

**To: Natural Resource/Conservation Managers**  
**From: USGS National Wildlife Health Center**  
**Title: Description of Fungus Associated with White-Nose Syndrome**  
**Date: November 10, 2008**

A newly described, cold-loving fungus has been linked to white-nose syndrome (WNS), a condition associated with the deaths of over 100,000 hibernating bats in the northeastern United States. The findings were published October 30th on Science magazine's Web site: <http://www.sciencemag.org/cgi/content/abstract/1163874>. To view the article, go to [http://www.nwhc.usgs.gov/disease\\_information/white-nose\\_syndrome/](http://www.nwhc.usgs.gov/disease_information/white-nose_syndrome/).

The fungus – a white, powdery-looking organism – is commonly found on the muzzles, ears and wings of afflicted dead and dying bats, though researchers have not yet determined that it is the only factor causing bats to die. Most of the bats are also emaciated, and some of them are reported to leave their hibernacula prematurely, possibly to seek food that is not available during the winter.

Through a multi-agency, collaborative research effort, the fungus was isolated in April 2008, and identified as a previously undescribed member of the genus *Geomyces*. The research was conducted by U.S. Geological Survey scientists in collaboration with the New York State Department of Environmental Conservation, the New York State Department of Health, Cornell University and others. *Geomyces* is a group of fungi that live in soil, water and air, and some *Geomyces* species are capable of growing and reproducing at refrigerator-level temperatures.

Researchers don't know yet if WNS emerged because this newly identified fungus was introduced into caves or whether the fungus already existed in caves and began infecting bats after they were already weakened from some other cause.

WNS was first seen in New York during the winter of 2006. Since then, populations of cave-hibernating bats have been drastically declining in New York, Vermont, Massachusetts and Connecticut. Affected species include little brown myotis, northern myotis, tricolored bats, Indiana myotis, small-footed myotis, and big brown bats.

**Information on recommended procedures to prevent the possible spread of white-nose syndrome can be found at <http://www.fws.gov/northeast/whitenosemessage.html#containment> and <http://www.fws.gov/midwest/Endangered/mammals/inba/Batailment.html>.**

To report or request assistance with wildlife mortality events/health issues, visit [http://www.nwhc.usgs.gov/mortality\\_events/reporting.jsp](http://www.nwhc.usgs.gov/mortality_events/reporting.jsp) or contact the USGS National Wildlife Health Center (Dr. Krysten Schuler, 608-270-2447, [kschuler@usgs.gov](mailto:kschuler@usgs.gov), Dr. Anne Ballmann, 608-270-2445, [aballmann@usgs.gov](mailto:aballmann@usgs.gov) or Nathan Ramsay, 608-270-2443, [nramsay@usgs.gov](mailto:nramsay@usgs.gov)).

**Web sites for additional information:**

USGS National Wildlife Health Center: [http://www.nwhc.usgs.gov/disease\\_information/white-nose\\_syndrome/](http://www.nwhc.usgs.gov/disease_information/white-nose_syndrome/)

U.S Fish and Wildlife Service: [http://www.fws.gov/northeast/white\\_nose.html](http://www.fws.gov/northeast/white_nose.html)

Bat Conservation International: <http://www.batcon.org/home/>

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