

Image Details

Northern Long-eared Bat

FWS Focus

Northern long-eared Bat Tools and Resources

On November 29, 2022 the U.S. Fish and Wildlife Service (Service) published a final rule [↗](#) to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The species faces extinction due to the range-wide impacts of white-nose syndrome [↗](#), a deadly disease affecting cave-dwelling bats across the continent. After considering feedback received on draft tools and technical assistance documents, we released final tools and documents on October 23, 2024. These tools and technical assistance documents were developed with the goal of providing Endangered Species Act compliance predictability across sectors and to demonstrate our commitment to proactively working with partners to conserve remaining NLEBs within their range while minimizing impacts to the regulated public. These tools also support the conservation of the proposed endangered tricolored bat (TCB), should the species be listed.



Final Technical Assistance Tools

- Northern long-eared bat and Tricolored Range-wide bat Determination Key
- Technical Assistance for Development Projects

- Northern long-eared bat Wind Technical Assistance
- Sustainable Forest Management Technical Assistance
- Final Tools and Technical Assistance Frequently Asked Questions

Other Resources

- Summer Survey Guidelines for Indiana Bat and Northern Long-eared Bat
 - Interim Consultation Framework Reinitiation Memorandum
-

Overview

The northern long-eared bat is a wide-ranging, federally endangered bat species, found in 37 states and eight provinces in North America. The species typically overwinters in caves or mines and spends the remainder of the year in forested habitats. As its name suggests, the northern long-eared bat is distinguished by its long ears, particularly as compared to other bats in the genus *Myotis*.

Although there are many threats to the species, the predominant threat by far is white-nose syndrome. If this disease had not emerged, it is unlikely the northern long-eared bat would be experiencing such a dramatic population decline. White-nose syndrome was the main reason for listing the species as threatened under the Endangered Species Act in 2015. Since symptoms were first observed in New York in 2006, white-nose syndrome has spread rapidly throughout the species' range in the United States. Numbers of northern long-eared bats, gathered from hibernacula counts, have declined by 97 to 100% across the species' range. Due to continued and increased population declines and impacts from threats, on November 29, 2022, the U.S. Fish and Wildlife Service found that the species now meets the definition of an endangered species and published a final rule to reclassify the northern long-eared bat as endangered under the Endangered Species Act.

Other sources of mortality: Although no significant population declines have been observed due to the sources of mortality listed below alone, they are now important factors affecting this bat's viability until we find ways to address white-nose syndrome.

Wind energy-related mortality: Wind turbines can kill bats by direct collision with turbine blades. Mortality has been documented for northern long-eared bats, although a small number have been found to date. However, there are many wind farms operating within a large portion of the species' range, and many more projects are planned in the future.

Summer habitat loss: Highway construction, commercial development, surface mining and wind facility construction permanently remove habitat and are activities prevalent in many areas of this

bat's range. Summer habitat loss may result in longer flights between suitable roosting and foraging habitat, fragmentation of maternity colonies and direct injury or mortality.

Winter habitat loss and disturbance: Gates or other structures intended to exclude people from caves and mines, but do not consider bat needs, may not only restrict bat flight and movement, but also change airflow and internal cave and mine microclimates. A change of even a few degrees can make a cave unsuitable for hibernating bats. Also, cave-dwelling bats are vulnerable to human disturbance while hibernating. Arousal during hibernation causes bats to use up their already reduced energy stores, which may lead to individuals not surviving the winter.

Climate change: Changes in temperature and precipitation may influence the species' available suitable roosting and foraging habitat and prey availability.

What is being done to help the northern long-eared bat?

Disease management: Actions have been taken to try to reduce or slow the spread of white-nose syndrome through human transmission of the fungus into caves and mines, including cave and mine closures and advisories and national decontamination protocols. A national plan was prepared by the U.S. Fish and Wildlife Service and other state and federal agencies that details actions needed to investigate and manage white-nose syndrome. Many state and federal agencies, universities and non-governmental organizations are researching this disease to try to control its spread and address its effect.

