Natural Heritage Hikes

# Dodge Point Public Reserved Land

Ravine Trail and Old Farm Road – 2.6-mile loop, easy

*Positioned along the scenic Damariscotta River, Dodge Point has a long history to both the native Abenaki people, who hunted and fished here, and to European settlers, who farmed, established pine plantations, and harvested timber at Dodge Point. Today, wildlife takes advantage of the 500-acre Dodge Point Preserve, with bald eagles and osprey hunting for fish in the waters beside the point. The observant hiker will be rewarded with many signs of Dodge Point's history—both human and natural—during a stroll through these striking pine forests.*

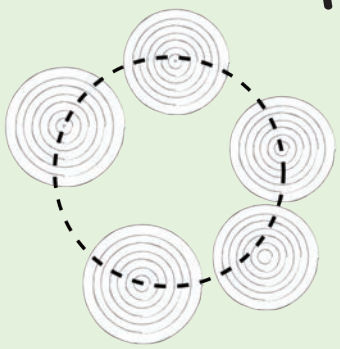
## Getting There

**From North:** Take the Newcastle exit from US Route 1 and turn left on Mills Road. Follow the road for 0.5 miles. At the stop sign continue straight, following River Road for two miles. The parking lot and trailhead will be on your left.

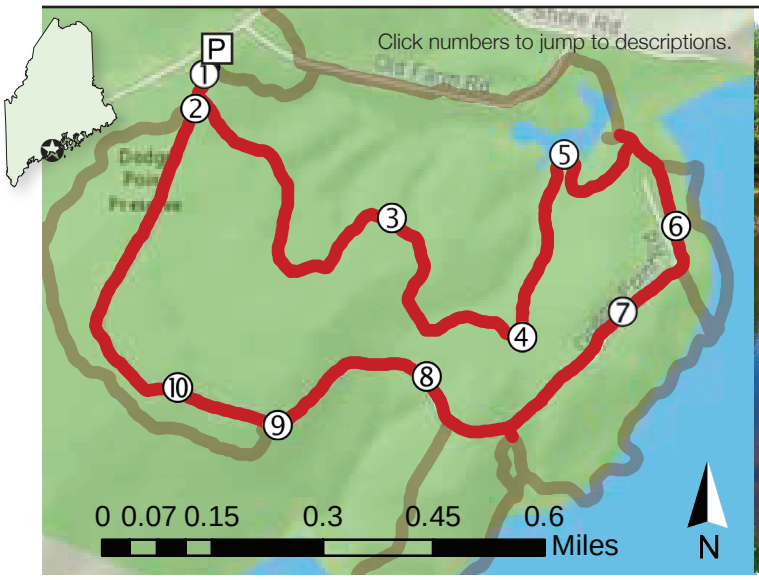
**From South:** Take the Newcastle exit from US Route 1. At the end of the off ramp, turn right onto River Road and follow it for two miles. The parking lot and trailhead will be on your left.

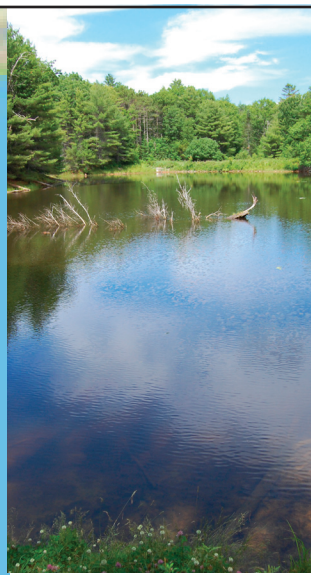
Northern red oak leaf

### *Naturalist's Notes*



To estimate the size of the original tree, make an imaginary circle that connects the centers of all of the new trunks at their bases.



① **Sneak Preview** *-69.567641, 43.994981* to map

*Starting on the right hand side of the kiosk, begin walking Old Farm Road.*

See how many signs of past land use you can find between the trailhead and the junction with the Ravine Trail.

