

Western Bat Working Group

<http://www.wbwg.org>

Species Accounts

Developed For the 1998 Reno Biennial Meeting

Updated at the 2005 Portland Biennial Meeting

Lasionycteris noctivagans

SILVER-HAIRED BAT

Prepared by: Mark Perkins

I. DISTRIBUTION: *Lasionycteris noctivagans*, a member of the Family Vespertilionidae, is found from southern Alaska, throughout southern Canada, and most of the United States into the San Carlos Mountains of northeastern Mexico. *L. noctivagans* is primarily a forest bat, associated primarily with north temperate zone conifer and mixed conifer/hardwood forests. It has been found in winter and during seasonal migrations in low elevation, more xeric habitats.

II. STATUS: Global Rank - G5. State Ranks: AZ - S3; CA - Sx; CO - S4B; ID - S5; MT - S4; NM - S5; NV - S?; OR - S4?; TX - S4; UT - S3S4; WA - S?; WY - S4; AL - S3; BC - S4.

III. IDENTIFYING CHARACTERISTICS AND LIFE HISTORY: *L. noctivagans* is a medium sized vespertilionid with black or dark brown hairs which are silver-tipped. The interfemoral membrane is partially furred. Its ears are short and rounded, with a blunt tragus. Females form small nursery colonies of up to 70 individuals. Maternity roosts appear to be almost exclusively in trees -- inside natural hollows and bird excavated cavities or under loose bark of large diameter snags. Roosting sites are generally at least 15 m above the ground. Both males and females change roosts frequently, and use multiple roosts within a limited area throughout the summer, indicating that clusters of large trees are necessary. Some records exist for roosts in other structures. Based on recent radio telemetry, these appear to be largely anomalies. This species has been found hibernating in hollow trees, under sloughing bark, in rock crevices, and occasionally under wood piles, in leaf litter, under foundations, and in buildings, mines and caves. *L. noctivagans* forages above the canopy, over open meadows, and in the riparian zone along water courses. Radiotracking has shown that it travels considerable distances from roost sites to foraging areas. Although the species is known to take a wide variety of insects, including chironomids, moths appear to be a major portion of dietary prey. This species appears to have gestation of 50-60 days, and give birth to twins in mid to late June. The young require >36 days to become volant. Seasonal records suggest considerable north south migration, with animals moving to warmer, more southern climates in the winter. The few overwintering *L. noctivagans* that have been found in Oregon and Washington were juveniles from the previous summer. In some there appears to be summer segregation of the sexes (e.g., whereas both adult males and females are captured during the summer reproductive season in parts of northern California, males and females are geographically separated in most of Oregon).

IV. THREATS: The primary threat to *L. noctivagans* is likely to be loss of roosting habitat due to logging practices that fail to accommodate the roosting needs of this species (e.g., clusters of large snags). Loss of temporary roosts within migration corridors could also be important. Loss of foraging habitat in riparian areas, and reduction of prey base due to broadcast application of pesticides are other potential threats.

V. GAPS IN KNOWLEDGE: More information is needed distribution of breeding populations, on regional differences in roosting requirements, the timing and patterns of migration for each sex throughout the west, and the location of possibly important mating and migratory stopover sites. Information is also needed on what factors (e.g., temperature, local food availability) determine year to year variation in local distribution and abundance.

VI. SELECTED LITERATURE:

- Barclay, R. M. R. Long-versus short-range foraging strategies of hoary (*Lasiurus cinereus*) and silver-haired (*Lasionycteris noctivagans*) bats and the consequences for prey selection. *Canadian Journal of Zoology*, 63:2507-2515.
- Betts, B. J. 1996. Roosting behaviour of silver-haired bats (*Lasionycteris noctivagans*) and big brown bats (*Eptesicus fuscus*) in northeast Oregon. Pp. 55-61, in R. M. R. Barclay and M. R. Brigham, ed. *Bats and Forest Symposium*, October 19-21, 1995, Victoria, British Columbia, Canada, Research Branch, B.C. Ministry of Forests, Victoria, British Columbia.
- Campbell, L. A., J. G. Hallett, and M. A. O'Connell. 1996. Conservation of bats in managed forests: use of roosts by *Lasionycteris noctivagans*. *Journal of Mammalogy*, 77:976-984.
- Cross, S. P., Editor. 1976. A survey of bat populations and their habitat preferences in Southern Oregon. An SOSOC of the NSF Unpub. Rept. 89 pp.
- Kunz, T. H. *Lasionycteris noctivagans*. 1982. *American Society of Mammalogists, Mammalian Species*, 172:1- 5.
- Mattson, T. A., S. W. Buskirk, and N. L. Stanton. 1996. Roost sites of the silver-haired bat (*Lasionycteris noctivagans*) in the Black Hills, South Dakota. *The Great Basin Naturalist*, 56: 247-253.
- Perkins, J. M. and S. P. Cross. 1988. Differential use of some coniferous forest habitats by hoary and silver-haired bats in Oregon. *Murrelet*, 69:21-24.
- Perkins, J. M. and S. P. Cross. 1982. Sexual differentiation in migratory patterns of *Lasionycteris noctivagans* in Oregon and Washington. Paper presented to the 22nd annual North American Symposium on bat research, Austin, TX.
- Vonhof, M. J. 1996. Roost-site preference of big brown bats (*Eptesicus fuscus*) and silver-haired bats (*Lasionycteris noctivagans*) in the Pend d'Oreille Valley in southern British Columbia. Pp. 62-80, in R. M. R. Barclay and M. R. Brigham, edS. *Bats and Forest Symposium*, October 19-21, 1995, Victoria, British Columbia, Canada, Research Branch, B.C. Ministry of Forests, Victoria, British Columbia.
- Vonhof, M. J. & Barclay, R. M. R. 1996. Roost-site selection and roosting ecology of forest-dwelling bats in southern British Columbia. *Canadian Journal of Zoology*, 74:1797-1805.

More bat species accounts available at: http://www.wbwg.org/species_accounts