

Help for New Jersey bats

By Jody Carrara, ANJEC Project Director



Eastern small-footed bat

Gary Peebles, USFWS

I live in Cumberland County, and every night during the summer, big brown bats circle my yard, each one eating half its weight in insects. (Thank goodness!) A colony of just 150 big brown bats in Indiana was estimated to eat over 1 million insects annually. Nationwide, the value of bats' insect control services are estimated to average about \$22.9 billion per year.

Unfortunately, our State's bat populations are in jeopardy and the New Jersey Endangered Species Program and Conserve Wildlife Foundation have ramped up efforts to protect them.

Hibernia Mine in Morris County has, for many years, been the largest known hibernaculum for over-wintering bats in New Jersey. To restrict human access, State conservation workers and partners installed a gate at the mine entrance in 1994. By 1999, there were approximately 30,000 bats using the mine. Unfortunately, because of white-nose syndrome (*Pseudogymnoascus destructans*), a fungus that kills bats, only 600 bats inhabited the mine in 2013. Over six million bats have died from this fungus across 25 states and five Canadian provinces.

White-nose syndrome affects bats most acutely during their hibernation, when bat metabolism is lowered. Conservation efforts in New Jersey have been underway to understand the progression of this disease and why some bats survive it. During bat counts, State conservationists band and record the health and breeding status of bats and collect fur, blood and fecal matter for genetic analysis. Understanding bat resistance to disease is crucial to restoring populations of this beneficial mammal.

There are six bat species that overwinter in New Jersey, and three are in peril:

- Northern long-eared bat (a federal threatened species)
- Indiana bat (a federal and state endangered species)
- Eastern small-footed bat (a state endangered species)
- Little brown bat
- Big brown bat
- Eastern pipistrelle.

While New Jersey bats overwinter in caves or mines, they also occupy a multitude of different habitats throughout the year. Many species roost in trees, hanging

from high branches, and some are frequently found roosting and hibernating in attics, chimneys, soffits, window shutters, bat boxes and other manmade structures. Depending on the species, bats forage in both open areas and woodlands, but they concentrate their activity in places with high insect abundance.

Other bat killers

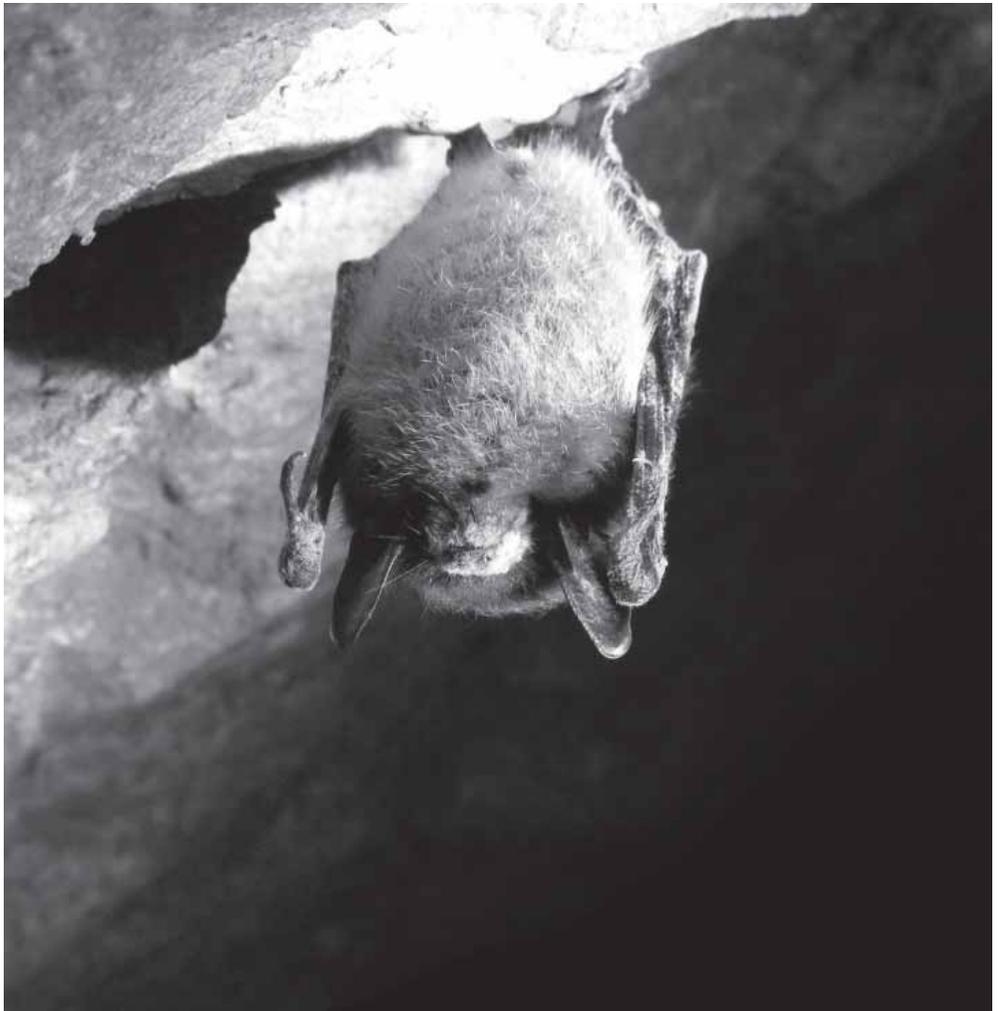
White-nose syndrome is not the only threat to bat populations. Pesticide and herbicide use and water pollution decrease insect abundance, which reduces bats' food supply. Deforestation leaves no roosting

