

# INVASIVE SPECIES ALERT!

## SALAMANDER CHYTRID DISEASE

*(Batrachochytrium salamandrivorans)*

### HAVE YOU SEEN THIS ANIMAL?

#### DESCRIPTION

*Batrachochytrium salamandrivorans* (Bsal)...

- Is a fungus that causes Salamander Chytridiomycosis, a skin disease that can be fatal.
- Affects salamanders and newts.
- Causes skin reddening, ulcerations, and excessive shedding of skin.
- Can lead to skin lesions, anorexia, lethargy, ataxia (impaired movement and coordination), and mortality.



Photo credit: F. Pasmans, Wikimedia Commons

### REPORT INVASIVE SPECIES

Download the App!



[www.gov.bc.ca/invasive-species](http://www.gov.bc.ca/invasive-species)

#### PRIMARY THREAT:

*Bsal has been shown to cause serious declines in native salamander populations in Europe. Steep declines in salamander/newt populations in B.C. could greatly alter ecosystem dynamics because these species play an important role within the food chain; they regulate insect and other arthropod populations through predation, and they are prey for other species.*

#### SPREAD

The spread of Bsal to wild salamanders and newts in Europe is due to escaped or released pet salamanders/newts coming into direct contact with wild individuals or through contact with infected wastewater or organic material (i.e., soil). The Bsal fungus reproduces asexually by forming motile spores that disperse in water. If infected individuals (or aquarium water) are released into the wild, there is a chance of infecting native species here in B.C. There is further concern that Bsal could be spread through water from ornamental fish aquariums that are imported from Asia (where the disease is believed to originate).

Bsal can be found on the skin of salamanders and newts but can also survive outside of a host for several weeks in water or on moist organic material. Bsal thrives at temperatures between 10-15°C and can continue to grow at temperatures as low as 5°C but cannot survive at 25°C or higher.

For more information: <https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-conservation/amphibians-reptiles/amphibian-health>



Photo credit: Mark Blooi



# SALAMANDER CHYTRID DISEASE

(*Batrachochytrium salamandrivorans*)



## DISTRIBUTION & STATUS

Bsal is believed to be endemic to southeast Asia. To date, **there have been no detections of Bsal in B.C.** salamanders and newts, nor have there been detections in the U.S. It is thought that Bsal is not established in North America.

Four of nine species of salamanders and newts in B.C. are listed under the Species at Risk Act as endangered, threatened, or special concern. Research has shown salamanders and newts living in the Pacific Northwest are at high risk of contracting Bsal, therefore it could establish in the province if introduced.

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## LOOK-ALIKES:

There are no look-alikes of Bsal in B.C.

Distribution (Mar., 2022)

## WHAT CAN YOU DO?

- Do not release pet or captive salamanders or newts into the wild.
- Do not dispose of aquarium water into natural water bodies.
- Do not touch wild salamanders or collect them for use as pets.
- Follow appropriate hygiene practices:
  - Hygiene practices for the General Public/Pet Shop Owners.
  - Hygiene practices for Scientific Community (i.e., BC Government Hygiene Protocol for Field Staff).

## DID YOU KNOW?

Members of the public, including boaters, fishers, and other recreational users, and researchers that enter into Bsal infected or potentially infected sites are urged to follow proper hygiene protocols including, *cleaning* and *disinfecting* all gear and equipment that enters the site. This is particularly important if you move from one waterbody to another, as you could transfer Bsal unknowingly.



Photo credit (both photos on this page):  
Ferenc Lakatos, University of West-Hungary

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