

CURRENT STATUS OF THE CACTUS WREN IN NORTHWESTERN BAJA CALIFORNIA

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The distribution of the Cactus Wren (*Campylorhynchus brunneicapillus*) in northwestern Baja California is something of an enigma. Although widely distributed over most of the peninsula, the species is absent from many areas of seemingly suitable habitat in cactus-filled maritime succulent scrub. Immediately north of the border along the coast, Cactus Wrens were historically widespread, though they are now declining rapidly as increasingly frequent fire and continuing urbanization constrict available habitat. Here, we summarize published and unpublished information on Cactus Wrens in northwestern Baja California, including the recent rediscovery of what may be the region's only large population of the declining San Diego Cactus Wren (*C. b. sandiegensis*).

At least as far back as A. W. Anthony's (1891) behavioral observations, many ornithologists have recognized Cactus Wrens in coastal San Diego County as distinct from inland, desert-inhabiting populations. Rea and Weaver (1990) defined the Cactus Wrens found in southern Orange County, coastal San Diego County, and northwestern Baja California south to Valle de las Palmas as *C. b. sandiegensis*: "based on a mosaic of seven characters, *C. b. sandiegensis* differs from *C. b. anthonyi* of the transmontane desert by larger ventral spotting, reduced abdominal buff, and greater white tail barring, and from *C. b. bryanti* of Baja California by its less brown dorsum, less barred tail, generally single-spotted chest feathers, and tendency toward a chest patch." In an analysis of song-structure differences among Cactus Wren populations, Atwood and Lerman (2007) could not distinguish between the vocalization of individuals from within the range of *C. b. sandiegensis* and those farther to the north in Los Angeles and Ventura counties. But they concluded that "Cactus Wrens in coastal southern California are geographically isolated, morphologically different, and differ in song behavior from those in Baja California. Compared with Sonoran and Chihuahuan desert populations, Cactus Wrens in coastal southern California are geographically isolated, differ in song behavior, and occur in a unique and unusual ecological setting."

The existence of this distinct coastal population of the Cactus Wren has led to several attempts to define its distributional boundaries, especially to the south. Bancroft (1923) surveyed northern Baja California and reported a gap in the Cactus Wren's distribution extending from the border zone south approximately 260 km (161 mi) to 31° N at San Telmo, a gap also recognized by Grinnell (1921, 1928) and Rea and Weaver (1990). More recently, however, Cactus Wrens have been recorded within this area repeatedly. Beginning near San Telmo, Short and Crossin (1967: 294) reported five Cactus Wrens 17 km (11 mi.) southeast of San Vicente in La Calentura Valley on 7 April 1967 (Figure 1). Kenneth L. Weaver (in litt.) recorded a Cactus Wren approximately 12 km (7 mi.) northeast of Colonet on 7 August 2007 and a fresh nest in a cholla there two days later. Uniitt et al. (1995) reported a Cactus Wren rectrix found in a nest at Rancho Vargas, east of San Vicente, on 10 August 1986 that had "too much black for typical *bryanti* and resembles *sandiegensis* more closely."

Farther to the north, since 2 October 1999, Cactus Wrens have been recorded along south-facing slopes of the lower Río Santo Tomás, from the estuary upstream to the winery near Highway 1, a distance of roughly 24 km (15 mi.) (R. A. Erickson in litt.), with a high count of six near the mouth on 13 November 2005 (T. J. Myers in litt.).

