

gnatcatcher extends from late February through July, with the peak of nest initiations (startups) occurring from mid-March through mid-May. Nests are composed of grasses, bark strips, small leaves, spider webs, down, and other materials and are often located in California sagebrush about 1 m (3 ft) above the ground. Nests are constructed over a 4 to 10 day period. Clutch size averages four eggs. The incubation and nestling periods encompass about 14 and 16 days, respectively. Both sexes participate in all phases of the nesting cycle. Although the coastal California gnatcatcher may occasionally produce two broods in one nesting season, the frequency of this behavior is not known. Juveniles are dependent upon, or remain closely associated with, their parents for up to several months following departure from the nest and dispersal from their natal (place of birth) territory.

Dispersal of juveniles generally requires a corridor of native vegetation providing certain foraging and shelter requisites to link larger patches of appropriate sage scrub vegetation (Soulé 1991). These dispersal corridors facilitate the exchange of genetic material and provide a path for recolonization of areas from which the species has been extirpated (Soulé 1991 and Galvin 1998). Galvin (1998) concluded that, "natal dispersal [through corridors] is therefore an important aspect of the biology of [a] * * * nonmigratory, territorial bird * * * [such as] the California gnatcatcher * * *". While juvenile coastal California gnatcatchers are capable of dispersing long distances (up to 22 kilometers (km) (14 miles (mi)) as modeled by Bailey and Mock 1998) across fragmented and highly disturbed sage scrub habitat, such as found along highway and utility corridors or remnant mosaics of habitat adjacent to developed lands, generally the species disperses short distances through contiguous undisturbed habitat (Bailey and Mock 1998, Famolaro and Newman 1998, and Galvin 1998). Moreover, it is likely that populations will experience increased juvenile mortality in fragmented habitats where dispersal distances are greater than average (Atwood *et al.* 1998). This would be particularly likely if dispersal was across non- or suboptimal habitats (Soulé 1991).

California Gnatcatcher Taxonomy

The following discussion of the taxonomy of the California gnatcatcher expands upon the discussion presented in the Notice of Determination to Retain the Threatened Status for the Coastal

California Gnatcatcher (60 FR 15693, March 27, 1995). The California gnatcatcher (*Poliioptila californica*) was first described in 1881 based on specimens from Riverside and Ventura counties (Brewster 1881). Grinnell (1926) then reduced it to a subspecies of the black-tailed gnatcatcher (*Poliioptila melanura*). Subsequently, on the basis of differences in morphology, ecology, and behavior, Atwood (1988) concluded that *P. californica* was specifically distinct from *P. melanura*. Atwood's finding has been recognized by the American Ornithologists' Union Committee on Classification and Nomenclature (American Ornithologists' Union 1998).

The California gnatcatcher consists of up to five subspecies (from north to south): *californica* (Brewster), *atwoodi* (Mellink), *pontilis* (van Rossem), *margaritae* (Ridgway), and *abbreviata* (Grinnell). None of the taxonomic treatments recognizing segregate taxa called into question the distinctiveness or identity of subspecies *californica*. Although various authors have proposed different nomenclatures, several consistencies are evident in the subspecific treatments. Several characters, including body plumage color, tail length, and amount of white on the retrices (tail feathers), show an abrupt change or step at approximately 30° N latitude, near El Rosario, Baja California, Mexico (Grinnell 1926; van Rossem 1931; Phillips 1991; Atwood 1991; Mellink and Rea 1994). This is the traditional boundary between subspecies *californica* and *pontilis*. Mellink and Rea (1994) also recognized this boundary, but described a new subspecies *atwoodi* between 30° N latitude and the international border (approximately 32°33' N). A second step is evident in body plumage and tail length at 28° N latitude, near Guerrero Negro, Baja California Sur, Mexico (van Rossem 1931; Phillips 1991; Atwood 1991; Mellink and Rea 1994). This step represents the traditional boundary between subspecies *pontilis* and *margaritae*. Some investigators include a third step at approximately 24° N, near La Paz, Baja California Sur, Mexico, on the basis of tail length, bill width and depth, amount of white on the retrices, and wing length (Grinnell 1926, Atwood 1991). South of this latitude subspecies *abbreviata* has been described (Grinnell 1926).

A recent scientific paper (Zink *et al.* 2000) presents results of genetic research on the California gnatcatcher and calls into question the status of the coastal California gnatcatcher as a distinct subspecies. This paper presents a contradictory view to all previously

published taxonomic reviews of the species (e.g., Atwood 1988, 1991; Grinnell 1926; Mellink and Rea 1994; Phillips 1991; van Rossem 1931; summarized in 60 FR 15693). Zink *et al.* (2000) analyzed the genetic structure of California gnatcatcher populations throughout the range by looking for variation in the mitochondrial DNA (mtDNA) control region and three mtDNA genes. Their analysis failed to reveal genetic structuring consistent with geographically distinct subspecies. Patterns of nucleotide diversity showed a step at approximately 28° N latitude. The authors interpreted these and other data as evidence that the species has expanded its range from a Pleistocene era refugium south of 28° N. The authors argue that morphological variation previously described in taxonomic treatments were not genetically based, and therefore, subspecific divisions of the species are not supported.

Zink *et al.* (2000) present important new information concerning genetic variability within the California gnatcatcher. Given the uncertainty regarding California gnatcatcher taxonomy that this paper introduces, we consider it appropriate to propose a DPS. In light of this study, we have initiated an evaluation to determine whether the California gnatcatcher (*Poliioptila californica*) species in the United States meets the definition of a DPS pursuant to our 1996 joint U.S. Fish and Wildlife Service and National Marine Fisheries Service Policy Regarding the Recognition of Distinct Vertebrate Populations (61 FR 4722; DPS). We are considering whether the California gnatcatcher meets the definition of a DPS based on the analysis summarized below. If our analysis confirms that the requirements for a DPS are met, we propose to list the U.S. population of the California gnatcatcher as a DPS and reevaluate the status of the remaining California gnatcatcher population in Mexico. This reevaluation could result in delisting the species in Mexico or listing one or more separate DPSs in Mexico.

Distinct Vertebrate Population Segment

We evaluated the U.S. population of the California gnatcatcher according to the February 7, 1996, joint U.S. Fish and Wildlife Service and National Marine Fisheries Service Policy Regarding the Recognition of Distinct Vertebrate Populations (61 FR 4722; DPS). Three elements are considered in a decision regarding the status of a possible DPS as endangered or threatened under the Act. These are applied similarly for additions to the list of endangered and