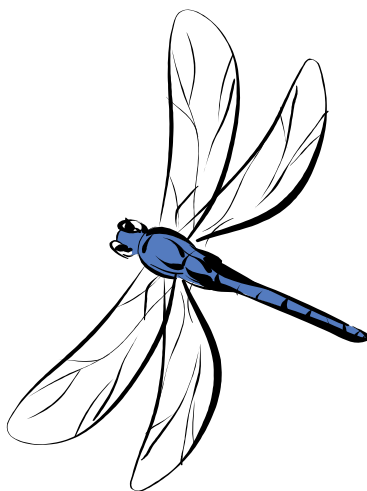


The Wetlands Walk at Aspetuck



A Guide and Journal for Brownie Girl Scouts

Linked to the Eco-Explorer Brownie Try-It
Girl Scouts of Connecticut, Inc.



The Wetlands Walk at the Aspetuck Outdoor Program Center was created through the support of the Perrin Family Foundation.



Girl Scouts.

Copyright © 2006 by Girl Scout Council of Southwestern Connecticut, Inc.

Copyright © 2008 by Girl Scouts of Connecticut, Inc.

www.gsofct.org

800-922-2770



Welcome to Our Wetlands!

This **Wetlands Walk Guide and Journal** will provide you with information about wetlands. It also provides you with space where you can record what you observe during your time on the Wetlands Walk. By taking time to really observe what is around you, and by giving the wildlife a chance to become accustomed to your presence, you will begin to see how full of life this habitat truly is!

In addition to this guide, you will want to bring along a writing implement. While not necessary to observe and record your visit, other items you may wish to bring along might include these.

- Simple pond life, insect, wildflower, or tree guides (for those times you really want to know the answer to “what is it called?”)
- Binoculars, magnifying lenses, or “water snooper” (for a close-up look)
- Colored pencils, crayons, or markers (to capture the colors of the wetland)
- Sit-upon (for sitting comfortably while observing the wetland)

Before you start out...

You will be entering a special habitat. Here are some things to keep in mind.

- **Stay on the boardwalk.** This helps protect the plants and animals under your feet, and keeps your feet dry.
- **Leave everything as you found it.** Do not pick leaves or flowers, leave animals in their wetland habitat.
- **Take everything you brought with you, out with you.** Leave no trash or items behind.
- **This is a boardwalk, so remember to walk!**
- With your group decide how you can **quietly point out interesting items** to each other. Shouting “come see this!” can scare creatures away.

This guide also links to the [Eco-Explorer](#) Brownie Try-It. Specifically, 1, Exploring Nature; 2, What Is a Habitat?; 3, Make a Habitat; and 4, Food Chain.

The numbered listing at the end of the guide correlates to the numbered stations of interest on the Wetlands Walk.

What Is a Wetland?

Wetland is a word used to describe a habitat that has certain characteristics. As you walk through Aspetuck's Wetlands Walk, look to see if these descriptions are true here.

_____ Soil is waterlogged most or all of the year.

_____ The area has signature plants (such as skunk cabbage) that are specially adapted to live in a wet area.

_____ It is a low-lying area and/or the groundwater is near the surface.

With pictures or words, record a plant that you find in drier soil at the end of the Wetlands Walk.

With pictures or words, record a plant that you find in the wet soil near the middle of the Wetlands Walk.

What Type of Wetland?

There are many types of wetlands. Which of these best describes the wetland here at Aspetuck?

Coastal Marsh: Found along the ocean coasts, near the mouths of rivers or protected areas, coastal marshes contain salty water.

Inland Marsh: Inland marshes contain fresh water. Plants in a marsh are non-woody. Soft-stemmed plants, grasses, and sedges provide shelter for fish and many other types of animals.

