

A Wetlands Introduction for Akwesasne Youth

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Adapted from a 1993 WRTC publication "The Young Scientist's Introduction to Wetlands".

Water is one of our most important resources, perhaps even the most important one.

Water is needed for drinking, cooking, cleaning, and for keeping our pets and other animals in good health. Water is used to transport goods on oceans, lakes and rivers (for example, ships on the Seaway). It is also used for aquaculture, to raise clean fish for our people to eat (Ekohawk). We also use water for fun activities like swimming, fishing, boating, and water skiing, for example.

Because water is so important to our people, the environment, and to the community of Akwesasne, our governments have passed rules and regulations to help protect the water and to make sure that it stays in good condition.

One of the rules that we follow is the Wetland Conservation Act, which was put into place by a Tribal Council Resolution that was signed in December of 1998. Parts of this regulation deals with anyone who is interested in depositing dredged or fill material into the waters of Akwesasne, including wetlands. This type of activity can only happen with permission. The St Regis Mohawk Tribe Environment Division has the responsibility to give such permits.



Here are some activities that need a Wetland Permit if they happen in a wetland area:

Filling in an area with various fill materials; constructing levees, dikes or dams, and most roads; mechanized clearing of land...

The list could go on. It is important to realize that anything done in an area that may be a wetland should be evaluated by an expert to see if it needs a permit. This is necessary because wetlands have a very, very important role in Mother Earth's ecosystem. This means that in the

food chain for plants and animals (including onkwehonwhe), wetlands have an important job.

What is a Wetland?

Wetlands are areas that connect land and deep water. There are many types of wetlands. Some contain salt water from the oceans. Coastal areas may have wetlands with a mixture of both fresh and salt water. Coastal wetlands are affected by tides.

Wetlands in Akwesasne are fed with freshwater. The plants that survive in these wetlands are suitable for the type of water that feeds the wetland. The animals that live there are suited to the water and the vegetation. Another important factor for the survival of plants and wildlife in a wetland is the amount of water that is available throughout the year.



*Wetlands, like this one in Raquette Point, can be found throughout Akwesasne.
Photo by Tracey Phillips.*



Wetland Plants Emergent plants can live partially covered by water. This type of vegetation is especially important in wetlands that are affected by tides. Black rush, pickerelweed and spartina are some common emergent plants that grow in salt marshes. Salt marshes are found along the Atlantic, Pacific, and Gulf of Mexico coasts of North America, including Alaska and Hawaii.

There is a special plant found in Florida and Puerto Rico saltwater wetlands. This plant is the mangrove tree. This tree has stilt-like roots, and grows long seedpods that hang over the water. When they fall off later on, the pointed pods plant themselves in soft mud under the tree. If the area gets flooded, the pods float away to attach to a new place to grow.

Another unusual tree is the bald cypress. This tree is found in southern, forested wetlands. A popular story about this tree claims that the cypress grows knees to bring oxygen to the root system. These knees are made of very dense wood and cannot transport oxygen. Scientists are to this day studying why cypress trees grow knees, they do not know the reason. If you ever go to a region of the country where cypress trees grow, look for their knees.

Willows are another important wetland plant. They are widespread throughout Akwesasne and other parts of North America. Willows even grow in the deserts of the Southwest, next to lakes and rivers.

The black ash tree is a wetland species that is very important to the people of Akwesasne and other Haudenosaunee communities. This is the tree that our basketmakers use to make their baskets. The logs are pounded until strips of wood are separated off the annual growth rings. The strips are then scraped and split to prepare the splints for baskets. The splints may also be dyed before they are used in baskets.



Freshwater wetland plants do not include just trees. Other plants that you may find here include many colored wildflowers; ferns and grasses; shrubs, some with berries; and mushrooms.



You may have seen many cattail plants in Akwesasne. Other nations, like the Apache, use the pollen of the cattail for ceremonies so it is very important to them. These grow in freshwater wetlands.

Sweetgrass is another wetland plant that is important to native people. We use it in baskets. It is also used for smudging throughout Indian Country.

