

**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 inadvertently through spores on clothing and equipment, or stow-away infected bats.



Avoid entering caves or mines if your equipment has been used outside BC.

Does WNS pose a threat to humans?

No. There is no known risk to humans.

White-Nose Syndrome Alert

BAT CONSERVATION FACT SHEET

MARCH 2017

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 since 2006. All North American bat species that hibernate are thought to be at risk. There have already been extreme bat population declines in eastern North America. The first case west

of the continental divide was detected in March 2016.

The name refers to a white fungus that grows on the muzzles and bodies of bats. The fungus is called *Pseudogymnoascus destructans*. This morphologically distinct fungus is known across Europe and Asia, where bats live with low levels of the fungus, without widespread mortality.

The fungus grows best in cold temperatures associated with bat hibernation. WNS kills bats through various physiological and physical means: wing damage, respiratory acidosis, and starvation and dehydration due to repeated arousal to groom fungal growth during winter.

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. Accidental translocation of infected bats via long-haul transport vehicles may also spread the disease.



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

What does WNS look like?

Bats with WNS exhibit some or all of the following symptoms (descriptions adapted from USGS, National Wildlife Center):

- White, powdery fungus seen around the muzzle, ears, wing/limbs, and/or tail;
- Excessive/unexplained mortality at the winter hibernacula;

- Thin and/or dehydrated and furless areas appear wrinkled and flaky ;
- Delayed arousal from torpor following disturbance;
- Aberrant behaviours (e.g. found on ground inside or outside the hibernaculum, roosting near hibernaculum entrance, increased activity outside the hibernaculum during winter,

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



Fungal growth on ear. Photo courtesy of Greg Turner, Pennsylvania Game Commission

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://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 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

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. Populations 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

WNS has recently been detected in Washington State. This significantly increases the risk of WNS appearing in BC either by direct bat to bat contact, human-mediated transport (e.g. stowaway bats) or via spores carried on humans and equipment from WNS areas.

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 positive or suspect areas in North America or Europe/Asia.**

Carefully inspect your RV awnings, 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: <http://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-health/wildlife-diseases/white-nose-syndrome>
For further information visit: http://www.cwhc-rccsf.ca/wns_resources.php

At a minimum boots, clothing and equipment should be washed in >55°C water for at least 20 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 a sick/dead bat or observe a bat flying during the day:

- Take photographs
- Note exact location, date and time.
- Never directly handle bats as bats can carry rabies, a fatal disease.
- Immediately contact the B.C. Community Bat Program to report your bat observation at:

1-855-922-2287
OR
info@bcbats.ca



For more information:

B.C. Community Bat Program: www.bcbats.ca

US Fish and Wildlife Service: www.whitenosesyndrome.org

Canadian Wildlife Health Cooperative: <http://www.cwhc-rccsf.ca/wns.php>