Deadly fungus threatens salamander species on Long Island

June 14, 2017 By Christopher Cameron christopher.cameron@newsday.com

A deadly fungal disease that threatens salamander species could harm the Eastern Hellbender, left, and the endangered Eastern Tiger salamander. (Credit: Buffalo Zoo / NYS Department of Environmental Conservation)

A team of scientists is warning of a new disease that threatens to exterminate species of salamander on Long island.

Batrachochytrium salamandrivorans, a fungal infection otherwise known as B.sal, has already exterminated entire populations of European salamanders since its discovery in 2010, and has the potential to undo conservation efforts in New York State to protect local wildlife from a similar disease, including the endangered tiger salamander on Long Island.

“In the areas of Europe where it has been documented, it wiped out the population that was infected. . . . We’ve seen this movie before,” said Elizabeth Bunting, a wildlife veterinarian at the Cornell University College of Veterinary Medicine. “It seems to be really pathogenic, really severe, in salamanders.”

The fungus infects an amphibian’s skin and its ability to breathe, eventually leading to suffocation. Scientists theorize that the disease originates from parts of Asia where hundreds of thousands of salamanders are exported each year to the United States and sold as pets.

Once a runaway pet salamander introduces the disease into the wild in North America, it would be almost impossible to contain, Bunting said. Vaccination programs and other methods of controlling diseases in domestic animals become impractical when applied to wildlife.

Bunting is part of a team of researchers at Cornell that is studying the effects on salamander populations of a similar disease already present in New York State, Batrachochytrium dendrobatidis (Bd). The population of Eastern Hellbenders, the only species of giant salamander in North America, has declined by 40 percent in New York State in the past decade as a result of the disease.

Cornell wildlife specialists are conducting surveillance for the disease in cooperation with the state Department of Environmental Conservation, Bunting said. However, finding the disease in salamander habitats may prove difficult, and it is possible the disease has already been introduced...
“It’s not something that you would just look at the animal and know that they had chytrid [fungus],” Bunting said. “It has to be tested and you have to confirm it. We have the test for the original disease, and we’re bringing online the test for the second disease, B.sal.”

Bunting urges any Long Island resident who finds a dead amphibian to report it to the DEC’s Regional Wildlife Office or the Wildlife Health Lab at Cornell for further testing.

< back to article