

TRAIL GUIDE

For the

BEAVER MEADOW NATURE TRAIL

At

Camp Addisone Boyce
30 Mott Farm Road
Tomkins Cove, NY 10986

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Second edition updated by Rachel Weiser
Gold Award Project
1997-98

BEAVER MEADOW NATURE TRAIL GUIDE

RULES OF THE TRAIL

1. Do not attempt to feed the wildlife.
2. Do not disturb the wildlife.
3. Do not pick the wildflowers, plants, etc.
4. Do not mark, change, or move trail markers.
5. In order to observe the wildlife, walk quietly on the trails.
6. Dogs are not permitted on the trail.
7. Do not trespass on private property.
8. Do not litter.
9. No smoking.
10. Please pick up any litter you may find and deposit it in a trash can.

Take only pictures, leave only footprints.

Enjoy our trail.

Thank you.

INTRODUCTION

This trail guide is designed to make you aware of some of the distinctive features of the Nature Trail, as well as the ecological concepts and relationships that occur throughout Beaver Meadow.

The long, blue numbered markers are in areas that are particularly interesting. Some offer opportunities for nature activities; you may even discover some surprising relationships between plant, animal and man. The numbers on the markers, when used in conjunction with the map, will provide you with an orientation to the trail.

Remember to use all of your senses to explore this trail. Don't forget your ears, nose, and skin. They can tell you many things that your eyes won't notice. Another useful aid is a magnifying glass. Magnification dramatically increases the power of nature. Do not be afraid to explore adjacent areas where there is much to be discovered.

Before rushing to the "official beginning" of the trail, cross over the wooden bridge and observe the stream below. There is a great deal of erosion on the banks of the stream, exposing the tree's root system. Why does this happen? There is also a lot of moss and natural debris in and about the stream. Look at the water color. Is it clear? If not, why not?

On your way to the trailhead, notice the large boulders and variety of trees. Pay particular attention to the tree trunk shapes and the different textures of bark. Feel some trees and describe what you feel. Many are quite tall and slim and compete for light. Look up at the tree canopy for shapes and patterns of branches.

#1

Go up onto the observation deck. Look out over Beaver Pond. Do you see any signs of wildlife? Can you see a beaver dam? What do you hear, see, and feel? This observation deck was built in 1996 by Kara Kelm as her Girl Scout Gold Award Project.

Near the trailhead there is an old tree stump with half of the trunk missing and much rotting wood. This is an example of decomposition which is nature's way of returning nutrients back to the soil. Over a long period of time plants animals and weather will decompose this stump. Can you see any evidence of plant and animal life?

Why is the area to the right of the sign sometimes swampy? This wet area is one of many you may cross on the trail. Think about how the wet areas affect the quality of life in the natural place.

#2

On the right there is an interesting tree. It is called an ironwood or musclewood tree. Do you know why? Feel it. The tree looks like it doesn't have any bark because it is smooth; its color is similar to that of iron. Just past it is a tree with a quadruple trunk. How did this type of growth happen? Notice the amount of fallen wood. Further on you will see many trees with vines. Further down also on the right is a set of roots out of the ground. Do you know what caused this tree to fall, and take part of the ground with it?

A stone wall appears on the left. Look at the type of construction, the shape of the rocks and the height of the wall. Where are the different sized rocks placed? Do you know why?

#3

Those large tree stumps by marker #3 look interesting! What can you find there? Is there anything living or growing there? There was a large stand of trees with beautiful smooth gray bark. The small trees and the stumps are beech trees in many stages of growth. Feel their bark. Look closely at the stumps. Do you see the growth coming out of them? This is called the succession of life. New trees are growing out of the old ones and so life in the forest continues. Can you find out how old these trees were when they fell? Look closer at the stumps and you can count the rings to find out. Do you know why these trees fell and took the soil with them? It was caused by a severe storm. Beech trees have a shallow root system. When the winds pulled on the trees, they took the ground with them.

On the same side you will see yellow trail markers on a red background. This is the Timp Meadow Trail which connects with the Red Timp Trail of the Palisades Interstate Park System. The stone wall continues, but there are also many large rocks behind it. Why do you think the wall was built? When?

#4

The stone wall begins to slant upward. Can you see any differences between this part of the wall and the section you looked at near marker #2?

Continue walking and notice the abundance of fallen trees on both sides. These will decompose and eventually help to form new soil. And so, succession of the forest continues.

