



# CAVE CONNECTION

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## Did You Know?

Indiana has 14 caving organizations recognized by the National Speleological Society (NSS). Find the list, along with contact info. at: [www.caves.org](http://www.caves.org). Click the link "Find a Local Caving Club" and select Indiana.

The longest cave in Indiana is Binkleys Cave with a total of 24.07 miles in length. The cave was discovered in the 1930s when a sinkhole pond collapsed.

Indiana's second longest cave is Lost River Cave, totaling around 21 miles. However, this cave was only discovered in 1998, by the St. Joseph Valley Grotto from Elkhart, Indiana. Both caves claim a title as one of the 25 longest caves in the United States.

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### Cave Connection Staff

Dave Haun - Project Director  
Kim DeCero - Editor

## Understanding White-Nose Syndrome

### U.S. Bat Populations Continue to Decline as Deadly Fungus Spreads

WNS is a new disease that is causing the most precipitous decline of North American wildlife in the past century. It has killed more than one million bats in less than four years and threatens to devastate bat populations across the continent.

According to the U.S. Fish and Wildlife Service, February of 2006 was when White-Nose Syndrome (WNS) was first observed by a caver in a single cave about 40 miles west of Albany, New York. While photographing bats, the caver noticed an "unusual white substance" covering the muzzles of some of the bats, while several others were dead on the ground.

The next winter, White-Nose Syndrome was officially identified by the New York

Department of Environmental Conservation biologists, sparking a mission to understand the fungus, how it kills bats, and if perhaps there is anything that can be done to stop the spread of the deadly fungus and the devastation to bat populations.

WNS is identified as a cold-loving white fungus typically found on the faces, ears, and wings of infected bats, disrupting their hibernating cycle. These bats exhibit uncharacteristic behaviors such as:

- Flying around during the day
- Flying during cold winter weather
- Hibernating in cold places of a cave

These behaviors, coupled with a compromised immune system, lead to reduced fat stores and ultimately starvation. Bats sleep by day and hibernate through winter for survival as their only food source (insects) cannot be found during these times.



© Alan C. Hicks, New York Department of Environmental Conservation

Photo courtesy of Bat Conservation International.

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## Keeping Private Cave Owners Informed

Welcome to the first edition of *Cave Connection*, a new tool connecting Indiana's Private Cave Owners with the state's caving community. Published annually, this free newsletter aims to keep Private Cave Owners informed and updated about the dynamic world of caving, karst, and their resident life-forms. The project is being headed up by the Central Indiana Grotto, with support and input from cavers and caving groups across the state. As we work together, your input is welcome and encouraged. Feel free to contact us with any feedback you may have. We look forward connecting more with you!

Questions or Comments?  
Please feel free to contact us!

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# Houghton Hole Cleanup Project

*Indiana cavers embarked on a year-long effort to help Private Cave Owner Jim Houghton remove decades of trash from a pit on his land, dumped by previous owners.*

The cave was originally called Big Trash Can, coined decades ago by Leo Schotter, one of Indiana's earliest cave explorers. He placed it on the first Indiana cave list with a vague location and nothing more.

In 2007, during the planning stages of the NSS Convention, Private Cave Owner Jim Houghton contacted Central Indiana Grotto (CIG) members Dave Haun and Bob Vandeventer to look at a pit on his land. Jim had retired to a beautiful property near Milltown, IN, where he built a nice cabin nestled into a wooded ridge.

Jim's land turned out to be the location of 'Big Trash Can,' a 40-foot deep pit filled with years of garbage and waste, from household trash to car parts and building materials. Numerous rigging devices had been installed by previous owners for gaining access to the pit. A rope ladder with wooden rungs, an aluminum extension ladder, and a hanging rope were found, in addition to an electronic lift with steel-cable rigging and a cage; none of which were in good enough condition to use.

The project was headed up by the Central Indiana Grotto, lead by Brenda Shultheis. In 2008 and 2009, Indiana cavers worked together to clean up the trash-filled pit and draft the first map.

Throughout the project, Jim and some cavers spent many days exploring the karst features on this land, resulting in a better understanding of his property and the building of a friendship among common folks.

