

Western Bat Working Group

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Species Accounts

Developed For the 1998 Reno Biennial Meeting

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Myotis auriculus

SOUTHWESTERN MYOTIS

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I. DISTRIBUTION: *Myotis auriculus*, a member of the Family Vespertilionidae, ranges from central Arizona and New Mexico to southern Mexico. Its distribution in the United States is quite limited. *Myotis auriculus* occurs in southwestern forests that include oak, cottonwood, and mixed conifer, but it is primarily a resident of ponderosa pine forests.

II. STATUS: Global Rank - G5. State Ranks: AZ - S3; NM - S4. Take is regulated by permit in New Mexico and Arizona.

III. IDENTIFYING CHARACTERISTICS AND LIFE HISTORY: *Myotis auriculus* is a member of the long-eared group of *Myotis* that includes *M. evotis*, *M. keenii*, *M. septentrionalis*, and *M. thysanodes*. *M. auriculus* does not occur within the range of *M. keenii* or *M. septentrionalis* and barely overlaps with *M. evotis*. *Myotis auriculus* has shorter (18-20 mm), brown, not glossy black, ears compared to *M. evotis* and does not have a distinct uropatagial fringe like *M. thysanodes*. It has been observed to glean insects off tree trunks and buildings. When in sympatry with *M. evotis*, *M. auriculus* preys upon moths and some beetles, whereas *M. evotis* feeds primarily on beetles. In allopatry, both species have similar food habits, but exhibit differences in food preference between sexes (e.g., male *M. auriculus* eat more moths). *M. auriculus* is most active from 0.5 to 2 h after sunset and in New Mexico is seasonally active from April to September. Some evidence for seasonal migrations exists in Arizona. The species is known to roost in caves, mines, and buildings. Females are pregnant in early to mid-June and give birth to a single young in late June and early July. One banded individual lived a minimum of 3 years, 2 months. The early literature refers to this species as *M. evotis* or *M. keenii*.

IV. THREATS: May be affected by recreational caving, closure of abandoned mines without surveys, and certain forest-management practices.

V. GAPS IN KNOWLEDGE: No information known about population trends, roost requirements, and use and acceptance of bat gates. Also more information is needed on foraging requirements.

VI. RELEVANT LITERATURE:

Gannon, W.L. 1997. Assessing ecological interactions between bat species using morphological and acoustical techniques. Unpubl. Ph.D. dissertation, University of New Mexico, Albuquerque, 109 pp.

Hoffmeister, D.F. 1986. Mammals of Arizona. The University of Arizona Press and The Arizona Game and Fish Department, Tucson, Arizona, 602pp.

Husar, S.L. 1976. Behavioral character displacement: Evidence of food partitioning in insectivorous bats. *Journal of Mammalogy*, 57:331-338.

Warner, R.M. 1982. *Myotis auriculus*. American Society of Mammalogists, Mammalian Species, 191:1-3.

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