

FROG MONITORING: HOW-TO GUIDE



Frogs can tell us a lot about the health of the environment. They breathe partly through their skin, which is constantly exposed to their environment. Therefore, their bodies are much more sensitive to things such as disease, pollution, and habitat destruction. This makes frogs excellent bioindicators (a living thing that can tell us how healthy the environment is).

Frogs can be found in many different habitats from gardens and lawns to dense forests to aquatic areas. We have 8 different frog species in Cape Breton - Unama'ki!

Spring Peeper

Mink Frog

Pickerel Frog

American Toad

Green Frog

Leopard Frog

Wood Frog

Bullfrog

MONITORING PROTOCOLS

Frog calls are strongly associated with season, time of day, and weather conditions. Following the guidelines below will help you to hear the most frogs!

- Survey 3 times per year between April 15th and July 5th, with at least 15 days in between each survey.**
- Start your survey anytime between 30 minutes after sunset and midnight during evenings with little wind and minimum night temperatures of 5°C - 10°C.**
- If you are monitoring at multiple different spots in one location, make sure they are 500m apart to minimize the possibility of calls or choruses being double counted.**
- Complete a 3-minute survey at each spot.**

Equipment Needed:

- **Field Sheet**
- **Watch or phone**
- **Pencil**
- **Flashlight or headlamp**

After you have chosen your monitoring spot you can fill in the “visit information” section of your field sheet. Next, while standing in one spot and keeping as quiet as possible, set a timer and listen for frog calls for 3 minutes. Listen for any frog calls that can be heard in an unlimited distance semi-circular area in front of you.

Once the 3 minutes is up, you can fill in the rest of your field sheet. Any calls that you heard during the survey are marked (by species code and call code) in the semi-circle diagram based on your estimated distance and location of the call. In the small table to the left of the diagram, mark whether the calls you heard were inside a 100m area or outside a 100m area.

You can visit the Nova Scotia Frog Watch website to hear calls for each frog species!

Monitoring Field Sheet

Beaufort Wind Scale:

0	Calm, smoke rises vertically
1	Light air movement, smoke drifts
2	Slight breeze, wind felt on face
3	Gentle breeze, leaves and small twigs in constant motion
4	Moderate breeze, small branches are moving, raising dust and loose paper
5	Fresh breeze, small trees in leaf beginning to sway, constant wavelets form
6	Strong breeze, large branches in motion

Calling Codes:

Code 1	Individual calls do not overlap and calling individuals can be discretely counted
Code 2	Calls of individuals sometimes overlap, but numbers of individuals can still be estimated
Code 3	Overlap among calls seems continuous (full chorus), and a count estimate is impossible (common with spring peepers!)

Background Noise Codes:

0	No appreciable effect (e.g., owl calling)
1	Slightly affecting sampling (e.g., distant traffic, dog barking, car passing)
2	Moderately affecting sampling (e.g., distant traffic, 2-5 cars passing)
3	Seriously affecting sampling (e.g., continuous traffic nearby, 6-10 cars passing)
4	Profoundly affecting sampling (e.g., continuous traffic passing, construction noise)

Frog Species Codes:

American Toad	AMTO
Bullfrog	BULL
Green Frog	GRFR
Mink Frog	MIFR
Northern Leopard Frog	NLFR
Pickerel Frog	PIFR
Spring Peeper	SPPE
Wood Frog	WOFR

