CAMDEN HILLS STATE PARK

Maiden Cliff Trail - 1 mile each way, moderate

This 50-foot ascent travels through a forest stamped with nearly 200 years of New England history. It terminates at a literal cliff-hanger: the site of a girl's fatal tumble from the cliffs more than a century ago.

Getting There

From Camden, travel north on US Route 1 to the intersection of ME Route 52. Follow ME Route 52 north for approximately 2.8 miles. The parking area for Maiden Cliff will be on the right.

Click numbers to jump to descriptions.

Wood thrush

Naturalist's Notes

While a typical Northern Hardwoods Forest is composed of sugar maple, American beech, and yellow birch, the tallest, most mature trees (canopy) of this more southern variation of the community are mostly red oak, typical of warmer, dryer sites.

① Sheep Maine-ia!

A stone fence crosses the trail approximately 50 yards from the trailhead.

⚐ to map

In the late 1800's, farmers added so much stone to these walls that their total mass across New England exceeded that of the Great Pyramids of Egypt.

People built many of the walls to contain Merino sheep, a breed popular in New England for its unusually soft wool. In many towns, farmers were required by law to contain their sheep within fences four-and-a-half feet high. Why use stone when wood is lighter and easier to build with? At the time, most of New England had been cleared of trees in favor of agriculture, so rocks were more readily available than wood, especially when they were emerging from the soil of fields and gardens with every freeze-thaw cycle.

By the 1850's, the price of wool had plummeted because of competition from western states, and sheep-raising in New England collapsed. Free of grazing pressure, the fields grew back into forests, like the Oak - Northern Hardwoods Forest ⚐ surrounding this stone fence returned. In spring, this is a good place to listen for the echoing, flute-like notes of the wood thrush, which nests in mature forests like this one.

② Before Columbus

The trail winds around a large boulder.

⚐ to map

As recently as 17,000 years ago, Maine's landscape was thousands of feet beneath the Laurentide Ice Sheet, which covered even the top of Mt. Katahdin. Most people

think of ice as a solid, but in large masses – glaciers – it is constantly, slowly shifting. As the sheet moved, it ground down everything that it came in contact with, rounding the tops of mountains and widening valleys. It gathered giant rocks, like this one, and dragged them a few yards or hundreds of miles to seemingly random places. It's why geologists call these boulders "glacial erratics."

After the glaciers retreated but before settlers cleared this land for farming, American beech was the most abundant tree species in New England. Healthy beech trees are usually recognizable by their smooth, light gray bark. This special bark keeps the tree from overheating by reflecting sunlight, discourages other organisms from growing on it, and most impressively, allows light to pass through it so that the tree can photosynthesize through the bark.

Beech bark disease

How would you describe the bark of the beech trees that surround the boulder? These beech aren't smooth at all, but are covered in disfiguring lesions, a symptom of beech bark disease. Despite its benefits, the beech's thin bark offers no defense against the beech scale, a tiny insect introduced from Europe in the late 1800's. And still worse, while burrowing into the bark to feed, the insect infects the tree with a destructive invasive fungus. The tree tries to isolate the fungus in ugly cankers, but fails. These openings in the bark make the beech tree more susceptible to infestation from insects, which attract woodpeckers. Too many holes and disruptions in the bark prevent the movement of life-supporting nutrients and the tree gradually weakens and dies. Beech trees are in decline all over Maine, and their loss affects many animal species, including black bear, that depend on beechnuts for survival.

③ **Stream Schemes** *-69.088818, 44.249179*   ⚲ to map
Two bridges cross branches of a stream.

Pause on one of the bridges to observe how several stream channels (tributaries) merge into a larger stream like branches joining the trunk of a tree. The word dendritic means "branching like a tree," so scientists call this a "dendritic stream pattern."

Dendritic stream pattern
Illustraton by Kelly Finan

Notice the darkening of the forest as you approached the bridge. The steep slopes of this damp, cool ravine provide ideal habitat for eastern hemlock, an abundant, shade-monopolizing, needle-leaved tree (conifer). Hemlock's talent for both generating and tolerating shade prevents the establishment of other species in the understory. Once hemlock is established in the canopy of a forest, it faces virtually no competition for light.

