

# HISTORY AND STATUS OF THE CALIFORNIA GNATCATCHER IN SAN BERNARDINO COUNTY, CALIFORNIA

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Historically the California Gnatcatcher (*Poliioptila californica*) ranged north to southwestern San Bernardino County, where it has now been nearly eliminated by urbanization. Since 1990 we have recorded the California Gnatcatcher at seven sites in southwestern San Bernardino County, including portions of Lytle Creek wash, the Santa Ana River wash, the southern slope of the San Gabriel Mountains, and the Jurupa Hills (Figure 1).

## STUDY AREA AND METHODS

The San Bernardino Valley, centering approximately at 34°04' N, 117°17' W, lies at the south base of the Transverse Ranges (eastern San Gabriel and San Bernardino mountains). Elevation varies from 180 to 210 m on valley floors near Chino and gradually increases to about 360 to 420 m near San Bernardino and Redlands. The climate is Mediterranean with cool, wet winters and dry, warm summers. Annual sunshine is 70% to 80%. The

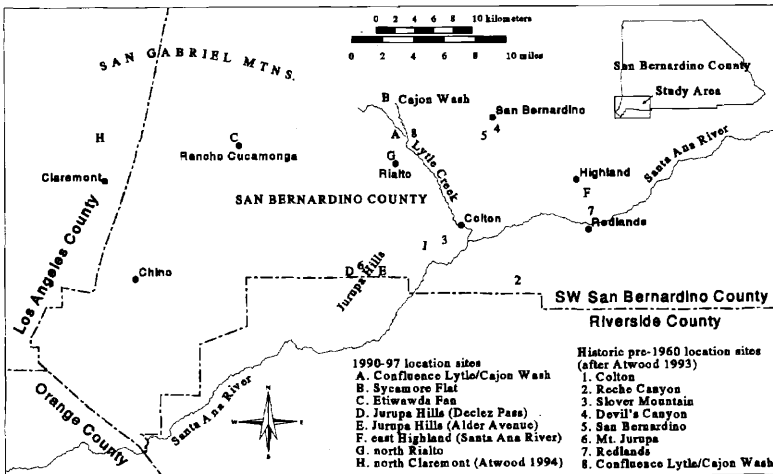


Figure 1. Approximate locations of recent and historic California Gnatcatcher locations in the San Bernardino Valley.

## CALIFORNIA GNATCATCHER IN SAN BERNARDINO COUNTY

average daily maximum temperature is approximately 33°C to 37°C in midsummer and 18°C in winter. Annual precipitation varies from 30.5 to 50.5 cm, of which approximately 90% falls from November to April (Woodruff and Brock 1980).

The predominant natural vegetation in the valley is Riversidean alluvial-fan sage scrub along washes and uplands, where it intergrades with chaparral at 600 to 700 m elevation. Other vegetation consists of a patchwork of Riversidean coastal sage scrub, valley grasslands, riparian woodlands, oak woodlands, and mixed hardwood forests with nearly closed canopies, which border the San Bernardino Valley on the north and east. The valley is extensively urbanized.

We compiled historical records for San Bernardino County California Gnatcatcher locations up to 1990 from the references in Atwood (1993). For more recent records we consulted other field biologists' reports and the California Department of Fish and Game's Natural Diversity Data Base. We collated these data with our 1994–1997 field surveys.

## RESULTS

Atwood (1980) listed no locations for the California Gnatcatcher in San Bernardino County more recent than 1960. Later, Atwood (1993) noted a single bird observed in 1990 near the confluence of Cajon Wash and Lytle Creek Wash and one or two California Gnatcatchers reported during four San Bernardino Valley Christmas Bird Counts during the late 1960s and early 1970s (Klameth 1969, 1970, Cardiff 1971, 1973). He considered these reports "hypothetical" because of field-identification difficulties and suggested the California Gnatcatcher was extirpated from San Bernardino County while acknowledging that the Lytle Creek Wash area and the Jurupa Mountains (also known as the Jurupa Hills) could still contain California Gnatcatchers.

Recent records of the California Gnatcatcher in southwestern San Bernardino County are from the following seven localities.

1. Confluence Lytle Creek and Cajon Wash, where Douglas R. Willick and Ray Vizirdas observed one on 6 September 1990 in mature alluvial sage scrub on a high, stabilized bench in the center of a wash. Elevation approximately 440 m. Associated plants buckwheat (*Eriogonum fasciculatum*), open chamise (*Adenostoma fasciculatum*), laurel sumac (*Malosma laurina*), *Prunus*, and *Yucca whipplei*. Soil Soboba stony loam sand, slope 2–9%. This site was destroyed in 1994 by gravel mining.

2. Sycamore Flat (at Lytle Creek), where Steven G. Nelson observed one on 16 March 1993 in Riversidean alluvial-fan sage scrub. Elevation approximately 600 m. Associated plants white sage (*Salvia apiana*) and deerweed (*Lotus scoparius*). Soil Soboba stony loam sand, slope 2–9%.

3. Etiwanda Fan (north Rancho Cucamonga) represents the densest concentration of white sage known in Riversidean alluvial-fan sage scrub (M. Meyer pers. comm.). Three records: 16 April 1994, when McKernan observed one female, 3 June 1994, when Russel B. Dunkin observed one adult male and female about 30 m from the previous site, and 17 June 1994, when Burns observed one adult male. Elevation approximately 580–

## CALIFORNIA GNATCATCHER IN SAN BERNARDINO COUNTY

700 m. Associated plants *Salvia apiana*, black sage (*S. mellifera*), *Eriogonum fasciculatum*, *Adenostoma fasciculatum* and *Yucca whipplei*. Soil Soboba stony loam sand, slopes 2–9%.

