## Willet Catoptrophorus semipalmatus

The Willet is one of the more abundant shorebirds along San Diego County's coast, especially around south San Diego Bay and in the Tijuana River estuary, where it can be seen in flocks of hundreds, often with Marbled Godwits. The population wintering in the county as a whole is about 2500 to 3000, and even larger numbers occur in fall migration. Dozens of nonbreeding birds remain through the summer. Tidal mudflats and salt marshes are the Willet's primary habitats, though the species is fairly common on beaches, lagoons, and rocky shores as well.

Winter: From 1997 to 2002, our numbers of the Willet in the Tijuana River estuary (V10) ranged up to 700 on 3 December 1999 (B. C. Moore); in south San Diego Bay at Chula Vista (U10) they ranged up to 630 on 16 December 2000. In weekly surveys in and near the salt works 1993–94, Stadtlander and Konecny (1994) found numbers from December to February averaging around 600 to 750. Numbers elsewhere around San Diego are also substantial, with up to 200 in the Paradise Creek marsh, National City (T10), 6 March 2000 (T. A. Godshalk), 138 around North Island (S8) 18 December 1999 (R. T. Patton), and 150 in northeastern Mission Bay (Q8) 29 December 1998 (J. C. Worley).

In northern San Diego County the Willet is much less abundant, as shown by the averages of 93 for the Oceanside Christmas bird count 1976–2002 and 74 for the Rancho Santa Fe count 1980–2003 versus 1219 for the San Diego count 1953–2002. The species' primary sites in the north county during the atlas period were the east basin of Batiquitos Lagoon (J7; up to 139 on 27 December 1997, F. Hall) and Los Peñasquitos Lagoon (N7; up to 80 on 5 December 1999, D. K. Adams).

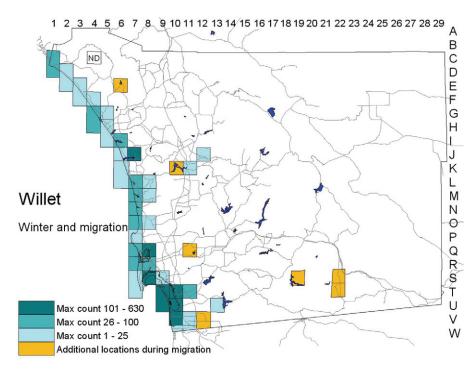




Photo by Anthony Mercieca

Inland, the Willet is rare. In winter, it is known inland only in the coastal lowland. Our nine winter records from fresh water during the atlas period ranged in number up to five at the Dairy Mart pond, Tijuana River valley (V11) 20 December 1997 (G. McCaskie) and extended inland as far as San Pasqual Valley (J12; one on 2 January 1999, M. Cassidy, the only Willet found on an Escondido Christmas bird count), the upper end of Lake Hodges (K11; one on 13 December 1999, B. C. Moore), and Lower Otay Lake (U13; one on 14 February 1999, J. R. Barth).

Migration: For many shorebirds the interval between spring and fall migration is brief, but for the Willet it is one of the briefest, perhaps only two weeks. Along the coast, because of the prevalence of summering birds, the arrival and departure of migrants is obscured. Nevertheless, migrants may arrive as early as 19 June. Even three at Barrett Lake (S19) 10 June 2001 (R. and S. L. Breisch) must have been early fall migrants. By 1 July migrants are returning in large numbers. A female Willet nesting at Lakeview, southeastern Oregon, was banded and radio-

tagged 31 May 1999, suffered predation of her clutch of eggs between 11 and 14 June, departed on 23 June, and was seen at Mission Bay 8 July (J. Plissner, L. D. Johnson). Monthly surveys of San Elijo Lagoon (L7) 1973-83 found Willet numbers peaking in August and September (King et al. 1987), whereas weekly surveys of the San Diego Bay salt works 1993-94 found them peaking in October and November, with a maximum of 1385 on 3 November 1993 (Stadtlander and Konecny 1994).

In spring, in contrast to fall, there is no distinct peak of migration. Occasional migrants may still be moving as late as 29 May (Unitt 1984), but the surveys of San Elijo Lagoon and the salt works found Willet numbers

to be at their lows for the year in May as in early June.

Migrating Willets have been recorded a few times in the foothills and desert as well as nearer the coast. Richard and Susan Breisch noted Willets twice at the east end of Lake Morena (S22/T22), 12 July and 2 August 1997, while the Anza–Borrego Desert State Park database has records from the Borrego Palm Canyon campground (F23) 25 April 1985, the Roadrunner Club, Borrego Springs (F24), 28 March 1994, and from a gravel pit along Highway S2 near the Imperial County line (Q29), miles from any water, 19 August 1975.

**Conservation:** The development of Mission and San Diego bays eliminated much prime Willet habitat. Christmas bird count results, however, show no trend in the species' numbers over the final quarter of the  $20^{\rm th}$  century.

**Taxonomy:** The Willet consists of two well-marked subspecies. The larger and, in breeding plumage, less heavily marked *C. s. inornatus* (Brewster, 1887), breeding in the intermountain region and northern Great Plains, is the subspecies wintering in California.