A huge team effort was necessary for such a project to be successful. Expenses were funded by Central Indiana Grotto, Indiana Karst Conservancy, Eastern Indiana Grotto, Bloomington Indiana Grotto, Harrison Crawford Grotto, and private individuals. Many people volunteered their time in a continued effort to protect and restore Indiana's caves, while growing the connection between private cave owners and the caving community.



Before



After

Photos by Brenda Shultheis

## Find Support within Caving Organizations

As a wonder of the world, caves are considered to be one of the most precious and unique places on earth. There are many people and organizations working hard to protect these rare environments and educate the public about their creation, wonders, and beauty, as well as their unique ecosystems and life-forms that dwell within. These organizations are also here to support Private Cave Owners. Please feel free to contact any of the non-profits dedicated to protecting caves and karst, while promoting responsible and safe activities.

### Central Indiana Grotto (CIG)

Chairman: Ron Adams  
Phone: (317) 490-7727  
E-mail: caveronrope@aol.com  
Web Site: <http://cig.caves.org>

This local chapter of the National Speleological Society is based in Indianapolis, Indiana and has been pursuing cave exploration and preservation for over 50 years.

### Indiana Karst Conservancy (IKC)

President: Dr. Julian Lewis  
Phone: (812) 967-7592  
E-mail: lewisbioconsult@aol.com  
Web Site: <http://ikc.caves.org>

The IKC heads up the management, protection, and acquisition of the karst areas in southern Indiana, in addition to supporting research and education efforts throughout the state.

### Indiana Cave Survey (ICS)

President: Dave Everton  
Phone: (812) 824-4380  
E-mail: [deverton@indiana.edu](mailto:deverton@indiana.edu)  
Web Site: <http://ics.indiana-caves.org>

The ICS is dedicated to cataloging all cave and karst features in the state, while encouraging surveys, drafting accurate cave maps, and exploration for a better understanding of caves.

# Cavers Take Action Against WNS

No one cares and knows more about caves than cavers. Many cavers dedicate their lives to the exploration, research, education, and preservation of caves, karst, and their resident life-forms.

Indiana's caving community understands the serious nature of White-Nose Syndrome and the potential threat it poses to our bats. Therefore, Indiana cavers have come together in an effort to protect the bats and educate the public and Private Land Owners about this growing concern.

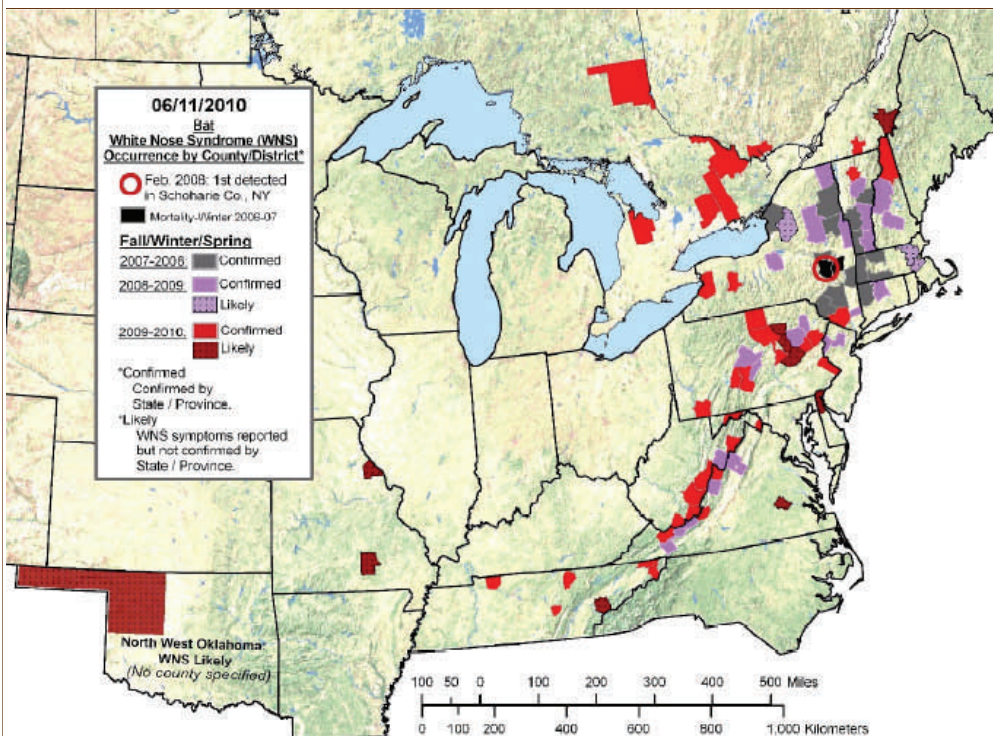
Cavers are committed to respecting agency cave closures and advisories and adhere to the U.S. Fish & Wildlife Service's recommended decontamination procedures, which involves cleaning and disinfecting all clothing, boots, and equipment after every cave visit (*as shown on the right*).

