



SPECIAL FEATURES IN THE NORTHWEST TERRITORIES

# AMPHIBIANS AND REPTILES



Photo credit: D. Schock

## AMPHIBIANS AND REPTILES

### What are amphibians and reptiles?

Amphibians and reptiles are ectotherms, meaning they cannot internally regulate their own body temperature. Rather, they rely on environmental heat sources by either seeking out sources of heat or shelter from heat (e.g. by basking in the sun or hiding in the shade).

Although amphibians and reptiles are both ectotherms, they have very different life cycles. Most amphibian species lay eggs in aquatic environments and their larvae use gills to extract oxygen from the water. Larvae eventually develop lungs and move onto terrestrial habitats as adults. Reptiles, on the other hand, are born on terrestrial habitats and use lungs to breathe throughout their entire life cycle. While both adult amphibians and reptiles have lungs, amphibians are also able to take in air and water through their skin.

Amphibians and reptiles are considered excellent indicators of environmental health. They are very sensitive to climate change, as they are dependent on external conditions to control their body temperature. Both amphibians and reptiles are at their physiological limits in the northern climates of the Northwest Territories (NWT).

Amphibians are likely one of the first species to show signs of stress if an ecosystem is in danger. This is, in part, due to the fact that their life cycle involves both aquatic and terrestrial environments. Additionally, their permeable skin makes them even more sensitive to changes in the surrounding environment. The protection of amphibians and reptiles can indirectly translate into the protection of a large variety of other species.

# AMPHIBIANS AND REPTILES

## Amphibians and reptiles in the NWT

The distribution and abundance of amphibians and reptiles are restricted in the NWT because of the short, cool summers that limit feeding, growth and reproduction.

There are five amphibian species found in the NWT: boreal chorus frog (*Pseudacris maculata*), northern leopard frog (*Lithobates pipiens*), wood frog (*Lithobates sylvatica*), western toad (*Anaxyrus boreas*) and Canadian toad (*Anaxyrus hemiophrys*). The long-toed salamander (*Ambystoma macrodactylum*) is found near the NWT-Alberta border and its presence is expected in the southern portion of the NWT.

There is one reptile species found in the NWT: the red-sided garter snake (*Thamnophis sirtalis*). The terrestrial garter snake's (*Thamnophis elegans*) presence is expected near the NWT-Alberta border.

To help make informed decisions regarding conservation, the Government of the Northwest Territories Department of Environment and Natural Resources (ENR) tracks sightings of amphibians and reptiles in the NWT. The Conference of Management Authorities released an Amphibian Management Plan in 2017 that defines management goals to maintain a healthy and viable population for each amphibian species across its NWT range. Amphibian species are now being assessed under the *NWT Species at Risk Act*.

## How can we protect amphibians and reptiles?

Practice “**Leave No Trace**” principles in the backcountry.

If you see an amphibian or reptile, take a picture of it and send it to ENR at **WildlifeOBS@gov.nt.ca** to help us develop and maintain a comprehensive database on amphibians and reptiles in the NWT.

To minimize the impacts on amphibians and reptiles and associated conservation features, developers are asked to observe the following recommended best practices:

- If you are conducting land use activities, make sure you obtain current information and surveys for amphibians and reptiles in your area of interest.
- Identify any impacts of your proposed activities, and determine appropriate mitigation measures to minimize impacts on amphibians and reptiles.
- Monitor your land use activities and mitigation efforts to make sure there are minimal impacts on amphibians and reptiles.

## Where can I get more information?

Visit the Conservation Network Planning **webpage** for other information sheets, reports and most recent maps.

Email Conservation Network Planning at **conservationplanning@gov.nt.ca**



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