

## Status of the Coastal California Gnatcatcher

April 2023

### Background

The coastal California gnatcatcher (*Poliioptila californica californica*) is a small, blue-gray songbird living year-round in Southern California's coastal sage scrub, a low shrubby habitat. The adult male bird has a black "cap" during the breeding season (February-August) while the female has a gray head and is more brownish-gray on the back. Often people do not see these birds flitting among the shrubs until hearing their "mewww...mewww..." kitten-like call. Gnatcatchers eat insects, primarily leaf hoppers, planthoppers, and spiders, along with some bugs, wasps, bees, and ants.<sup>1</sup>

The coastal California gnatcatcher was listed as a threatened species by the federal government in 1993, which led to the unprecedented effort by the State of California to move towards broad-based ecosystem planning for the protection and perpetuation of biological diversity.

It has been thirty years since the listing of the gnatcatcher. What do we know today about the status of the coastal California gnatcatcher?



**Gnatcatchers are small but mighty! They weigh 0.2 oz, the same as an 8.5" x 11" sheet of paper but boldly defend territories ranging from 2 to 20+ acres<sup>2</sup> (up to 15 football fields)!**

### Then...

Gnatcatchers declined by the 1990s as their habitat was lost or degraded due to urban development. Over 60% of the gnatcatcher's coastal sage scrub habitat in California was lost by 1991, with an estimated loss in San Diego County of between 229,000 and 246,000 acres<sup>3</sup> (an area as large as the City of San Diego). By the mid-1990s, the California gnatcatcher numbered approximately 2,500 pairs in the United States, with about 1,500 pairs in San Diego County<sup>3</sup>

When the gnatcatcher was federally listed as threatened in 1993, former Interior Secretary Bruce Babbitt told a congressional committee that large-scale preventive planning was needed to avoid "an economic train wreck" that the listing could cause. The State of California responded with Natural Community Conservation Planning and worked with the federal government to develop a proactive ecosystem planning effort to protect multiple species and their habitats. The gnatcatcher was selected as one of three target species for this planning effort. The San Diego Association of Governments (SANDAG) helped develop these conservation plans and has supported their implementation through interjurisdictional collaboration and coordination, strategic acquisition of habitat, and the development of a regional entity for coordinating land management and biological monitoring.



Male (left) and female (right) California gnatcatchers

<sup>1</sup>Burger et al. 1999, *Oecologia*, Vol. 120, pp. 304-310.

<sup>2</sup>Preston et al. 1998, *Western Birds*, Vol. 29, pp. 242-257.

<sup>3</sup>Federal Register, 1993, Vol. 58 (No. 59), <https://ecos.fws.gov/ecp/species/8178>

<sup>4</sup>Natural Community Conservation Planning, <https://wildlife.ca.gov/Conservation/Planning/NCCP>



**Now...**

Since the first conservation plan was adopted in 1997, the region has conserved 166,671 acres. These lands are combined with previously conserved lands into a regional preserve system of 670,189 acres in western San Diego County. The regional preserve system includes 88,172 acres of the gnatcatcher's coastal sage scrub habitat. The conservation plans led to establishment of the San Diego National Wildlife Refuge in 1999 and expansion of state of California Ecological Reserves. The region has invested nearly one half of a billion dollars in acquisition under these various efforts.

While this is good news for the gnatcatcher, new threats have emerged. Over the last 30 years 903,779 acres in San Diego County have burned at least once, including 476,273 acres of conserved lands<sup>5</sup>. Two of the largest wildfires in the historical record occurred in 2003 and 2007. These wildfires damaged coastal sage scrub habitat, and a study investigating the effects of fire on gnatcatchers and their habitat found that gnatcatcher occurrence in burned habitat was only half that in unburned areas<sup>5</sup>. Based on the rate of vegetation recovery, it could take several decades for burned habitat to recover enough to support gnatcatchers at pre-fire levels. Drought and invasive nonnative plants have slowed postfire recovery, leaving fewer preferred shrubs in burned areas compared to unburned areas.

Comprehensive range-wide monitoring of the gnatcatcher in Southern California was initiated in 2016 and repeated in 2020. Designed to quantify how much coastal sage scrub was occupied by the gnatcatcher, the monitoring included collection of vegetation data to better understand what makes habitat suitable for gnatcatchers. In San Diego County, the percentage of suitable habitat occupied by gnatcatchers increased between 2016 and 2020, from 20% to 24%<sup>5</sup>.

In unburned coastal areas, the California gnatcatcher appears to be thriving. The following excerpt from the Cabrillo National Monument staff field notes<sup>6</sup> highlights optimism for the gnatcatcher:

In the spring of 2015, calls from a family of California gnatcatchers were heard and shortly after, a nest was found by a wildlife biologist. Prior to 2015, it had been over 100 years since the coastal California gnatcatcher had made Cabrillo National Monument its home, with the last record of nesting in 1915.

<sup>5</sup>State of Preserve Report, 2022, [https://sdmmp.com/view\\_article.php?cid=SDMMP\\_CID\\_71\\_63979fd98137e](https://sdmmp.com/view_article.php?cid=SDMMP_CID_71_63979fd98137e)

<sup>6</sup>Cabrillo Field Notes <https://www.nps.gov/cabr/blogs/welcome-back-california-gnatcatchers.htm>

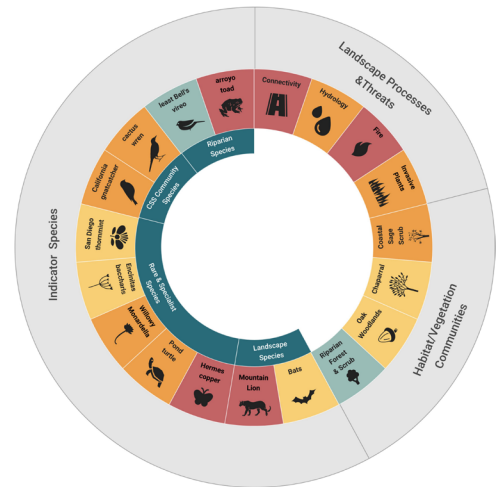
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**SANDAG.org/LanguageAssistance | 619.699.1900**



**Interested in Knowing More?**

The San Diego Management and Monitoring Program (SDMMP; <https://sdmmp.com/>), established in 2008, facilitates and assists SANDAG, local jurisdictions, wildlife agencies, and other regional stakeholders and land managers in implementing conservation management and monitoring within San Diego County.



How healthy is the ecosystem? A simple dashboard outlining the status of indicator species, habitats and ecological process is available for the public to view at [SDMMP](https://sdmmp.com/).



**Concern**  
Overall Condition



**Improving**  
Overall Trend



**High**  
Overall Confidence

The coastal California Gnatcatcher Species Indicator has an overall condition of **Concern** due to lower occupancy of gnatcatchers in burned habitat and increasing fire frequency putting more habitat at risk<sup>5</sup>. However, knowledge gained from regional habitat monitoring can be applied to improving burned coastal sage scrub and increasing the gnatcatcher population in San Diego County.