

Sawyer Mountain

The Smith Trail - 1.4 miles each way, moderate

The stately oaks of Sawyer Mountain evoke a warm, dry, peaceful place. But beneath these forests, logging roads, wolf trees, and old stone fences linger like apparitions. The Smith Trail is ready to sweep hikers through nearly two centuries of Sawyer Mountain's tumultuous history. Tighten your hiking boots; you're about to go back in time.

## **Getting There**

From ME Route 11 in Limerick, turn on to the Emery Corner Road from near the mill. Follow the Emery Corner Road for 2 miles until it ends at Sawyer Mountain Road. Turn left on Sawyer Mountain Road and follow it for 1.1 miles to the parking lot on the right, marked with a small wooden post carved with a turtle. Beyond the parking area, Sawyer Mountain Road rapidly becomes impassible to vehicles.

Naturalist's Notes

Look for Canada mayflower, wild sarsaparilla, hairy solomon's seal, and doll's eyes in the herb layer here.



Northern red oak leaves



**①** Where We're Going, There are No Oaks The trail enters an Oak - Northern Hardwoods Forest.

A to map

Take a good look at the Oak - Northern Hardwoods Forest around you. As you walk, you will find clues left from a time when there was no forest here. This forest is composed primarily of northern red oak, American beech, sugar maple, and red maple, with an occasional white ash in the understory <sup> $\circ$ </sup>.

The oak tells us the most about the site. Northern red oak usually grows on warmer sites more typical of southern New England, though it ranges as far south as Alabama. In Maine, forests like this are most common on low, sheltered slopes in the southern part of the state, where it is slightly warmer than in the mountains or in the north.

Northern red oak can be identified by its tight furrowed bark with long continuous ridges, its dark green leaves that are longer than wide and have pointy bristle-tipped lobes, and its fruit, the acorn. Acorns on northern red oak take two years to develop. They feed dozens of animals, including ruffed grouse, blue jays, white-breasted nuthatches, squirrels, and bears.

Up next: Can you find two signs of logging before the next stop?

## Naturalist's Notes

This is a good place to look and listen for ground-nesting birds like ovenbird, hermit thrush, and black-and-white warbler.





Spore-filled capsules visible at the top of the sporophyte of a moss



A to map

At approximately 0.2 miles, the path widens into an old, rutted logging road.

Welcome to the 1980s. Back then, a logging company was cutting down trees and dragging them out of this forest on furrowed logging roads, including the one you're walking on. Look for flat-topped stumps here; they are evidence that trees have been cut down by people, rather than blown down in storms. Rate of stump decay is highly variable and depends on the species of tree, but the stumps of most broadleaved trees rot away completely within 30 years. The Francis Small Heritage Trust acquired this land shortly after it was logged

The logging road is a ribbon of moss on an otherwise drab forest floor. Look for sporefilled capsules atop tiny stalks. Every moss has two phases to its life cycle: the gametophyte phase and the sporophyte phase. During the leafy, green gametophyte phase, male and female parts produce sperm and egg cells. Depending on the species, the male and female parts can be on the same plant or on different plants. With the addition of water, the sperm cells from this moss are able to swim to the egg cells, where fertilization takes place.

From the fertilized egg grows the sporophyte, clearly visible as thin stalks emerging from the leafy, green gametophyte. At the apex of the sporophyte, you can see spore-filled capsules. Each capsule awaits suitable conditions to release its spores, which will germinate into a new gametophyte.

Up next: What would make a tree grow out rather than up?

③ **The 1800s: Sheep Everywhere** -70.760641, 43.736937 At 0.3 miles, the trail veers left off of the logging road and passes a large fallen tree.

What does a tree need to survive? Water, nutrients, and light. Light often dictates a tree's shape (its growth form). In a forest, trees reach toward the sun, sometimes in competition with their neighbors. As they pursue sunlight, these trees develop tall, narrow crowns.

Before this tree fell, its girth dwarfed the younger trees around it. As you round the upcoming bend, keep an eye out for other trees of the same stature, particularly massive trees with low, thick branches. The wide, low branching form of these trees indicates that they grew in an open field with no competition from other trees. These trees, which are commonly called "wolf trees," are excellent indicators of forested sites that were formerly used for pasture.

Sheep farming increased dramatically across New England following the war of 1812, when the U.S. government began taxing English goods, including wool. In 30 year's time, the number of sheep in New England jumped from the low thousands into the millions. To accommodate these grazers, most of New England was cleared for pasture. At this site, over 100 years ago, these wolf trees were probably providing shade for sheep or other grazing livestock.



Pasture tree. Note branching near the ground



Stone fence

Up next: Why might early New Englanders build fences of stone instead of wood?

Maine's "Stone Age" -70.759303, 43.738768
At 0.5 miles, the first of many stone fences crosses the trail.

