

KENNEBEC HIGHLANDS

Sanders Hill Trail, Kennebec Highlands Trail – 2.9-mile loop, moderate

Conservation Alliance has been working since 1998 to conserve the Kennebec Highlands, now one of the largest conservation areas in central Maine. And located just a thirty-minute drive from Augusta, Sanders Hill is an excellent place to escape the bustle of the capital for a morning or an afternoon. This three-mile loop traverses a notable variety of landscapes, where a plant with many eyes, a disappearing wetland, and a glimpse of Maine's fiery past await you.

Getting There

The trailhead is on Watson Pond Road, which leaves from the west side of ME Route 27 about a mile north of the intersection of ME Routes 27 and 225 in Rome. A small parking area is located on the west side of Watson Pond Road, 1.3 miles south of Watson Pond Road's junction with ME Route



Naturalist's Notes



Sugar maple forests are usually found at middling elevations atop moderately drained soils, often derived from pelite or other subacidic bedrock.



Doll's eyes

① The Creepiest Plant in the Forest -69.921631, 44.566346 The trail enters a Sugar Maple Forest \circ .

♠ to map

In the spring and early summer, the buzzing "beer, beer, beer" song of the black-throated blue warbler and the ovenbird's coarse, ascending "teach-er, teach-er, teach-er, teach-er, teach-er, will lead you from the sunny parking lot into the shade of the sugar maples, beeches, and white ashes typical of a Sugar Maple Forest. A few shade-tolerant balsam firs have established beneath the hardwoods here, and are creeping toward the canopy.

Sugar Maple Forests, like this one, are a sign that the soil here is slightly enriched, or high in the nutrients that plants need to grow and thrive. Look here for alternate-leaved dogwood in the shrub layer, with jack-in-the-pulpit, false Solomon's seal, hairy Solomon's seal, wild sarsaparilla, and doll's eyes near the ground.

The twisted cousin of the buttercup and other cheerful-looking plants, doll's eyes is cursed with the appearance of an escaped horror movie prop. It is especially alienlooking in mid to late summer, when its thick, red fruiting stalks support round, white berries eerily reminiscent of eyeballs. Given their creepy appearance, it's no surprise that these berries are poisonous to humans, though they are harmless to





Royal fern (left), sheep laurel (right)



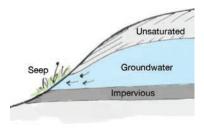
Common yellowthroat



Pink lady's slipper



Red trillium



Cross-section of hillside showing seep

the birds that eat and disperse them.

② Home Sweet Thicket -69.924369, 44.567129

♠ to map

At 0.15 miles, the southern end of Watson Pond is visible from the top of a large boulder accessible by a short ladder.

From the top of the boulder, you'll get a clear view over a thicket of winterberry holly and alder to the southern end of Watson Pond, shaded only by a few towering red maples. If you are carrying binoculars, look closer to the water's edge for royal fern, sweetgale, and sheep laurel.

Shrubby wetlands like this one are hotspots for wildlife. They make good habitat for birds that breed or nest in thickets like alder flycatcher, Wilson's warbler, Lincoln's sparrow, and common yellowthroat, a yellow warbler that is easy to identify by its black mask and repeating, three noted "witch-et-ty, witch-et-ty, witch-et-ty." Moose pass through the thicket on the way to the pond in the summer, where they can cool off, avoid biting insects, and fill their stomachs (capable of holding up to 100 pounds of food) with aquatic vegetation. In the winter, flexible young alder branches bend under the weight of the snow, forming a maze of tunnels that shield snowshoe hare from biting winds and overhead predators.

As you descend from the boulder and resume the hike, look for pink lady's slipper tucked among the rocks. Though it's not always pink (sometimes white), this is the only lady's slipper species in Maine with two leaves that emerge from the base of the plant where it meets the ground (basal leaves), and no leaves higher on the stalk.

At the first junction, turn right to follow the logging road.

