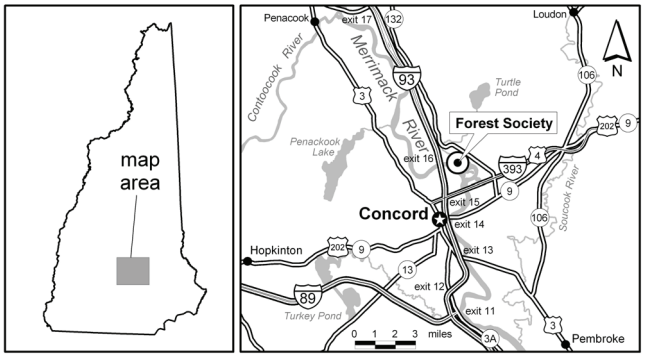
DIRECTIONS

From I-393 in Concord, take Exit 2. Turn R on East Side Dr. and travel about 0.8 miles. Then turn L on Portsmouth St. The unpaved parking area is about 0.5 miles on L, at the bottom of the hill.

From I-93, take Exit 16. Go R on East Side Drive, then R on Portsmouth Street and go ca. 0.6 miles (hard L at 0.3 miles). Park in the dirt lot on the R at the base of the hill.



PROPERTY USE GUIDELINES

Trails and parking lots on this property are open to the public from dawn to dusk for recreation and education. Please, for the protection of the area and its inhabitants, and for everyone's enjoyment:

- FOOT TRAVEL ONLY (NO HORSES OR BIKES)
- STAY ON MARKED TRAILS
- LEASH DOGS AND BE PET-RESPONSIBLE
- PLEASE RESPECT PLANTS AND ANIMALS
- NO CAMPING OR OPEN FIRES
- A CARRY IN - CARRY OUT NATURAL AREA

THE FOREST SOCIETY

The Forest Society is a statewide, private, non-profit land conservation organization. It is a unique blend of land trust, environmental advocate, and forestry association. The Society owns more than 120 properties in NH, has protected more than one million acres of land, and represents over 10,000 members. The award-winning Conservation Center, perched high on the bluff above the Merrimack River floodplain, serves both as the Society's headquarters and an education destination for the public.

Society for the Protection of New Hampshire Forests
54 Portsmouth Street
Concord, NH 03301
(603) 224-9945
www.forestsociety.org

FLOODPLAIN NATURAL COMMUNITIES

The Forest Society's Conservation Center headquarters sits atop a steep bluff above a flat, riverside terrace that supports a mosaic of several floodplain natural communities and managed habitats. On the lowest portion of the terrace, by the edge of the river, is a frequently flooded ***silver maple - false nettle - sensitive fern floodplain forest*** community. The canopy here is completely dominated by leaning silver maple trees, with very few understory plants due to annual flooding. In New Hampshire, this is a rare natural community that is threatened by land conversion (development and agriculture) and flood control projects. A variety of wetlands such as marshes, ponds, and streams also occur throughout the floodplain. This diverse mix of natural communities supports an abundance of birds, turtles, and other wildlife, and it is an excellent place to see migrating birds, especially in the spring.

The considerable silt content of the soil in these communities, particularly on the higher parts of the terrace, contributes to high fertility and a broad diversity of tree species (26 species documented), generally with oaks and hickories as dominants. High floodplain forests were once extensive in New Hampshire, growing huge trees such as large "king pines" on productive, stone-free soils. Only remnant high floodplain forests remain today.

This brochure was created by the New Hampshire 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 NH's Biodiversity program page at: www.nhnaturalheritage.org

New Hampshire
Natural Heritage
Bureau

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NH Natural Heritage Bureau

Visiting New Hampshire's Biodiversity

Merrimack River Conservation Area Floodplain Forest

a property owned and managed by

The Society for the Protection of New Hampshire Forests

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

TRAIL DESCRIPTION:

Leaving the lower parking lot, cross Mill Brook on the road and take the first path on the left. **(1)** Beavers are sometimes active in the wetland on your left. This area is a first hint of the many dynamic ecological processes at work on the floodplain. A stand of silver maples leans over dense ferns in front of you, and an emergent herbaceous marsh grows along the slow-flowing meanders of the brook.