Hemlock was widely used in the 1700's and 1800's during the heyday of New England's leather tanning industry. "Barkers" would strip bark from the trees to supply bark mills, which would shred the bark to extract tannins, part of the tree's natural defense system. Tannins were used in the traditional tanning process, which softened leather and made it resistant to rot. As new sources of tannins were developed, the market value of hemlock declined dramatically. Today, neither hemlock's bark nor its wood commands a high price.
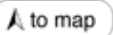
Oak-ash Woodland

Large, open-grown trees are sometimes called "pasture trees" or "wolf trees."

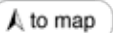④ **Written in Stone** *-69.08787, 44.251997*   🔱 to map

At the junction, continue up the slope on the Maiden Cliff Trail. Stop among the switchbacks where small boulders surround the trail.

When water freezes, it expands. If it seeps into cracks, water's expansion is so powerful☆ that it breaks bedrock outcrops into smaller pieces during winter. On steep slopes and cliffs, these boulder-size pieces tumble down, forming a sloping rock pile called a talus slope 🔍 .

A brownish-black paper-like lichen (rock tripe) colonizes the exposed rocks here. A lichen is an intimate partnership between a fungus and an alga; it allows both organisms to grow in barren, nutrient poor environments. Lichens are the first organisms (pioneer species) to colonize rock. They begin to crumble the surface of the rock and help to form a thin layer of soil that will eventually allow other species to grow there.

Look for wildlife around the talus slope. Caverns between the rocks remain relatively cool in the summer and warmer than surrounding air in the winter, buffering residents of these small caves against extreme temperatures. They also provide passageways to underground, where the temperatures remain above freezing in the winter, making these slopes ideal for hibernating snakes. If you're afraid of snake bites, don't worry; not one of Maine's nine snake species is venemous.

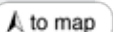⑤ **Oak-Ash Woodland** *-69.090251, 44.25295*   🔱 to map

At the top of the switchbacks, the forest opens into an Oak - Ash Woodland.

A sparse canopy of gnarled, stunted northern red oaks characterize this natural community. South-facing slopes like this one get more sunlight than north-facing slopes, so the soil here is dry. It is also thin, likely because overgrazing by sheep left scarce vegetation to hold the soil in place. Oaks flourish in warm sites but struggle in thin soil, so these trees are a dwarfed version of the tall, stately oaks that many of us know from more hospitable places.

Another resident of this marginal landscape is wavy hairgrass. This knee-high grass has numerous small silvery flowers that grow on long stems from tufts of wiry leaves. This species grows well on poor, dry, rocky soils, and is common in some areas of the woodland.

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⑥ **Massive Maples** *-69.091745, 44.254848*   🔱 to map

A large sugar maple looms to the left of the trail.

Compare this sugar maple to the trees around it. Does it have a thicker trunk? Does it branch lower to the ground, or does it grow straight and tall? This tree was once growing in an open area, probably a field. Abundant sunlight and no competition from other trees encouraged this distinct, low branching pattern. The forest around it emerged many years later. Do you see any other trees that match this form?

Turkey vultures are common soaring birds. While soaring, they are easily identified because they hold their wings in a "V" shape.

⑦ A Sudden Gust *-69.092947, 44.254658* [⚐ to map]
A large metal cross atop the cliff commemorates the death of Elenora French.

The air is rarely still at the edges of cliffs. As wind hits the bases of these formations, it is deflected upward – a phenomenon called ridge lift. The rising air helps soaring birds to gain altitude with minimal flapping.

Close your eyes and imagine this place in the mid-1800's. Perhaps, on a sunny afternoon in 1864, sheep pooled in the shade of small red oaks and sugar maples. A sudden gust of wind plucked a girl's hat from her head and tossed it from the cliff. Elenora French followed her hat, giving Maiden Cliff its name.

Naturalist's Glossary

Canopy: The highest layer of vegetation in a forest (the treetops).
Understory: The layer of vegetation that grows between the ground and the highest layer of tree branches in a forest. Includes seedlings, saplings, shrubs, and herbs.

Map sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community