

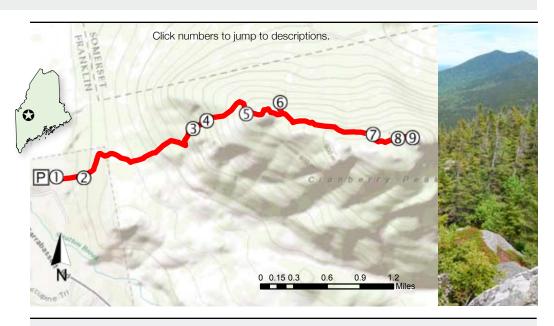
CRANBERRY PEAK

Bigelow Range Trail - 5.5 miles round trip, advanced

In the shadow of several of the highest peaks in the state, Cranberry Peak is the most accessible summit in the Bigelow Range. But it's not for the faint of heart. During this 2,000-foot ascent, hikers will witness a forest bracing itself for Maine's most brutal weather. Violent winds, glaciation, and logging all left glaring scars on Cranberry Peak's flanks and summit. At the top, even the toughest plants and animals must crouch to survive.

Getting There

Take Route 16 to to the intersection of Route 16 and Curry Road, which is 0.8 miles south of the center of Stratton. Follow it 0.7 miles to its end, where you will find the parking lot and trailhead.



① A Warm Forest Meets a Cold Forest

🙏 to map

The trail enters a Spruce - Northern Hardwoods Forest.

Naturalist's Notes



Spruce-Northern Hardwoods Forests occur in areas where the ranges of Northern Hardwoods Forests overlap with Montane Spruce-Fir Forests. Northern Hardwoods Forests, usually composed of sugar maple, yellow birch, and American beech, prefer relatively warmer, lower-elevation sites. Montane Spruce - Fir Forest, on the other hand, is dominated by red spruce and balsam fir, and prefers cooler, higher sites. As you traverse the next gently sloping mile, keep an eye out for representatives of both communities. Near the trailhead, red maple, quaking aspen, white cedar, white ash, red spruce, and balsam fir all clamor for light.

Why don't we find polar bears near the equator? The thick, white fur that keeps the bear warm and camouflages it among the icecaps would make it overheat in the tropics. Like polar bears, some tree species are well suited to live in cold climates. Short-needled evergreen trees like spruce and fir are better adapted for the cold tops of mountains than many broadleaved trees, like maple, ash, and beech, which prefer lower elevations.

Spruce - Northern Hardwoods Forests \P , like this one, are often found where lower-elevation broadleaved forests and higher-elevation evergreen forests meet; they contain members of both. For the next gently sloping mile, look for both broadleaved trees and evergreen trees. As the trail ascends to a colder (boreal) climate, more and more evergreens will darken the forest.

② Slimy Stump-lovers -70.41784, 45.138428

♠ to map

At 0.25 miles, the trail enters a dense thicket of small balsam fir trees.

Decomposing, flat-topped stumps give away this forest's history – it's been logged. Softwoods, like spruce and fir, rot from the outside in, leaving stumps that are solid in the middle. Hardwoods, like maple, beech, and birch, rot uniformly throughout.



Northern red back salamander Photo by Jon Carve

Examine the stumps. Can you guess if they were hardwood or softwood?

While stumps and rotting logs may be unappealing to the human eye, they are prime real estate to the most abundant land-dwelling vertebrate in New England, the northern red back salamander. This amphibian uses holes in rotting wood for breeding. It dangles up to 14 slimy eggs in grape-like clusters from the ceiling of a special cavity, where they are guarded by one or both parents until they hatch.

Look for salamanders along this stretch of trail. If you lift a rock or log to look under it, please replace it with care, being careful not to crush anything that lives beneath it. Avoid handling the salamanders; their wet skin is extremely sensitive to sunblock and bug repellent.

At the Appalachian Trail registry box $\Im(1.1 \text{ miles})$, the trail steepens. Continue uphill.





Blue-bead lily



Bunchberry



Painted trillium

4 Putting the "Ever" in Evergreen -70.405204, 45.14232 At 1.25 miles, the forest turns evergreen.

A to map

Half way up this steep, rocky slope, the canopy darkens. You've graduated from the warmer Spruce - Northern Hardwoods Forest into a colder Montane Spruce - Fir Forest. Beneath the red spruce and balsam fir, look for blue-bead lily, bunchberry, and painted trillium.

A secret to the evergreen's success in cold climates it its needles, which most people don't realize slowly but constantly fall from the tree. On a balsam fir, each needle remains on the tree for about four years before it is replaced. Every time a tree loses a needle, it forfeits the nutrients that are stored in that needle. In cold climates, dead organic material on the forest floor decays slowly and nutrients take a long time to reach the roots of the trees, so the evergreen trees in these climates retain their needles to minimize nutrient loss.

The British are Coming -70.400272, 45.142975 At 1.6 miles, there's a sign for Arnold's Well in a rocky clearing.

