



# White-Nose Syndrome Is Killing Our Bats

June 2017 edition



**Thousands of hibernating bats are dying each winter from White Nose Syndrome (WNS).** In 31 states and 5 Canadian provinces from New Brunswick to Texas and Washington, biologists are finding sick, dying, and dead bats in unprecedented numbers. **Over 6 million bats have died of WNS in the northeast and Canada.** Mortality rates at hibernacula (caves and mines where bats hibernate during winter) in New Hampshire have ranged from 79 to 100% since WNS was first documented in NH during the winter of 2008-09.

Mortality in 2011 was devastating. In 4 of the largest surveyed hibernacula in NH, there were 16 bats, with one mine completely empty. In 2009 these same 4 mines housed 3,230 bats. Winter surveys in 2014 and 2015 did not find any signs of recovery. Surveys did not occur in 2016 and 2017 to minimize disturbance to any surviving bats; surveys are planned for 2018.

**Five of the eight bat species found in New Hampshire are affected by WNS.** Little brown bats (state-endangered), previously the most numerous bats in the Northeast, are sustaining the largest number of deaths. The northern long-eared bat has been so decimated by WNS that the US Fish and Wildlife Service listed it as threatened in May 2015. Also dying in New Hampshire are small-footed bats (state-endangered), tricolored bats (state endangered; also called eastern pipistrelles), and big brown bats.

WNS was first documented in 2006 in New York. The fungus thrives in the cold (40- 55° F) and humid conditions characteristic of bat hibernacula. While bats are hibernating in caves and mines, the newly-discovered white fungus, *Pseudogymnoascus destructans*, grows on their nose (hence the name "white-nose syndrome"), ears, wings or tail. These bats may move to colder parts of the hibernacula, fly during the day into cold winter weather, and exhibit other unusual behaviors. The fungus causes bats to wake from hibernation more frequently and burn their fat reserves long before winter is over.



Marvin Moriarty/ USFWS



Because females produce just one or two pups a year, the plunging number of bats—as much 100% lost in some hibernacula—translates into a crisis in bat populations **and potentially significant environmental and economic impacts.**

**Bats are an important part of our ecosystem.** Bats comprise 20% of the world's mammals, and together are the **single greatest predator of night-flying insects.** In the summer, bats eat about half their body weight or more in insects every night. We don't know whether they are eating significant numbers of pest insects, but we will find out soon as our skies become devoid of bats and full of insects.

State and federal agencies, universities, private labs and conservation organizations are teaming together to help conserve surviving bats, prevent transmissions to new areas, and find potential treatments. National and regional caving organizations are coordinating with state biologists to help assess the situation, and providing the most current information to the caving community regarding cave closures and gear use. Potential treatments to help bats combat the fungus or stop fungal growth are being tested and vaccines and other ways to improve bat survival are being explored. In New Hampshire we are working to monitor and help our surviving bats and their habitats.



## What can you do to help?

### Observe Cave closures, cave advisories and decontamination procedures.

It is believed that WNS spreads primarily by bat-to-bat contact. In addition, **people may inadvertently contribute to the spread** because the fungus can attach to clothes and gear and be carried into another cave. **You can help by staying out of caves and mines in affected states.** If you cave in unaffected states, do not use clothing or gear that has been used in a state with WNS, and disinfect your gear after every cave visit. Do not place geocaches or letterboxes in caves or mines. See the USFWS website below for details on affected states and decontamination.

### Donate to help us fight white-nose syndrome.

### Steward the bats you have on your property.

- In summer many attics, barns and other outbuildings that had little and big brown bats maternity colonies are now empty of bats. We have found a few little brown bats surviving and reproducing. **If you have a summer roost, see our website for how to count your bats and report your population to us.**
- Don't exclude bats from your barn or attic unless you really have to. Find other solutions to the problems the bats are causing – such as putting plastic underneath bat roosts to catch falling droppings.
- If you must remove a bat colony, do not do so between mid-May and August. Doing so will cause baby bats to starve.
- Replace your colony space with a large bat house. There are many free plans available on the internet, or you can buy pre-made ones. Size (large), color (dark), height (>15 feet), and location are all important.



## Online bat information:

**NH Fish and Game:** <http://wildlife.state.nh.us/Wildlife/Nongame/bats.html>

**US Fish & Wildlife Service information on White Nose Syndrome and decontamination:**  
<http://whitenosesyndrome.org/>

**Bat Conservation International—bat info, bat houses, and more:** [www.batcon.org](http://www.batcon.org)