Just ahead, observe the birds and plants at the water's edge. LISTEN to the life of the Beaver Meadow. This is the wetland area of Beaver Meadow. Beaver Pond is gradually getting

filled in with plant growth. Here again is the succession of life. The tree stump on you right was cut down by beaver. How can you tell?

#5

Along this section of the trail you can do a tree survey. Trees and leaves are very important to life: they provide shelter, warmth, moisture, shade, oxygen and remove pollutants from the air. How many different kinds of leaves, bark, seeds, and tree shapes can you find? Notice the many unusual trees with more than one main trunk. Are they the same kind, or different?

As you discover the variety of trees, pay particular attention to the leaves, as they are the key to life. Inside each leaf is a factory that produces food for the whole world. When a leaf is in the sunlight, it combines water and minerals from the soil with carbon dioxide from the air. This process is called photosynthesis and enables the leaf to make the food and oxygen needed by all animals and by each of us.

#6

The trail used to turn to the left here and went up a few steps. They were built to control erosion and lessen water problems caused by constant wearing away of the soil. Without the steps more trail maintenance would have been required and there would have been poorer access to parts of the trail. Step off the walkway and walk to the stone wall – see how the pieces fit. Do you think the Girl Scouts built this wall? On the path adjacent to the wall, you may see water bars to direct the flow of water. Proceed back to the walkway and continue along the level portion of the trail that parallels the Timp Brook. Take a deep breath and enjoy the outdoors!

#7

Look at the piles of natural debris to the right. Can this natural debris be used by birds and animals? How?

Did you see the red and white marker? It is an orienteering marker. Orienteering is the use of a compass and map to find your way in the outdoors.

#8

As you cross the rock lined stream, see if there is water under the bridge. When would you expect to find water here? This is another example of water run-off and how it affects trail construction. Water is essential to maintain the life of the flora (plants) and fauna (animals) in the area. After crossing look to either side. There are some good views of open spaces.

#9

As you approach this area, look to your left and up the hill. What you see is the result of heavy water run off. Notice the piles of natural debris. How do you think they got here? Keep walking and observe the open areas. On either side of the trail are bushes that may have berries: these are Japanese Briar bushes. The berries are NOT edible.

There is a great view of the pond and of the homes of our neighbors. Buildings so close will have an effect on the ecological relationships of a natural area, but hopefully the impact will be minimal.

Up ahead on the left of the trail is a large, double trunked maple tree with a massive root system that spreads across the trail. How big do you think the system is under the ground? Do other plants have such large tree root systems? In many kinds of plants the roots are much more extensive than we think.

Walk over to where you can see the pond and take a closer look. Listen to the sound of the forest and the marsh as you walk. There is a multi-trunked tree on the right. Is it similar to the one at marker #2? How? As you continue to the next marker notice the pond on your right.

#10

You have now arrived at the Outdoor Classroom – a place where you can find a bench, sit quietly, listen and look around you. Enjoy the peace and quiet. Can you identify some of the trees in this area? You can also look at the pond from the Outdoor Classroom.

#11

After resting, stroll to the corduroy bridge. Can you see under it? Is there evidence of erosion? If there is water here, notice the way the stream meanders. If there is no water, why? Cross the bridge carefully and continue to the Timp Brook Bridge. Stop. Look around. You have just left the hardwood habitat – an area of trees that provides food and homes for birds and animals. Now you are entering a wet area – another kind of habitat for wildlife. The area where two habitats meet is called an edge. Edges provide homes for wildlife that travel short distances and take advantage of the foods available in each.

#12

As you cross the Timp Brook Bridge – look at the streams that meet and flow under the bridge. Is the water flowing fast? Is it clear? Can you identify any plant life? Do you see any fish, frogs or insects?

As you step off the bridge onto the rock wall, take note of its construction and compare it to the sections of wall near markers #2, #6, and #14. Proceed with caution as there may be small animals that have made their homes in the rocks.

As you cross the second bridge, look both ways. Notice the tree stumps, the color of the water in both the stream and the pond, the direction of flow of the water, and the various types of grasses, sedges, and wetland plants in the marsh/pond area. What can you find in the water?

#13

As you step off the rock walkway, look to your left. Do you see the new houses? This shows how man removes wildlife habitats. It also shows our encroachment definitely has an effect on this natural area.

