

NOTES

LATE NESTING OF THE CALIFORNIA GNATCATCHER

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The nominate subspecies of the California Gnatcatcher (*Poliophtila californica*) has recently been listed as a threatened species under the federal Endangered Species Act (Salata 1993). Atwood (1992) estimated the subspecies' population in the United States, as of 1991, at between 1811 and 2291 pairs. Critical to management and protection of the California Gnatcatcher is a clear understanding of its nesting phenology.

On 30 July 1991, at Reef Point, Crystal Cove State Beach, Orange County, California, we discovered a California Gnatcatcher nest containing four naked, blind nestlings that had hatched about two days earlier and were gaping actively. On 15 August 1991, the nest was empty, still in good shape, but slowly being plundered by ants. A pair (i.e., adult male and female) and a juvenile were seen about 50 m to the north and another two birds were foraging 75 m to the south. We infer that the young probably fledged on 12 or 13 August. In addition, Ray Vizgirdas (pers. comm.) reported a fledging date of 25 August from a nest at Oak Canyon Nature Center, Orange County.

These observations extend the late extreme date for nesting in this species to mid-to late August, a full month to six weeks after Woods' (1949) latest date of 12 July (a nest containing "four well-grown young") and later than the vague "through July" reported by Atwood (1990). The latest of Roach's (1989) 34 nests was in the first week of July, while Bontrager (1991) found that nesting activity in southern Orange County was concluded by mid-July.

We examined 101 data cards for museum egg sets, mostly at the Western Foundation of Vertebrate Zoology and the San Bernardino County Museum, with a few from the Museum of Vertebrate Zoology, the San Diego Natural History Museum, and the Santa Barbara Museum of Natural History. The latest estimated clutch completion date was 10 July (for a nest in coastal San Diego County, California), implying a fledging date of about 7 August.

The mean estimated clutch completion date of the sets was 5 May (standard deviation = 21.7 days), figured by subtracting 2 days from the collection date for sets in which incubation was slight, 5 days for sets in which embryos were taking shape, 9 days for sets about half incubated, and 12 days for sets in which incubation was advanced. The majority of egg sets were collected within a few days of the final egg being laid, with 47 (43%) labeled "fresh" and 29 (27%) labeled as incubation "slight." Historic egg collections, however, do not constitute a random sample. Whereas early dates are well represented, late dates tend to be represented very poorly (McNair 1987, L. F. Kiff in litt.).

We suspect that California Gnatcatchers nest into August more frequently along the immediate coast, where daytime temperatures in summer average cooler than they do farther inland.

We thank Eugene A. Cardiff (San Bernardino County Museum), Tamar Danuřky (Santa Barbara Museum of Natural History), Ned K. Johnson (Museum of Vertebrate Zoology), Lloyd F. Kiff (Western Foundation of Vertebrate Zoology), and Philip Unitt (San Diego Natural History Museum) for allowing us access to California Gnatcatcher

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egg set data in their care. Richard A. Erickson (LSA Associates), Stephen J. Myers (Tierra Madre Consultants), and Ray Vizgirdas (U. S. Fish and Wildlife Service) kindly provided nesting information they have gathered in Orange and western Riverside counties. Richard A. Erickson, Lloyd F. Kiff, and Philip Unitt reviewed a draft of this note and greatly improved its content.

LITERATURE CITED

- Atwood, J. L. 1990. Status review of the California Gnatcatcher (*Poliophtila californica*). Manomet Bird Observatory, P.O. Box 1770, Manomet, MA 02345..
- Atwood, J. L. 1992. A maximum estimate of the California Gnatcatcher's population size in the United States. *W. Birds* 23:1-9.
- Bontrager, D. R. 1991. Habitat requirements, home range, and breeding biology of the California Gnatcatcher (*Poliophtila californica*) in south Orange County, California. Unpublished report; copy in Van Tyne Library, University of Michigan, Ann Arbor, MI 48109.
- McNair, D. B. 1987. Egg data slips—are they useful for information on egg-laying dates and clutch size? *Condor* 89:369-376.
- Roach, J. D. 1989. The influence of vegetation structure and arthropod abundance on the reproductive success of California Black-tailed Gnatcatchers *Poliophtila melanura californica*. M. S. thesis, San Diego State Univ.
- Salata, L. 1993. Endangered and threatened wildlife and plants; determination of threatened status for the coastal California Gnatcatcher. *Federal Register* 58:16742-16757.
- Woods, R. S. 1949. *Poliophtila melanura californica* Brewster: Black-tailed Gnatcatcher, in *Life histories of North American thrushes, kinglets, and their allies* (A. C. Bent, ed.), pp. 374-381. U. S. Natl. Mus. Bull. 196.

Accepted 7 February 1994

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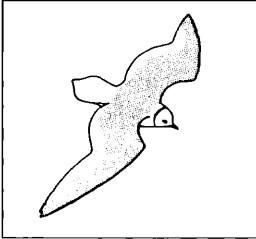
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