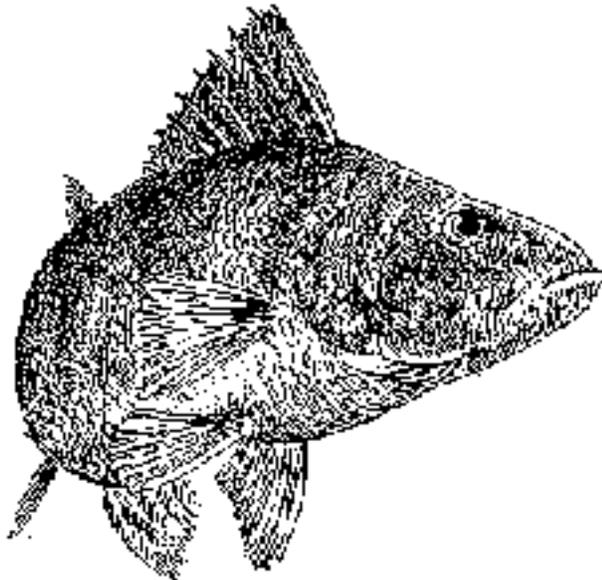
Onenorrion is a wetland plant that we use for medicine. So far, we have identified over 120 species of wetland plants that we still use today for medicinal purposes. Plants like goldthread and turtle socks are some of the other species that are used often. Another plant, Labrador tea, grows in wetland areas and is used as a beverage. Some wetland plants can be used for food, like the roots of the arrowhead plant.

Black Ash stand photograph taken by Mike Benedict.

Photograph of elders preparing black ash splint taken by Les Benedict.

Wetland Animals

Wetlands are nurseries for fishes. Many birds, especially waterfowl, build nests and raise their young in wetlands. Migratory birds depend on food from the wetlands on their migration route, and in the south, many birds winter in wetlands. Amphibians and reptiles make wetlands their home. Salamanders, turtles, toads and frogs, and snakes live in wetlands. Insects, spiders, butterflies, moths are supported by different wetlands. Mammals from the smallest mouse to the gigantic moose are dependent on wetlands for their survival.



Here is a list of some animals that depend on wetlands:

Alligator, bobcat, snapping turtle, moose, frog, bass, dragonfly, beaver, muskrat, duck, eagle, sandpiper, walleye.

Walleye line drawing by Robert Savannah, US Fish & Wildlife Service

Names for different wetlands



Marsh, swamp, floodplain forest, bog, fen, wet meadow, prairie pothole, slough—each of these names applies to a wetland depending on where it is located, what grows in it, or how it gets water. There are many other names and descriptive terms for wetlands. There are many things to learn about wetlands.

This emergent wetland is located behind the Tribal Complex on Route 37. Another name for this type of wetland is marsh.

Wetland Photo by SRMT Environment Division

Visiting a Wetland

When visiting a wetland, always remember that it is a very complex ecosystem. The existence of water, animals and plants is intertwined. It is a good idea to follow a few simple rules when visiting a wetland area. Never remove any plants or animals from the wetland. Watch out for all living things there.

Wear rubber boots or other shoes that can get wet or muddy. Stay on marked trails or access paths. Bring binoculars, a note pad (to draw what you see--insects, leaf shapes, or to write down bird colors), and mosquito repellent. Be very quiet and listen for bird songs.



Do not leave anything in the wetland (trash).

Value of Wetlands

Although we do not yet understand the full impact of wetlands on the quality of our lives, scientists are constantly working to find out more about the functions and values of wetlands. They already know that wetlands can control floodwater and help to filter out pollutants. Wetlands provide habitat for waterfowl and other wildlife, support fisheries, and are sanctuaries for rare and endangered species. We also know that many of our traditional medicinal plants

grow in wetland areas. Most people living in Akwesasne have experienced the aesthetic value of wetlands, knowing that they are places where people can enjoy activities such as fishing, boating, hunting, bird watching, medicine picking and picnicking to name a few.



Baby Heron

To make sure that we can enjoy these activities for the next seven generations, and to ensure that we have a clean supply of water for day-to-day activities, we must all take very good care of our wetlands.

Here are some of the people that work with wetlands:

BIOLOGIST	BASKETMAKER	ECOLOGIST	ZOOLOGIST
LIMNOLOGIST	PHYSICAL SCIENTIST	HYDROLOGIST	OCEANOGRAPHER
GEOLOGIST	ARCHAEOLOGIST	GEOGRAPHER	COMPUTER SCIENTIST
SOIL SCIENTIST	CHEMIST	PLANT PHYSIOLOGIST	BOTANIST
HUNTER	HYDRAULIC ENGINEER	STRUCTURAL ENGINEER	AGRICULTURAL ENGINEER
CIVIL ENGINEER	TRAPPER	ENVIRONMENTAL ENGINEER	JOURNALIST
GARDENER	DREDGER	FISHERMAN	VETERINARIAN
MEDICINE PERSON	LANDSCAPE ARCHITECT	BUILDER	FARMER
FORESTER	RANGER	ATTORNEY	PHOTOGRAPHER
LABORATORY TECHNICIAN	LEGAL ASSISTANT	HEAVY EQUIPMENT OPERATOR	TEACHERS FROM PRE-SCHOOL TO UNIVERSITY

And many, many more....!

A reference book for wetlands: Neiring, William A. (1985), *The Audubon Society Nature Guides: Wetlands*. Alfred A. Knopf, New York.