

# USACE Natural Resource Management

## Mammals



### Ozark Big-eared Bat

### FAST FACTS

**REASONS FOR CURRENT STATUS:** The Ozark big-eared bat was listed by the U.S. Fish and Wildlife Service (USFWS) as an endangered species in 1979 due to its small population size, reduced and limited distribution, and vulnerability to human disturbance. In the early 1990's the population was only estimated at 1,800 individuals.

This bat is a subspecies of the Townsend's big-eared bat complex. Nature Serve lists the Ozark big-eared bat as a critically imperiled subspecies. It has possibly been extirpated from the state of Missouri.

**T1**  
Critically  
Imperiled  
Subspecies

**MANAGEMENT AND PROTECTION:** The Ozark big-eared bat inhabits caves that are located in oak-hickory hardwood forests year-round. The Oklahoma Bat Cave National Wildlife Refuge and the Ozark Plateau National Wildlife Refuge were established as essential sites after being discovered as occupied caves to further provide protection to the species. The USFWS cooperates with numerous entities and private landowners to protect 9 additional essential caves. (USFWS)

**HABITAT NEEDS:** Even though the Ozark big-eared bat primarily occupies caves year-round, different niches may be used depending on the time of year.

- Hibernation caves may be better protected from cold and wind than maternity caves. Typically, hibernating bats roost in the coldest regions of the coldest caves.
- These bats have a high degree of roost site fidelity; although, they are known to move among hibernacula in the winter. (USACE)
- Fragmentation of foraging habitat is an additional threat to the stability of the population. Efforts to protect foraging habitat should focus on areas within a radius of 5 miles from the cave site. Edge habitat along intermittent streams and mountain slopes is preferred for foraging as the species benefits from nearby cover and high prey densities. (USFWS)

**Appearance:** The Ozark big-eared bat is considered medium-sized with a total length of 3.5-4.5 inches and a wingspan of 11.5 –12.5 inches. As its name suggests, this bat species is known for its rather large ears, which are about 4 times larger than other bats species that occupy the region. It's fur is dark reddish-brown and two prominent lumps appear on either side of the snout.

Photos: Oklahoma Department of Wildlife Conservation, USFWS

Natural Resource Management (NRM)

This fact sheet has been prepared as an unofficial publication of the U.S. Army Corps of Engineers (USACE). This online publication is produced to provide its readers information about best management practices related to special status species. Editorial views and opinions expressed are not necessarily those of the Department of the Army. Mention of specific vendors does not constitute endorsement by the Department of the Army or any element thereof.



**USACE NATURAL RESOURCE MANAGEMENT ROLE:** According to the Engineering Research and Development Center's Threatened and Endangered Species Team Cost Estimates, the USACE has expended nearly \$37,000 since 2005 on efforts related to the Ozark big-eared bat. The costs associated with this species have been incurred primarily by the Environmental Stewardship and Regulatory Business Lines.

ERDC TN-EMRRP-SI-27  
May 2002

**WHAT IS USACE NRM**

**DOING:** With a geographic range limited to the Ozark Highlands, 8 projects within the Little Rock District reported potential and occasional occurrences of the species during the FY20 NRM Assessment.

A technical report published by ERDC in 2002, focused on the Ozark big-eared bat as part of an examination of cave and crevice-dwelling bats on USACE projects. As noted within the report, the continued protection of caves—should any be discovered on USACE lands—is critical to the continued existence of the Ozark big-eared bat.