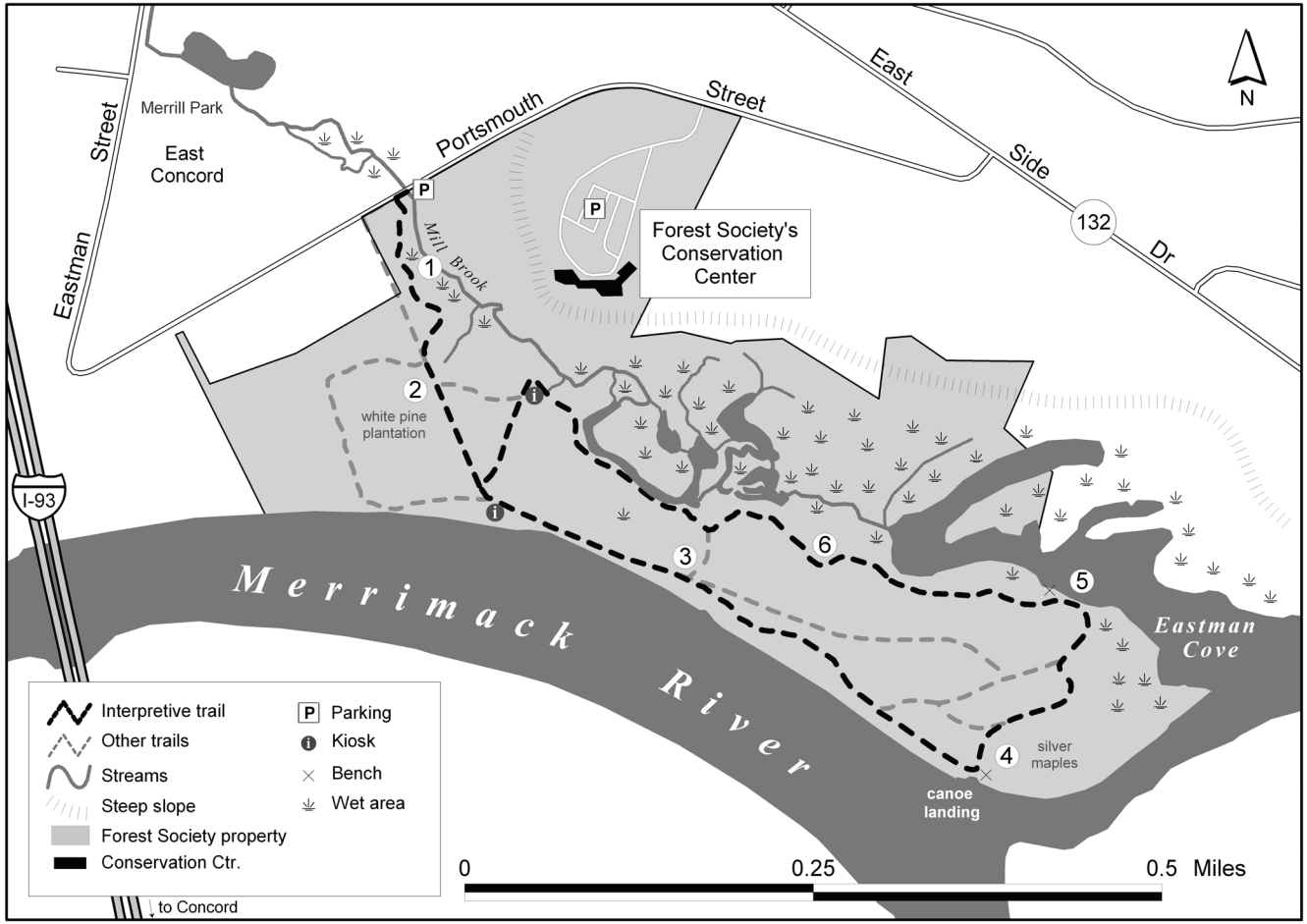
Most of this site is a high floodplain terrace composed of a mosaic of several natural community types. The community on and at the base of the steep slope across the pond is a nutrient-rich forest, established on old glacial lakebed soils. These soils accumulated at the bottom of "Lake Merrimack" which extended down the Merrimack River Valley more than 10,000 years ago. A broad diversity of trees can be seen here, including shagbark hickory, white ash, maples, oaks, pines, birches, and basswood. Notice the abundance of vines clinging to and climbing the trees; this is a common feature of floodplain forests. One of these vines, oriental bittersweet, is a non-native, invasive species and threatens native plants in the forest (see sidebar).