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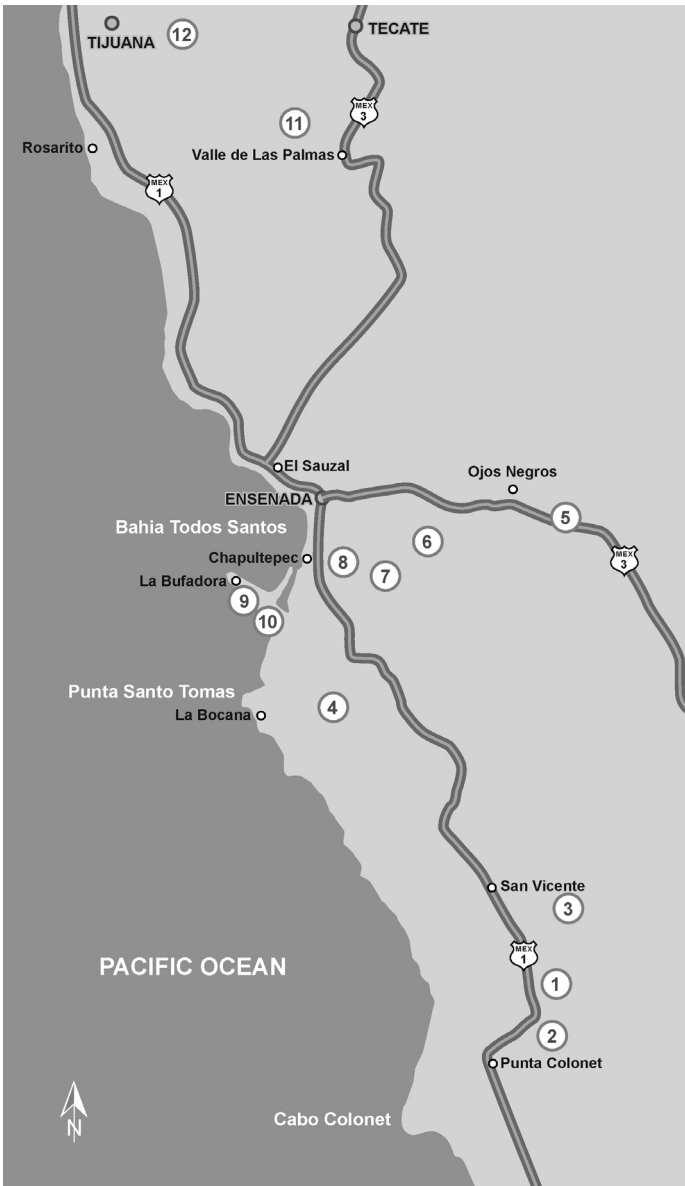


Figure 1. Northwestern Baja California, Mexico, showing the localities mentioned in the text. 1, La Calentura Valley; 2, 12 km northeast of Colonet; 3, Rancho Vargas; 4, Rio Santo Tomas; 5, 13 km east of Ojos Negros; 6, Agua Caliente; 7, Arroyo San Carlos; 8, Chapultepec; 9, Punta Banda (La Bufadora); 10, Arbolitos; 11, Valle de las Palmas; 12, Mesa Jesús Maria/Cerro San Isidro.

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In the area around Ensenada, Short and Crossin (1967) reported a single Cactus Wren from hills 13 km (8 mi.) east of Ojos Negros on 2 April 1967. Six more were found near Highway 3 just east of the Ojos Negros Valley on 18 December 2003 (R. A. Erickson in litt.). Between Ojos Negros and the Maneadero Plain on 6 January 2002, Marshall J. Iliff found a Cactus Wren at Agua Caliente and another downstream along Arroyo San Carlos, and Daniel S. Cooper recorded a high count of ten birds along Arroyo San Carlos on 1 January 2006 (R. A. Erickson in litt.). Just to the north, William E. Haas found two Cactus Wrens in the hills east of Chapultepec on 19 December 2003 (R. A. Erickson in litt.).

Short and Crossin (1967) published the first record of a Cactus Wren from Punta Banda, of one seen on 8 April 1967. Ken Weaver and Bruce Farnsworth (in litt.) found there seven Cactus Wrens they recognized as *C. b. bryanti* in July 1992. Unitt et al. (1995) reported seven individuals observed along the coast of Punta Banda in August 1993 and also ascribed the population there to *C. b. bryanti*. The Ensenada Christmas bird counts since 2001 have recorded as many as eight Cactus Wrens in the Punta Banda area at La Bufadora and in the hills east of the Maneadero Plain.

On 1 October 1995, Clark observed six Cactus Wrens, including an apparent family group of four, on a steep slope overlooking the ocean 1 km (0.6 mi) southeast of Arbolitos and north of the island of Piedra Blanca, approximately 5 km (3 mi) southeast of the other Punta Banda records. The habitat in this area is maritime succulent scrub dominated by *Agave shawii*, *Bergerocactus emoryi*, *Artemisia californica*, *Ambrosia chenopodiifolia*, and *Salvia munzii*, with some coastal cholla (*Cylindropuntia prolifera*), prickly pear (*Opuntia* spp.), and *Stenocereus gummosus* cacti.

All of these observations are within a 100-km (62-mi.) distance between Ensenada and San Telmo. The number of observations and the repeated sightings of groups of birds indicate that several localized populations of Cactus Wrens occur in this region. Further field work should help to elucidate whether all these populations should be ascribed to *C. b. bryanti* or whether *C. b. sandiegensis* intergrades into this area, as the feather found by Unitt et al. (1995) east of San Vicente implies.

