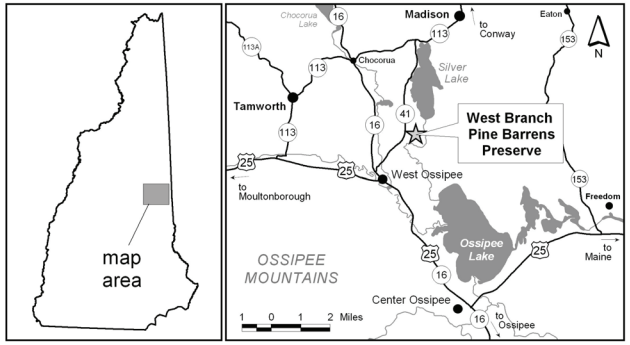
DIRECTIONS

From the junction of Rte. 16 and Rte. 41 in Ossipee, follow Rte. 41 north for approximately 2 miles, crossing into the Town of Madison. The entrance to the preserve will be on the right side of the road, marked by a TNC sign directly opposite Black Birch Rd. The first tenth of a mile or so in to the preserve is a class 6 dirt road. At a clearing ca. 0.1 miles from Rte. 41, the trailhead is marked by a kiosk and gate.



PRESERVE USE GUIDELINES

This preserve is open to the public for recreation and education. Please, for the protection of the area and its inhabitants, and for everyone's enjoyment:

- -Foot travel only; please stay on the marked trail (snowmobiling is permitted on some trails in winter)
- -Dogs must be on a leash
- -No horses, bicycles, or motor vehicles allowed
- -No camping, fires, swimming, or smoking
- -Do not collect or disturb plants or animals
- -Please respect private property
- -Carry out all trash and litter

THE NATURE CONSERVANCY

The Nature Conservancy is a leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. Since 1961, The Nature Conservancy in New Hampshire has helped protect more than 265,000 acres of ecologically significant land and currently owns and manages 28 preserves across the state. For more information:

The Nature Conservancy
22 Bridge Street 4th Floor
Concord, NH 03301-4876
(603) 224-5853
www.nature.org/newhampshire

PINE BARRENS

Pitch pine - scrub oak woodlands (also called pine barrens) are a rare natural community type in New Hampshire. They occur on sand plain settings with extremely well drained soils and a history of frequent fire. Pitch pine forms a woodland canopy and scrub oak is dominant in the understory. Common associates include lowbush blueberry, sweet fern, and distant sedge. A large number of rare butterflies and moths occur in this habitat because it supports the plants they require to live. Several rare plant populations and species of declining songbirds also occur here.

Most of the plant species in this community are adapted to fire. Fire also clears the forest floor of competing vegetation and lets in light, allowing the pitch pines to reproduce. Generally, a fire must occur at least once every 50 years to maintain this community. In New Hampshire, the absence of fire has allowed oak trees and fire-intolerant white pine, red maple, and birches to fill in canopy gaps in many of the state's remaining examples. Annual controlled burns at the Preserve foster new growth, maintain habitat, and improve safe conditions by reducing dead wood fuel .

The Ossipee Pine Barrens are by far the largest and least fragmented example of this community in NH, though smaller, remnant patches occur in Concord and a few other locations in the Merrimack River valley.

This brochure was created by the NH Natural Heritage Bureau as part of a series designed to educate the public about the state's special plants and natural communities. More site guides and profiles are available on the Visiting New Hampshire's Biodiversity program page at: http://www.nhnaturalheritage/org.

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Bureau

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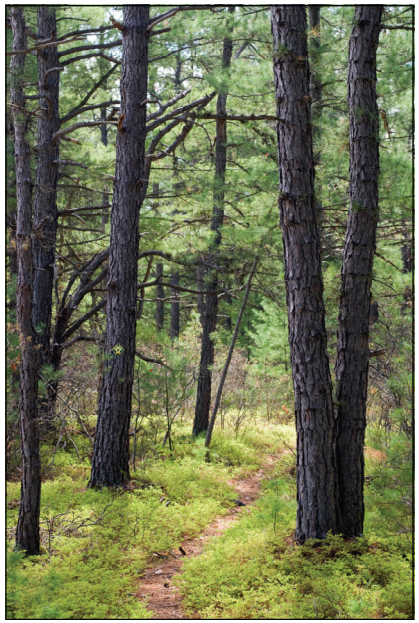
The DFL is an equal opportunity employer and educator.

NH Natural Heritage Bureau

Visiting New Hampshire's Biodiversity

West Branch Pine Barrens Preserve



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This brochure was paid for with funds from the NH Conservation License Plate
www.mooseplate.com

TRAIL DESCRIPTION:

This guide primarily describes the biodiversity seen along the Pine Barrens Loop Trail at The Nature Conservancy's West Branch Pine Barrens Preserve. The loop is roughly 1.5 miles long, and marked by small trail signs. It offers an easy excursion through a classic example of a ***pitch pine - scrub oak woodland*** community.

From the kiosk, follow the trail ahead for a short distance. Where it diverges, take the left branch along a wide, open fire road.

Pitch pine dominates the tree canopy here. It is an early successional tree that is well-adapted to surviving frequent fires. Its thick bark can withstand light burning. It also has serotinous cones, which open only when exposed to extreme heat. This allows the seeds to be released only after a fire, when forest duff has burned away, exposing the mineral soil the seeds need to germinate.

Though it reproduces most successfully after a fire, pitch pine also produces new branches in two other interesting and unusual ways. First, it grows new needle clumps directly on the trunk in a phenomenon called epicormic sprouting. This allows the tree to persist even after a fire has burned away all the other branches. Second, it is the only conifer in our region that can produce stump-sprouts after the main stem has been killed by fire or saw, often creating a thick whorl of new growth in a circle around the stump.

