



Knot

Knoet

Calidris canutus

The Knot is restricted to breeding in the arctic tundra. Currently five subspecies are recognized, breeding in a circumpolar ring of sectors, and migrating along well-defined corridors to a few main nonbreeding areas along the coasts of Argentina (to 55°S), western Europe (to 55°N), West Africa, Australia and New Zealand (Piersma & Davidson 1992). The world population is about 1.25 million birds (Rose & Scott 1994); the estimated 13 000 Knots that migrate to Namibia and South Africa therefore constitute about 1% of the world population.

In southern Africa Knots are largely confined to the coastline of Namibia and the Cape Province, mainly the west coast. Three large tidal inlets, Walvis Bay Lagoon (2214CD), Sandwich Harbour (2314AD) and Langebaan Lagoon (3318AA), support about two-thirds of the southern African population. It is rare inland, with e.g. only three records from Botswana and none from Zimbabwe (Irwin 1981; Penry 1994; OAZ Rarities Committee).

Habitat: Outside the breeding season it is almost entirely restricted to marine environments. It is particularly fastidious in choice of habitat, and concentrations occur only on sheltered tidal estuaries and lagoons with large mud- and sandflats.

Movements: The provenance of those that spend the nonbreeding season in southern Africa is likely to be the Taimyr Peninsula in Siberia, because breeding productivity is correlated with that of other species which are known to breed there (Underhill *et al.* 1989). However, there are no recoveries of ringed birds to confirm this; the closest recovery to the breeding grounds is from the Pechora River

(68°N 53°E), east of Arkhangelsk, northwestern Russia, and c. 1500 km from the western limit of the breeding grounds. Tomkovich (1992) argued, from biometric considerations, that those visiting southern African might come from an as yet undiscovered breeding ground in Yakutsk, even further east than the Taimyr Peninsula.

Of 3858 Knots ringed in southern Africa, 39 have been recovered north of the equator, and there are six recoveries in southern Africa of birds ringed in the northern hemisphere (SAFRING). None of these recoveries was along the 'great circle' (shortest) route between Siberia and southern Africa through the Middle East, and none was in the Mediterranean Basin. A first-year Knot ringed at Banc d'Arguin (19°40'N, 16°21'E), Mauritania, on 28 September 1973, probably while migrating southwards, was retrapped at Langebaan Lagoon on 8 June 1975 (apparently spending a second winter on the nonbreeding grounds). Apart from the Russian and Mauritanian records, the remaining 43 recoveries are scattered along the Atlantic Ocean coasts of Spain and Portugal, and at estuaries along the coastline of the Bay of Biscay, the English Channel, the North Sea and the Baltic Sea. This suggests that the Knot is unique among waders visiting southern Africa in taking this route along the coastline of the eastern Atlantic Ocean to its breeding grounds, but it increases the flight distance by only c. 10%.

Arrival is mainly September–October, and departure in April. First-year birds stay in southern Africa during the austral winter. As in the other high-arctic waders that breed on the Taimyr Peninsula, breeding productivity correlates with lemming abundance (see the text for Curlew Sandpiper *C. ferruginea*).

Interspecific relationships: At the localities where it occurs in southern Africa, it mixes freely, sometimes in subgroups, in flocks of the far more abundant Curlew Sandpiper, both while feeding and roosting.

Historical distribution and conservation: It has undoubtedly increased in abundance in southern Africa. In the 19th century, Stark & Sclater (1906) knew of records from Walvis Bay and Algoa Bay only. At Langebaan Lagoon the number of Curlew Sandpipers per Knot decreased from 340 to 7.4 between 1956 and 1976–86 (Underhill 1987a), suggesting a 40–50-fold increase in Knot abundance there. Besides the protection of the tidal lagoons where it feeds in southern Africa, the conservation of the Knot is largely dependent on the protection of a chain of the suitable sites which form a series of stepping stones along the east Atlantic flyway (Davidson & Piersma 1992). Some of these sites are used only as 'refuelling stops' during migration for a few weeks a year, but are nevertheless vital for its survival.

L.G. Underhill

Recorded in 98 grid cells, 2.2%
Total number of records: 717
Mean reporting rate for range: 4.1%

