

Western Bat Working Group

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Species Accounts

Developed For the 1998 Reno Biennial Meeting

Updated at the 2005 Portland Biennial Meeting

Leptonycteris nivalis

BIG LONG-NOSED BAT

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I. DISTRIBUTION: *Leptonycteris nivalis*, a member of the Family Phyllostomidae (leaf-nosed bats), is found in the southern Trans-Pecos in Texas and the southwestern corner of New Mexico, southward through central and eastern Mexico, mostly east of the 102 meridian and south at least to Guerrero and Guatemala. High-elevation pine-oak woodlands (5,000 ft. to snow line) and at lower elevations (1860 ft.) In agave and desert-scrub woodlands.

II. STATUS: Global Rank - G3. State Ranks: NM - S1; TX - S1. Federally listed as endangered in 1988 due to long-term population declines, apparent abandonment of historic roosts, and decline in agave pollination.

III. IDENTIFYING CHARACTERISTICS AND LIFE HISTORY: An agile flyer capable of quick maneuvering and high speed flight. Roosts colonially in caves, deep caverns, mines, culverts, hollow trees, and unused buildings. Known to share roosts with *Corynorhinus townsendii*, and may use the same roost as *Myotis thysanodes* and *M. volans*, but at different times. Breeding season in Texas reportedly April, May and June, with lactating females found in June and July and volant young in late June. Adult males segregate geographically in summer and do not occupy the northern part of the range. Produces one young per year. Feeds on nectar, pollen, insects (accidental), and probably soft succulent cactus fruits during the non-flowering season. Feeds from flowers of various agaves (*Agave scabra*, *A. chisosensis*, *A. lechguilla*, and *A. schottii*), mescal (*A. spp.*), jimson weed (*Datura stramonium*) and wax mallow (*Malvaviscus spp.*). Feeds by thrusting its snout into the flower and licking the nectar with its long tongue. Emerges with its head covered with pollen. This species is an effective pollinator of many cacti, agave, and other species on which it feeds.

IV. THREATS: Loss of foraging habitat by fire; destruction of forage plants (human exploitation of agaves for food and alcohol production); reduction in numbers of forage plants resulting from depressed pollination success caused by *Leptonycteris* population declines; roost site disturbance (recreational caving), and direct mortality by humans.

V. GAPS IN KNOWLEDGE: Information is needed on population size and trends; the timing and destination of seasonal movements; interdependence of the species with individual plant species and communities; location of important roosting areas; characteristics of ideal roosts.

VI. SELECTED LITERATURE:

Hensley, A. P., and K. T. Wilkins 1988. *Leptonycteris nivalis*. American Society of Mammalogists, Mammalian Species, 307:1-4.

Hoyt, R. A., J. S. Altenbach, and D. J. Hafner. 1994. Observations on long-nosed bats (*Leptonycteris*) in New Mexico. Southwestern Naturalist, 39:175-179.

Schmidly, D. J. 1991. The Bats of Texas. Texas A&M University Press, College Station, TX. 188 pp.

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