

What can YOU do to protect local salamanders?

Use sustainable products to reduce your carbon footprint.

Protect caves & other important amphibian habitats.

Leave salamanders in their native habitats; don't take them home.

Disinfect field gear between sites to reduce the risk of transmitting deadly disease.

Replace turned logs to prevent drying & maintain salamander habitat.

Pick up litter to keep salamander habitats pristine.

Support local conservation organizations like FCSal

**More info
at fcsal.org**



FCSal is an organization dedicated to the conservation of salamanders and their habitats.

Contact Us

Foundation for the Conservation of Salamanders (FCSal)



fcsal.org



info@fcsal.org



The Foundation for the Conservation of Salamanders



[@fc_salamander](https://www.instagram.com/fc_salamander)

Salamanders of Minnesota

Minnesota has six species of salamander!



Photo: Caley Johnson

AN EDUCATIONAL GUIDE



**PROVIDED BY THE
FOUNDATION
FOR THE
CONSERVATION
OF
SALAMANDERS
(FCSAL)**

Salamander Facts

- There are over 600 species of salamander worldwide
- The U.S. is a salamander hotspot, with more species than any other country
- Nearly half of salamander species worldwide are threatened with extinction
- Salamanders are important members of food webs in many ecosystems

Threats to Salamanders

Deforestation causes the loss of critical habitat and increases ground temperature, disrupts vernal pools, and increases run-off.

Diseases such as Amphibian Chytrid Fungus and Ranavirus are spreading across the world causing amphibian declines.

Climate change is affecting salamander assemblages as well as breeding ecology by altering the weather within their microhabitats.

Pollution can affect a salamander's sensitive skin, causing an array of problems for these environmental indicators, species that reflect the health of the environment.

Salamanders will often cross roads to access breeding sites making them susceptible to road mortality.

Habitat loss and fragmentation reduce the amount of habitat and cause small, isolated populations of salamanders.



Photo: Caley Johnson

Blue-spotted Salamander (*Ambystoma laterale*)



Photo: Brad M. Glorioso, USGS Nat'l Wetlands Research Center

Common Mudpuppy (*Necturus maculosus*)



Photo: Autumn Baker

Eastern Red-backed Salamander (*Plethodon cinereus*)



Photo: Jason Fantuzzi

Four-toed Salamander (*Hemidactylium scutatum*)



Photo: Jason Fantuzzi

Eastern Tiger Salamander (*Ambystoma tigrinum*)



Photo: John D. Willson, Savannah River Ecology Lab

Eastern Newt (*Notophthalmus viridescens*)

- Minnesota's largest salamander is the common mudpuppy, growing up to 15 inches long!
- The eastern newt's orangish skin is a warning to predator's that they are toxic to eat.
- The Eastern red-backed salamander is the only completely terrestrial salamander in Minnesota, even laying its eggs on land!
- Tiger salamanders used to be collected for medical research but, luckily, this practice no longer occurs.
- Four-toed salamanders are named for the four toes they have on their rear feet (most salamanders have five).
- Blue-spotted salamanders spend most of the year underground, only emerging to reproduce in vernal pools.