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www.michigannature.org 517-655-5655

Wonderful Wetlands

Written By: Joan Chadde Edited By: Phil Bergquist

Learning Objectives

At the end of the lesson participants will be able to:

1. List the three characteristics of a wetland.
2. Explain why wetlands are important to wildlife, people, and the environment.
3. List the four essential parts of habitat: food, water, shelter, space.
5. Identify several plants and animals that live in a wetland.
6. List four different types of wetlands and describe a characteristic of each type.

Materials

Wetland Metaphors – sponge, pillow, egg beater, strainer, coffee filter, antacid, wild rice or cereal, soap, baby bottle

What is a Wetland?

There are three main characteristics of wetlands:

1. Water is at or near the surface for some part of the year.
 - This is known as hydrology.
2. Soils are saturated (can squeeze water out of a handful of soil) for some part of the year.
 - This prevents or greatly slows decomposition of organic material in the soil.
3. Plants that grow in wetlands either need or are adapted to growing in wet soils.
 - Common wetland plants include white cedar, white/black spruce, larch, alder, willow, sedges and sphagnum moss.

What are the 5 major types of wetlands?

Wetlands differ from one another depending upon how much water is present and the different types of soils and plants present.

Five common wetland types:

Marsh - Dominated by rushes, sedges, grasses
- May dry up in late summer

Swamp - Mostly water-loving shrubs and trees

Bog - Distinguished by its hydrology.
- It is “perched” above the water table and receives only precipitation
- Dominated by sphagnum moss
- Acidic

Fen - Receives water from ground water, surface water and precipitation
- May have sphagnum moss, but also sedges
- Alkaline

Vernal Pond - Depression or low area in a forest that collects runoff and snow melt long enough to support aquatic species completing metamorphosis
- Common inhabitants of vernal ponds are spring peepers, wood frogs, and salamanders
- Vernal ponds typically disappear in summer.

How Do Wetlands Benefit People, Animals & the Environment?

Wetlands help wildlife and people in lots of different ways, and you can use some everyday items to remind you in the activity below.

Activity: Wetland Metaphors

Divide students into groups. Each group takes turns picking an object out of pillowcase/paper bag and explaining how that object reminds us of how wetlands can help people, wildlife, or the environment.

Sponge = Soaks up water, helps prevent floods, adds to groundwater

Pillow = Wetlands are like MOTELS for migrating birds

Egg beater = Mixes nutrients and oxygen into the water

Strainer = Strains out dirt and keeps water clean

Coffee filter = Filters out pollution and keeps water clean

Antacid = Takes away (neutralizes) the effects of acid rain

Wild rice or cereal = Provides food for wildlife and people

Soap = Helps clean the environment naturally

Baby bottle = Wetlands are NURSERIES for raising baby insects (larva) and baby animals because there are lots of plants for shelter and food, plus there is water nearby for drinking.

How do wetlands benefit wildlife?

Wetlands provide habitat for many different animals.

What are the 4 parts of habitat?

- Food
- Water
- Shelter
- Space

Lots of different kinds of plants and animals live in a wetland habitat:

-Frogs	-Turtles	-Birds	-Beaver	-Alder	-Cattails
-Tadpoles	-Fish	-Insects	-Moose	-Willow	-Sandhill crane
-Sedge	-Water lily	-Algae	-Duck weed	-Heron	-Canadian geese

Wetlands are like *nurseries*...lots of baby animals are born there.

Greater plant and animal diversity!

A food chain tells us who eats who.

Here is a sample food chain for a wetland:

Algae (water plants)	- I use light, carbon dioxide and water
↓	
Tiny aquatic animals	- I eat algae
↓	
Insect larva	- I eat aquatic animals
↓	
Frogs	- I eat larva
↓	
Heron or Snake	- I eat frogs

Let's compare a wetland food chain to a food chain on land. Below are some examples of a food chain from the forest.

Seeds and Berries ↓	Grass ↓	Seeds ↓
Birds	Deer / Moose ↓	Mouse ↓
	Wolf	Owl

Notice that there are only 2 or 3 layers in a food chain in a forest or field, but in a wetland there are 5 layers. That tells us that a wetland supports much great biodiversity, or a greater variety of plants and animals.

Test What You Learned!

1. List the three identifying characteristics of a wetland.
2. Explain why wetlands are important to wildlife, people, and the environment.
3. List the four essential parts of habitat: food, water, shelter, space.
- 4 Explain why wetlands support greater biodiversity & give an example of a wetland food chain.
6. Identify several plants and animals that live in a wetland.
7. List four different types of wetlands and describe a characteristic of each type.
8. How do wetland nature sanctuaries benefit people and the environment?