

Spotted Towhee *Pipilo maculatus*

The Spotted Towhee is one of the most common birds—perhaps the most common bird—of chaparral. A study near Pine Valley comparing bird abundance in mature and recovering chaparral found the Spotted Towhee the most numerous species in stands averaging both 30 and 6 years after a fire, though the Wrentit was a close second (Cleveland National Forest data). A year-round resident, the towhee is just as common in the understory of riparian, oak, and coniferous woodland but much sparser where the shrubs are sparser, as in coastal sage

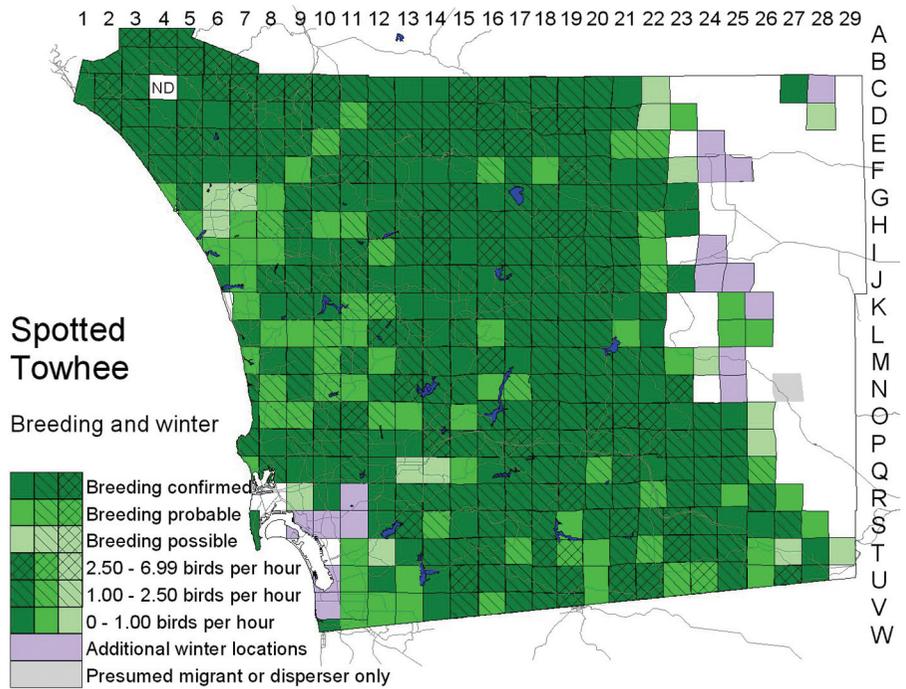


Photo by Anthony Mercieca

scrub and desert-edge scrub. Poorly adapted to urbanization, the Spotted Towhee is beginning to see its range erode as a result of habitat fragmentation.

Breeding distribution: The Spotted Towhee occurs almost uniformly over the coastal slope. High numbers have been recorded in both the mountains (up to 170 in Matagual Valley, H19, 18 June 2000, S. E. Smith, B. E. Bell) and the coastal lowland (up to 115 along the Santa Margarita River north of Fallbrook, C8, K. L. Weaver). The Spotted Towhee is somewhat less numerous along the central and southern coast of San Diego County, dominated by developed areas and sage scrub. The remnant patches of native habitat in the 11 atlas squares around San Diego where breeding Spotted Towhees are lacking have almost no chaparral—though some have appreciable sage scrub. The Spotted Towhee generally inhabits sage scrub only if it contains lemonadeberry or laurel sumac shrubs, in whose leaf litter the birds forage (M. A. Patten pers. comm.). On the east slopes of the mountains, the Spotted Towhee inhabits desert-edge scrub with shrubs like desert scrub oak and sugarbush and descends in riparian scrub to Lower Willows, Coyote Creek Canyon (D23; up to four on 24 May 2000, J. R. Barth), and Sentenac Canyon (J23; up to seven on 7 June 2000, R. Thériault). At some points on the eastern margin of the range the Spotted Towhee is apparently irregular: mesquite thicket near east end of Vallecito Valley (M24), two on 9 May 2001 (P. K. Nelson); Inner Pasture (N25), one on 6 April 2000 (M. B. Mulrooney); and upper end of Indian Valley (P26), one on 9 May 1998 and 30 April 2000 (P. R. Pryde). In high-desert scrub, junipers, and pinyons, the Spotted Towhee extends into San Diego County along the spine of the Santa Rosa Mountains from Rabbit to Villager Peak (C27; up to nine on 17 June 2001, R. Thériault); a few birds are isolated east of a deep chasm in the pinyon grove near benchmark Rosa (D28; up to two on 2 May 2000, L. J. Hargrove). Another isolated population lives in similar habitat in the upper elevations of the Vallecito Mountains (K25/L25/L26; maximum count seven on the east slope of Whale Peak, L26, 12 April 2000, J. R. Barth).

