

**DID YOU KNOW  
A WILDLIFE  
HEALTH CRISIS  
MAY AFFECT  
BATS IN B.C.?**

**SPECIAL  
POINTS OF  
INTEREST:**

**WNS is a fungal disease that kills hibernating bats.**

**WNS has killed over 6 million bats in Eastern North America.**

**WNS has not yet been detected in B.C.**

**People can spread WNS by inadvertently carrying disease spores on cloths and equipment.**



**Avoid entering caves or mines if your equipment has been used outside BC. Check WNS alerts.**

**Does WNS pose a threat to humans?  
No. There is no known risk to humans.**



# Going into caves and mines in B.C.?

## White Nose Syndrome Alert



BAT CONSERVATION FACT SHEET 2

MAY 2015

## What is White-Nose Syndrome (WNS)?

White-nose Syndrome (WNS) is a fungal disease that has been associated with mass die-off of hibernating bats in North America. The name refers to a white fungus that grows on the muzzles and bodies of bats found in mass die-offs since 2006. All North American bat species that hibernate are thought to be at risk.

WNS had been found east of the Mississippi in the United States and east of Manitoba in Canada. The fungus associated with WNS is called *Pseudogymnoascus destructans* (formerly *Geomyces destructans*). This morphologically distinct fungus is also known from across Europe, although bats there may be dying only at very low rates from the disease.

The fungus grows best in cold temperatures associated with bat hibernation. How WNS kills bats is still being investigated. Initial work suggested that bats die of starvation and dehydration due to repeated arousal to groom fungal growth during the winter. However, recent research indicates that this may be more complicated, with bats dying of physiological complications (acidosis).



*Little brown bats with White-Nose Syndrome, New York. Photo courtesy Nancy Heaslip, New York Dept. of Environmental Conservation.*

Transmission is not well understood; the disease spreads bat to bat, but humans can also play a role. Cavers, other recreationists such as geocachers, people frequenting mines, and bat biologists, may spread the disease through spores on boots, clothing, or equipment.

**Precautions need to be taken to minimize the risk of bringing WNS into B.C. (see over)**

## For more information:

U.S. Fish and Wildlife Service <http://www.whitenosesyndrome.org/>

Decontamination procedures for people entering mines/caves:

[http://www.cwhc-rcsf.ca/docs/WNS\\_Western\\_Transmission\\_Prevention.pdf](http://www.cwhc-rcsf.ca/docs/WNS_Western_Transmission_Prevention.pdf)

This fact sheet was produced by the B.C. Bat Action Team (**BC BAT**) in collaboration with BC MOE. BC BAT was formed in May 2009, by a group of biologists, government representatives, naturalists, educators and others who are concerned about the conservation of bats in B.C. For more information about B.C. BAT, contact [bcbats@gmail.com](mailto:bcbats@gmail.com) or visit: <http://www.bcbats.ca/index.php>



Ministry of  
Environment

### Did you know?

B.C. has the richest diversity of bats in Canada. Fourteen of the 16 species in B.C. are cave/mine hibernating species, and are susceptible to WNS. Bats are the slowest reproducing and longest-lived mammals for their size, making it difficult for a population



Little brown bats: single bat in center has white-nose syndrome. Photos courtesy of Ryan von Linden, New York Dept. of Environmental

### Key Contacts

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**Enquiry B.C.:** 1-800-663-7867  
(ask for regional species at risk biologist)

## What is the risk of WNS in B.C.?

### Ecological Cost

Bats are the primary consumers of night-time insects, and play an integral role in our ecosystem. Bats are important predators on insect pests. A mass die-off of bats is likely to have far-reaching effects on the ecosystem and industries such as forestry and agriculture.

Little brown bat: close-up of nose with fungus. Photo courtesy of Ryan von Linden.



### Impact on Bat populations

In the NE US where WNS was first found, all cave hibernating species of bats are affected (6 species). Several of these same bat species are found in B.C. Potentially, all cave and mine hibernating species in BC could be vulnerable to this disease (14 of 16 B.C. bat species).

Bats are long-lived mammals, with some species known to live 35+ years. Bats of most species have only one young per year; population sizes will therefore be slow to recover from a mass die-off. Popula-

tions are unlikely to recover in our lifetime. Some bat species extinctions in North America are predicted without effective conservation intervention. Prevention, and conservation measures are currently being investigated intensively.

### WNS risk of arrival

At the current rate of spread WNS is predicted to arrive in B.C. in the next decade. However, the disease may arrive sooner if transmitted by: 1. humans on clothing and equipment from WNS areas to bat habitats in BC; 2. stow-away bats in RVs or trucks travelling from eastern North America.

## What can you do to help?

### Prevention

The first step is to prevent human transmission of WNS to B.C. The best way to prevent accidental introduction is to **not go underground with any equipment or clothing used in WNS present areas in eastern North America or Europe.**

Carefully inspect your RV awnings and umbrellas before packing up camp — ensure you don't accidentally take bats for a ride across the country!

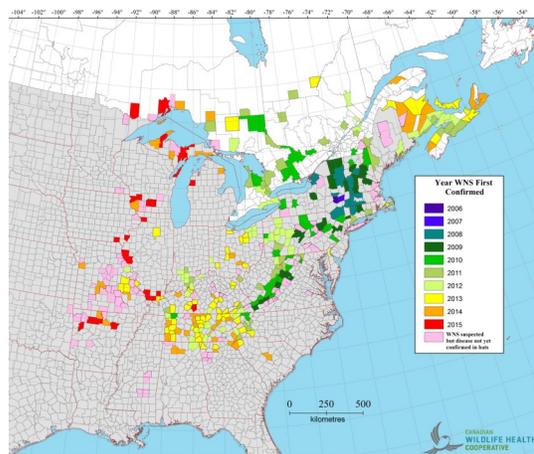
### Decontamination

Follow protocols on the BC Wildlife Health site: [www.gov.bc.ca/wildlifehealth](http://www.gov.bc.ca/wildlifehealth)  
For further information <http://www.whitenosesyndrome.org/topics/decontamination>  
**At a minimum** boots, clothing

and equipment should be washed in >60°C water for at least 15 minutes. Large equipment and non-submersible gear can be cleaned with 10% bleach solution, Clorox wipes, or other fungicide containing > 0.26% quaternary ammonium compounds (e.g. Zep Aqua San, Virkon, Aseptol2000 mixed to appropriate concentration).

### If you find sick/dead bats:

- Take photographs
- Note exact location, date and time.
- Immediately contact any of the people listed under Key Contacts (left column), in order of preference as some of them may be unavailable. Immediate attention is essential.



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