The first clue is in the name of the trail itself. On either side of Old Farm Road, stone walls are disappearing, ever-so-slowly, beneath fallen leaves from the red oaks and red maples above. White pines mingle with eastern hemlock and balsam fir in the midstory.

About 20 feet before the junction with the Ravine Trail, look for a tight group of red oak trees that grow so close together they look as though they are sharing a root system. In fact, they are sharing a root system! Red oaks and red maples are among many hardwood (broadleaved) tree species that can regenerate from a cut stump. After one of these trees is cut, the stump sends up a cluster of new shoots in a response called coppicing. Over many years, the shoots grow into a tight cluster of trees .

## ② Coffee or Tea? *-69.568043, 43.994310*

to map

*About 250 feet after the trailhead, turn left to begin the Ravine Trail.*

Partridgeberry in flower

Coffee berries
Image by Jonathan Wilkins, Creative Commons Sharealike License

The first 0.5 miles of the Ravine Trail wind through a forest dominated by red oaks and red maples, with thinly scattered white pines and balsam firs growing beneath them. Where the trail skirts stream-carved ravines, the canopy darkens with eastern hemlock and red spruce. Look along these darker sections for partridgeberry and wintergreen.

Partridgeberry is a small, trailing plant with pairs of dark green leaves marked with light-colored veins. It produces pairs of white, trumpet-shaped flowers that mature into small red berries. Compare the berries of the plant by the trail here to the image to the left and you won't be surprised to find that partridgeberry is a temperate cousin of coffee. Look closely at a partridgeberry fruit and you'll notice that it has two spots; this berry is a "twin!" After a pair of partridgeberry flowers is pollinated, the fertilized ovaries of the two flowers fuse before ripening into a single fruit. The two spots that you see on each fruit are all that remains of the pair of flowers .

A few inches taller and identifiable by larger, shiny green oval leaves that smell of mint when crumbled, wintergreen is a low evergreen plant that is easy to find growing nearby. Like partridgeberry, wintergreen bears bright red berries, but it is more closely related to blueberries than to coffee. Both Native Americans and European settlers brewed a tisane from wintergreen leaves; it was particularly useful as a substitute for true tea—which comes only from the tea plant, *Camellia sinensis*—during the American Revolution.

### *Naturalist's Notes*

To a botanist, coffee beans are not "beans" at all! The thin-skinned fleshy fruits of the coffee shrub are actually berries. When we make coffee, we are roasting and grinding only the seed found within the coffee fruit. Bean is a term generally reserved for members of the pea family (Fabaceae).

## ③ Maine's Stone Age *-69.562615, 43.991864*

to map

*At 0.5 miles, the Ravine Trail turns right to parallel a stone fence across from a stand of white pines.*

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 destroy neighboring crops if allowed to wander free. But why would farmers build fences out of heavy stone rather than wood?

In the mid 1800s, the landscape was largely treeless with the exception of a few shade trees for animals. Barbed wire would not be invented until the 1870s. 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.

Red pine bark

White pine bark

Icebox ad from *Ladies' Home Journal*, 1915.

### *Naturalist's Notes*

Look here for common juniper, a frequent resident of open dry areas and disturbed sites. Common juniper is the most geographically widespread woody plant on earth and its "berries"—actually, modified cones—are used to flavor gin.

## ④ Red, White, and Birds *-69.562102, 43.989980*

to map

*At 0.7 miles, the Ravine Trail passes the roots of a fallen white pine and makes a hairpin turn to the left.*

Stand at the bend in the trail and look back at the forest surrounding the section of trail that you just traveled. The largest trees here are evenly spaced, evenly aged white pines.