Maine's Tiniest Wetlands -69.925315, 44.566729

∧ to map

The trail crosses a small wetland shortly after it turns onto the logging road.

This short stretch of old road is home to two of Maine's tiniest wetlands: one remarkable for its reliability, the other for its vanishing act.

First, to the right of the trail, an opening in the canopy beams sunlight onto cinnamon fern, royal fern, long beech fern, red trillium, rue, and foamflower. Here, groundwater is seeping to the surface, bringing nutrients from the bedrock with it.

Seeps, like this one, are small wetlands usually found on slight slopes or at the bases of hills. Groundwater that is trapped above an impervious layer of rock or dense soil flows horizontally out of the ground. The temperature of groundwater is unwavering compared to that of surface waters, which freeze, thaw, and warm with the changing seasons. Depending on your location in Maine, the temperature of the groundwater is between 37° and 47° F year-round. In early spring, you can sometimes spot a seep as an oasis of green moss and other small plants in a forest still covered in snow; this constant source of unfrozen water stimulates early plant growth.

About 50 yards later, also to the right of the trail, you may catch a glimpse of Maine's disappearing wetland. Vernal pools are small depressions in forests that fill with



Wood frog



Red oak leaf



Granite exposure at Sanders Hill

Naturalist's Notes



In early summer, dragonflies and damselflies are aerial predators that come from nearby streams and a beaver pond that are not visible from the trail. Look for chalk-fronted corporals (below), widow skimmers, and ebony jewelwings.



surface runoff in fall, winter, and spring. Over the summer they gradually evaporate, often completely drying up. Vernal pools are critical habitat for specially adapted species like fairy shrimp, blue-spotted salamander, spotted salamander, and wood frog that must complete their reproductive cycles in the pool before it dries. The isolated and often ephemeral nature of the pools keeps them fishless, favoring these otherwise vulnerable species.

When the dense canopy suddenly gives way to reveal a glimpse of Watson Pond to the east, you know you've entered the Ironwood - Oak - Ash Woodland.

Though they may sound like the same thing, woodlands and forests are very different to a community ecologist. Unlike forests, woodlands have partially open canopies allowing a significant amount of sunlight into the understory. Terrestrial or upland woodlands occur where the soil is excessively well drained and often nutrient poor. Typical sites are underlain with sand or till deposits, or thin soils on bedrock. Mountain and hill summits, as well as upper slopes with drier southerly exposures are good places to look for woodlands. In this woodland, stunted red oak, a species well-adapted for dry sites, is abundant, accompanied by white ash and an occasional ironwood (hophornbeam) above a carpet of grasses and sedges.

S Maine's Fiery Past -69.932525, 44.569454

★ to map

At mile one, the trail passes through a narrow crevice in a slab of outcropped bedrock.

Beneath the vegetation, the soil, and the layer of till left behind by the glaciers of long ago, the Sanders Hill Trail traverses what was once a bulge of hot magma rising from the center of the earth.

The surface of the earth is divided into tectonic plates that float on the earth's molten liquid mantle. When two plates collide and one land mass is forced beneath another, plumes of magma rise from the descending plate and travel toward the surface, often forming volcanoes. Magma that cools before it reaches the earth's surface forms large intrusions of granite, like this one, exposed long after it cooled by millions of years of erosion. The small area of granite bedrock exposed here is part of a much larger formation that underlies most of Rome and the surrounding towns!

⑥ At 1.1 miles, the trail reaches the summit (854 feet), marked by a rock cairn in the Ironwood – Oak – Ash Woodland.

© **Sun Seekers and Shade Dwellers** -69.936772, 44.569991 The trail ambles down rocky ledges on the west side of Sanders Hill and joins the gravel-based Kennebec Highlands Trail at 1.2 miles \P .

