

Wilson's Warbler *Wilsonia pusilla*

The intense yellow of Wilson's Warbler is a common sight in San Diego County during spring and fall migration. As a winter visitor the species is rare but annual. But as a breeding bird Wilson's Warbler has the barest toehold in the county, which lies at the southern tip of its breeding range. The known breeding population is only three or four pairs, though it could increase with continued suppression of cowbirds and preservation of riparian woodland. But the larger-scale trend is not good—the Pacific coast subspecies of Wilson's Warbler is in decline over much of its range.

Breeding distribution: Summering Wilson's Warblers were recorded in only two areas of San Diego County during the five-year atlas period, along the Santa Margarita River in Camp Pendleton and on Palomar Mountain. Along the Santa Margarita, all were in a 2-mile segment from just east of Rifle Range Road to the mouth of Pueblitos Canyon (F5; P. P. Beck, B. E. Kus, J. M. Wells), except for one a short distance farther downstream in Ysidora Gorge (G5) 19 June 1999 (R. E. Fischer). Never was more than a single pair or family seen on one day. At the confluence of Doane and French creeks (D14), a single male apparently summered each year 1997–2000, but the only observation of more than one bird was of a pair 28 July 1997 (P. D. Jorgensen).

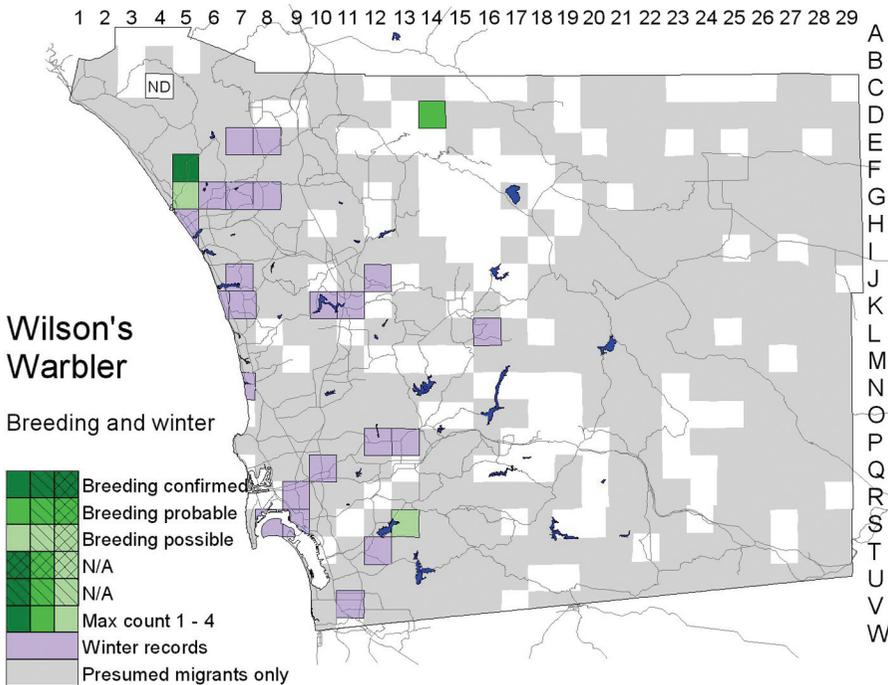
Nesting: Along the California coast, Wilson's Warblers typically nest in shrubbery, in contrast to the rest of their range, where they typically nest on the ground (Ammon and Gilbert 1999). Egg records from southern California



Photo by Anthony Mercieca

specify that in this area they select primarily nettle and blackberry as nest sites (Ammon and Gilbert 1999), and observations from San Diego County agree with this preference. Of two nests seen being built along the lower Santa Margarita River, one was in nettle (F5; 4 May 1999, P. P. Beck), the other in blackberry (F5; 30 May 2000, J. M. Wells). The only evidence of success was a fledgling accompanying the adult female 6 July 1999. It was the result of a replacement clutch, as it was in the territory with the nest in nettle, after that nest failed (P. P. Beck).

Migration: Wilson's Warbler is common throughout San Diego County as a spring migrant. Arrival dates during the atlas period ranged from 11 to 20 March, though arrival as early as 6 March has been reported (Belding 1890). Numbers are greatest at desert oases and along the corridor from San Felipe Valley to Warner Springs. High



counts during the atlas period were of 80 around Scissors Crossing (J22) 14 May 1998 (E. C. Hall), 75 at Vallecito (M25) 12 May 1999 (M. C. Jorgensen), and 65 at Agua Caliente Springs (M26) 12 May 1997 (E. C. Hall). The last migrants depart during the first week of June; the latest spring date is 7 June (1999, two at Banner, K21, P. K. Nelson). Wilson's Warbler's migration period is long in fall as well; arrival may be as early as 1 August (1998, one at Los Peñasquitos Lagoon, N7, S. Grain), and some birds seen in December may still be heading south.

