway. Note the locations of Faddeyevski Island (square) and Broome (triangle). This map was first presented at The Southern Hemisphere Ornithological Congress in Albany, Western Australia, in October 1996.

#### RESIGHTING CIRCUMSTANCES IN NORTHWEST AUSTRALIA

On 10 November 1995, Mary Atkinson, a visitor at Broome Bird Observatory, observed a colour-ringed Red Knot on the northern shores of Roebuck Bay near Broome in Northwest Australia (18°00'S, 122°22'E). The colour-code reported was identical to the one we used for the New Siberian Islands bird. Since only one bird was ringed with this code, there are no doubts that the bird seen in Broome was the individual ringed on Faddeyevski Island, New Siberian Islands. The place of resighting is 10,406 km almost due south (173°) of the ringing site.

The bird was seen again at the same location near Broome an additional four times: 20 and 22 March, 3 April and 20 September 1996. At the last resighting the colour rings were still intact and bright. All the sightings were by one or more experienced observers including the wardens of Broome Bird Observatory, Jon Fallaw and Becky Hayward. The bird has not been seen again since 1996.

#### SEXING THE BIRD

At capture, a blood sample was collected and stored in SET-buffer (0.15 M NaCl, 0.05 M Tris, 1 mM EDTA). Genomic DNA was extracted following a standard phenol-chloroform protocol (Sambrook *et al.* 1989). By employing a molecular sexing technique (Baker *et al.* in press) using primers developed by Griffiths *et al.* (1996), it was clear that the bird was a male.

#### DISCUSSION

The recovery reported here is the first involving a Red Knot of certain New Siberian Islands origin. It indicates that at least some birds of the New Siberian Islands Knot population migrate to non-breeding areas in northwest Australia. This may well be the regular non-breeding area for the population. Extensive banding and colour flag marking of Red Knots in northwest Australia, as well as in eastern and southeastern Australia and in the Auckland region of New Zealand, has shown that there is only a small onward movement of birds from northwest Australia to other areas (some 3,000–5,000 km to the southeast, see Figure 1). This contrasts with extensive interchange of Knots between eastern Australia and New Zealand (Barter 1992). Recoveries from birds banded in these areas suggest that they have a more easterly breeding area in Siberia. However, all populations seem to share a common stopover area in the northern half of China during northward migration (Wilson & Barter 1998).

A detailed analysis of recoveries and flag sightings is currently in progress and will be followed by an analysis of the extensive biometric data collected (Clive Minton in prep.). It was nevertheless considered that this first recovery of a bird known to be from the New Siberian Islands breeding population was worthy of a separate note.

#### ACKNOWLEDGEMENTS

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**Central picture** The bird! **Inset** Measuring total head and bill

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