



# What is Killing Our Bats? The Story Continues

## White Nose Syndrome

Something is killing hundreds of thousands of insect eating bats in the eastern U.S. as they hibernate in caves and mines. Bats are losing their fat reserves long before the winter is over and dying of starvation. The cause is unknown, but the affliction has been given the name "**White Nose Syndrome**" (WNS) because of the telltale white fungus growing on the noses of infected bats.



Little Brown bats with WNS on cave ceiling

**Cavers to help** - The caving community is asked to help monitor the distribution of White-Nose Syndrome (WNS) in Virginia by conducting entrance surveys at caves to look for unusual bat behavior. Bats affected by WNS often fly out of the caves during the day and dead bats can sometimes be found on the ground, or on rock faces, buildings, etc. near the cave entrance. This behavior is most evident later in the winter, so we suggest surveys be done between 13 Feb and 1 Apr. If you would be willing to conduct surveys, please complete and submit the data sheet at the following web site [http://www.dcr.virginia.gov/natural\\_heritage/karsthome.shtml](http://www.dcr.virginia.gov/natural_heritage/karsthome.shtml)

Or Google the VA Karst Program for more information

## Bats Are Dying from WNS

Mortality rates of 70-100% have been documented in many hibernacula found to have WNS.

## Transmission

Preliminary data from WNS infection studies conducted at NWHC suggest *G. destructans* can be transmitted from bat-to-bat in a controlled environment. This finding, coupled with the recently confirmed first case of WNS this fall from a bat collected on November 4, 2009 in Virginia, suggests that WNS transmission may occur during the fall bat swarm, as well as during hibernation.

## What is happening in Virginia

State and federal agencies and caving organizations are working together, to monitoring the spread of WNS in our state. As of March 1, 2010 bats with White Nose Syndrome have been found in 8 counties, Bland, Bath, Giles, Rockingham, Smyth, Tazewell, Highland and Craig.

## WNS and Endangered Bat Species in Virginia

Within range of Virginia Big-eared bat habitat  
Within 20 km of a Gray Bat cave  
Found in one Indiana bat hibernacula so far

## Management Plans for WNS in Virginia

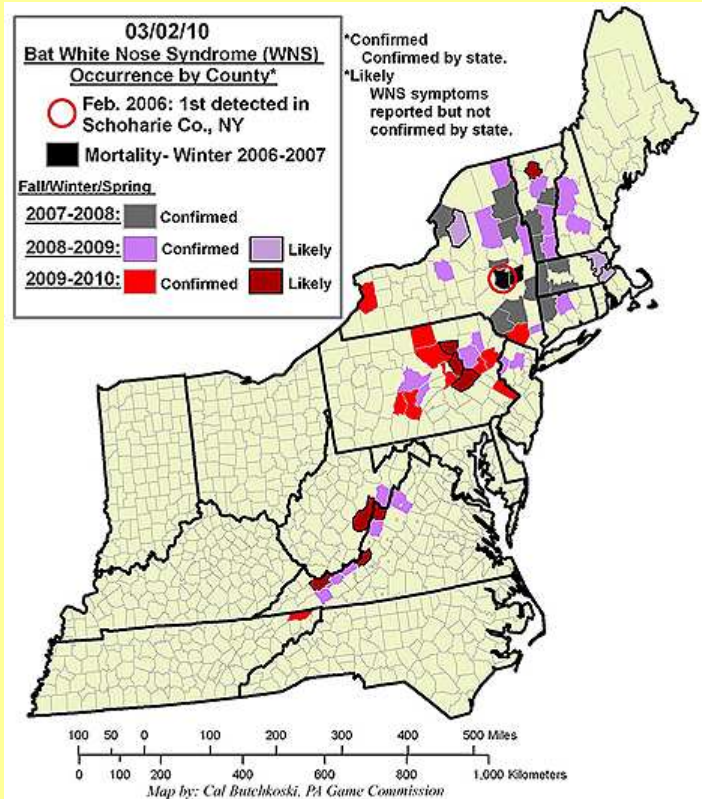
Monitor bats and cave habitats for spread of WNS throughout state

- Banded over 1000 bats at VA caves in 2009
- 550 of these banded bats were Gray bats from 5 summer roosts
- 95 of the banded Gray bats were recovered at one winter habitat in Tennessee in Jan. 2010
- Entrance surveys looking for unusual bat behavior
- Late winter / spring bat cave surveys in 2010



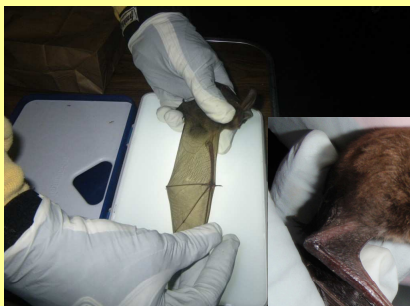
VA Big-eared Bat

**Bats Matter!** Bats are an essential, beneficial part of the ecosystem. Consuming over half their body weight in insects each night, bats reduce the need for insecticides and are the major predator of night-flying insects. Decimation of bat populations will cause a substantial ecological ripple effect, with far-reaching consequences.



**WNS doesn't only affect bats — it impacts our whole ecosystem.**

## Collecting Data



Observing wing condition



Measuring arm length



Gray bat with bands used for tracking

Information on this poster is from the USGS fact sheet "Wildlife Health Bulletin 2009-03" and the National Speleological Society WNS website. For more information on WNS see [www.caves.org/wns](http://www.caves.org/wns)

Poster by Carol Zokaides, DCR Education Coordinator, March 5, 2010

**You are asked to honor all cave closures and advisories for private and government land, and follow strict cleaning and decontamination procedures for caving clothing and equipment.**