Winter: Wilson's Warbler is a rare winter visitor to ornamental shrubbery and riparian woodland in the coastal lowland. Though some seen in early December could be late migrants, others have been tracked over the entire winter, such as one at Guajome Lake (G7) 13 December 1998–6 March 1999 (P. A. Ginsburg, C. C. Gorman). During the atlas period, reports averaged nine individuals per year. The maximum daily count, of four in Balboa Park (R9) 20 December 1997 (V. P. Johnson), was the only one of over two individuals. Wintering Wilson's Warblers extended inland to Bonsall (E8; up to two on 3 December 2000, P. A. Ginsburg), the Wild Animal Park at San Pasqual (J12; one on 23 January 2001, M. Farley), and Lakeside (P13; one on 8 January 1998, D. C. Seals), except for one in San Vicente Valley (L16), elevation about 1500 feet, 27 February 2000 (J. D. Barr). The last might have been a very early spring migrant, though even farther inland there is a record from a Lake Henshaw Christmas bird count (one on 27 December 1982) and another from an Anza-Borrego Christmas bird count (two on 2 January 1993).

Conservation: San Diego County is at the southern tip of Wilson's Warbler's breeding range, and the species has never been common here as a breeding bird. Previous specific

records are of a nest with eggs at San Pasqual (J12/13; Sharp 1907), reports of the species as a "summer resident" at Poway (M11) and "breeding" at Julian (K20; Belding 1890), a pair summering along Reidy Creek in 1980 (H10; K. L. Weaver), one along the Santa Margarita River 21 June 1984 (L. Salata, AB 38:1063, 1984), and two singing males, an adult female, and a fledgling along the Santa Margarita River (F5) 11 July 1995 (P. Unitt). In spite of the meagerness of these records, however, it is likely that the species once bred more commonly. Stephens (1919a) said that Wilson's Warbler "breeds in small numbers in oak forests and in willow groves" in San Diego County. For coastal southern California as a whole, Willett (1933) called it a "common summer resident."

Currently, this status applies only north of Point Conception (Lehman 1994). Thus the species' breeding range has retracted out of southern California almost entirely, presumably in response to the invasion of the Brown-headed Cowbird. In southern and central California cowbirds parasitize Wilson's Warblers heavily (Friedmann et al. 1977, Ammon and Gilbert 1999). Cowbirds are likely contributing, along with degradation of riparian woodland, to the decrease in Wilson's Warbler numbers now evident all along the Pacific coast (e.g., Pyle et al. 1994). Currently, in the coastal lowland, daily counts as high as 30 are unusual even at the peak of spring migration; in the 1970s, counts of 75 in this area were not exceptional (Unitt 1984). Along the lower Santa Margarita, years of cowbird trapping have reduced the parasitism rate on all hosts in this area to practically zero, allowing locally breeding Wilson's Warblers the beginning of a recovery. But another threat to the riparian woodland in this area has arisen in the proliferation of the giant reed, which displaces native plants.

Taxonomy: The Pacific coast subspecies *W. p. chryseola* Ridgway, 1902, is the dominant subspecies of Wilson's Warbler in San Diego County. Though there are no specimens of the breeding population, it is undoubtedly *chryseola*, as is the single winter specimen, from Balboa Park (R9) 21 December 1927 (SDNHM 11646; not *pileolata* as reported originally by Abbott 1928a). In spring, the early arrivals are presumably all *chryseola*; specimens extend at least from 28 March (1904, Witch Creek, J16, FMNH 151436) to 14 May (1989, Point Loma, S7, SDNHM 47989). Fall specimens range at least from 4 August (1908, Volcan Mountain, I20, MVZ 3861) to 7 October (1966, Point Loma, SDNHM 36040).

Wilsonia p. pileolata (Pallas, 1811) breeds from the Great Basin and Rocky Mountains north to Alaska; it

is a duller yellow than *chryseola* on both the underparts and upperparts. Small numbers come through in spring migration, generally after the peak of *chryseola*. The six specimens in the San Diego Natural History Museum extend from 2 May (1924, 2 miles northwest of La Mesa, Q11, SDNHM 9325) to 22 May (1961, Spring Valley, S12,

SDNHM 30269). The single fall specimen of *pileolata* is also on the late side, from San Luis Rey (G6) 6 October 1962 (SDNHM 3179). The pattern of migration of the two subspecies in San Diego County is similar to that in the Salton Sink to the east (Patten et al. 2003).