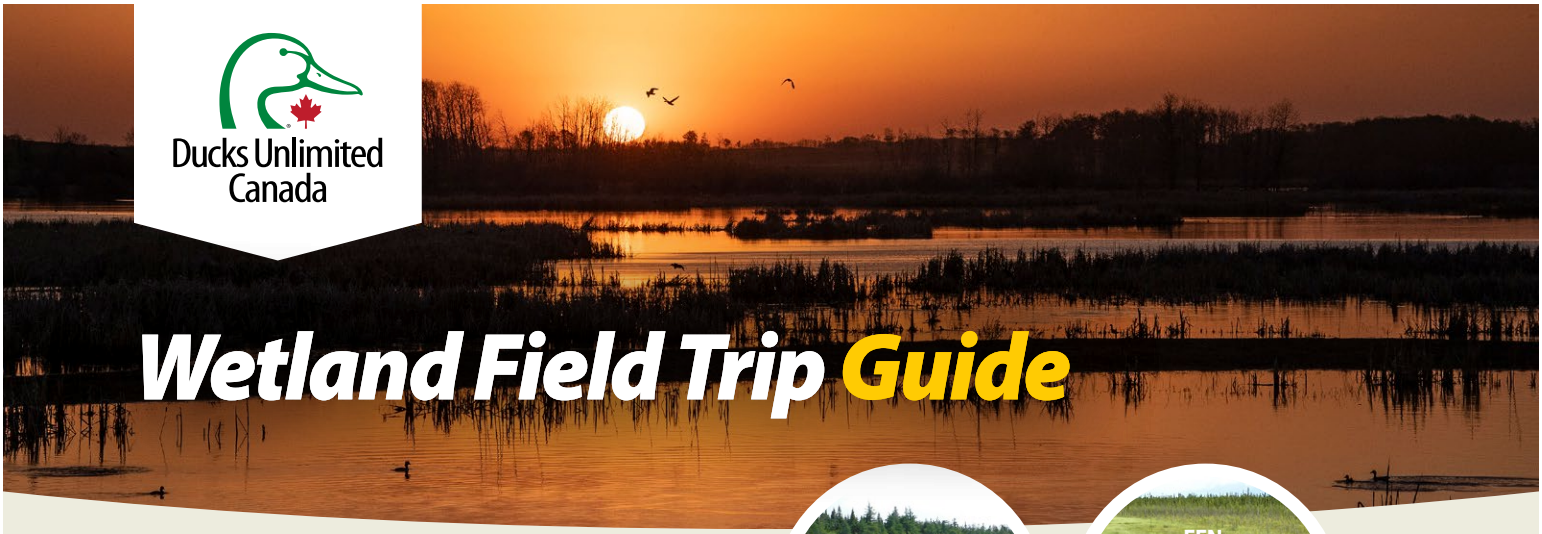

Ducks Unlimited Canada

Wetland Field Trip Guide

What is a wetland?

Wetlands are wet areas of land that have poorly drained soils and aquatic vegetation. They can be found across the country in cities, in the prairies, in the boreal forest, along coastlines and in the tundra. **Right:** Different types of wetlands include bogs, fens, marshes, swamps and shallow open-water wetlands.

Why go on a wetland field trip?

Wetlands are teeming with life. Students can hear birds and frogs, look for turtles and fish, and dip for swimming critters. Wetlands are great outdoor classrooms to learn about ecosystems, food webs, invertebrate life cycles, animal and plant adaptations, migration, and more. They are also a great way for kids to unplug and connect with the natural world around them.

Why are wetlands important?