(2) Continuing on the trail, pass by an old white pine plantation on your right. These trees were planted in the late 1950s. Arriving at the river, follow the path of an old sandy carriage road to the left through open meadow, passing occasional white pines. **(3)** This is an area of restored sandplain grassland habitat. Remnant stumps from a former scotch pine tree plantation are found scattered here. The current meadow, dominated by little bluestem grass, is kept open by mowing every six years or so. Beware of poison ivy here (and elsewhere on the floodplain).

Keeping the river to your right, follow the edge of the sandy bluff. The riverbank on this side is being cut back significantly each year. This is a natural process, but it is possibly exacerbated by the I-93 bridge pilings that deflect the current. These bluffs also provide nesting habitat for turtles and bank swallows. Please avoid walking directly along the edge of the bank, for your safety and to prevent further erosion.

(4) At the canoe landing, look out into an exemplary **silver maple - false nettle - sensitive fern floodplain forest** community. Note the sparseness of grasses and forbs on the ground. This low area is inundated by the river during spring flooding as well as during extended periods of heavy rain, and may be inaccessible at those times when the river is high. The frequent flooding kills most shrubs and saplings, leaving an open understory. The sand on the soil surface has eroded from banks upstream and been deposited here when the current slows down at the bend in the river.

Leaving the canoe landing, briefly follow the path away from the river, then bear right back towards the water.



Numbers on map are described in the trail description

Map by Ben Kimball, April 2008

(5) A pond and open marsh area called Eastman Cove fills an old oxbow of the Merrimack River. Oxbows are former channels, abandoned when the river changed course. They make good habitat for ducks, geese, and herons. The edges and banks are prime marsh habitat for small land birds, deer, raccoon, beaver, and otter, as well as many insects.

(6) Following the meandering trail, pass through a small stand of white pines. These early successional trees provide food and shelter for a variety of animals. A little farther, pass by a dense stand of ostrich ferns on your right. These large ferns are broadest toward the top and taper towards the base. The young sprouts that emerge in spring are called fiddleheads. The trail also skirts the edge of a small oxbow here.

Near the end of this portion of trail, you will cross a low spot that can be wet in the spring or during periods of flooding. Usually it is crossable, but you may need to cut up across the meadow to your left.

Beyond this, an informational kiosk describes the Forest Society's newly established Eco-Reserve just across the brook. Take a left here. A trail soon branches right to lead you back to the parking lot.

INVASIVE SPECIES:

Several exotic plants (not native to North America) are present in abundance on the floodplain, including glossy buckthorn, oriental bittersweet, Japanese barberry, and Norway maple. All of these species are considered invasive. These plants can out-compete and replace native species, posing a threat to the future integrity of the natural communities here. Their seeds are easily transported by birds and floods, making floodplains especially vulnerable to repeated non-native plant invasions. Efforts are underway both locally and regionally to understand and control the effects of invasive species on the landscape.