

Bat Signal to Batman!

SINCE SPRING 2016, bats have received broad media attention in BC due to the detection of a disease called White-nose Syndrome (WNS) outside of Seattle, Washington. WNS, a disease that predominantly kills hibernating bats, was first identified in a cave in New York State in 2006. It has since spread, and WNS, or the spores that cause WNS, have been detected in 32 US states and 5 Canadian provinces. WNS is caused by a cold-loving fungus, *Pseudogymnoascus destructans*, that typically kills >80% of bats at a hibernaculum. Since its discovery, WNS is estimated to have killed >6 million bats in North America. In response to this threat, COSEWIC recently listed three species as endangered in Canada, two of which are found in BC: Little Brown Myotis (*Myotis lucifugus*), and Northern Myotis (*M. septentrionalis*). Human transmission is suspected to be the original source of the fungus and the reason for its recent detection on the west coast: fungal spores may have been introduced from clothing or shoes, or by infected bat(s) translocated in a camper, awning, or long-distance cargo shipping vehicle. There is currently no cure for WNS and no known method to safely eliminate it from bat winter roosts in caves or mines.

The Province of BC in partnership with the Canadian Wildlife Health Cooperative (CWHC) and the US Fish & Wildlife Service have developed decontamination protocols to help slow the spread of fungal spores. In addition to following these protocols, human-mediated transmission of the fungus can be minimized by: 1) not using any gear that was used in caves or mines in WNS-affected areas, 2) using approved decontamination protocols for decontaminating boots and gear used in any underground habitats when moving between cave systems or mines, and 3) ensuring bats are not inadvertently transported by vehicles.

The Ministry of Environment (MoE) also recently released Best Management Practices (BMPs) for proponents and individuals working or recreating in bat habitat. Four chapters have been released to date. Chapter 1 is introductory,

What can you do?

- > Report dead bats to the BC Wildlife Health Program. You may be asked to collect dead bats for testing (always use gloved hands when handling bats and record accurate location information).
- > Report any groups of bats, roost sites or hibernation sites to the BC Community Bat Program.
- > Use fungal decontamination protocols if working or recreating in mines or caves during winter.
- > Refer to [BMP documents](#) when working and recreating in areas that may affect bats or their habitat.

... serving as a background document for the other chapters, with information included on the biology and ecology of the bat species of BC. Chapter 2 provides guidelines for the mining industry to minimize impacts on bats and their habitat when opening, re-opening, or closing a mine. Chapter 3 provides guidelines for those working or recreating in and around cave and crevice habitat (e.g., rock climbers, cavers, geocachers). Chapter 4 provides guidelines for proponents developing a wind energy project, monitoring existing turbines, and mitigating impacts post-construction. These BMPs are

Resources:

- > Information and latest news about bats in BC and information about community bat projects: www.bcbats.ca.
- > If you have questions about WNS please contact Dr. Helen Schwantje, or Dr. Purnima Govindarajulu, RPBio, with the BC government: <http://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-health>.
- > Information about WNS: www.whitenosesyndrome.org and <http://www.cwhc-rcsf.ca/wns.php>.
- > BMPs for bats in BC: <http://www.env.gov.bc.ca/wld/BMP/bmpintro.html#second>.
- > Decontamination protocols: <http://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-health/wildlife-diseases/white-nose-syndrome>.
- > Submit wildlife incidental observations: <http://www.env.gov.bc.ca/wildlife/wsi/index.htm>.

... based on the best available information and will be updated as additional information becomes available. BMPs are comprehensive and provide as much quantitative guidance as possible; however, recommendations are not necessarily universal and variations may be warranted. Proponents should seek advice from a qualified professional with specific bat knowledge, training, and experience when implementing the BMPs and/or determining the need for modifications in response to project components.

Acknowledgements

This article benefited from comments by: Purnima Govindarajulu, PhD, RPBio; Susan Holroyd, MSc; Cori Lausen, PhD; and Fawn Ross, RPBio. 

Respectfully submitted,
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