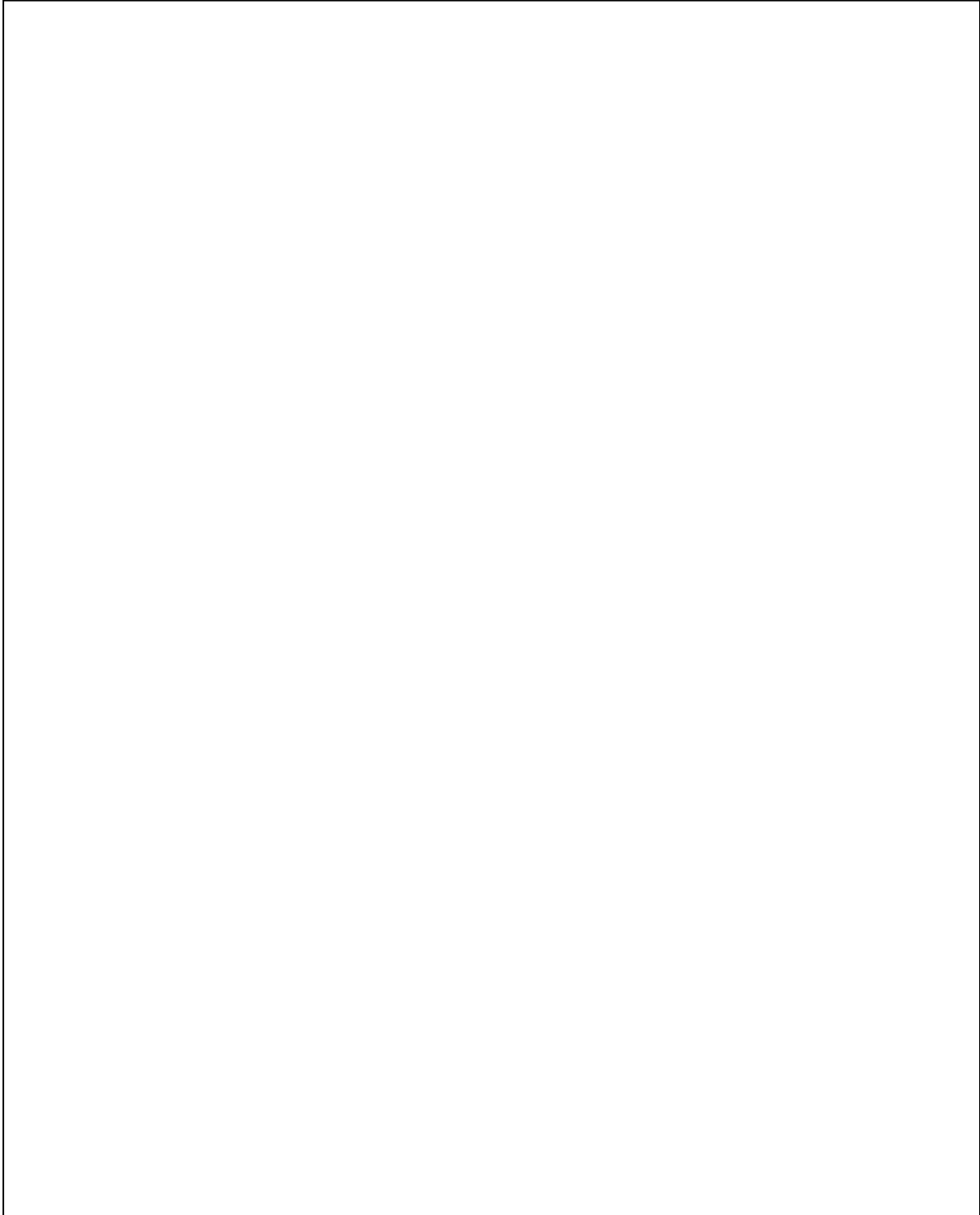
Vernal Pools: These small wetlands without any inlet or outlet fill with water during the spring, providing an important breeding habitat for certain animals. By summer, the water completely or mostly dries up, although a heavy summer rain can fill the pool again for a while.

Swamp: A swamp is dominated by woody plants, such as trees and shrubs. If the area has many trees, smaller plants grow underneath the tree canopy, such as ferns and skunk cabbage.

What type of wetland is here at Aspetuck?

Find a comfortable spot along the boardwalk and take time to really look out into the wetland. You may want to lie on your back and look up, or lie on your stomach, looking over the edge.

After a few minutes of observation, use the space below to record what you discovered!

A large, empty rectangular box with a thin black border, intended for recording observations. It occupies the lower two-thirds of the page.

Living or Nonliving?

Like any habitat, this wetland is made up of **living** and **nonliving** things.

When you first step onto the boardwalk, there is a large gray rock on your left. The **rock is nonliving**. It doesn't need food, water, or shelter to survive.

Growing near the rock are a few types of ferns. These **ferns are living**. In order to survive, grow, and reproduce they need a habitat that provides the right necessities for life.

FOOD

WATER

SHELTER

How many *living* and *nonliving* things can you find? List them below.

Living Things

Nonliving Things

Wetlands Are Wonderful!

Wetlands can be a...

