

# News Release



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## White-nose Syndrome Confirmed at Fern Cave

The U.S. Fish and Wildlife Service (Service) has confirmed the presence of white-nose syndrome at Fern Cave National Wildlife Refuge in Jackson County, Alabama. Fern Cave provides winter hibernation habitat for several bat species, and contains the largest documented wintering colony of federally listed endangered gray bats, with over one million gray bats hibernating there. The disease was confirmed in tri-colored bats that were collected at two entrances to the cave.

White-nose syndrome (WNS) has decimated bat populations across eastern North America, with mortality rates reaching up to 100 percent at some sites. First documented in New York in 2006/2007, the disease has spread into 22 states and five Canadian provinces. Bats with WNS may exhibit unusual behavior during cold winter months, including flying outside during the day and clustering near the entrances of caves and mines where they hibernate. Bats have been found sick and dying in unprecedented numbers near affected sites.

White-nose syndrome has been documented in seven hibernating bat species, including two federally listed endangered species, the Indiana bat (*Myotis sodalis*) and gray bat (*Myotis grisescens*). Significant disease-related mortality has been documented in many colonies of hibernating Indiana bats. Mortality in other species, including tri-colored bats, is also significant. While WNS is not currently known to cause mortality in gray bats, the detection of infected bats at Fern Cave is cause for concern.

“With over a million hibernating gray bats, Fern Cave is undoubtedly the single most significant hibernaculum for the species,” said Paul McKenzie, Endangered Species Coordinator for the Service. “Although mass mortality of gray bats has not yet been confirmed from any WNS infected caves in which the species hibernates, the documentation of the disease from Fern Cave is extremely alarming and could be catastrophic. The discovery of WNS on a national wildlife refuge only highlights the continued need for coordination and collaboration with partners in addressing this devastating disease.”

The infected tri-colored bats were discovered on winter surveillance trips, conducted by the U.S. Fish and Wildlife Service and members of the National Speleological Society (NSS) and Southeastern Cave Conservancy, Inc. (SCCi). Biologists observed white fungus on the muzzles, wings, and tail membranes of several tri-colored bats, leading them to collect specimens for analysis. The disease was diagnosed by histopathology at the Southeastern Cooperative Wildlife Disease Study (SCWDS) at the University of Georgia.

The gray bat, federally listed as an endangered species in 1976, occupies a limited geographic range in limestone karst areas of the southeastern United States. With rare exceptions, gray bats live in caves year-round. Gray bats live in very large numbers in only a few caves, making them extremely vulnerable to disturbance. Cooperative conservation measures, such as restricting human access to gray bat roosting sites, have been successful in helping gray bat populations recover in many areas.

The potential impact of WNS on gray bats is still unknown. Although no visible fungal growth was observed on hibernating gray bats during these winter surveys, lab testing detected the presence of fungal DNA on swabs submitted from several live gray bats.

Fern Cave NWR consists of 199 acres of forested hillside underlain by a massive cave with many stalactite and stalagmite-filled rooms. The cave has five hidden entrances with four occurring on the Refuge. One entrance is owned and managed by SCCi. Access is extremely difficult and has been described as “a vertical and horizontal maze” by expert cavers. Horizontal sections of the cave are known to be more than 15 miles long and vertical drops of 450 feet are found within. The partnership with NSS and SCCi has been critical to monitoring the gray bat population at Fern Cave.

"Since discovering Fern Cave in 1961, members of the National Speleological Society have worked hard to protect it," said Steve Pitts, SCCi Fern Cave Property Manager. "For over 30 years, NSS members have also been key U.S. Fish and Wildlife Service partners in the effort to protect Fern's gray bat colony. It's a huge blow to all of us who love Fern Cave to know that WNS is now there. We hope the gray bats will survive."

The Service is leading a cooperative effort with federal and state agencies, tribes, researchers, universities and other non-government organizations to understand and manage the spread of WNS. In addition to developing science-based protocols and guidance for land management agencies and other partners to minimize the spread of WNS, the Service has funded numerous research projects to support and assess management recommendations and improve our basic understanding of the dynamics of the disease.

While bat-to-bat transmission is presumed to be the primary method the disease is spread, scientists believe that humans can inadvertently transport fungal spores on clothing, footwear, and gear that has been in infected sites. Fern Cave is not open for general public visitation; the entrances on the Refuge are closed to protect gray bats, and the entrance on SCCi managed land requires a permit. Researchers and permitted cavers entering Fern Cave take great care to reduce the risk of transporting fungus into or out of the cave, and minimize disturbance of roosting bats.

Cave explorers and researchers should check with the appropriate land manager before visiting any cave, as many caves are closed to protect hibernating bats. Decontamination of clothing, footwear and gear can reduce risk of accidental transmission of fungal spores. For the most up-to-date decontamination protocols, please visit the national WNS website, [www.WhiteNoseSyndrome.org](http://www.WhiteNoseSyndrome.org).

*The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. We are both a leader and*

*trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals, and commitment to public service.*

*For more information about white-nose syndrome, visit [www.fws.gov/whitenosesyndrome](http://www.fws.gov/whitenosesyndrome). Connect with our Facebook page at [www.facebook.com/usfwswns](http://www.facebook.com/usfwswns), follow our tweets at [www.twitter.com/usfws\\_wns](http://www.twitter.com/usfws_wns), and download white-nose syndrome and bat photos from our Flickr page at <http://www.flickr.com/photos/usfwshq/collections/72157626455036388/>.*

*For more information about the federally listed endangered gray bat, visit [http://www.fws.gov/midwest/endangered/mammals/grbat\\_fc.html](http://www.fws.gov/midwest/endangered/mammals/grbat_fc.html).*

*For more information about Fern Cave and the Wheeler National Wildlife Refuge complex, visit <http://www.fws.gov/ferncave/>.*

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