

# Ranavirus

## Frequently Asked Questions

- **What is ranavirus?**

- Ranavirus is a genus (i.e. group) of viruses that are highly infectious and often lethal to aquatic and terrestrial cold-blooded wildlife. Ranaviruses can cause mass die-offs, especially in aquatic populations. These viruses are found nearly worldwide.

- **What species are affected by ranavirus?**

- At this time any species of fish, amphibians (frogs & salamanders) and reptile (turtles & snakes) could be susceptible to the virus, although not all species have been documented with ranavirus. As of 2013, ranavirus was known to infect >104 species and subspecies.

- **What are symptoms of ranavirus?**

- Clinical signs of disease can include swelling of the legs and body, internal hemorrhaging, redness of the legs and vent, and discoloration of internal organs.
- White plaque in mouth, wheezing and swollen eyes may also be present in reptiles.
- Behavioral changes may include lethargy, anorexia and erratic swimming.
- Note that many of these symptoms can be signs of other diseases as well.

- **What is the prognosis for animals infected with ranavirus?**

- Ranaviruses are commonly lethal to larvae or young individuals, quickly spreading through populations that tend to congregate in large groups. Some infected populations of amphibians have suffered 90% mortality.
- Adults can also become infected, but many are likely to survive the illness. However, once infected with ranavirus, their overall health may suffer and they can become more susceptible to other diseases and to depredation.

- **How is ranavirus transmitted?**

- The virus is primarily transmitted by contact between carriers of the virus and uninfected individuals. Any animal or object that enters a wetland could potentially pick up and transmit the virus. The virus can then be passed to other individuals in the same wetland or be transported to other wetlands via the host's movements.
- Depending on environmental conditions, the viruses can survive in water for several weeks outside the host, and for shorter periods of time under dry conditions. Drying may also inactivate the viruses.

- **Can humans prevent the spread of ranavirus? YES!**

- Humans may be the number one long-distance transmitters of ranavirus, due to our ability to travel great distances and visit many wetlands. (e.g. to conduct research, to fish, to kayak).
- If you frequent wetlands, be sure to **decontaminate your boots and other gear** between each visit. Items that come into contact with water NEED to be cleaned prior to entering another wetland. For decontamination procedures and other information visit the NEPARC and SEPARC websites.
- **DO NOT TRANSPORT WILDLIFE.** To reduce the spread of disease, fish, amphibians, and reptiles should not be released in areas where they did not originate. This includes transportation and release of live or dead animals.
- If you think you observe an outbreak (e.g. 10 or more dead or dying amphibians or two or more freshly dead turtles or snakes) contact your state wildlife agency.



Tadpole with swelling of the legs;  
a clinical sign of ranavirus



Ellen Bronson

A turtle with ranavirus  
exhibiting white oral plaque



Alan Cressler

Salamander exhibiting  
hemorrhaging on the ventral  
surface