

Researchers find potentially deadly strain of fungus for amphibians on PEI

A team of researchers from UPEI and the Canadian Cooperative Wildlife Health Centre (CCWHC) have found a potentially deadly strain of fungus for amphibians on Prince Edward Island. *Batrachochytrium dendrobatidis*, more commonly known as chytrid fungus, is blamed for the extreme decline or extinction of more than 200 species of frogs and toads around the world. “We started this summer asking one question: do we have this fungus on Prince Edward Island?” says Natacha Hogan, assistant professor of Biology and associate fellow of the Canadian Rivers Institute. “The first frog we collected this summer had it. That answered our first question, but it created dozens of new ones.”

Maria Forzan, Wildlife Pathologist at AVC for CCWHC, Atlantic Region, says chytrid fungus was first discovered in the late 1990s by researchers in Central America. The fungus has since spread to Australia, South America, and North America.

“Chytrid causes a disease in the skin of frogs and toads called chytridiomycosis,” explains Forzan. “No one knows yet how the disease kills, but we do know it thickens amphibians’ skin, interfering with their ability to balance their electrolytes, and possibly even breathe. Amphibian skin is normally much more permeable than our own.”

Forzan and Hogan says it’s too soon to say what chytrid fungus means to the frogs and toads of Prince Edward Island.

“Just having the fungus here doesn’t mean it’s causing a problem,” says Hogan. “It may be the fungus has been here for decades and our frogs have adapted to it. But, it may also be selectively targeting one or two of our species of frogs. If that’s the case, it could lead to an extreme decline, or even extirpation of one or more of our frogs or toads.”

“One problem we face is there’s never been a comprehensive survey of frogs and toads on Prince Edward Island,” adds Forzan. “So we can’t say whether there’s been a decline in the population, or any change at all. But we can build on the survey data we gathered this summer. This is the start of long-term research of the Island’s amphibians.”

Hogan and Forzan’s team, which includes UPEI biologist Kevin Teather, and CCWHS’s Darlene Weeks, has created the Amphibian Health Research Network (AHRN). With funding from CCWHS, the PEI Wildlife Conservation Fund, and UPEI, they’ll help better understand how chytrid fungus behaves in a northern climate and what this means for the health of amphibians on PEI.