Western Bat Working Group
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Species Accounts
Developed For the 1998 Reno Biennial Meeting
Updated at the 2005 Portland Biennial Meeting

Choernycteris mexicana
MEXICAN LONG-TONGUED BAT

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I. DISTRIBUTION: Choeronycteris mexicana, a member of the Family Phyllostomidae (leaf-nosed bats), is found in the southwestern United States through Mexico to El Salvador and Honduras. In the United States, it occurs primarily in southern California (the San Diego area), southern Arizona, southwestern New Mexico, and the southern tip of Texas (Figure 1). Extralimital records exist from Grand Canyon National Park in northern Arizona and Las Vegas, Nevada. This bat occurs in a variety of habitats, including thorn scrub, Palo Verde-saguaro desert, semi-desert grassland, oak woodland and tropical deciduous forests. In the southwestern United States, Choeronycteris is typically observed in oak-conifer woodlands and semi desert grasslands. Most of the historical sites occupied by this species in southern Arizona and New Mexico were associated with streams and riparian vegetation.

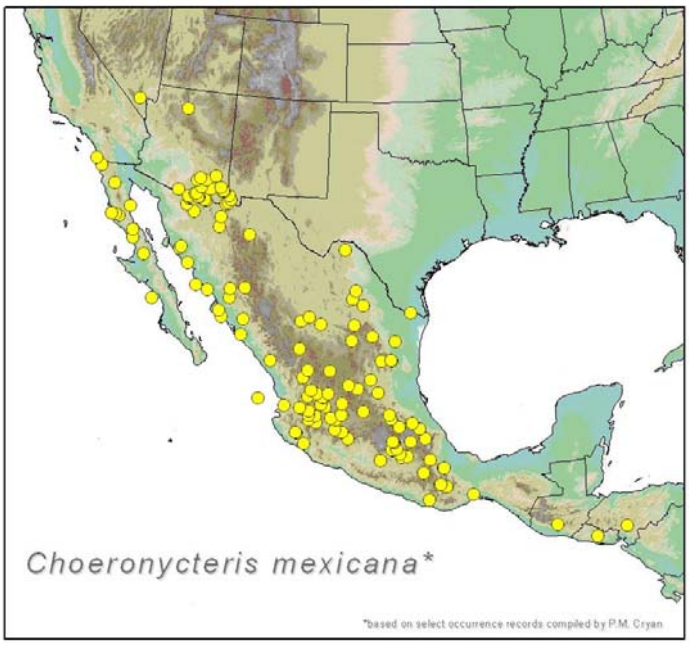

Figure 1: Distribution of C. mexicana.

II. STATUS: Global Rank - G4. State Ranks: AZ - S1S2; CA - S2; NM - S1; NV - SA; TX - S1. The Mexican long-tongued bat is currently listed by the U.S. Fish and Wildlife Service as a Species of Concern. This classification describes an entire realm of taxa whose conservation status may be of concern to the Service (former C2 species). This designation carries with it no official status. This species is also considered Sensitive by the U.S. Forest Service, is considered to be Rare in Mexico, is proposed as a Species of Special Concern in California, and is included in Arizona Game and Fish Department's Wildlife of Special Concern in Arizona. Fewer than 1,500 individuals of this species have been documented since its discovery. In Arizona, all bats are protected from take by Arizona Game and Fish Commission Order #14.

III. IDENTIFYING CHARACTERISTICS AND LIFE HISTORY: Like other phyllostomid (=leaf-nosed) bats, C. mexicana has a leaf-like projection at the tip of its nose. It can be distinguished from other phyllostomid bats occurring in the U.S. by its relatively shorter ears, longer and narrower rostrum, and the presence of a tail. This species typically roosts in twilight areas near the entrances of caves, mines, rock crevices, and abandoned buildings. Roosting groups are usually comprised of < 15 individuals, but some colonies may reach 40-50 individuals. During the spring and summer, they rarely cluster and typically roost 1-2 inches apart. In the autumn when temperatures drop below 70oF, they have been observed to cluster in groups of 5-6. These bats are wary of intrusion and tend to fly out of the roost when disturbed. However, multiple roost sites are usually located within close proximity of each other and bats often return to roosts shortly after a disturbance stops. Choeronycteris mexicana forages primarily on nectar and pollen of night-blooming flowers such as species of Agave and columnar cacti. It also may eat the fruit of columnar cacti, along with incidental insects found on the fruit or flowers. Hummingbird feeders may help sustain individuals that arrive in Arizona early in the year, or remain into winter when natural food sources are not available. However, sugar water lacks essential nutrients (e.g., protein, vitamins) required for long-term survival. There is also evidence that they will forage on ornamental vegetation, such as Mexican bird-of-paradise. Very little is known about the migratory movements of this species. Over the past few years, these bats have arrived in Arizona as early as May. Apparently only females come north into the United States to birth and raise their young. The young are typically born in late June to early July, but reports of early-spring and late-autumn births indicate variation in parturition time. The young can fly within 2-3 weeks of birth. In October and November, they depart their maternity roosts for Mexico and Central America, where they remain active during the winter. Evidence suggests that some individuals may over-winter in warmer areas of Arizona and autumn and/or winter records exist for southern California and Texas.

IV. THREATS: Possible threats to this species include recreational caving; natural or intentional mine closures, renewed mining, mine reclamation, and loss of food resources. Long-term sustainability of food plants may be extremely important to this species. Anthropogenic activities such as development, prescribed fire, or grazing could potentially have negative impacts on food plants. In addition, direct disturbance and loss of riparian habitat brought about by such activities may also adversely affect this species in the southern United States.

In general, the long term persistence of North American bat species is threatened by the loss of clean, open water; modification or destruction of roosting and foraging habitat; and, for hibernating species, disturbance or destruction of hibernacula. Chemicals in the environment that affect bats or their prey are also a threat. Because of low fecundity and long generational turnover, many bat populations may be vulnerable to human-induced pressures.

V. SURVEY METHODS: Morphologically distinct. Roosts are difficult to find, but bats are easy to detect in roost. Effectiveness of netting depends on habitat type. This species is difficult to detect acoustically and is indistinguishable from Leptonycteris species in flight, except at very close range (e.g. hummingbird feeders).

VI. GAPS IN KNOWLEDGE: More information is needed to delineate the distribution of this species and better understand its seasonal movement patterns throughout its range. Studies are needed to clarify roosting and foraging requirements. This species may be amenable to mark-recapture methods for assessing population trends.

VII. SELECTED LITERATURE:

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