Bat hibernacula, places where large numbers of bats gather and hibernate, have been considered closed since WNS was identified as a serious issue.

The map below shows White-Nose Syndrome has not been found in Indiana, or direct surrounding states, but some caves managed by the local agencies have been closed as an additional precautionary measure. However, all commercial caves are open and operating as usual.

Cavers meet on a monthly basis to continue discussions and progress on key initiatives and activities. White-Nose Syndrome will continue to be in the spotlight as we learn more and adapt to the changing circumstances. Meetings are open to visitors and those interesting in helping with effort. Feel free to stop by, learn more, and ask any questions you may have.

This map shows the states where bats have been found with White-Nose Syndrome, or are likely to have bats with the fungus, distinguished by color. *Provided by the U.S. Fish & Wildlife Service.*



## The Process of Decontaminating after every Cave Visit:

Responsible cavers adhere to the following guidelines to remove all dirt and debris from clothing, boots, and equipment in an effort to avoid spreading the fungus attributed to WNS.

Remove all soil and organic material from boots, clothing, and equipment.

Wash clothing and any appropriate equipment in washing machine using the hottest water cycle with laundry detergent. Dry in a dryer or let air dry.

Disinfect any equipment that can be submersed in a solution with an appropriate & compatible disinfectant such as Lysol® All-purpose Professional Cleaner or diluted bleach solution. Keep submersed for 10 minutes, then rinse and air dry.

Disinfect any equipment that cannot be submersed by applying an appropriate & compatible disinfectant to the outside surface, such as those identified above. Keep on the surface for 10 minutes, then rinse and air dry.

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## Understanding White-Nose Syndrome



*(Continued from page 1)*

White-Nose Syndrome continues to spread rapidly throughout the eastern United States. Last winter, it spread 450 miles in a single winter and is now documented in 13 U.S. states and two Canadian provinces (Ontario and Quebec). Biologists fear the fungus will reach the largest colonies of endangered Indiana, Gray, Virginia, and Ozark big-eared bats this winter.

However, as of June 2010, WNS has not been found in Indiana or the neighboring states. While this is good news, there is no time to celebrate. There is still cause for concern as winter approaches, creating the ideal conditions for the fungus to spread.

Bat-to-bat transmission is considered to be the primary form of transmission. Laboratory experiments conducted by The United States Geological Survey's National Wildlife Health Center observed and documented the form of transmission.

Additionally, they found the fungus “in cave sediments collected from hibernation sites within the WNS-infected region of the U.S., indicating that environmental factors may play a role in the WNS transmission cycle.”

Therefore, cavers are adhering to the decontamination procedure outlined by the U.S. Fish & Wildlife Service following every cave visit and consider all bat hibernacula, or caves with large quantities of bats, closed.

By staying informed and working together, we will begin to gain a better understand White-Nose Syndrome. Visit the links below to get the most current news on WNS:

- U.S. Fish & Wildlife Service  
[www.fws.gov/WhiteNoseSyndrome](http://www.fws.gov/WhiteNoseSyndrome)
- Bat Conservation International  
[www.batcon.org](http://www.batcon.org)

**Bat Facts:** A single colony of 150 big brown bats can protect local farmers from up to 33 million or more rootworms each summer.