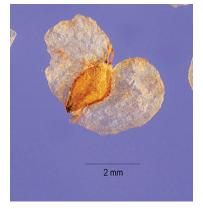
 \bigwedge to map

As any Maine farmer can tell you, cleared land left to its own devices does not remain clear for long. The same goes for this old road; it's slowly getting narrower as the forest encroaches on its flanks. Look for small gray birch and paper birch along the edges of the road; both are recognizable by their white bark. These species produce small,





Smooth gray birch bark (left) contrasted with peeling paper birch bark (right)



Magnified paper birch seed Image by Steve Hurst, hosted by the USDA-NRCS PLANTS Database



The maximum extent of glacial ice during Pleistocene time (2 million years ago to 10,000 years ago)

Map courtesy of the USGS



Bullfrog

wind-dispersed seeds that travel long distances and germinate easily in disturbed soil and full sun. These adaptations not only help these species colonize soil exposed by fire, wind, or landslides, they also ensure that paper birch and gray birch seedlings are among the first arrivals when fields or dirt roads are abandoned.

Eastern hemlock, with its short needles and marble-sized cones, thrives in the shade beneath the birches here. As the most shade-tolerant tree in New England, eastern hemlock will slowly creep toward the canopy, where its dense branches will eventually create enough shade to prevent other species from growing beneath it.

Braided Stream -69.932980, 44.561209

∧ to map

At 1.9 miles, the trail veers off of the gravel road just before a small bridge and parallels a braided stream.

This babbling brook may look peaceful on a sunny day, but the interwoven branches of this braided stream speak of a waterway with a temper.

During a storm or heavy snow melt, influxes of large volumes of water into this stream allow it to carry sediments and tumble rocks downhill. When the storm passes and the stream calms down, it stops moving these materials. With rocks and sand suddenly dumped in its channel, the stream is forced to find new paths around the obstructions. Often, on weakly sloped sites, such a stream will break into several channels that meander around the debris, forming a braided stream like the one that we see here.

Snapper Rock -69.929821, 44.562045

🙏 to map

At 2.2 miles, the trail passes a garage-sized boulder to the right, called "Snapper Rock."

As recently as 17,000 years ago, most of 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, very slowly flowing. As the massive ice 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 carried them for just a few yards or for hundreds of miles, depositing them in seemingly random places. Hence, boulders like Snapper Rock are called "glacial erratics."

10 Maine's Slimy, Nighttime Predators

∆ to map

At 2.7 miles, the trail passes to the left of a small pond in the forest.

In late spring and summer, you may hear this small pond before you see it. Male bull-frogs, with their low, resonant "jug, jug" call, contrast with smaller green frogs, and their slightly higher "unk, unk, unk." The bullfrog is named for its low bellow, which is reminiscent of a bull's "moo."

Bullfrogs are the largest North American frog species, reaching lengths of eight inches and weights of up to 1.5 pounds, though it is rare to see them that large in Maine. Even bullfrog tadpoles can reach nearly seven inches in length! With large body size comes a large mouth, large enough to fit a surprising variety of prey. Hunting at night by lung-



Wood strawberry

ing, open-mouthed, at their prey, bullfrogs have been known to catch and devour not only insects but also unsuspecting snakes, fish, mice, and birds.

At the end of the pond, the trail veers right to follow a wider path lined with wood strawberry and dotted with small clearings smattered with hawkweed, oxeye daisy, blackberry, cinquefoil, and red clover. This path will return you to the western edge of the parking lot. To explore and share more of Maine's extraordinary natural features, be sure to check out the other Natural Heritage Hikes covering dozens of trails from the coast to the western mountains.

Naturalist's Glossary

Erosion: The process by which wind and water transport soil and rock to other locations.

Hardwoods: Broadleaved trees; trees that do not bare needles.

Till: A jumble of large and small sediments, including clay, sand, silt, cobble-sized rocks, and boulders, left behind by a glacier as it melts.

Intrusion: Magma that cools into igneous rock beneath the surface of the earth.

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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Designed and written by Kelly Finan

Map sources: Maine Office of GIS, Esri