

Western Bat Working Group

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Species Accounts

Developed For the 1998 Reno Biennial Meeting

Updated at the 2005 Portland Biennial Meeting

Mormoops megalophylla

GHOST-FACED BAT

Prepared by: Bat Conservation International

I. DISTRIBUTION: *Mormoops megalophylla*, the only North American representative of the Family Mormoopidae, inhabits humid, semi-arid, and arid regions below 3,000 m. elevation from southwestern Texas and southern Arizona southward through Baja California and mainland Mexico into eastern Honduras and El Salvador. Records also occur for the Netherlands Antilles and Trinidad, along the Caribbean coast of Columbia and Venezuela, and along the Pacific coasts of Columbia, Ecuador, and northern Peru. In Arizona, it is known only from the southern end of the Santa Rita Mountains, and in Texas from the Trans-Pecos, South Texas Plains, and the southern edge of the Edwards Plateau. This species is found in a variety of habitats including desert scrub, mixed boreal-tropical forests (the transitional zone between pine-oak forest and tropical deciduous forest between approximately 1,475 and 2,185 m. elevation), tropical rain forests, and riparian areas with mature cottonwood, sycamore, and willow in oak-woodland habitat.

II. STATUS: Global Rank - G4. State Ranks: AZ - S1; TX - S2. Although widely-distributed, *M. megalophylla* is not numerous anywhere in its range. It has neither federal nor state protection designation, but is listed as "Uncommon" in Arizona.

III. IDENTIFYING CHARACTERISTICS AND LIFE HISTORY: *M. megalophylla* can readily be distinguished from all other species by its unique facial ornamentation consisting of conspicuous folds of skin reaching from ear to ear across the chin. The ghost-faced bat roosts primarily in caves or abandoned mines, and occasionally in old buildings. Colonies of this species may contain 500,000 individuals and are spatially isolated from colonies of other species of bats roosting in the same structures. Conspecific individuals maintain a distance of approximately 15 cm. from each other. Nursing *M. megalophylla* roost in areas which minimize ventilation and maximize heat retention. These sites are usually the deepest and warmest (36EC) areas of occupied caves. Males and non-reproducing females use caves separate from those used by nursing females. In Falcon state, Venezuela, males form bachelor colonies in areas of caves having ambient temperatures of 30.6-34.2EC. Non-reproductive females use interior chambers with a temperature of 33.4-34.2EC, often roosting in nurseries of *Leptonycteris curasoae*. *M. megalophylla* emerges soon after dark, flying in dense, fast-moving formations. Once out of the roost, individuals fly quickly to foraging sites along canyons and arroyos. These bats are strong, fast flyers that travel at relatively high altitudes enroute to and from foraging sites. Foraging sometimes occurs over standing water. Individuals begin to return approximately seven hours after first leaving the roost. Stomach and intestinal contents collected from four individuals suggest this species feeds on large-bodied moths. Although seasonal patterns are not well understood, in Texas, winter records from the Edwards Plateau and summer records from the Trans-Pecos suggest that some seasonal movements occur.

IV. THREATS: No known threats to the species have been identified to date. However, some of the general threats to bats could apply to this species. These could include impacts to cave and mine roosts, use of pesticides, and alteration of foraging areas from timber harvest or agriculture.

V. GAPS IN KNOWLEDGE: Apparently this species does not hibernate, but very little is known of its seasonal movements. Likewise, little is known of its foraging habits and food preferences, and virtually nothing is known on its reproductive habits. Status of historic roosts and active searching for unreported roosts should be undertaken.

VI. SELECTED LITERATURE:

Rezsutek, M., and G.N. Cameron. 1993. *Mormoops megalophylla*. American Society of Mammalogists, Mammalian Species, 448:1-5.

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