Addressing wind turbine mortality: The U.S. Fish and Wildlife Service and others are working to minimize bat mortality from wind turbines on several fronts. The agency funds and conducts research to determine why bats are susceptible to turbines, how to operate turbines to minimize mortality and where important bird and bat migration routes are located. The agency has and continues to work with many wind energy project proponents in developing habitat conservation plans that provide wind farms a mechanism to continue operating legally while minimizing and mitigating mortality of federally endangered or threatened bats.

Hibernacula protection: Many federal and state natural resource agencies and conservation organizations have protected caves and mines that are important hibernacula for cave-dwelling bats.

Scientific Name

Myotis septentrionalis

Common Name

Northern Long-eared Bat, Northern Myotis, Northern Bat

FWS Category

Mammals

Kingdom

Animalia

Location in Taxonomic Tree ⓘ ()

Subgenus
↳ <i>Myotis</i> (<i>Pizonyx</i>)
Species
↳ <i>Myotis septentrionalis</i>

Identification Numbers

TSN: ⓘ ()

180000 ↗

Characteristics

PHYSICAL CHARACTERISTICS ^

Weight

The northern long-eared bat’s adult body weight averages 5 to 8 grams (0.2 to 0.3 ounces), with females tending to be slightly larger than males.

Color & Pattern

The northern long-eared bat’s fur color can be medium to dark brown on the back and tawny to pale-brown on the underside. As its name suggests, this bat is distinguished by its long ears, particularly as compared to other bats in its genus *Myotis*.

Size & Shape

Measurements

Average body length: 77 to 95 mm (3 to 3.7 in)

Tail length: 35 to 42 mm (1.3 to 1.6 in)

Forearm length: 34 to 38 mm (1.3 to 1.5 in)

Wingspread: 228 to 258 mm (8.9 to 10.2 in)

LIFE CYCLE



SIMILAR SPECIES



FOOD



HABITAT



Habitat

Winter Habitat

Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They use areas in various sized caves or mines with constant temperatures, high humidity and no air currents. Within hibernacula, surveyors find them hibernating most often in small crevices or cracks, often with only the nose and ears visible.

Spring, Summer and Fall Habitat

During the summer and portions of the fall and spring, northern long-eared bats may be found roosting singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags, or dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. Northern long-eared bats seem to be flexible in selecting roosts, choosing roost trees based on suitability to retain bark or provide cavities or crevices. The species has also been found, although less commonly, roosting in structures, such as barns and sheds. Northern long-eared bats use forested areas not only for roosting, but also for foraging and commuting between summer and winter habitat.

Forest

A dense growth of trees and underbrush covering a large tract.

Cave or Karst

A natural chamber or series of chambers in the earth or in the side of a hill or cliff. An irregular limestone region with sinkholes, underground streams and caverns.

