Natural Heritage Hikes

Bald Mountain

Bald Mountain Trail - 1.3 miles each way, moderate

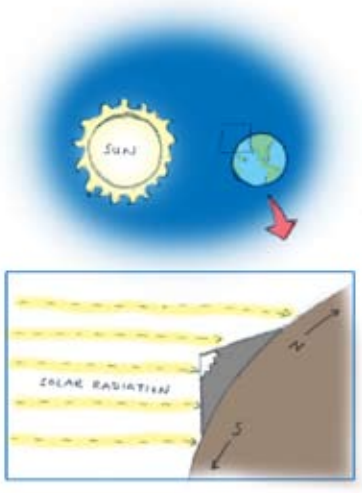
Bald Mountain's cool northern slope is well suited for cold-loving plants and a ski resort that closed years ago. The peak rewards hikers with views of two of the largest lakes in Maine: Mooselookmeguntic to the west and Rangeley to the east. Here, you may catch a glimpse of something bald – and it's not just a treeless summit.

Getting There

To reach the primary trailhead, follow ME Route 4 about a mile west of its intersection with ME Route 17 in Oquossoc Village, Rangeley. Near the end of ME Route 4, turn left onto Bald Mountain Road. Continue on Bald Mountain Road for about 0.5 miles. Signs and parking for the trailhead will be on the left. The trail leaves from the parking lot.

Naturalist's Notes

Look along the edges of the stream (the riparian zone) for facultative wetland plants like interrupted fern and long beech fern.



In northern latitudes, south-facing mountain slopes receive more sunlight than north-facing slopes.

Illustration by Kelly Finan.

① Shrinking Summits and Scarce Sunshine *-70.78979, 44.951447*

Around the first bend in the trail, a small stream bubbles beneath a bridge .

Each rainy day, Bald Mountain gets a little smaller. Water is a powerful agent of erosion; a single raindrop, hitting the bare earth at 20 miles per hour, can fling soil particles three feet into the air. This water travels down the mountain in streams, which rise rapidly during storms. After a heavy rain or during spring snowmelt, a stream like this one tears off and carries soil and large rocks down Bald Mountain.

Take a moment to orient yourself using the map above. What side of the mountain are you standing on? On average, the north-facing slopes of mountains, exposed to less sunlight, are colder than the south-facing slopes.

Imagine that you've taken a baking sheet outside in a rainstorm. If you hold the sheet level, it is hit by more raindrops than if you tilt it. The same concept works for sunshine. In the northern hemisphere, north-facing slopes receive less solar radiation than south-facing slopes. Because solar radiation affects temperature and fuels photosynthesis, north-facing slopes, like this one, have a cooler, moister microclimate and can support special plant and animal communities.

White egg sacs of woolly adelgid on eastern hemlock.

Sapsucker holes in hemlock bark.
Yellow-bellied Sapsucker image by Dominic Sherony.

Naturalist's Notes

Sugar Maple Forests are typically found at the bottoms of steep slopes, where nutrients have traveled downhill and accumulated. Here, look for species indicative of mild soil enrichment like doll's eyes and jack-in-the-pulpit (below).

Naturalist's Notes

Fungi and other microorganisms break down dead material on the forest floor, releasing nutrients into the soil. These decomposers complete their work rapidly in warm, moist climates. In cooler climates, like the upper-reaches of this north-facing slope, the process of decomposition is slower to return nutrients to the soil. To help retain nutrients,

② Making a Meal of a Tree

to map

About 30 feet beyond the bridge, a lone eastern hemlock looms beside the trail.

With a higher tolerance for shade than any other tree in New England, eastern hemlock is perfectly suited for this north-facing slope. You can recognize it by its marble-sized cones, short evergreen needles, and furrowed reddish-gray bark.

Through much of its range, the eastern hemlock is becoming a feast for the invasive and harmful hemlock woolly adelgid, a tiny sap-sucking bug native to East Asia that was accidentally introduced to Pennsylvania in 1967. Look for fuzzy, white egg sacs that coat the underside of hemlock needles and branches. Until recently, the woolly adelgid could not tolerate Maine's cold winters, but it is moving north with the warming climate. Though the woolly adelgid recently made its way into southernmost Maine, the cold winters of Maine's western mountains may keep this pest at bay for many years to come.

Look for an array of BB-sized holes arranged in horizontal rows on the eastern hemlock's bark; this tree is a food source to a clever species of woodpecker. As its name implies, the yellow-bellied sapsucker makes these sap wells one at a time to lap the sap from the tree. Sapsuckers sometimes guard these holes from other birds, like ruby-throated hummingbirds. Parent sapsuckers teach their young to "sapsuck" soon after they have fledged.

For the next 0.5 miles, the trail ascends gradually through a Sugar Maple Forest .