Between 1810 and 1870, the stone added to fences in New England exceeded the mass of stone in the Great Pyramids of Egypt. Farmers built fences to surround their gardens or contain animals that could otherwise destroy neighboring gardens and crops if allowed to wander free. But why would farmers build fences out of heavy stone rather than wood?

A to map

A to map

In the mid 1800's, the landscape was largely treeless with the exception of a few shade trees for animals. Barbed wire would not be invented until the 1870's. Meanwhile, seemingly unlimited stones, remnants from the last ice age, wriggled out of the fields every spring, pushed upward by the freezing and thawing of the ground. Given the abundance of stones and the scarcity of wood during this time, it's easy to imagine why farmers built stone fences.

The size of the stones is a good indicator of the purpose of the fence. Fences built with small stones likely had two purposes: to enclose crops, and to be a dumping ground for the unwanted stones that regularly appeared where the crops were grown. In contrast, fences built with larger stones likely contained animals.

Up next: How can you tell poison ivy from other three-leaved plants?

(5) **Guards of an Old Homestead** -70.760947, 43.742308 The foundations of an old homestead are directly across from the T in the trail.

The remains of the Sawyer Family Homestead are hidden just a few feet from the trail at the T intersection. If you go looking for it, be careful: stinging nettle and a layer of poison ivy guard the foundations of several buildings and a well.

To identify poison ivy, don't just look for leaves of three as you may find yourself avoiding strawberries, jack in the pulpit, trillium, and other delightful three-leaved plants. In addition to being a creeping plant with three leaflets per leaf, poison ivy usually has asymmetrical side leaflets and a longer leaf stem (petiole) on the center leaflet (see illustration). While the leaf edges often have teeth, they are usually few and large as compared to the many small teeth of strawberries or wild sarsaparilla.

You are welcome to admire the homestead, but please leave it as you found it.

Turn right at the T.

Up next: What species of frog calls during the day?





Poison ivy. Notice (A) that the stem of the center leaflet is longer than the stem of the two side leaflets and (B) that the side leaflets are asymmetrical. Drawing by K. Finan



The homestead is also a good place to look for lily of the valley, escapee of a past garden



Green frog



Common juniper

**(6) A Romantic Spot for Frogs** -70.759609, 43.743265 130 yards after the T, a shrub swamp on the right stretches over a small section of Old Sawyer Road.

Listen for a distinct "*unk*" reminiscent of someone plucking a loose banjo string. If it doesn't put you in the mood for love, you probably aren't a female green frog. Unlike most frogs that call primarily at night, green frogs call throughout the day.

Both male and female green frogs are territorial, but males abandon their territories for shallow ponds and lakes during late spring and summer, where they call for females. Females spend only about a week at these breeding sites, where they mate, lay up to 5,000 eggs, and depart. The eggs hatch less than a week later, releasing an army of dark green tadpoles into the water. Green frog tadpoles won't metamorphose into adult frogs until the following year.

Up next: A prickly bush or a spicy globetrotting shrub (left)?

Juniper on the Rocks -70.756159, 43.747163
At the last junction (mile 1.2), make a right to ascend into an Oak - Pine Forest.

On the final ascent, white pine joins red oak in the canopy while lowbush blueberry creeps near the ground. You've entered an Oak - Pine Forest. This natural community is often a successor of old pastures, and here common juniper lingers as a clue to former land use.

Common juniper, with its small, sharp tipped needles, grows in open dry areas like rocky outcrops, sandy soils, and old pastures. Along the road, it appears that overgrazing or extensive road use eroded the soil and exposed the bedrock, providing an excellent juniper germination site.

Break a juniper berry  $\P$  with your fingers. What does it smell like? Juniper berries are used as a spice in some parts of the world. They are the only spice that comes from a conifer, or cone-baring species. Common juniper also has the distinction of having the largest geographic range of any woody plant on earth, with a range that includes Asia, Europe, Greenland, and North America. And if that isn't enough, it also provides the flavoring to gin.

A grassy patch with a southwestern view at the top of Sawyer Mountain <sup>®</sup> is a fine place to stop for lunch.

To return to the parking lot (and the present day), retrace your steps.

## Naturalist's Glossary

Understory: The layer of vegetation that grows between the ground and the highest layer of tree branches in a forest.

Natural Heritage Hikes is a project of the Maine Natural Areas Program in partnership with the Maine Trail Finder website. For more Natural Heritage Hikes, please visit www.mainetrailfinder.com.

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Naturalist's Notes 🌳

Technically, common juniper's "berries" aren't berries at all because juniper is a seed plant. In evolutionary time, seed plants (gynnosperms) developed before flowering plants (angiosperms). In order to have a berry, a plant must have a flower. This berrylike structure is a modified cone that looks like a berry. A to map