Nesting: The Spotted Towhee usually nests on the ground, concealing the nest in leaf litter or under low-growing plants like snowberry, skunkbrush, mugwort, California rose, or clumps of grass. Nests as high as 12 feet have been reported in Alameda County (Cohen 1899), but San Diego County bird atlas observers described no nest higher than 1 foot off the ground. Of 45 nests studied by

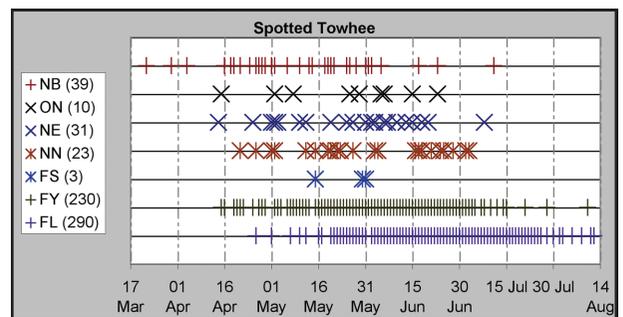


M. A. Patten (pers. comm.) around San Diego 2001–02, 44 were on the ground; one was 36 cm above the ground in a white sage. Patten found the nests under a variety of plants, including dead wood, but noted the birds avoided nesting deep within the cover of large shrubs, choosing instead small shrubs, herbs, grass, or the outer edge of a large shrub, where its branches hang near the ground.

Our observations suggest the Spotted Towhee begins laying around the end of March or first of April; Patten's egg dates extended from 2 April to 26 June. An egg set collected at Escondido 11 March 1900 (C. S. Sharp, WFVZ 86710) was exceptionally early. The nesting season continues into July; a nest with three eggs along Pilgrim Creek, Oceanside (F6), 8 July 2000 (B. L. Peterson) was slightly later than the 4 July date of the latest of 31 egg sets collected in San Diego County 1898–1940.

Migration: There is little evidence of Spotted Towhee migration in San Diego County. The only spring record clearly outside the breeding range is of one at Palm Spring (N27) 24–27 April 1998 (D. C. Seals, S. Peters).

Winter: The Spotted Towhee remains year round even at high elevations. In winter, a few birds disperse a short distance, resulting in records from most of the urban squares



in San Diego where the species does not breed. None of these records is more than 4 miles from breeding habitat; two at the Chula Vista Nature Center (U10) 8 December 2001 (B. C. Moore) had moved the farthest. Similarly, the Spotted Towhee is a rare winter visitor to the Anza-Borrego Desert outside the breeding range. The 11 such records 1997–2002 were all of one or two individuals, and none was farther than 6 miles from breeding habitat (one at Ellis Farms nursery, F25, 17 December 2000, L. J. Hargrove, P. Unitt).

Conservation: As a ground nester, the Spotted Towhee is ill equipped to survive in the urban environment, and it is absent from heavily developed areas. Crooks et al. (2001) investigated its response to habitat fragmentation in San Diego in 1997, finding it in 17 of 30 urban canyons, consistently only in the six fragments of greater than 30 hectares. The towhee occurred in 11 of 24 fragments of 2 to 15 hectares. Two of these had been recolonized since 1987, and the towhee had disappeared from none of the fragments where it had been noted at the time of that initial study. Crooks et al. reported two Spotted Towhees in residential development 250–750 meters from Mission Trails Regional Park, revealing some capability for dispersal across unsuitable habitat, and they suggested that recolonization of habitat fragments could take place during the nonbreeding season—as attested by atlas results. Their analysis suggested that the size of a habitat fragment is the most important factor governing the likelihood of the Spotted Towhee inhabiting it, but that the time since the fragment was isolated plays a role as well. Crooks et

al. did not consider, however, another likely factor: the type of habitat within a fragment. Bolger et al. (1997), addressing the question at a somewhat coarser scale, did not identify the Spotted Towhee as strongly affected by fragmentation but did find that its abundance increased significantly with distance from development. Sensitivity to fragmentation can be measured in various ways, but the results of Crooks et al. and Bolger et al. imply that the Spotted Towhee is moderately sensitive—less so than the California Quail, Greater Roadrunner, and Rufous-crowned, Sage, and Lark Sparrows, more so than the Wrentit, Bewick's Wren, and California Towhee. Lovio (1996), studying less-isolated fragments in the Spring Valley/Jamacha region (R12/R13/R14/S12/S13), found the Spotted Towhee in 29 of 36 habitat fragments, including all nine greater than 15 hectares.

Taxonomy: Only coastal southern California's resident subspecies of Spotted Towhee, *P. m. megalonyx* Baird, 1858, is known from San Diego County. It is boldly spotted with white but otherwise represents the dark extreme of the species: the blackish parts of the female's plumage are almost as black as the male's; even her rump is almost black. The paler (female especially) subspecies *P. m. curtatus* Grinnell, 1911, from the northern Great Basin and intermountain region reaches the Salton Sink and lower Colorado River as a rare winter visitor. It is so far unknown from San Diego County but could reach the Anza-Borrego Desert; a specimen would be needed to confirm it.