



KATHERINE CALDWELL/CWRC

WHITE NOSE SYNDROME



About the Disease

White-nose syndrome (WNS) is a disease that affects bats, especially during winter hibernation. It is caused by the fungus, *Pseudogymnoascus destructans*, which often appears as a white fuzz growing on the bat's nose, wings, ears, or tail (see [Signs of White-Nose Syndrome](#)). The fungus is spread by direct contact with infected bats, and indirectly in contaminated hibernation sites. As of 2018, eight bat species in North Carolina are susceptible to WNS: Indiana bat, big brown bat, little brown bat, northern long-eared bat, tri-colored bat, eastern small-footed bat, southeastern bat, and gray bat. WNS does not affect humans, pets, or other types of wildlife. This disease is often fatal.

Signs of White-Nose Syndrome

- White fungus on the bat's nose, wings, ears, or tail
- Damaged wings
- Bats flying outside during the day in temperatures at or below freezing
- Bats clustered near the entrance of hibernation sites
- Dead or dying bats on the ground or on buildings, trees, or other structures in winter

Suspicious Bat

White-nose syndrome should be suspected in instances of unexplained bat mortality during the winter, especially if any of the above signs are present. Sick or dead bats found during winter should be reported immediately to the Wildlife Helpline at 866-318-2401. Delays in reporting hinder biologists' ability to determine the cause of death or illness.

Impacts on Bats

Bats are unique and valuable animals. They are the primary predator of nocturnal insects, many of which damage crops and forests, or spread disease. Overall, bats save the U.S. corn industry an estimated \$3.7 billion in pesticide use annually. However, WNS has dramatically decreased populations of some species that were once common, such as the little brown bat. Recently, over 90% of little brown bats have disappeared in western N.C., which means many fewer bats to keep insect populations in check.

What is the N.C. Wildlife Resources Commission doing?

The Commission is leading multiple research efforts to track the disease's spread and monitor its impact on bat populations, including cave and mine surveys, acoustic bat surveys, and testing for sick or dead bats. The Commission also coordinates with other states to share knowledge and search for solutions.



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What can you do to help?

- Report sick or dead bats immediately, especially in winter when WNS is more likely to be involved.
- If you know the location of a cave or mine, especially in the piedmont or coastal regions, let the Commission know so biologists can survey it for bats.
- To prevent spreading the fungus by accident, avoid entering caves where bats may hibernate, or fully sterilize your shoes and clothes before traveling to other caves (learn more at whitenosesyndrome.org).
- Help bats in general by installing bat boxes on your property. These bat "condos" provide safe roost locations where natural ones may be unavailable or contaminated (learn how to install a bat box at batcon.org).
- Help feed bats by reducing the use of insecticides and planting evening or night-blooming flowers, which attract nutritious bat foods like moths and beetles.

Still have questions about White-Nose Syndrome? Please visit our website, NCWildlife.org, or email wildlife.health@ncwildlife.org.



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