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 been detected east of Manitoba.

WNS has not yet been detected in B.C.

People can spread the disease on clothes, equipment, boots and ropes used in caves in WNS areas outside BC.

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 SUMMER 2011

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.

As of Spring 2011, WNS had been found in east of the Mississippi in the United States and east of Manitoba in Canada. The newly discovered fungus associated with WNS is called *Geomyces destructans.* This morphologically distinct fungus is now known from countries across Europe, although bats do not appear to be dying there.

The fungus grows best in cold temperatures associated with bat hibernation. As the fungus grows, bats wake up from hibernation to groom their fur to fight off the fungus. Waking up and reentering hibernation uses up a lot of energy. Bats use up their winter fat reserves too quickly and die of starvation before spring.

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

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

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.fws.gov/WhiteNoseSyndrome/

Procedures and decontamination for recreationists, cavers, people entering mines/caves:

http://www.fws.gov/WhiteNoseSyndrome/cavers.html

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 or visit: http:\\bcbats.tripod.com.

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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 to recover from a die off.

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

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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. Populations are unlikely to recover in our lifetime, if ever. Some bat species extinctions in North America are anticipated.

WNS risk of arrival

At the current rate of spread WNS may be detected in B.C. in the next five or ten years or not at all if there is population separation between eastern and western bats. However, the disease may appear sooner through human transmission on clothing, boots, and other equipment from WNS infected areas to caves or mines in BC.

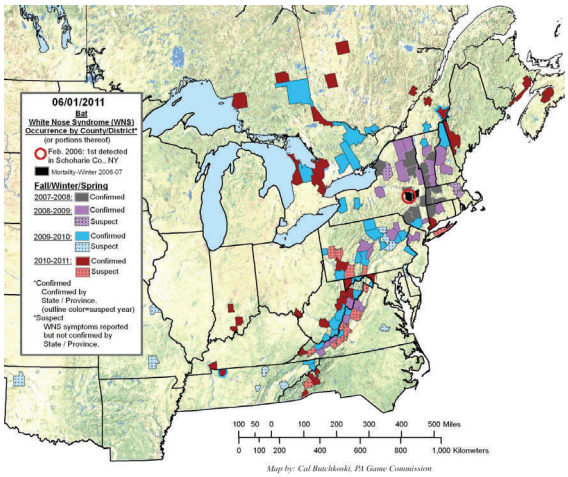
What can you do to help?

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 areas where bats roost in eastern North America or Europe.***

Decontamination

Detailed decontamination protocols for anyone going underground are available at the U.S. FWS website.
Visit the following site and click on the links:
http://www.fws.gov/WhiteNoseSyndrome/cavers.html



At a minimum boots, clothing and equipment should be washed in >50°C water for at least 15 minutes. Large equipment and non-submersible gear can be cleaned with 10% bleach solution, Lysol, or other fungicide containing quaternary ammonium compounds (e.g. Formula 409, Zep Aqua San) .

If you find sick or dead bats:

- Take photographs
- Note exact location, date and time.
- Immediately contact Dr. Schwantje or Dr. Govindarajulu (side-bar information) or the local Ministry of Environment biologist, Parks Office, Conservation Officer Service