Frog Monitoring Data Sheet

Visit Information

Route Name: _____ Observer Name: _____

Visit #: _____ Day: _____ Month: _____ Year: _____

Cloud Cover (%): _____ Temperature (°C): _____ Beaufort Wind Scale (0-6): _____

Precipitation (check one): None/Dry: _____ Damp/Haze/Fog: _____

 Rain: _____ Drizzle: _____

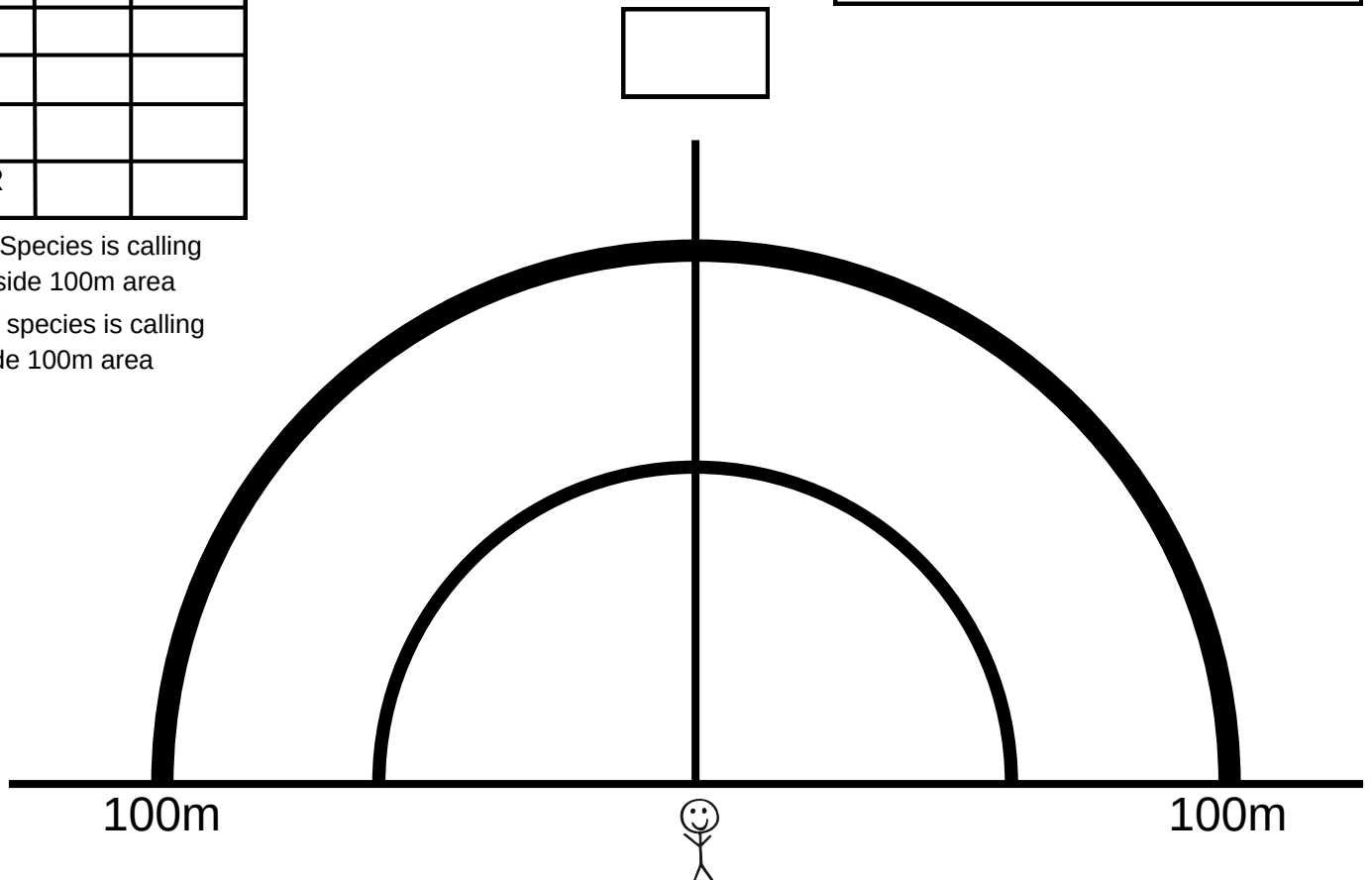
Species	In*	Out**
AMTO		
BULL		
GRFR		
MIFR		
NLFR		
PIFR		
SPPE		
WOFR		

Start Time (24h): _____

Background Noise
Code (1-4): _____

*Check if Species is calling from inside 100m area

**Check if species is calling outside 100m area



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