Wetlands are part of Canada's environmental identity – we hold 25% of the world's wetlands – and have amazing benefits for all forms of life, including humans:

- ✓ **Clean water:** wetlands naturally filter pollutants from water before they enter our lakes and rivers, helping to make our water drinkable.
- ✓ **Flood and drought protection:** wetlands act like sponges, holding water during wet periods and slowly releasing it when times are dry.
- ✓ **Biodiversity hotspots:** wetlands are home to millions of plants and animals, including more than one third of Canada's species at risk and migratory birds who rely on these habitats to raise their young.
- ✓ **Climate change mitigation:** wetland plants absorb and store carbon dioxide (a greenhouse gas) from the atmosphere.
- ✓ **Coastal protection:** vegetation in a coastal wetland acts as a buffer against waves that hit the coast. The vegetation is sturdy and resilient, stabilizing the soil and protecting the coast from erosion.
- ✓ **Cooling effect:** the water in wetlands acts as a heat sink, absorbing heat and decreasing the surface air temperature above wetlands.
- ✓ **Outdoor recreation:** wetlands are great places to enjoy the outdoors.
- ✓ **Health benefits:** spending time in nature encourages physical activity and can have a positive effect on our mental health.

What can we do on a wetland field trip?

Many different activities can be done with students at a wetland. Below you will find some activities that can be adapted for different age groups and that can meet provincial curriculum expectations.

- ✓ **Critter dipping:** Students observe the biodiversity in a wetland by catching and identifying critters (invertebrates). This activity can support learning about the invertebrate life cycle, food chains, adaptations and how to use indicator species to determine water quality.
- ✓ **Water quality monitoring:** Students use hand-held probes to measure water quality (pH, dissolved oxygen, temperature, etc.). This activity can support learning about the causes of water pollution and what can be done to improve water quality.
- ✓ **Nature walk:** Students walk around the wetland and identify plants and animals. They can use apps like iNaturalist to record their observations and contribute to citizen science.
- ✓ **Scat and track identification:** Students look for scat and tracks to identify local animals that live at the wetland. This activity is great on snowshoes in the winter!
- ✓ **Action projects:** Students can become stewards of a wetland by doing an action project. If your class takes action at a wetland, we want to recognize them as Wetland Heroes! Click here, and here, to learn more.

Where can we go on a wetland field trip?

Check out your neighbourhood first! Visiting a local wetland provides opportunites for students to feel a sense of connection to a nature space in their community. Beyond your neighbourhood, nature centres, conservation areas and parks often have wetlands in them. Check with your municipality, your local conservation authority, and provincial and national parks.

Visiting the site before the wetland field trip will allow you to familiarize yourself with it, identify any potential hazards or challenges and determine what activities can be done with students there. Consider the points below to help choose an appropriate wetland for a field trip:

- ✓ **Publicly accessible:** You have permission to visit the site.
- ✓ **Boardwalk:** A boardwalk allows students to safely get close to the water's edge and is ideal for critter dipping.
- ✓ **Washrooms:** A site with washrooms is best, especially if you have to travel to the wetland or if you'll be away from the school.
- ✓ **Distance to walk:** Depending on the age of students, it might be best to find a site that doesn't require too much walking so you can get to there in a timely manner and the students don't get tired.
- ✓ **Avoid stormwater retention ponds:** Man-made stormwater ponds can be nice spots for a nature walk, but students are prohibited from entering the water, ruling out critter dipping and water testing.

When to go on a wetland field trip?

Wetlands can be visited every season! If you're critter dipping, May to September should be a good time to find living critters in the water. Spring and fall migration seasons are excellent for birdwatching. A winter visit on snowshoes can be the perfect time to identify tracks and scat on the snow. Just make sure you bring the appropriate clothing and items to tolerate the heat, the cold, the rain and the bugs!

Wetland safety

We want field trip leaders to feel ready and excited to take students out to the wetland. Your school will have its own safety procedures, as will parks and conservation areas, but we've created a checklist to help make sure you're prepared for your trip. **Please review the teacher and student field trip checklists on the next two pages.**

Wetland Field Trip – Teacher Checklist

Trip preparation

- ☐ Make sure students have completed any necessary field trip forms and arrange appropriate supervision for the age and size of your group.
- ☐ Evaluate the wetland area and identify actual and potential hazards.
- ☐ Make sure you have access to safety equipment, identify students' medical concerns, and know the closest available emergency and medical services.
- ☐ If you live in a rural area, bring a two-way radio.
- ☐ Conduct a safety session with your students and cover hazards, safety equipment, signals at the wetland, first aid kit location, tool use and emergency procedures.
- ☐ If you decide students can enter the water, we suggest no deeper than ankle-depth and that students wear life jackets.
- ☐ Make sure to identify if students are non-swimmers.
- ☐ Check the weather forecast for the area and reschedule if conditions are dangerous (e.g. strong winds, storms, heatwaves).
- ☐ Bring identification guides like our ***Marsh World* booklet** and our **Waterfowl ID Guide**.