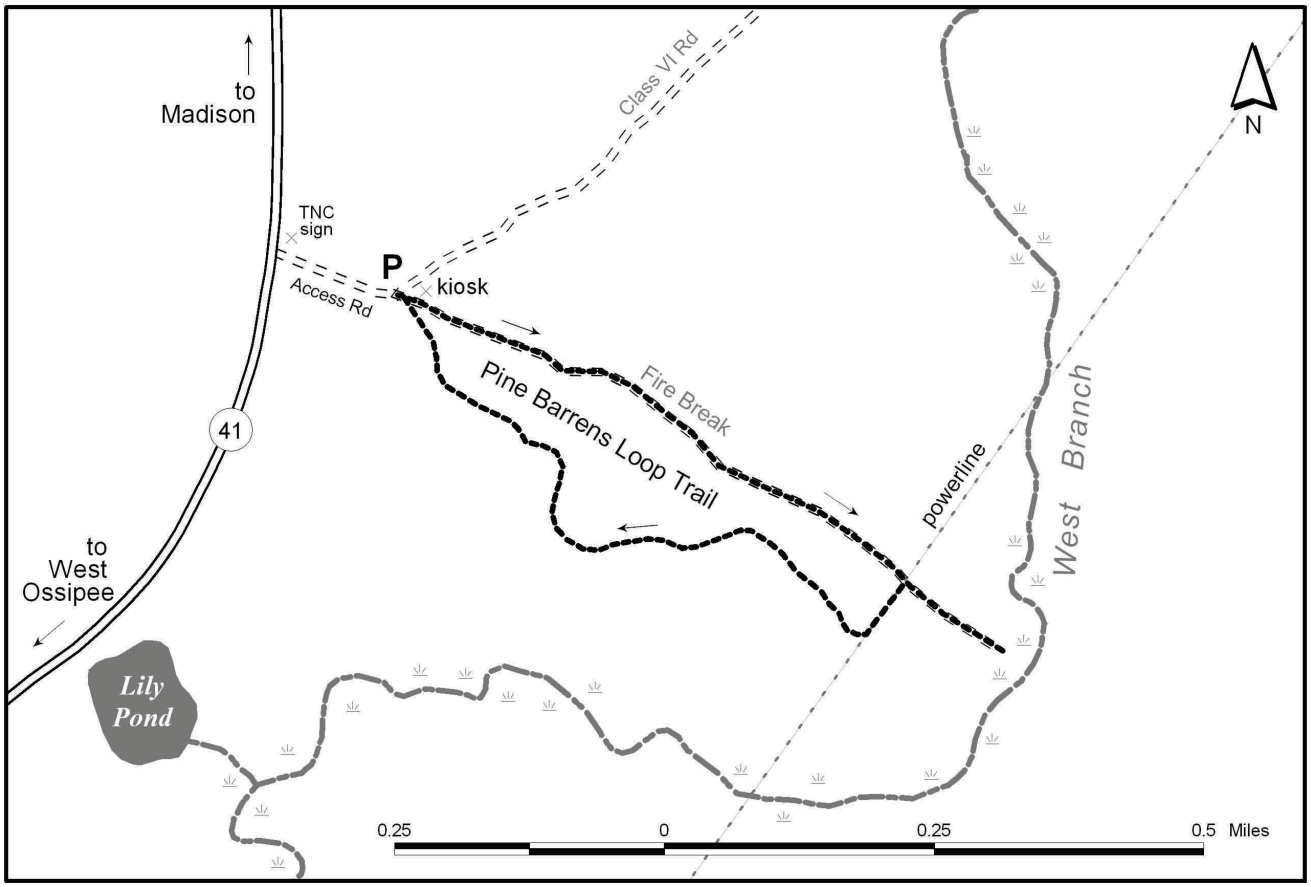
To maintain appropriate habitat for declining songbirds, rare moths and butterflies, and the natural community itself, The Nature Conservancy is now introducing prescribed fire every year at the Preserve. Fires are carefully controlled and only implemented under safe conditions. In addition, only small portions of the Preserve are burned in any given year to allow other areas to recover over time. These regular fires not only protect the natural features on the Preserve, they also protect neighboring property by reducing the woody "fuel loads" that accumulate over time, thus reducing the risk of uncontrollable wildfires.

The trail crosses a powerline just before reaching the West Branch of the Ossipee River. Take the trail straight ahead to the river (low spots may be too wet to pass in spring). The water in the river is clear, though the color is often a dark reddish-brown or "tea" color. This color comes from tannic acids leached from the slowly decomposing organic matter that accumulates under pine and oak trees. Such so-called "blackwater" rivers occur in areas of acidic, nutrient-poor soils. While they are common in the southeastern U.S., they are unusual in New Hampshire.

Return to the powerline and walk south several hundred feet to the other half of the loop. The trail becomes much narrower as it enters the woods, but this meandering section of trail offers more shade and a pleasant walk.

Along this section of trail, bracken ferns and blueberry shrubs grow close to the trail beneath the dense canopy of pitch pines. You will see more examples of epicormic sprouting on the pitch pines here, and more stump-sprouting as well. Besides pitch pine, two hardwood species of the pine barrens also stump-sprout frequently: scrub oak shrubs and gray birch trees. Young stems of these species can be seen clumped together in the woods along the trail.

Arriving back at the parking area, make sure to check for ticks before getting back in your vehicle. The preserve map available on site also shows other nearby trail locations in the pine barrens.



Maps and photos by Ben Kimball, June 2009.