

# NWT Frog Populations

**Objective:** To introduce students to freshwater species populations by using NWT frogs as a model

**Introduction:** As frogs are an indicator species, the monitoring of frog populations can help in the evaluation of ecosystem health. In this lesson plan students will investigate the reasons for, methodology of and data from frog population monitoring in NWT and Canada.

## Curriculum Connections:

Unit 3: 2-6

## Supplies / Materials:

- Map of frog/toad distribution in NWT
- Data collected in frog watch
- Student journals / blank paper

**Hook:** Watch frog video e.g.

<http://ed.ted.com/lessons/disappearing-frogs-kerry-m-kriger>



## SCIENCE FOCUS

### Lesson Subject

Experiential Science 30

### Topic

Freshwater Ecology

### Location

Classroom

### Length

60-80 mins

### Time of Year

Spring



### Intro Activity:

- 1) Discuss indicator species and how monitoring their populations may be an important tool to track environmental change / human impact.
- 2) Ask the students how they think frog populations could be monitored (visually, auditory – on calls, physically – e.g. catch and release). Have them brainstorm the pros and cons for each of these monitoring techniques.

### Main Activities:

1. (Optional) In the senior guide for Frogwatch (**Resource 1**) there are several activities to help students understand Canadian frog populations in general. You may want to choose one or more of these to have students do.
2. Have students assess data from Frogwatch for the NWT. What does this (limited) data set tell us about NWT frogs? What else would they want to know and how might they research this?
3. (Optional) Compare to data from another province. Can those data be used to form trends? Have students comment on trends and data needed to be comfortable to make conclusions.
4. Compare to visual sightings data found in **resource 1** below. Ask your students if the map supports the Frogwatch data? (**Resource 2**) What are some questions/assumptions they have about how data was collected by these researchers? Are their frogs/toads in your community? Has anyone seen them?

**Conclusion / Review:** What is the value of observations and data in helping us monitor our wetland health? What is good data? How much do we need? How can we contribute?

### Homework:

1. Have students do one of the optional activities above.
2. Have students research a frog/toad in your community and learn its call and observe for Frog Watch.

### Resources:

1. Frogwatch: <https://www.naturewatch.ca/frogwatch/northwest-territories/>

[https://www.naturewatch.ca/wp-content/biguploads/senior\\_guide\\_712.pdf](https://www.naturewatch.ca/wp-content/biguploads/senior_guide_712.pdf)

[http://www.nwt-species-at-risk.ca/sites/default/files/northern\\_leopard\\_frog\\_nwt\\_status\\_report\\_dec\\_2013\\_final2\\_0.pdf](http://www.nwt-species-at-risk.ca/sites/default/files/northern_leopard_frog_nwt_status_report_dec_2013_final2_0.pdf)

2. Map: <http://www.nwtpas.ca/maps/map-sf-amphibians-pas-areas.pdf>

**Extension:**

1. Visit a local wetland in spring and listen for frog calls. Submit to Frog Watch.
2. Have students research what scientists have learned about human health through studying frogs.