Flood Buster! Wetlands act like sponges and soak up extra runoff water during storms. The wetland here at Aspetuck helps control the extra rainwater that doesn't soak into the ground. You probably walked up the hill from the parking lot and then down a hill to the Wetlands Walk. And if you look at the end of the boardwalk, what do you see? Another hill going up! When rainwater runs down a hill and runs into the wetland, the water slows down and has a chance to soak into the earth.

Reservoir! Wetlands may not look like a big, open, lake-like reservoir, but their sponge-like soil is very good at storing water for people, plants, and animals.

Strainer! Just as your kitchen strainer catches the pasta and lets the water drain through, the thick wetland vegetation catches and holds onto the silt and sand that may be carried by runoff. The wetland at Aspetuck helps strain the silt and sand, filter out pollutants, and improve water quality. Water that is full of silt and pollutants is unhealthy for fish, amphibians, aquatic insects, and people.

Rest Area! If you have ever traveled for a long time in a car, you know how good it feels to stop at a rest area for something to eat and perhaps a place to sleep. With the food, water, and shelter found in wetlands, migratory birds often seek out wetlands for their "rest area."

Nursery! For many animals, wetlands are a wonderful place to grow up! The habitat is rich in nutrients. The vegetation provides shelter for nesting and young animals. Many animals – such as dragonflies, toads, and salamanders – begin their life-cycle in the water, and live on land when they reach adulthood.

What animals are in the wetland habitat? Look closely into the water, or close your eyes and listen for animal sounds. Record what you see or hear.

Follow the Food Chain

One of the first spring wildflowers you will see is **Skunk Cabbage**. It grows on either side of the boardwalk, where the soil is slightly damp, or on small mounds where the water is deepest.

Skunk Cabbage is an amazing plant! It actually generates heat in the winter and early spring, melting the surrounding snow. Look for a maroon and green “hood,” known as a spathe, that first pokes up from the ground. This hood protects a fleshy club-shaped spike known as a spadix. The spadix looks fuzzy, but it is actually covered with small flowers that look much like cloves on a ham. Flies and gnats are attracted to the foul odor of the skunk cabbage and pollinate the flowers. Later in the spring and summer, the Skunk Cabbage plant produces large green leaves, giving the plant the appearance of cabbage.

A food chain shows how plants and animals are linked together through the food they eat. We could put Skunk Cabbage into an Aspetuck wetland food chain like this.

Skunk Cabbage → Gnat → Frog → Raccoon

Make a Chain!

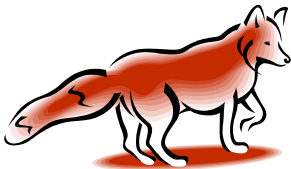
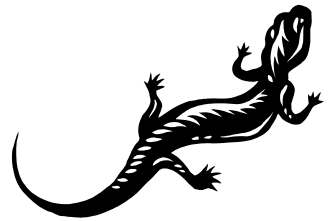
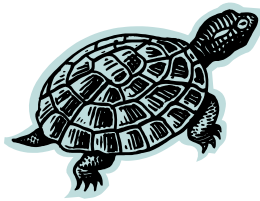
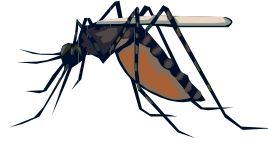
Using the plants and animals you see at the wetland or the suggestions below, make a few other Aspetuck food chains.

Algae	Red Maple Seeds	Skunk Cabbage	Leaves	Duckweed	Flowers				
<i>fly</i>	Gnat	Bee	Diving Beetle	Mosquito Larva	Arrowhead plant	Woodpecker			
Tadpole	Fish	<i>Frog</i>	Worm	<i>Skunk</i>	Fox	Heron	Garter Snake	<i>Duck</i>	Hawk

Habitat Is Where It's At!

On the opposite page, create a habitat for an animal that either lives in or depends on the wetland for survival. Use one of the animals below or one that you've seen or heard at the wetland.

Remember to include **FOOD**, **WATER**, and **SHELTER** for your animal's habitat.



Aspetuck Wetlands Walk Stations

Along the Wetlands Walk, you'll see stations marked with green circles and white numerals. These descriptions match the stations.

1. This **American Beech** marks the beginning of the Wetlands Walk. With its smooth gray bark and long pointed buds, the beech is easy to recognize. It produces triangular-shaped nuts that are eaten by squirrels, chipmunks, and other animals. Beech trees prefer drier upland soils.

2. Before stepping onto the wetland boardwalk, take a good look at the landscape and plants at the mouth of the trail. A variety of trees share space on the edge of the wetland.

Red Maple has rough gray bark. Its buds, flowers, and leaf stems are all reddish in color.