4. Jurupa Hills (Declaz Pass), where in spring 1994 and 1995 Davis, Gerald T. Braden and Kay Stockwell saw two to three adult males and females on several occasions in Riversidean coastal sage scrub. Elevation approximately 335 m. Associated plants *Salvia apiana*, *S. mellifera*, *Artemisia californica*, and red brome (*Bromus madritensis* ssp. *rubens*). Soil Cieneba–rock outcrop complex.

5. Jurupa Hills (Alder Avenue), where in spring 1994 Davis, McKernan, Gerald T. Braden, and Eugene Cardiff saw one adult male feeding a juvenile adjacent to Alder Avenue. In 1995, approximately 0.5 km west of Alder Avenue, five pairs were nesting in an area of approximately 40 hectares. Habitat Riversidean coastal sage scrub; elevation approximately 365 m (1994 site) to 550 m (1995 site). Associated plants *Salvia apiana*, *S. mellifera*, *Artemisia californica*, and *Bromus madritensis* ssp. *rubens*. Soil Cieneba–rock outcrop complex.

6. Santa Ana River, east Highland (Figure 2), where on 28 June 1995 McKernan and Marnie S. Crook saw one juvenile in Riversidean alluvial-fan sage scrub. Elevation approximately 460 m. Associated plants *Salvia apiana*, *Eriogonium fasciculatum*, *Lotus scoparius*, and yerba santa (*Eriodictyon trichocalyx*). Soil Soboba stony loamy sand, slopes 2–9%.



Figure 2. Riversidean alluvial-fan sage scrub along the Santa Ana River (east Highland) where a juvenile California Gnatcatcher was seen in 1995.

Photo by Liam H. Davis and Robert L. McKernan

## CALIFORNIA GNATCATCHER IN SAN BERNARDINO COUNTY

7. Rialto (north of Highland Avenue and east of Sierra Avenue), where in April and May 1997 Eugene A. Cardiff observed a single pair build two nests, both abandoned, in Riversidean alluvial-fan sage scrub. Elevation approximately 490 m. Associated plants *Salvia mellifera*, *Artemisia californica*, and *Adenostoma fasciculatum*. Soil Soboba gravelly loamy sand, slopes 0–9%.

### DISCUSSION

The seven recent California Gnatcatcher locations in San Bernardino County are widely scattered in two subassociations of sage scrub: Riversidean coastal sage scrub and Riversidean alluvial-fan sage scrub (occurring both on uplands and washes). Alluvial-fan sage scrub, the predominant subassociation of coastal sage scrub in San Bernardino County, is designated as a “threatened” plant community by the California Department of Fish and Game (Keeler-Wolf 1993). More than 75% of this plant community has been extirpated from southern California (T. Keeler-Wolf pers. comm.).

We believe that the southern slope of the San Gabriel Mountains (Figure 1) could support nesting populations of the California Gnatcatcher, as implied by the three 1994 sightings on the Etiwanda Fan and the unsuccessful nesting in 1997 in north Rialto. The species was documented for Los Angeles County north of Claremont in 1994 along the alluvial fan (Calif. Dept. Fish & Game Natural Diversity Data Base). From north Claremont east through Etiwanda toward north Rialto, along the southern slope of the San Gabriel Mountains, extends approximately 30 km of Riversidean alluvial-fan sage scrub, most of which is not regularly surveyed for California Gnatcatchers.

Nesting is suspected or known at other locations in the San Bernardino Valley. The 1995 sighting in a wash along the Santa Ana River, east Highland, was of a juvenile. Most of the Jurupa Hills is not surveyed regularly.

Additional surveys are warranted, particularly for other nesting sites, throughout the larger contiguous pieces of coastal sage scrub in the San Bernardino Valley. Because focused surveys have not been conducted over approximately 95% of the valley, the current population of the California Gnatcatcher in San Bernardino County is unknown.

### CONCLUSIONS

Some of our California Gnatcatcher sightings confirm Atwood’s suggestion (1993) that the species may still be found in the Lytle Creek wash area and the Jurupa Hills. The Jurupa Hills are now nearly isolated by urban development. It is not certain if the gnatcatcher’s nesting in the Jurupa Hills represents recent immigration or remnants of a historic population. Fifty years ago substantial numbers of the California Gnatcatcher occurred throughout the Jurupa Hills (E. A. Cardiff pers. comm.). Ground and aerial surveys reveal an interrupted corridor linking the Jurupa Hills with the sage scrub along the Santa Ana River to the east.

Protecting sage scrub is the obvious way to preserve the encroached northeastern periphery of the California Gnatcatcher’s range. Recovery of so severely decimated a population, however, may require attention to

## CALIFORNIA GNATCATCHER IN SAN BERNARDINO COUNTY

adequate unoccupied habitat equal to that to conserving occupied habitat (Belovsky et al. 1994, Reed 1995).

### SUMMARY

From 1990 to 1997 the California Gnatcatcher was recorded at seven locations in San Bernardino County, showing the species is not yet extirpated from that county, as formerly believed. The habitat at these sites is Riversidean coastal sage scrub or Riversidean alluvial-fan sage scrub, in both uplands and washes.

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