BEHAVIOR

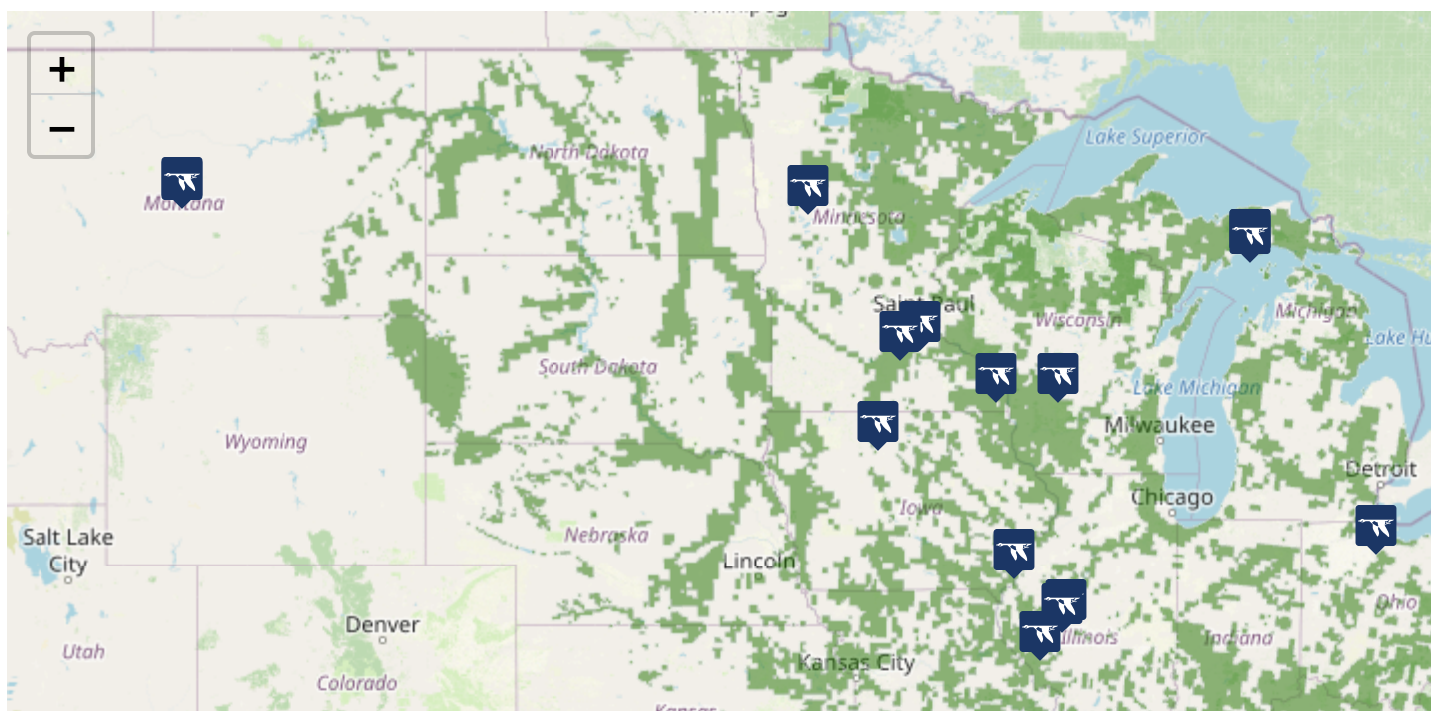


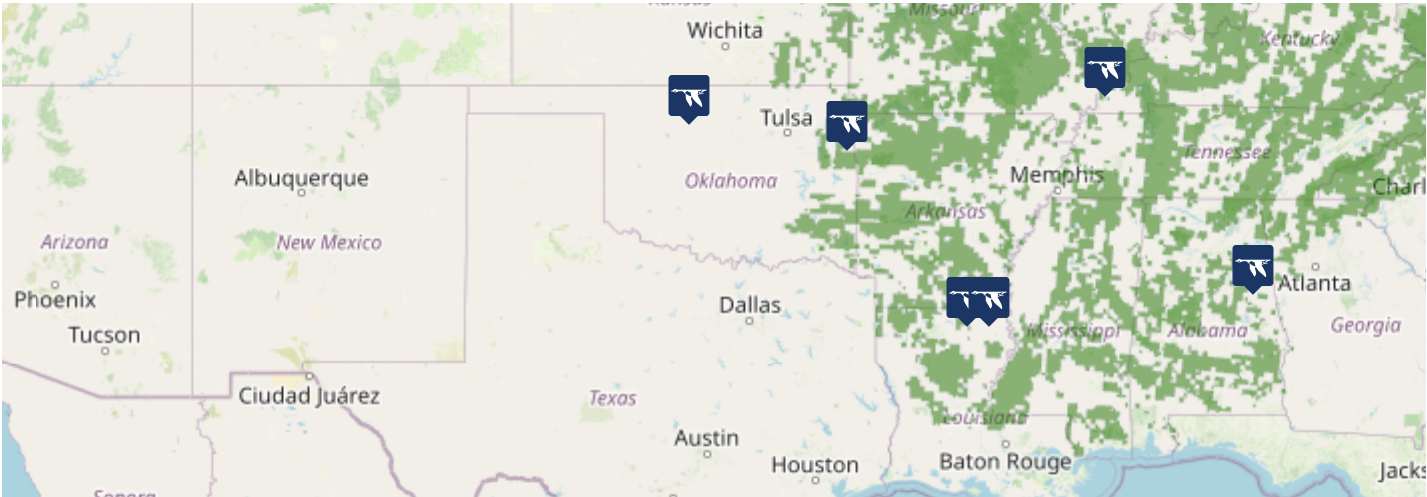
Geography

Range

The species' range includes all or portions of the following 37 states and the District of Columbia: Alabama, Arkansas, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, Virginia, West Virginia, Wisconsin and Wyoming. The northern long-eared bat's range also includes eight Canadian provinces.