A to map

At Arnold's Well junction, hikers are given the option of veering right to visit the well or keeping left toward the peak. The well is named after Benedict Arnold, an American Continental general who deflected to the British during the Revolutionary War. The mountain range as a whole is named for one of Arnold's Division leaders, Major Timothy Bigelow, who climbed the mountains for observational purposes on his trek toward Canada during the war. The water in Arnold's Well is not safe to drink.

Many hikers assume that the gray surface underfoot here is bare rock, when in fact it's a gray lichen that coats the bedrock like paint. Lichens are a unique partnership between algae and fungi. The fungus creates a moist, hospitable environment for the alga, and the photosynthesizing alga in turn produces food for the fungus. This partnership has enabled lichens to colonize some of the most inhospitable habitats



British soldier lichen



Glacial erratic



Flag tree



Mountain Cranberry

on earth including the weather-beaten surface of bare rock. Lichens come in three basic varieties:

- Crustose: completely flat, like textured paint.
- Fruticose: with stalks that are round in cross-section and grow sturdy and upright or form loose tangles that hang from tree branches.
- Foliose: leafy, with flattened lobes that spread across rocks or bark.

The British soldier lichen (in the genus *Cladonia*) is a great example of a fruticose lichen; its small, red caps stand about an inch above the bedrock here. Lichens on bare rock catalyze the formation of soil by weathering the rock beneath them and enabling the slow accumulation of organic matter. Over many years, mosses will establish themselves here, and eventually larger flowering plants.

At 1.8 miles, a sign invites hikers to make a detour to the cave ©, a rock overhang.

Written in Stone -70.384785, 45.141102

A to map

At 2.4 miles, a mossy boulder, roughly the size of a garage, looms to the right of the trail.

Few natural forces are strong enough to move this massive rock, but ice is one of them. 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 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 from just a few meters to hundreds of miles, depositing them in seemingly random places. Hence, these boulders are called "glacial erratics."

® Clinging for Life

A to map

Surrounding trees get shorter during the final ascent.

Gnarled, stunted trees cling tenaciously to the rock near the summit, greeting hikers as they enter the Spruce - Fir Krummholz community. The term Krummholz comes from the German "krumm" (crooked), and "hulz" (wood), and refers to the bizarre growth form of trees in alpine habitats. Violent winds, often carrying snow and ice, limit the growth of these trees by bending and snapping branches.

Flag trees are characteristic of Krummholz. Horizontal branches are unable to grow into the wind, producing lopsided trees with limbs only on the leeward side. Flag trees are commonly seen in mountain areas with the greatest wind exposure.

9 The Cranberries of Cranberry Peak -70.381282, 45.140884

A to map

The trail reaches the summit at mile 2.7.

The trees gradually give way to a bald, pointy summit. Look closely to see the plant community here: low-growing black crowberry and alpine bilberry seek shelter beside rocks. Like the trees of the Krummholtz, these plants must crouch in order to survive the violent winds on this Mid-elevation Bald.

Find mountain cranberries, the peak's namesake, in corners and crevices on the summit. This creeping plant can be recognized by its small, thick, glossy, green leaves, its pink, bell-shaped flowers, or in late summer by its deep red berries. Its tart berries are seldom collected in North America, but are commercially cultivated in some northern European countries.

To the north, the slopes of nearby East Nubble give you a bird's-eye view of the natural community gradient you just traversed. Even from a mile away, you can see the vertical transition of light-green hardwood forest into darker spruce-fir forest.

Naturalist's Notes

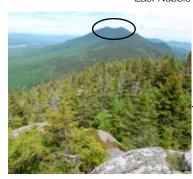
Peak, both part of Mt. Katahdin.

The two highest peaks in the state are Baxter Peak and Hamlin Beyond East Nubble, the ribbon of Flagstaff Lake dominates the landscape. This body of water flanks the entire northern edge of Bigelow Preserve. The lake was not much more than a small pond until 1950, when a hydroelectric dam was built on the Dead River, displacing three communities and parts of four townships.

To the east, you can look along the spine of the Bigelow Range. North Horn and South Horn are clearly visible from here. Avery Peak and Bigelow Peak, located beyond the horns, are not visible. To the south loom Sugarloaf (4,249 feet) and Crocker Mountains (4,229 feet), the third and fourth highest peaks in the state, respectively ? . Sugarloaf's ski trails make it easy to spot.



East Nubble



The Horns



Sugarloaf Mountain



Naturalist's Glossary

Alga: A one-celled or very small many-celled photosynthetic organism.

Alpine: Of high elevations above the treeline.

Amphibian: A cold-blooded vertebrate that often begins its life with gills but grows into a land-dwelling adult.

Canopy: The highest layer of branches in the forest.

Vertebrate: An animal with a backbone. This group includes mammals, birds, reptiles, amphibians, and fish.

Weathering: Physical or chemical processes that break down rock; the first step in soil formation.

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.

Designed and written by Kelly Finan, University of Vermont Field Naturalist Program

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