



White-nose Syndrome (WNS)



What is WNS?

WNS is an emerging fungal disease of bats in North America caused by the fungus *Pseudogymnoascus destructans* (Pd). First discovered in New York in 2006, it has since spread across North America. This disease has killed billions of bats since its discovery creating massive population declines and local extinctions.

Where is WNS found?

Pd is found endemically in Europe and Asia, but does not cause mass mortalities as seen in the U.S. It is believed that bats in Europe and Asia have evolved with Pd and are able to tolerate the fungus to some extent. The fungus was likely transported to the U.S. through anthropogenic sources and is now established in 33 states and 7 Canadian provinces. WNS was discovered at Fort Laramie, WY in 2018.

How is it spread?

Pd can be spread directly from bat to bat. It can also survive and grow in the environment, and from there spread from hibernacula substrates directly to bats. The fungus can also be spread from one location to another by fomites such as caving gear, shoes, and clothing.

What are some clinical signs of disease?

Clinical signs can include lethargy, anorexia, white fuzzy growths typically on head and wings, and abnormal behaviors such as flying during the day. Clusters of dead bats outside in winter, at the entrance or inside caves and mines is an indicator of WNS.

What species are affected?

There have been 12 species of bats found to be infected with WNS and showing clinical symptoms. This includes 2 endangered species, the Grey bat and Indiana bat, and one threatened species, the Northern long-eared bat. Six other species of bats have been found with Pd but not displaying disease symptoms.

How does this disease affect me?

This disease does not affect humans directly but the impacts on bat populations have major economic consequences. Bats contribute billions of dollars annually in agricultural pest control, pollination and seed dispersal. Bats also play an important role in tourism, education, and research.

Information for outdoor recreationists:

It is important to disinfect all gear and clothing after recreating in or near caves and mines. Report any suspicious bat behavior or discovery of dead bats to your local biologist.

For additional information on white-nose syndrome or any other wildlife disease, please contact the WGFD Wildlife Health Laboratory at 307-745-5865.