

**Program Name:** Wildlife Who's Who: Tracks, Traces, and Taxonomy

**Grade Level(s):** 6-12

**Curriculum Connection(s):** Evidence and Investigation (Gr.6); Interactions and Ecosystems (Gr. 7); Freshwater and Saltwater Systems (Gr. 8); Biological Diversity (Gr. 9); Cycling of Matter in Living Systems (Gr. 10); Ecosystems and Population Change (Gr. 11); Population and Community Dynamics (Gr. 12)

**Approximate time required:** 3.5 hours (not including travel or eating time)

**Key Concepts and Terms:**

Scat	Cast	Claws
Track	Mould	Digits
Trail	Taxonomy	Pads

**Student Learning Objectives:**

Develop an understanding of and appreciation for wildlife, their tracks and traces, habitats and broader place in the ecosystem.

Demonstrate ability to identify local wildlife based on tracks and traces.

Develop skill in group work, research methods, and precision measurements.

**Brief Description of Program:**

A one day program where students work in groups to discover, accurately record, and perform research on various animals based on the tracks and traces they leave behind. Through preparing and presenting this information, english language arts, fine arts, and technology may be tied in via public speaking and creative presentation.

**Activities:**

Discussion

In the interview room, hold a class discussion on wildlife safety (the AMLRS Safety Manual has two sections on wildlife - in the Emergency Response and Field Research sections. Be sure to address these, as well as stinging insects, nettles and thistles). After reviewing safety protocols, lead a class discussion on what kinds of animals they expect to see. Does it matter that they are in a Provincial Park? Which species might be more or less prevalent in a Provincial Park? Remember that Miquelon Lake also quite saline and is bordered by farmland.

Activities

Break your class into groups so that there is one supervisor for each group. Sign out a Scat and Tracks ID book, two-way radio and whistle to each supervisor. Give each group a ruler, trail map, and markers. Assign different trails (walking trails, around the lake, around a pond, etc. Mark them on each group's map and keep a master copy of which group is on which trail) to each group, designate a time to be back at AMLRS (~60-90 min later), test the radios to be sure they all work on the same channel, and send the groups out.

In groups, look for tracks and traces, as well as live animals. When a track, trace, or animal is found, try to take a picture. If you find a footprint, measure and examine it to try to determine what it is (keep in mind that there are a lot of dog walkers in the Park and finding a coyote or wolf track would be rare... but any canine prints are still fun for students if they can imagine a wolf being there!). If you find a trace (ie: hair/fur, scat (feces), bones, feathers, browsed branches, a nest/den entrance, scratched bark, trail, slide, bed, etc.), try to identify what animal, or animals, might have left it. If you see a live animal, DO NOT approach it or try to touch/feed it. Identify it and watch it if you like. Look for nearby tracks or traces that may indicate the presence of that animal. Record all of your findings, including their approximate location, and be back at the Station by your scheduled time. It doesn't hurt to cover the same ground twice if you have some extra time.

Assign each group to research a species they found tracks of, using the Station laptops. Students should identify the taxonomy of the species from Domain to Species and identify a few close relatives that may also be found in or near Miquelon Lake, should identify its current and past range, place in the food chain (identify both predators and prey), and form a theory on whether the species may benefit or be harmed (or both!) by being inside a protected Provincial Park as opposed to a more wild area with reduced management laws.

#### Information Sharing:

Have groups prepare a 4-6 minute presentation (PowerPoint, skit, 'lecture', etc.) for the class - on the Station laptops, if students wish to do a technological presentation - highlighting their newfound research. If there is time, they can present in the interview room (using the projector for technological presentations). Ensure each group member is equally included in the presentation.

#### Closing:

Clean equipment, ensuring that batteries are removed from radios, and return all equipment to its proper storage location.

Tidy the Station to its previous condition, collecting all belongings. Remember to turn off all water and lights, and deposit your key **before** exiting the Station **after** ensuring both exterior doors are locked and windows are closed.

#### **Equipment and Resources Provided:**

Scat and Track identification books

Two-Way Radios (walkie talkies)

Whistles

Rulers

Trail Maps

Markers

**Contact the Station Manager at [gth@ualberta.ca](mailto:gth@ualberta.ca) for pricing and more details.**