



WHITE-NOSE SYNDROME in North Carolina

White-nose syndrome is a deadly disease that has killed millions of bats in the eastern United States — and thousands of bats in North Carolina — since it was first detected in New York 13 years ago. White-nose syndrome was first detected in North Carolina in Avery County in 2011 and the fungus that causes the disease has been found in 15 other North Carolina counties since then.

In North Carolina, eight bat species are susceptible to the disease, but the largest population declines have occurred in four species — northern long-eared, little brown, tricolored, and Indiana bat. The other four species affected by WNS are big brown, gray, eastern small-footed, and southeastern bat. Why some bat species are hit harder by WNS than others is still a mystery to biologists, but several hypotheses are currently being tested.



*Tri-colored bat with obvious signs of WNS.
Photo: Katherine Etchison*

Biologists know that this fungus that causes WNS, called *Pseudogymnoascus destructans* (Pd) only grows in a narrow temperature range, between 41-56 degrees Fahrenheit, in high-humidity conditions like those of a cave/mine so only cave hibernators are at risk. But some species that hibernate in caves are not affected even though they hibernate in caves where other species have the disease.

Neither the disease nor the fungus that causes it has been detected in any of the so-called tree roosting bats, which typically roost individually in or on trees in the warmer months and either migrate south for the winter or remain in the area, hibernating individually outside of caves. The disease has not been detected in the two species of big-eared bats that occur in North Carolina, including the federally endangered Virginia big-eared bat.

How You Can Help:

While WNS is transmitted primarily from bat to bat, it can be spread to new sites by humans who inadvertently carry fungal spores from cave to cave on their shoes, clothing and caving gear. The Commission encourages people to help bats by staying out of caves and mines. Linville Caverns, the only commercial cave in western North Carolina, is helping to reduce the spread of WNS by asking visitors to disinfect footwear after visiting the cave by briefly stepping onto a special decontamination mat outside the cave