No Cactus Wrens have been observed between Ojos Negros and Valle de las Palmas, a distance of over 60 km (37 mi.). Rea and Weaver (1990) reported a total of seven museum specimens collected from three sites between Valle de las Palmas and the international border and assigned these specimens to *C. b. sandiegensis*. Their appendix 2 also lists observations of five Cactus Wrens on south-facing slopes "0.5–1.0 mi. N of town of Valle de las Palmas" on 27 July 1986, noting that the habitat was threatened by agricultural clearing. During recent surveys of the south-facing slopes of Valle de las Palmas, we found an open landscape of grasses and forbs with interspersed occasional shrubs and a few small patches of coastal sage scrub vegetation. We saw extensive evidence of frequent fires, likely set intentionally to clear shrubs and stimulate growth for livestock forage. Coastal cholla occurs only as isolated plants, and we saw no evidence that a Cactus Wren population persists.

Baja California's largest population of Cactus Wrens located within the described range of *C. b. sandiegensis* occurs south of Otay Mountain and directly east of the vernal pool ecosystem of Mesa Jesus María, from the south-facing slopes of Cerro San Isidro east approximately 5–6 km (3–4 mi.) (Figure 2). Numerous large patches of coastal cholla, some over an acre in size, grow there on steep slopes surrounded by nonnative grassland and patches of scrub (Figure 3). Despite extensive evidence of fires in the area, these cholla patches persist, and abundant clonal reproduction around their edges suggests that they may even be expanding. During limited field surveys we have found at least one Cactus Wren pair in each large cholla patch, and we suspect that the population exceeds 20 pairs.

Presumably referring to the same area, Bancroft (1923) described a much larger Cactus Wren population centered "twenty miles east of Tijuana [sic]" and extending "about five miles in every direction," from which Laurence M. Huey collected three

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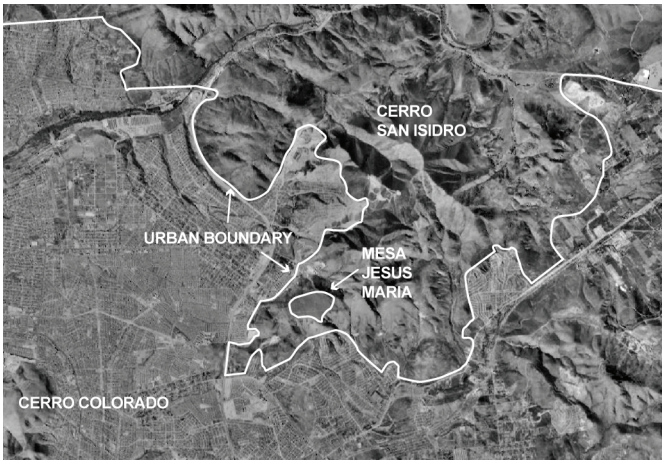


Figure 2. Aerial photograph of the Mesa Jesús María/Cerro San Isidro area east of Tijuana, showing the extent of the urban development in the region.

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Figure 3. Cholla patch on south-facing slopes below Mesa Jesús María, 9 March 2005. A pair of Cactus Wrens was observed nesting in this patch.

Photo by Kevin Clark

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specimens on 6 April 1923, locality 15 miles east of Tijuana (San Diego Natural History Museum 8682–8684). Other sensitive species that we have observed in this area include the California Gnatcatcher (*Polioptila californica*), Burrowing Owl (*Athene cunicularia*), Rufous-crowned Sparrow (*Aimophila ruficeps*), and Sage Sparrow (*Amphispiza belli*). The mesa supports at least two invertebrates endangered in the U.S., the San Diego Fairy Shrimp (*Branchinecta sandiegonensis*) and Quino Checkerspot Butterfly (*Euphydryas editha quino*).

Continuing urban expansion threatens to destroy these cholla patches as well as the vernal pools and other sensitive habitats farther up the slopes. Conservation efforts by the staff of RECON Environmental Inc., the Centro de Investigación Científica y Educación Superior de Ensenada (CICESE), and the U.S. Fish and Wildlife Service have focused on species inventory and mapping of the area, while developing a dialogue with the planning agency of the municipality of Tijuana. The rapid and weakly regulated economic growth of the border region, however, places the prospect of conserving this area's assemblage of rare species and ecosystems in doubt.

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