habitat and the eviction of bats from manmade structures also displaces bat colonies and contributes to population decrease. According to Conserve Wildlife Foundation of New Jersey: "Protecting natural habitats from disturbance, especially during hibernation and raising of young, is a key factor in maintaining healthy bat populations." They offer the following advice for anyone who discovers a bat in their home or other undesirable location:

"It is important to use proper eviction methods to remove them. It is illegal for anyone, including animal control officers

Little brown bat with white-nose fungus

Marvin Moriarity USFWS





Little brown bats

Nancy Heaslip, USGS

and exterminators, to kill bats. Terminal traps and poisonous bait traps should never be used. Bats should never be trapped and relocated as they will return and re-inhabit their roosting sites if access is available. One-way doors are a great way to evict bats from an unwanted area. If evicting bats from a building, it is important to provide a nearby shelter, such as a bat house, for the bats to inhabit. All evictions or exclusions should take place prior to mid-May or after mid-September.”

www.state.nj.us/dep/fgw/ensp/pdf/bat_fact_sheet.pdf

Unfortunately, while more is being learned about white-nose syndrome and bat resistance to it, bat populations have still not begun to recover. It is important that every town become aware of their bat populations and the benefits these species provide.

How your environmental commission can help

Here are some ways environmental commissions can assist the State in its efforts to protect bats:

- When reviewing potential impacts of proposed development, consider the presence of bat habitat when determining whether an Environmental Impact Assessment is needed.
- Volunteer for State bat conservation projects, such as the Summer Bat Count.
- Educate residents on the benefits of bats and State conservation measures.
- Call the Conserve Wildlife Foundation (CWF) if you have a colony living in an attic, church, barn, cave, etc. The CWF may wish to assess the health of the colony.
- Install CWF-approved bat houses and use approved eviction methods. (See www.conservewildlifenj.org/protecting/projects/bat/buildings/)
- Where possible and not a safety hazard, leave dead trees on your property. Northern long-eared bats and many other animals use these trees as habitat.
- Plant native vegetation and discourage pesticide/herbicide use.

Take advantage of the early fall nights to find local bat populations. Find out where they hibernate, and enjoy watching these wonderful creatures as they devour insects in your back yard. 🍂



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at (973) 539-7547

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