

Big Brown Bat - *Eptesicus fuscus*

Abundance: Common

Status: NSS4 (Cb)

NatureServe: G5 S5

Population Status: Distribution is secure and the species is widely distributed; The Western Bat Working Group considers rangewide population to be stable.

Limiting Factor: Human Activity: limiting factor is severe; similar to cave and abandoned mine dwelling bats, the species is extremely sensitive to human disturbance; disturbance results in abandonment of young and roosts; abandoned mines continue to be closed for human safety issues

Comment: Change is due primarily to new matrix definitions

Introduction

The big brown bat inhabits most of North America from Alaska and southern Canada through Mexico and into South America (Kurta and Baker 1990). Similar to other bat species, the big brown bat emerges from its roost at dusk to begin foraging. The big brown bat exhibits generalist tendencies in foraging behavior showing little preference for any particular habitat (Kurta and Baker 1990). It preys primarily on flying beetles and will prey on other insects with tough exoskeletons, stoneflies, crickets, moths, ants, etc., opportunistically (Kurta and Baker 1990). The big brown bat hibernates during the winter months and is loosely colonial, forming small colonies during the winter (Kurta and Baker 1990). It is a year-round resident in Wyoming, is found throughout the state, and is considered common in Wyoming (Orabona et al. 2009).

Habitat

The big brown bat occupies a wide variety of habitats and elevations, including cottonwood riparian woodlands, sagebrush-steppe, juniper woodlands, conifer forests, and aspen woodlands, it is better adapted to human habitation than most bat species, and can often be found in urban areas and around manmade structures (Kurta and Baker 1990). Although the big brown bat is well known for its tendency to roost in buildings, it also uses a wide variety of other manmade and natural roosts, including tree cavities, rock crevices, caves, abandoned mines, and bridges (Kurta and Baker 1990). During winter, it hibernates primarily in caves, buildings, and abandoned mines.

Problems

- h Species is vulnerable to wind energy development.
- h No ongoing efforts to delineate important habitats in Wyoming.
- h Population densities and trends are not well known.
- h Species is susceptible to declines due to broad-scale insect control programs.
- h Species is susceptible to decline from recreational activities (such as spelunking and rock climbing) that impact roosting habitat (e.g., caves, abandoned mines, and rock crevices).

Conservation Actions

- h Conduct inventories for species in all suitable habitats in the state.
- h Delineate important habitats and work cooperatively with land management agencies to maintain these within the designated areas
- h Determine the effects of recreational and commercial activities on populations.
- h Continue active participation with the interagency conservation efforts.
- h Educate the public about the ecological role of the species and their habitat requirements.
- h Minimize disturbance of caves or abandoned mines where species is roosting.

Monitoring/Research

Forest habitats are being inventoried and funded through State Wildlife Grants. Project is scheduled to be completed in June 2012.

Recent Developments

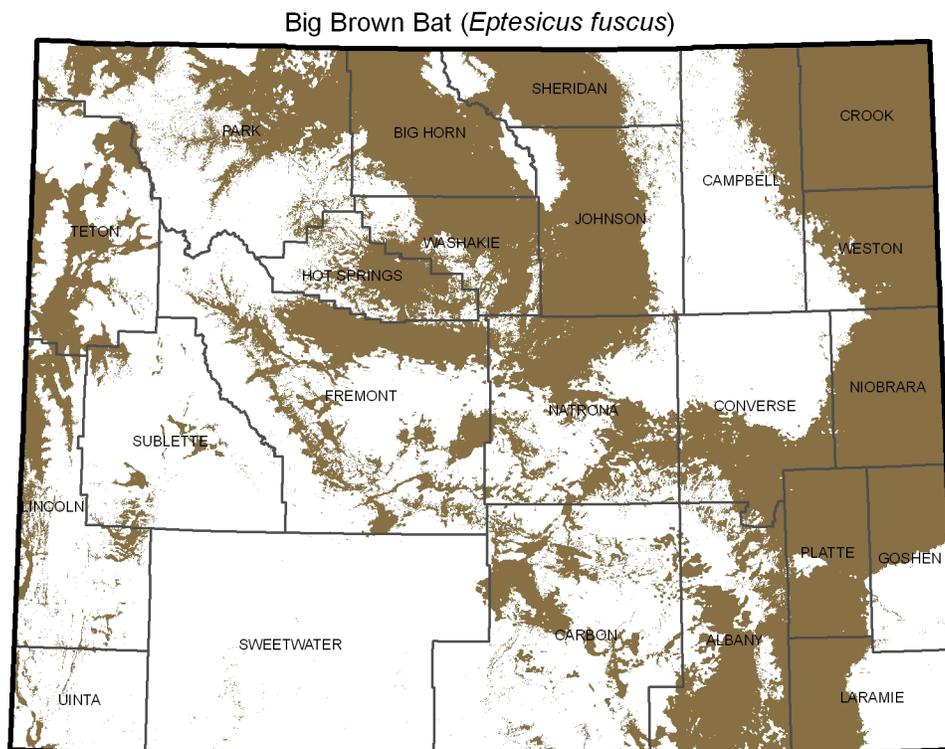
None.

References

Kurta A, Baker RH. 1990. *Eptesicus fuscus*. *Mammalian Species* 356:1-10. Nicholoff SH, Grenier M. Wyoming bat conservation plan. Lander: Wyoming Game and Fish Department.

Oakleaf B, Cerovski AO, Luce B. 1996. Nongame bird and mammal plan: a plan for inventories and management of nongame birds and mammals in Wyoming. Wyoming Game and Fish Department, Nongame Program. 183 p.

Pierson ED, Wackenhut MC, Altenbach JS, Bradley P, Call P, Genter DL, Harris CE, Keller BL, Lengus . 1999. Species conservation assessment and strategy for Townsend's big-eared bat (*Corynorhinus townsendii townsendii* and *Corynorhinus townsendii pallescens*). Boise: Idaho Conservation Effort, Idaho Department of Fish and Game. 68 p.



SOURCE: Digital maps of ranges and predicted distributions for Wyoming Species of Greatest Conservation Need: April 2010. Wyoming Natural Diversity Database. University of Wyoming, Laramie, Wyoming. Note that brown indicates the predicted distribution of the species; heavy black lines indicate outermost boundaries of possible occurrence.