



”Here in western North America, bats behave differently in winter than they do in the east, and so we are working on a disease treatment that will work in the west, but help bats across the continent,” says Dr. Lausen.

The 3-year project is funded in part through a \$150,000 grant from the [Bats for the Future Fund](#), a competitive grant program that supports the development of treatments for WNS to promote the survival of bats in North America.

*Pseudogymnoascus destructans*, the pathogen responsible for WNS, was first found on hibernating bats in New York in 2006. Known simply as Pd, it has since spread to 33 states and five Canadian provinces, and killed more than 6 million bats.

Pd thrives in cold, damp places, which makes the caves and mines where bats hibernate a perfect climate for its spores to grow. The fungus irritates the bats much in the way that athlete’s foot irritates a human, causing them to wake and use energy that they need to survive the winter hibernation period. In the colder months, with food scarce, foraging in the cold often means death from starvation and exposure for these bats.

Probiotics fight off disease-causing microbes in humans and the scientists feel they can apply the same principle to bats. “To date, my lab has isolated 14 bacteria that inhibit the growth of the fungus,” says Dr. Cheeptham. “These microorganisms already occur naturally on some bat’s wings.”

”Unlike in eastern caves, where large numbers of bats overwinter together, western caves and mines are largely inaccessible in winter, and most have been found to house few bats,” says Dr. Lausen. “So we are taking a unique approach to treat bats before they leave their summer roosts, many of which are in buildings widespread across the west.”

The research team will work with the South Coast Bat Conservation Society in observing bats prior to and after the prophylaxis/inoculation begins. With help from Microgrants for Microbats, a probiotic applicator will be developed and deployed at a maternity roost in Vancouver. As WNS moves into the city (as is expected within the next year or two), the scientists will monitor the survival of Vancouver’s treated bats versus that of bats from the surrounding untreated roosts.

For more information on this and other western Canada bat projects, visit [\[https://www.wcscanada.org/Wildlife/Bats.aspx\]](https://www.wcscanada.org/Wildlife/Bats.aspx)

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