

Bats

RESOURCE BRIEF

Importance

With abundant cliff, cave, and tree roosting habitat near wetlands that bats use for foraging, Bighorn Canyon National Recreation Area (NRA) supports an abundance and broad distribution of bats (Figure 1), all of them insectivores. A single little brown bat (*Myotis lucifugus*, the most common of the species) can consume 1,200 mosquito-sized insects in an hour. The distribution of these bat species tends to be highly localized near sources of food, water, and roosting structures. They roost in natural habitats as well as in bridges, buildings, abandoned mines, and other man-made structures, which can lead to conflicts with human use and historical preservation plans.



Pallid bat, *Antrozous pallidus*.

Status in Bighorn Canyon NRA

An inventory completed in 2004 by the Wyoming Natural Diversity Database for the Greater Yellowstone Network (GRYN) identified bat habitat in Bighorn Canyon NRA, documented the presence of 12 bat species, and estimated their abundance:

• Little brown bat (<i>Myotis lucifugus</i>)	Very High
• Big brown bat (<i>Eptesicus fuscus</i>)	High
• Long-eared myotis (<i>Myotis evotis</i>)	Medium
• Long-legged myotis (<i>Myotis volans</i>)	Medium
• Small-footed myotis (<i>Myotis ciliolabrum</i>)	Medium
• Spotted bat (<i>Euderma maculatum</i>)	Medium
• Yuma myotis (<i>Myotis yumanensis</i>)	Medium
• Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	Low-Medium
• Fringe-tailed bat (<i>Myotis thysanodes</i>)	Low
• Hoary bat (<i>Lasiurus cinereus</i>)	Low
• Pallid bat (<i>Antrozous pallidus</i>)	Low
• Silver-haired bat (<i>Lasionycteris noctivagans</i>)	Low

Evidence of all of these species, as well as inconclusive evidence of California myotis (*Myotis californicus*), was found in the Layout Creek area of the Ewing-Snell Ranch. Bat abundance was greatest in the Yellowtail Wildlife Habitat Management Area, which has an apparent abundance of insect life. Most of these bat species are considered species of concern by Montana and/or Wyoming because of habitat loss and sensitivity to human disturbance. Two of the bat species probably migrate south for the winter, but most seek relatively warm places to hibernate a short distance from their summer roosts.

Discussion

The GRYN inventory was the first systematic effort to determine the species and distribution of bats in Bighorn Canyon NRA and Grand Teton and Yellowstone national parks. Though little management occurs specifically for bats, baseline information gathered to fulfill inventory objectives can be used to include bats in management decisions and increase public awareness.

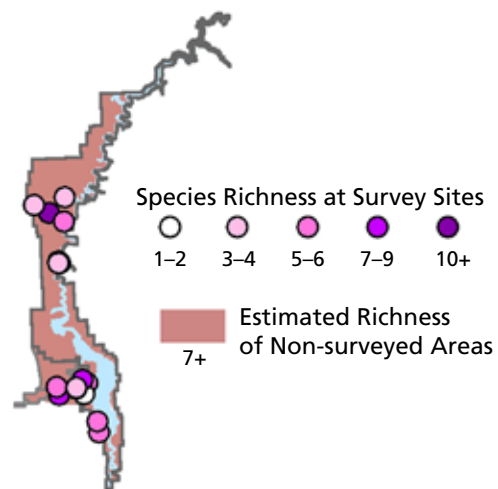


Figure 1. Bat species richness in Bighorn Canyon NRA. The species richness at a survey site is the number of species documented there based on captures and acoustic monitoring. This information was extrapolated using coarse habitat characteristics to derive a rough estimate of species richness for non-surveyed areas. From Bat Inventory of the Greater Yellowstone Network. Keinath, 2005.