Upon arriving in New England, Europeans harvested white pine so aggressively that Native Americans thought that these new settlers had traveled across the ocean in search of wood, having used it all up at home. In the early 1600s, the first Europeans to settle New England were captivated by 400-year-old stands of white pine containing trees up to 220 feet tal—nearly twice the height of surrounding tree species—and up to eight feet in diameter. Before long, nearly every one of these majestic trees was cut, many to be used as masts for British ships. The white pines that we see in this plantation today, though impressive, are small in comparison to their massive ancestors.

Identifiable by reddish bark that flakes off in a jigsaw-puzzle pattern, a different species of pine grows along the trail that lies ahead. Between 1930 and 1960, a fungal epidemic decimated white pine, causing practical New Englanders to plant red pine instead. Under natural conditions, red pine is far less common than white pine, growing mostly on well-drained sites with nutrient-poor soils and often a history of fire. As you travel through this red pine plantation, notice that white pines, with needles in bundles of five (red pines have needles in pairs), are the only pine species regenerating in the understory.

Listen in these pine groves for the soft trilling of the pine warbler, a small yellowish bird with an olive back that nests exclusively in pines. Because they reside in the treetops, they are more easily heard than seen.

## ⑤ A Different Sort of Ice Age *-69.558191, 43.993087*

to map

*At one mile, a fork in the trail leads hikers on a short detour to a bench overlooking Ice Pond . A dam is conspicuous to the northeast.*

Like Old Farm Road, Ice Pond was named for its purpose. Before the widespread use of electric refrigerators in the 1920s, ice from this pond was used in wooden iceboxes to keep perishable food cold.

In winter months, when the surface of the pond was frozen solid, people harvested the ice using special ice saws. The ice was likely stored in a nearby icehouse, where it was packed in sawdust and kept for many months, even after winter was over. Like a milkman, an iceman would travel from house to house, delivering ice for use in iceboxes, which were wooden cabinets lined with zinc or tin.

Horsetail

## ⑥ America's First Pot Scrubber *-69.556710, 43.993451*

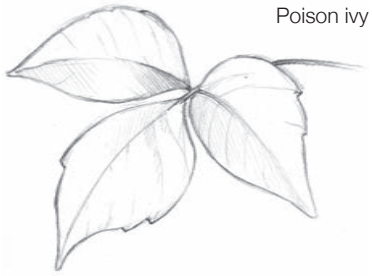
to map

*At 1.2 miles, turn right where the Ravine Trail reunites with Old Farm Road. Within a few hundred yards, a froth of horsetail covers the ground to the right of the trail.*

The leaves of horsetails (family Equisetaceae) aren't broad and flat like those of most plants, but resemble long bristles. They are arranged in whorls that emerge directly from the main stem, making these strange plants look a bit like feather dusters. Botanists consider horsetails to be living fossils, as they are the only remaining species of an ancient group of plants that once dominated the understory of Earth's forests, with some growing as tall as modern trees.

The cell walls of horsetails contain silica, a chemical compound commonly found in sand. The abundance of silica makes the plant abrasive, and North American pioneers used fistfuls of horsetail to scrub pots and pans, hence horsetail's other common name, scouring rush.

Poison ivy



Wood strawberry

Hog peanut

## ⑦ Leaves of Three…

to map

*Between the next two trail junctions, look for three species of three-leaved plants. Remain to the right at all junctions to stay on Old Farm Road.*

While the motto "leaves of three, let it be" is a great way to remember to distance yourself from poison ivy, adhering to it too closely may scare you away from strawberries, hog peanut, and other curious plants that can be found along this old road.

First, make sure that you can identify poison ivy. Poison ivy's three leaves are actually three leaflets that make up one compound leaf. The leaflets, often shiny, are typically two to four inches long with a few blunt teeth or small lobes. The middle leaflet has a short but noticeable stem and is slightly larger than the two side leaflets. The two side leaflets are asymmetrical, with one side being larger than the other (see illustration). It is important to learn this plant so you can avoid the irritating rash that it causes when touched. In Maine, poison ivy is most commonly found in sunny areas such as forest edges, sand dunes, and on old stone walls. Here, it is growing on the edges of the old road.