LAUNCH INTERACTIVE MAP





Timeline

Explore the information available for this taxon's timeline. You can select an event on the timeline to view more information, or cycle through the content available in the carousel below.

21 ITEMS



Jan 26, 2023

 Listing

<

Endangered and Threatened Wildlife and Plants; Endangered Species Status for Northern Long-Eared Bat...



>

Publication type: Deferred Date

[VIEW FEDERAL REGISTER DOCUMENT](#)

ITEM 21

Key:

 Event  Regulatory Status Change

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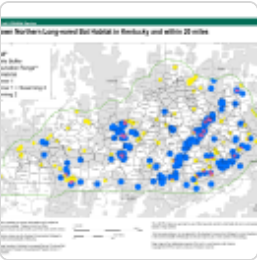


New Jersey Recognized Qualified Indiana Bat/Northern Long-Eared Bat Surveyor List

The following list includes individuals recognized by the U.S. Fish and Wildlife Service, New Jersey Field Office, and the New Jersey Department of Environmental Protection (NJDEP), Endangered and Nongame Species Program as qualified to conduct surveys for Indiana bats and northern long-eared...

PDF

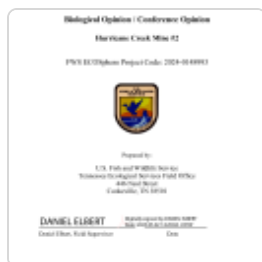
Sep 12, 2025



Known Northern Long-eared Bat Habitat in Kentucky and within 20 miles

PDF

Jul 17, 2025



Biological Opinion - Conference Opinion Hurricane Creek Mine #2

PDF

May 2, 2025



Fillable Bat Survey Forms and Datasheets

These are blank or fillable survey forms for various types of bat surveys that can be printed out and used in the field for collecting data.

PDF

Apr 14, 2025

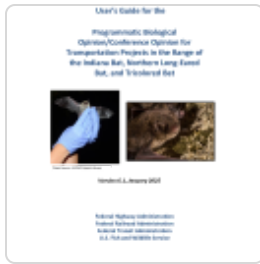


USFWS Recommended DNA Sampling Methods For Bat Species Identification

The information herein provides researchers with options and methods for collecting DNA samples from live bats for which visual species identification may be unreliable and a more definitive method is necessary. These recommendations are intended to mitigate impacts to individual bats,...

PDF

Jan 7, 2025



User's Guide (with Appendices A-E) for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat

PDF

Dec 1, 2024



Northern long-eared bat Interim Consultation Framework Reinitiation Memorandum

PDF

Nov 22, 2024

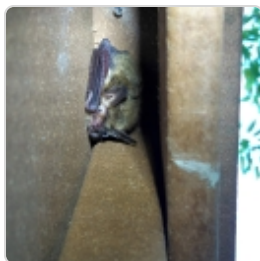


Public comment on Multi-Bat Species General Conservation Plan for NY, PA and WV

The draft GCP is a comprehensive strategy to promote the long-term conservation of the federally endangered Indiana bat and northern long-eared bat, and the proposed endangered tricolored bat. This plan focuses specifically on these three states and will allow the Service to work more efficiently...

Press Release

Oct 28, 2024



Conservation and Cooperation

The recent reclassification of the northern long-eared bat under the Endangered Species Act and the proposed listing of the tricolored bat presented U.S. Fish and Wildlife Service staff with a novel and immense task: Identify conservation actions that benefit bats and people at a massive scale –...

Story

Oct 23, 2024

Endangered Species Act



Final NLEB and TCB Tools and Technical Assistance Frequently Asked Questions

Answering your questions on the U.S. Fish and Wildlife Service's bat tools for Northern Long-eared bat and Tricolored Bat

Story

Oct 23, 2024

Endangered Species Act

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