TECH TIMES

# Skin-eating fungus Batrachochytrium salamandrivorans threatens to wipe out salamanders worldwide

By Rhodi Lee, Tech Times |October 31, 10:18

A fungus originally found in East Asia has made its way to Europe where it now kills salamanders. Experts said that the fungus known as Batrachochytrium salamandrivorans, or Bs, may also spread to other countries including the United States.

The fungus Batrachochytrium salamandrivorans has made its way from East Asia to Europe where it now threatens salamanders and newts. Experts said that due to commercial pet trading, the infection could likely reach other countries including the U.S. (Photo : Public Domain)

Researchers discovered the fungus as they were investigating a huge decline in Netherland's fire salamanders. Bs, which has likely arrived in Europe via imported amphibians, is a cousin of the Batrachochytrium dendrobatidis (Bd), which was responsible for the annihilation of amphibians including frogs, toads and salamanders worldwide over the past few decades wiping out over 40 percent of species in some regions.

In a new study published in the journal Science on Oct. 31, An Martel, from Ghent University in Belgium, and colleagues screened over 5,000 species of amphibians across four continents to identify the threats posed by Bs infection. They found that it is lethal to salamanders and newts albeit it does not pose the same risks to frogs, toads and caecilians.

"We screened more than 5000 amphibians from across four continents and combined experimental assessment of pathogenicity with phylogenetic methods to estimate the threat that this infection poses to amphibian diversity. Results show that B. salamandrivorans is restricted to, but highly pathogenic for, salamanders and newts (Urodela)," the researchers wrote.

In laboratory tests, 11 out of 17 species of salamanders from North America and Europe were killed by the fungus and the fatality rate for infected animals can be very high. The rough-skinned newt commonly found in the Pacific Northwest and the eastern newt from Eastern North America, for instance, had 100 percent mortality rate after infection.

There were other species that did not suffer any death after they were infected but the Martel and colleagues said that although these species do not succumb to the infection, they can still transmit the fungus.

The disease, which invades the skin of the infected salamander and newts, has so far only been found in The Netherlands and Belgium but the researchers cautioned it will probably reach other countries soon.

Martel said that Europe and the U.S. should start screening animals in the pet trade. The study has pointed out that globalization and the lack of biosecurity can be blamed for the introduction of the Bs to amphibian populations in Europe, where it is now causing biodiversity loss.

In a statement, the non-profit conservation organization Center for Biological Diversity said that infected animals could reach the U.S. through extensive commercial trading of salamander citing that from 2001 to 2009 alone, the country imported more than 2.3 million Chinese fire-bellied newts.

"The U.S. Fish and Wildlife Service must act fast to keep this disease from infecting wild salamanders in the United States," said the organization's President Peter Jenkins. "With nearly 200 species, the United States is a global hotspot of salamander biodiversity. If we don't act fast, we could lose these vital and popular animals from the wild