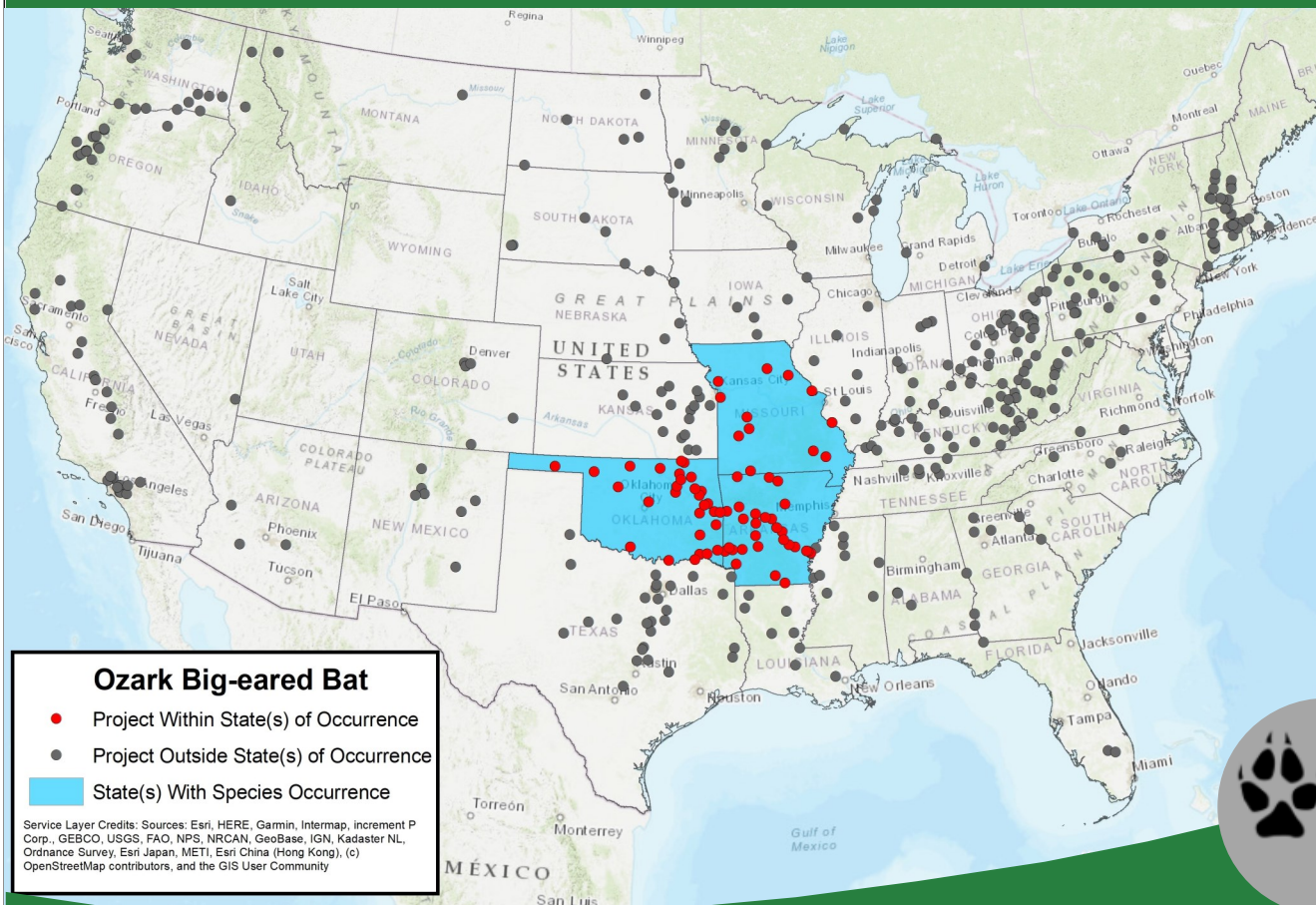
**Cave- and Crevice-Dwelling Bats on USACE Projects: Townsend's Big-eared Bat (*Corynorhinus townsendii*)**

by Wilma A. Mitchell

**PURPOSE:** This document is one in a series of U.S. Army Engineer Research and Development Center (ERDC) technical notes produced under the Ecosystem Management and Restoration Research Program (EMRRP). The technical notes identify sensitive species potentially impacted by U.S. Army Corps of Engineers (Corps) reservoir operations and are products of the EMRRP work unit entitled "Reservoir Operations – Impacts on Habitats of Target Species" (Dickerson, Martin, and Allen 1999; Kasul, Martin, and Allen 2000). This technical note provides information on selected bat species that have the potential to occur on Corps projects in the eastern United States and be impacted by Corps



Photo Above: An ERDC Technical Note from the Ecosystem Management and Restoration Program examines Ozark big-eared bat use of USACE lands.



Mammals  
Source: Map provided by Ashleigh Boss, ORISE Fellow, Institute for Water Resources