③ Plant Strategies for Getting Ahead *-70.778511, 44.947032*

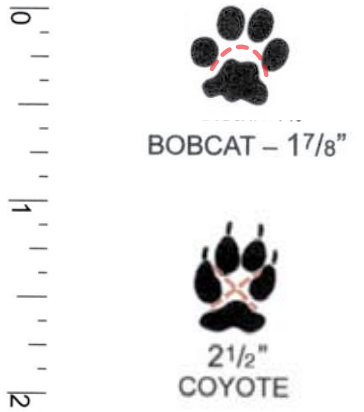
to map

The trail enters a dense evergreen forest.

Notice that the forest has transitioned from an open, leafy, Sugar Maple Forest to a dense stand of evergreens with the occasional large paper birch. As you gain elevation, the microclimate cools, making it suitable for these cold-adapted tree species . The ground is littered with fallen and decaying paper birches, evidence that forest succession is in full swing.

From an ecological standpoint, succession might be thought of as sacrifice for progress. It begins when a disturbance, such as a fire, a landslide, or a timber harvest, strips an area of vegetation. The first organisms to recolonize, known as "pioneer species," help create conditions that allow for the growth of other species. At this site, paper birch was a pioneer tree species, and over time it produced the shade and soil conditions necessary for the growth of balsam fir. In creating shade at the site, the paper birch prevented the germination of the next generation of birch, which needs ample sunlight to grow. Now the existing birches are aging and dying as the more shade-tolerant fir and spruce grow up among them. As the original paper birch die, the forest transitions, or succeeds, from an Early Successional Forest to a another forest type, in this case, Montane Spruce - Fir forest.

evergreen trees like spruce and fir keep each needle for many years before replacing it. This makes them better suited for cold climates than broadleaved trees like maples.



Numbers denote approximate length of footprint in inches.
Track images courtesy of the MDIFW.

Pink lady's slipper

④ The Paws of Predators *-70.776256, 44.944214*

to map

Where the topography flattens and the canopy opens near the summit, the trail crosses several boardwalks.

As a warm-blooded animal, would you rather den in a warm place or a cold place? Remember that south-facing slopes are warmer than north-facing slopes. This is no secret to the bobcat, which likely uses the warmer rocky outcrops on the south side of Bald Mountain as denning sites during the winter. Here, it can hunt for snowshoe hares in the dense evergreen forest but return to the den for shelter.

Look for bobcat tracks in the mud near the boardwalk. It's easy to tell a cat track from a dog, fox, or coyote track – simply look for the C-shape between the heel (metacarpal) pad and the toe pads. Dog tracks show a distinctive "X" pattern.

This is also an excellent place to spot pink lady's slipper. It's not always pink, but it can be distinguished from other Maine lady's slipper species by two broad leaves that emerge from the stem where it meets the ground (basal leaves).

⑤ Nests the Size of a Hot Tub *-70.775577, 44.943576*

to map

Climb the tower at the top of Bald Mountain.

The summit of Bald Mountain is only partially bald – you must climb a tower to see over the sparse Spruce - Pine Woodland that occurs here. Woodlands are differentiated from forests based on the amount of tree cover. They are more sparsely wooded than forests; the widely spaced trees are often shorter and allow more sunlight to reach the ground. The presence of a woodland indicates a site with growing conditions too stressful to allow the development of denser, more robust stands of trees.

"Woodlands" are more thinly wooded than "forests," with shorter, more widely spaced trees that allow more sunlight to reach the ground. The presence of a woodland indicates a site with growing conditions too stressful to support denser, more robust stands of trees.

Woodlands are often found on mountain summits, where wind, heat, and ice make soil development difficult. Mountain summits are also prone to lightning strikes and subsequent fires that can burn away vegetation, allowing fragile soil to erode and wash away. Once they are lost, it can take centuries before soils fully reestablish on bald summits. The resulting thin, sandy, drought-prone soil is one reason that trees have trouble growing in woodlands.

From the top of the tower, hikers may spot something else that's bald: the bald eagle.

In the mid-20th century, the pesticide DDT nearly wiped out the national bird of the United States. While DDT did not kill adult eagles, it interfered with the female's ability to produce normal, calcium-rich eggshells. The eggs would crack under the weight of an incubating eagle, which averages around 12 pounds.

Since the banning of DDT in 1972, bald eagles have recovered in Maine, and many pairs nest around the Rangely lakes. From this lookout, it's easy to see bald eagle nest-

ing habitat. Look for hot-tub-sized nests – the largest nests of any bird, some weighing nearly a ton – in large trees, especially eastern white pines, around lakes and rivers where there is minimal human activity.

Naturalist's Glossary

Erosion: The process by which soil and rock are transported and deposited in other locations.
Microclimate: A small area of land where the patterns of variables like temperature and moisture differ from the surrounding landscape. This can be a space as small as a few feet or as large as a few square miles.

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.

Funding for this project was provided by the Maine Outdoor Heritage Fund (MOHF) and the Recreational Trails Program (RTP), an assistance program of the U.S. Department of Transportation's Federal Highway Administration administered by the Maine Bureau of Parks and Lands.

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Map sources: Maine Office of GIS, Esri