At the wetland

- ☐ Set boundaries with your group. With an older group, you can set boundaries based on landmarks. With a younger group, provide physical markers such as pylons or blaze tape. Make sure all youth are always visible or within earshot.•
- ☐ Use the buddy system for younger groups where youth partner up with someone for the duration of your trip. Roll calls can be used to maintain head counts for your group.
- ☐ Stress zero-tolerance for rough-housing and the importance of walking, not running.
- ☐ Ensure students understand that wild animals are territorial by nature and that they must be respectful of their habitat.
- ☐ Agree upon signals that will bring the group back together. For example, three whistle blows for an emergency and a hand-raise and single whistle blast to call attention for non-emergencies.
- ☐ At the first sound of thunder, get the group away from open water immediately. Wait half an hour from the last sound of thunder before resuming programming.
- ☐ After working in wetlands, it is important to wash any exposed skin with soap and water or use hand sanitizer. Youth should also wash their clothes afterwards.
- ☐ Take away all materials and tools used in the fields, as well as any trash. The wetland should be left the same as you found it (or even better)!

Safety Equipment

The following safety equipment is recommended on the days that you visit a wetland.

- ☐ Buoyant throwing assist with a 15-metre buoyant line attached
- ☐ Reaching pole at least three metres in length
- ☐ Standard first-aid kit
- ☐ Bear spray (as needed)
- ☐ Life jackets (check with school guidelines)

Personal Protective Equipment

Some wetland activities, like removing invasive species, will require the use of Personal Protective Equipment (PPE). Select the appropriate PPE for your wetland activity prior to visiting the site.

- ☐ Protective headwear (e.g.hard hat)
- ☐ Protective eye/face wear
- ☐ Gloves (e.g. nitrile, insulated, etc.)
- ☐ Protective footwear (e.g. close-toed shoes, hiking boots)
- ☐ Clothing appropriate for the environment

Sunscreen and insect repellant are not considered PPE but may be advisable depending on the season and environment.

Wetland Field Trip – Student Checklist

What to wear

- ☐ Old clothing (you may get wet and muddy)
  - ☐ Warm days: lightweight and light-coloured, long-sleeved shirts and pants – these will protect you from insect bites.
  - ☐ Cool or wet days: a jacket, rainwear, hat and mitts. If you're working around water, keep your mitts dry and use them only to warm up your hands. Dress in layers – you can adjust for the weather.
- ☐ Rubber boots or waterproof boots – these help in long grass or when there are damp spots and especially if you are allowed to wade in the water. Tip: at the end of the day, have an extra pair of dry socks and shoes that you can change into if your feet get wet.
- ☐ Hat and sunscreen to protect you from the sun

What to bring

- ☐ Water/drinks
- ☐ Litterless lunch or snacks
- ☐ Insect repellent (your teacher may provide this). Keep it off your hands if you are studying invertebrates or if you may handle frogs and other small creatures.
- ☐ Any items that you or your group are expected to bring for the trip
- ☐ Your teacher may ask you to bring other items (camera, binoculars, etc.) Discuss these with your teacher first and make sure you have permission from home to take them on your trip.

At the wetland

- ☐ Listen to and obey your teacher's and/or the naturalist's instructions.
- ☐ Stay together as a group – with your field trip team or your buddy.
- ☐ No rough-housing and walk, don't run! Don't splash or push people.
- ☐ Speak quietly so you can hear the animal sounds.
- ☐ Tell an adult if something is wrong or if someone leaves the group.
- ☐ Treat all living animals, plants and fungi with respect. If you take animals out of their natural habitat, release them safely where you found them.
- ☐ Wash your hands after your wetland investigation. If you will touch animals, wash your hands before touching them.
- ☐ Don't litter and dispose of any garbage, water test samples and strips or other items safely and as instructed by the teacher or guide.
- ☐ Don't wear perfume or other scents right before your trip, to avoid attracting biting insects like mosquitoes.