After you have found poison ivy, look for occasional wood strawberries dwelling in the same habitat. Wood strawberries are small, creeping plants that also have leaflets divided into three parts, but unlike poison ivy, they have leaves lined with numerous small, pointed teeth. In summer, their white five-petaled flowers and small, many-seeded strawberry fruits are also clues to their identity.

Finally, look for dense patches of hog peanut, another low-growing plant with leaflets in groups of three. In the case of the hog peanut, the leaflets completely lack teeth, and are clearly widest toward the base. Hog peanut climbs on other plants by twining thin, smooth stems around them, unlike poison ivy, which climbs by attaching numerous rootlets from its thick stem. Hog peanut, a member of the pea family, also has the special ability to use nodules on its roots to convert atmospheric nitrogen into ammonia, which is more useful to a plant. It will release this nutrient when it dies, leaving behind richer soil. Alfalfa, also a member of the pea family, has the same ability and is often used by farmers to enrich the soil as a cover crop.

Flat-topped stump

## ⑧ Tree Farm of the Year *-69.562034, 43.989080*

to map

*At 1.7 miles, a group of mossy, flat-topped stumps are visible to the right of the trail.*

Look for flat-topped stumps here; they are evidence that trees have been cut down by people, rather than blown down in storms. The 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.

Before the Bureau of Parks and Lands acquired it in 1989, this piece of land earned the title of 1978 Tree Farm of the Year, attesting to its skillful management. When managed with care, timber stands not only yield a sustainable tree harvest but can also provide habitat for many species of wildlife.

Wolf pine

## ⑨ Wolf Pines *-69.565925, 43.988089*

to map

*At two miles where the trail turn right, look for three large, squat pine trees to the left of the trail.*

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, usually in competition with their neighbors. This competition causes them to grow tall and develop narrow crowns.

These white pines dwarf the younger trees around them and contrast with the tall, straight pines abundant at Stop 4. 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" or "pasture trees," are good indicators of forested sites that were formerly used for pasture.

The old foundation to the right of the trail, now home to a shallow pool dotted with winterberry holly and home to numerous tadpoles in the summer, was likely the base of a house or a barn. A good bet is that 100 or more years ago, these wolf trees were providing shade for sheep or other grazing livestock. Sheep farming increased dramatically across New England following the war of 1812, when the U.S. government began taxing English goods, including wool. Within 30 years, the number of sheep in New England jumped from the low thousands into the millions. To accommodate these grazers, most of New England, including much of southern Maine, was cleared for pasture.

Bracken fern

Sweetfern

## ⑩ Oak – Pine Forest

to map

*For the last 0.6 miles of Old Farm Road, look for species indicative of an Oak – Pine Forest.*

Oak – Pine Forests, like this one, are the most abundant forest type in Maine's southernmost counties, and are often found colonizing abandoned farm fields that were once cleared for agriculture. Small-seeded white pines easily establish on bare soil while red oak's leathery leaves help it retain moisture on these well-drained sites. In addition to oak and pine, look for red maple, paper birch, red spruce, and balsam fir here, with lowbush blueberry, bracken fern, sweetfern, big-leaved aster, and common juniper near the ground.

*At the end of Old Farm Road, you've returned to 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

**Leaflet:** One leaf-like part of a compound leaf, easily confused with a true leaf.
**Midstory:** A layer of smaller trees in the forest, those that have not yet reached the size of the tallest trees and grow beneath them.
**Temperate:** Characterized by mild temperatures.
**Tisane:** Herb tea. A beverage made by steeping or boiling plant parts that are not leaves of the plant *Camellia sinensis*, from which true tea is made.
**Whorl:** A group of leaves that radiate from a single point and surround the stem.

***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.*

*Designed and written by Kelly Finan*

*Map sources: Maine Office of GIS, Esri*