Red Knot *Calidris canutus*

In California, the Red Knot has a remarkably circumscribed distribution: it winters in numbers at only a few sites, the tidal mudflats of San Diego and Mission bays prominent among them. The total wintering in San Diego County is about 400 to 700, perhaps less in some years. During migration the knot is more widespread and abundant than in winter, occurring at times in flocks of hundreds on San Diego Bay and in flocks of dozens elsewhere along the coast.

Winter: The Red Knot's preference for tidal mudflats in winter is even stricter than that of the Short-billed Dowitcher. As a result, knots concentrate around San Diego Bay. The mudflats at and near the Sweetwater River mouth (T10/U10) are an especially favored site (up to 258 on 18 February 2000, R. T. Patton; 225 on 13 February 1989, Macdonald et al. 1990). The species occurs around the bay, however, often in association with large flocks of Short-billed Dowitchers. It is regular also in the Tijuana River estuary (V10; 73 on 19 December 1998, R. B. Riggan), in the San Diego River flood-control channel (R8; 30 on 7 December 1997, B. C. Moore), and in Mission Bay (Q8; 120 on 21 December 1998, J. C. Worley).

The estimate of 400–700 for the county's winter knot population comes from a convergence of atlas results, focused studies of San Diego Bay (Macdonald et al. 1990, Stadtlander and Konecny 1994), and Christmas bird counts. The maximum on any San Diego Christmas bird count was 935 on 17 December 1977. Kjelmyr et al. (1991) estimated the numbering of wintering knots at 100–1000 at both San Diego and Mission bays.

In northern San Diego County, however, wintering knots are very rare. We had no records from 1997 to 2002. Five on 4 January 2003 were the first ever on a Rancho
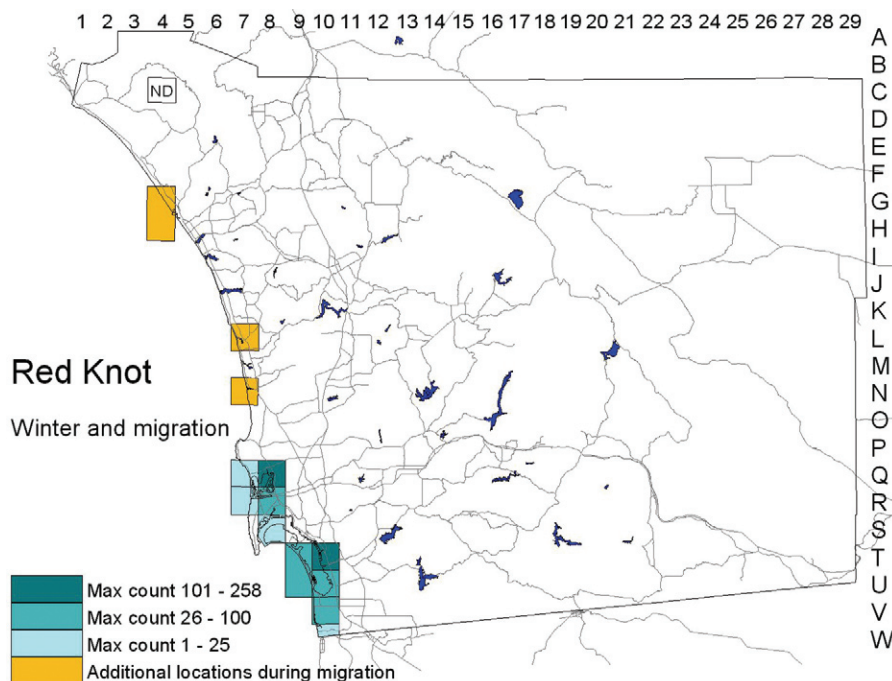

Photo by Anthony Mercieca

Santa Fe Christmas bird count. The Oceanside count has recorded the knot on only three of 28 counts 1976–2002, with two individuals on each occasion. In 10 years of monthly counts at San Elijo Lagoon 1973–83, King et al. (1987) found no knots from November to April.

Migration: From 1997 to 2001 our dates for migrating knots ran from 12 July (1999, two at the Santa Margarita River mouth, G4) to 21 May (2001, five at the same locality, P. A. Ginsburg). Earlier records extend from 5 July to 21 May (Unitt 1984). At San Elijo Lagoon, King et al. (1987) found the knot to be most frequent in September (average 7.4), whereas in and near the south San Diego Bay salt works, Stadtlander and Konecny (1994) found the fall peak in October, with a high count of 706. The latter study also recorded a strong spring peak in April and May, with maximum counts between 400 and 425 in both months. Along the Chula Vista bayfront, Macdonald et al. (1990) recorded numbers higher than in winter during both spring and fall migration, with a maximum of 425 on 14 April 1989. A single knot at Lake Hodges (K11) 7 September 1979 (AB 34:201, 1980) is still the only one reported inland.

Knots in nonbreeding plumage summer regularly on San Diego Bay, in numbers of up to 125 on 15 June 1978 (P. Unitt), at least 100 through summer 1987 (G. McCaskie, AB 41:1487, 1987), and 65 at the Sweetwater River mouth 24 June 1988 (Macdonald et al. 1990).

Conservation: Because much of the Red Knot's population stages in migration at just a few sites, it is of more conservation concern than many shorebirds (Harrington 2001). Though the numbers of knots in San Diego County are lower than those of many other shorebirds, the importance of San Diego in a statewide context

Red Knot

Winter and migration

Max count 101 - 258
Max count 26 - 100
Max count 1 - 25
Additional locations during migration

looms comparatively large. San Francisco Bay is the only wetland in California besides San Diego and Mission bays where Kjelmyr et al. (1991) estimated a wintering population as high as 100–1000. Development of San Diego and Mission bays, however, has already eliminated a large fraction of the bays' original tidelands.

Taxonomy: Most of the Red Knots occurring in California are apparently *C. c. roselaari* Tomkovich, 1990, which breeds on Wrangel Island in the Siberian Arctic and in northwestern Alaska (Patten et al. 2003).