Follow the trail and proceed along the walkway. While looking at the pond, keep in mind that many tiny critters use it for food and shelter. This is their habitat. A pond is a good place to discover food chains. After careful observation, maybe you can figure out who eats whom. A food chain begins with green plants that are used by plant-eating animals (herbivores), which are in turn used by meat-eating animals (carnivores).

While on the walkway, look closely at the plant growth on either side. This area of the trail is a marked change in habitat from the first. Why is plant and animal life different? The

water sources play a prime role here. Does this walkway serve a purpose other than keeping your feet dry? It helps to preserve a delicate portion of the trail and therefore allows access that would otherwise be impossible.

Study the houses and consider the impact of development so close to the Nature Trail. Why is the retaining wall around the private property necessary? What could happen to the Girl Scout property without it?

Take a closer look at the pond, but please stay on the walkway. We want to prevent erosion and provide growth of the plants and animals near the water's edge. There will be a place to gain closer access to the pond later on. Listen to the sound of the pond.

#14

Walk up a slight hill and into a shaded grove of black birch. Take note of the odd-looking root systems on these trees. We have named this area the Indian Mounds. There are some animal homes around here; see if you can find examples. Follow the path through the Indian Mounds. There is also a birch tree that is split up the middle. Do you know why this happened? Perhaps a small animal has made its home here and caused the tree to split. As the tree grew, maybe the split grew also.

#15

One can see many ecosystems, or habitats, at Beaver Meadow, all existing together rather peacefully. The plants and animals that live here rely and depend upon each other for such life-sustaining factors as sunlight, water, food, and shelter. Ecology is the science that studies these interrelationships.

Here you can go to the water's edge. Do you see the different types of plants and animals that live in the pond area? What else do you see?

#16

Just before the marker is a tree on the right that is being held up by grapevine. Do you know why?

Walk along this old road. What was its purpose many years ago? There were probably many of these roads through the area, which used to be mostly farmland. Look at the stone wall on the left. How is it different from the one on the other side of the pond? The size of the rocks is smaller and the method of construction is visibly different. The growth of mountain laurel on the hillside beyond the wall is particularly pretty when it is in bloom. Can you see the light green lichen growing on the rocks?

#17

As you walk along you can see that Beaver Meadow is in a valley. How long ago do you think the ridges and valleys were formed? There are many tall, thin trees on both sides of the road, especially on the right. Many of these are black birch trees, but of special interest are the larch trees, also called tamaracks. Unlike most conifers (evergreens), larches are deciduous. This means they shed their soft needles annually.

As the rock wall on the left side nears the road, notice the rock slide. It is the result of erosion over a long period of time. Do you think these rocks were used to make the stone wall? Notice the many beautiful shades of green from the moss, ferns, and mountain laurel.

#18

Just before the Nature Center you will find several boulders on the right. Look at the smaller pieces and the way they are split. They probably once fit together, and we can only wonder what kind of force it took to break them apart. See if you can figure out how they fit together. Use a magnifying glass to examine the moss cover on the rocks.

There are many kinds of trees on the left. Are they the same or different from the types found at the beginning of the trail? This area can be very wet. A lot of water runs off the hillside to low places. Since there is no drainage into a body of water, it can collect in low areas.

Ahead of you is the Nature Center building. This marks the official end of the trail. The next time you come try walking the trail backwards. Seeing things from other directions can lead to new and interesting discoveries. Above all, have fun and appreciate the many wonders of nature. They seem to unfold endlessly, and each moment is a miracle!

Please visit the trail again; see if you can observe anything different the next time you are here.

Please return this guide to the box where you picked it up.

Any borrowed equipment should be returned to the Nature Center. Feel free to spend as much time as you like visiting the original Nature Center. Most of the displays have been moved to the Environmental Learning Center (ELC) in Main camp.

Beaver Meadow, and its various facilities, is available for day events and overnight camping. In addition, there are several elements of the Initiative games course in Beaver Meadow.

Thank you to all who have helped with the revision of this Nature Trail Guide.

With continued and sincere appreciation to those volunteers whose original vision and hard work resulted in the creation of this Nature Trail.

Beaver Meadow Nature Trail Committee 1981-1984:

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And to the many Girl Scout and community volunteers, whose interest, support and personal contributions have resulted in major improvements and additions to the Nature Trail in recent years, we are most grateful.

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