Directly across from the boardwalk opening is a **Swamp White Oak**. This is a small specimen with grayish ridged bark. As its name implies, the Swamp White Oak is often found in swamps or moist areas.

A slender **Hornbeam** tree with cool gray bark grows near the stone wall and to the right of the boardwalk. It appears to have muscles under the bark.

A **Shagbark Hickory** stands to the right of the boardwalk. Its leaves are compound with five to seven toothed leaflets. Its bark peels vertically and looks "shaggy."

3. This large rock is covered with **Lichen**. Example of a symbiotic relationship, the lichen is made up of an algal partner providing the food and a fungal partner providing the home. What we see is mostly the fungus that eats into a tree or rock, gets a grip, and provides a "home." Meanwhile, the important green alga, through photosynthesis, provides food for both the fungus and the alga. Lichen can produce chemicals that help break down rocks into smaller particles that will become part of the soil.

Also take note of the delicate **Cinnamon Fern**, as well as the somewhat stouter **Marsh Fern**. These shade-loving plants thrive in the moist soil.

Across the way you can see **moss** covering a decaying log. The moss holds water on the log and creates a damp habitat for small insects. These insects are helping to decompose the log, turning it into soil.

4. As the ground becomes more waterlogged, be on the lookout for **animal tracks** in the mud. Many animals come here for food and water. You may find the "two-piece" heart-shaped deer track, a fox track similar to that of a dog, a raccoon's long-fingered "hand-like" pawprint, or small bird tracks.

On the right you can see a large **Red Maple**, which, unlike some of the other trees at the beginning of the walk, can tolerate wetland conditions.

5. On the left, notice two trees growing very closely together. Their bark is very different. You'll recognize the rough bark of the **Red Maple**, and on its left is a **Yellow Birch**, with bark that peels horizontally into thin curls. Looking up in the right season, you'll see a mixed bouquet of their leaves.

On the right side of the boardwalk, look for the **standing tree stump**. Left standing, this tall stump becomes a “grocery store” for some of the animals. Beetles lay their eggs in the tree, and the hatching worm-like beetle larvae eat the decaying wood. In turn, birds – such as downy woodpeckers and nuthatches – will drill holes in the wood to find a meal of insects.

6. This larger area of the boardwalk is a great place to stop and relax. Note how deep the water is here. You will find different types of plants here than at the beginning of the walk. Some grow under the water, while others grow on the small “Island” mounds of earth and roots. **Skunk Cabbage** is prevalent here, growing on the earthen mounds. You may also find **Jewelweed**, with its orange-yellow blossoms, or **Poison Ivy** vines taking advantage of the crack of sunlight created by the boardwalk through the wetland.

Take a moment to get close to the water. Many of the insects and amphibians that call this wetland home are camouflaged, and it takes close observation to find them. Look for **Water Striders** skating across the quiet water surface. You may also see Diving Beetles, tadpoles, frogs, insect larvae, or other **aquatic animals**. **Salamanders** take shelter under rocks and fallen branches.

7. Here is a close-up look at **Lichen** growing on a tree trunk. This plant slowly grows here, not harming or decomposing the tree. Lichen is very sensitive to air pollutants and has been used as a natural air-quality survey tool. If the air here were heavily polluted, the lichen would cease to grow.

8. The boardwalk was created so that we could enjoy and learn about the wetland area. It helps protect the vegetation from being trampled. Creating the boardwalk did disrupt some of the vegetation. Look at how the branches of this bush are now growing straight up to the sunlight. While on the boardwalk, have you seen vines or other plants that are reaching for sunlight?

9. As you near the end of the boardwalk, take note of the soil and vegetation around you. Is it more similar to that at the middle or beginning of the walk? How is it the same? From what you’ve observed, you can imagine the contour of the wetland area. This low-lying land acts like a **broad bowl or sponge**, catching runoff from rainstorms and holding the water until it soaks into the ground.

10. Notice even more similarities to the vegetation at the beginning of the Wetlands Walk! Behind the large rock on the right is a small **Hornbeam**. On the left is another **Swamp White Oak**. These trees tolerate somewhat moist soil. On the left of the boardwalk exit is a **Hemlock** tree with flat needles. Farther up the hill, to the left of the trail, you will find an **American Beech** and a tall **Red Oak** with its distinctively vertically striped bark.

This ends the Wetlands Walk. Think back to the changes that you saw as you walked along the trail. A wetland is not “muddy, wasted space,” rather it is a very special habitat for certain plants and animals. Visit again in another season, and you’ll see many changes that occur throughout the year.