

Frequently Asked Questions About White-Nose Syndrome:

Credit: U.S. Fish and Wildlife Service

What is White-Nose Syndrome (WNS)?

Hibernating bats in the northeastern U.S. are dying in record numbers from an unknown cause. WNS is named for the white fungus evident on the muzzles and wings of affected bats. WNS was first documented at four sites in eastern New York in the winter of 2006-07. WNS has spread rapidly to multiple sites in the Northeast and East.

Researchers associate WNS with a newly identified fungus (*Geomyces* sp.) that thrives in the cold and humid conditions characteristic of many caves and mines used by bats. The fungus could be responsible for the bat deaths, or it could be secondary to the cause.

Bats affected with WNS do not always have obvious fungal growth, but they may display abnormal behavior within and outside of their hibernacula (caves and mines where bats hibernate during the winter).

How is WNS transmitted?

WNS is believed to be transmitted from bat to bat. However there is a strong possibility that it may also be transmitted by humans inadvertently carrying the causative agent from cave to cave on their clothing and gear.

Where has WNS been observed?

WNS has been documented in New Hampshire, Vermont, New York, Massachusetts, New Jersey, Connecticut, Pennsylvania, West Virginia and Virginia. This list of states is expected to increase over time. WNS has NOT been documented in New Mexico or Arizona

What is the effect of WNS on bats?

As of April 2009, some 400,000 bats have died from WNS. Several hibernacula in New York, Massachusetts, Connecticut and Vermont have experienced 90-100% mortality. However, there may

be differences in mortality by site and by species within sites.

What are signs of WNS?

The following unusual appearances or behaviors may be signs of WNS:

- White fungus, especially on the bat's nose, but also on the wings, ears, or tail;
- Emaciated or dehydrated bats leaving hibernacula;
- Bats flying outside during the day in temperatures at or below freezing;
- Bats clustered near the entrance of hibernacula; and
- Dead or dying bats on the ground or on buildings, trees or other structures.

Hibernating bats may have other white fungus not associated with WNS. If a bat with fungus is not in an affected area and has no other signs of WNS, it may not have WNS.

What species of bats are affected?

Tri-colored, little brown, northern long-eared, big brown, small-footed, and the endangered Indiana bats have died from WNS. Big brown bats are typically found in lower numbers in the affected sites, and few have been found with signs of WNS. In addition to the Indiana bat, WNS has reached sites that contain the endangered Virginia big-eared bat (related to the western Townsend's big-eared bat). While no Virginia big-eared bats have exhibited signs of WNS yet, the species is being closely monitored.

Does WNS pose a risk to human health?

Thousands of people have visited affected caves and mines since WNS was first observed, and there have been no reported illnesses attributable to WNS. WNS continues to be studied, but currently there are no known risks to humans from contact with WNS-affected bats. However, we urge taking precautions and not exposing yourself unnecessarily. Biologists and researchers use protective clothing when entering caves or handling bats in the Northeast.

White-Nose Syndrome In Bats: Information and Guidelines for Cave Visitors in New Mexico & Arizona



Little brown bat with white-nose syndrome in Greeley Mine, Vermont, March 2009. Note visible fungus on muzzle and folded wings. Marvin Moriarty/USFWS



Little brown bat with fungus on dorsal surface of wing and tail membranes, Oct. 2008, New York. Ryan von Linden /New York Department of Environmental Conservation

What should you do if you find dead or dying bats in winter or early spring, or if you observe bats with signs of WNS?

Do not handle any bats (living or dead)!

If you have a camera, photograph the bats (including close-up shots if possible) and send the photograph and report to the state wildlife or U.S. Fish and Wildlife Service (FWS) representative below.

If you see a small plastic or metal band on the wing, or a small device with an antennae on the back of a bat (living or dead), contact the state wildlife agency or FWS representative listed below.

Exit the cave immediately, avoiding contact with other bats, and do not enter other caves prior to decontaminating your clothing and gear following the FWS WNS decontamination procedures (see below for website).

In New Mexico, contact:

Jim Stuart
NM Department of Game and Fish
(505) 476-8107
james.stuart@state.nm.us

In Arizona, contact:

Angie McIntire
Arizona Game and Fish Department
(623) 236-7574
amcintire@azgfd.gov

You can also e-mail FWS biologists at:

WhiteNoseBats@fws.gov, or contact the following local FWS biologists:

FWS – Ecological Services New Mexico
Lynn Gemlo – (505) 761-4726
Lynn_Gemlo@fws.gov

FWS – Ecological Services Arizona
Bill Austin – (928) 226-0614, ext. 102
Bill_Austin@fws.gov

What are federal and state agencies doing to find the cause and a cure for WNS?

An extensive network of state and federal agencies is working to investigate the source, spread, and cause of bat deaths associated with WNS and to develop management strategies to minimize the impacts of WNS.

The overall WNS investigation has three primary focus areas: research, monitoring/management, and outreach. Winter surveys are being conducted to document and track affected sites. Local cavers and cave owners are assisting in targeting potential sites for surveys and protective measures. Funding is being secured to continue research on the spread and management of WNS.

What should cave visitors know and do?

Cave visitors and cavers should do the following:

- Stay out of all caves in the affected states and adjoining states to help slow the potential spread of WNS.
- Stay out of any caves, mines, or passages containing hibernating bats to minimize disturbance to the bats.

- Observe all cave closures and advisories in all states. Many states have instituted closures and issued advisories beyond normal permanent and seasonal closures. Prior to caving, check the USFWS WNS website for updated closures and advisories.

In NM or AZ, please follow these additional recommended procedures:

Because clothing, footwear and gear used in caves in affected states within the past **2 years** could pose a risk of spreading WNS, FWS advises that these items not be used again in caves anywhere, and that these items not be transported until the cause of WNS is identified and the effectiveness of decontamination procedures can be evaluated. Follow FWS' recommended containment and decontamination procedures found at:

<http://www.fws.gov/northeast/whitenosemessage.html#containment>

Please help us in our efforts to conserve bats, and we ask for your continued cooperation and assistance as WNS is addressed.

New Mexico Bat Working Group and Arizona Bat Resource Group

For more information on WNS, see the following websites:

U.S. Fish and Wildlife Service

http://www.fws.gov/northeast/white_nose.html

U.S. Geological Survey

http://www.nwhc.usgs.gov/disease_information/white-nose_syndrome/

National Speleological Society – WNS page
<http://www.caves.org>