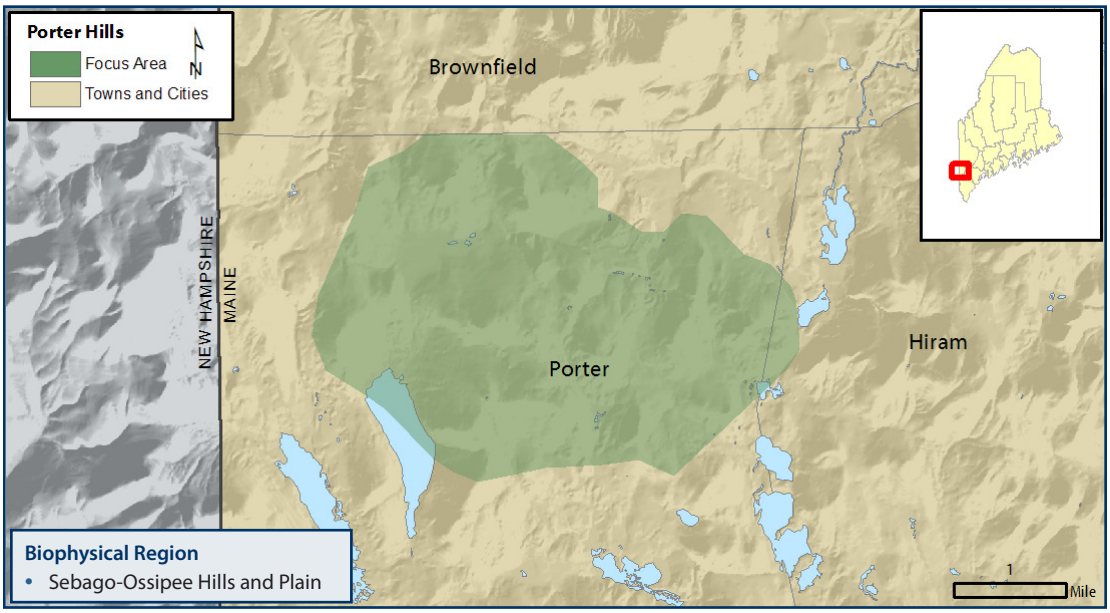
Beginning with HABITAT

Focus Areas of Statewide Ecological Significance

Porter Hills



WHY IS THIS AREA SIGNIFICANT?

The geology and landforms of the 6,000 acre Porter Hills Focus Area support good examples of the ironwood-oak-ash and oak-northern hardwood forest community types. The examples of these natural communities here provide habitat for numerous species of rare plants.

OPPORTUNITIES FOR CONSERVATION

» Preserve natural communities and the integrity of the natural systems in which they occur.
» Limit timber harvesting near significant features and restrict harvesting around rare plant populations.
» Limit recreational vehicles in sensitive areas.
» Work with willing landowners to protect the remaining signficant features.

For more conservation opportunities, visit the Beginning with Habitat Online Toolbox: www.beginningwithhabitat.org/toolbox/about_toolbox.html.

Rare Plants
Missouri Rockcress
Ebony Spleenwort
Fern-leaved False Foxglove
Hairy Wood Brome-grass
New Jersey Tea
Bottlebrush Grass
Douglas' Knotweed
Early Crowfoot
Summer Grape
Blunt-lobed Woodsia

Rare and Exemplary Natural Communities
Oak-Ash Woodland
Oak-Northern Hardwoods Forest

Significant Wildlife Habitats
Inland Wading Bird and Waterfowl Habitat
Deer Wintering Area

Public Access Opportunities
» Maine Audubon Sanctuary on Bald Mountain

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Ironwood - Oak - Ash Woodland, Maine Natural Areas Program

FOCUS AREA OVERVIEW

The Porter Hills Focus Area covers approximately 6,000 acres and includes a series of low mountains and rolling forested hills. The geology and land forms of this site create conditions that support numerous rare plants as well as several good quality examples of the **ironwood – oak – ash woodland** natural community type. Ironwood – oak – ash woodland natural communities, along with habitat for many of the rare plants, occur on the upper portions of steep, south facing slopes on several of the mountains. Sections of these steep slopes have calcium enriched rock outcrops near their summits and talus scattered on the slopes below. Ironwood – oak – ash woodlands typically have open canopies that allow an abundance of light to reach the understory and ground layer.

Ironwood (*Ostrya virginiana*) and red oak (*Quercus rubra*) are the most common trees with white ash (*Fraxinus americana*), basswood (*Tilia americana*), sugar maple (*Acer saccharum*), white pine (*Pinus strobus*), and red cedar *(Juniperus virginiana*) all as infrequent associates. Poor growing conditions due to droughty soils or possibly past fires have helped to keep the trees in this habitat type spread out and stunted. The herb layer features plant species typical of moderately enriched sites, such as herb Robert (*Geranium robertianum*), hepatica (*Hepatica americana*), and wild licorice (*Galium lanceolatum*). Vegetation may be patchy, developing in pockets among the rocks, or more continuous along upper slopes and ridges. In general, these natural communities have not been harvested for timber, most likely due to the poor quality of the trees and/or the steepness of slopes where they occur.

A good quality example of a **red oak – northern hardwood – white pine forest** has also been documented within this area. This community is an upland type dominated by a mix of red oak, northern hardwoods, and sometimes conifers. Red oak is usually most common and northern hardwoods (typically beech (*Fagus grandifolia*)) are subordinate. Mixed stands have white pine or red spruce (*Picea rubens*) as the main conifers. The lower layers are sparse, with tree regeneration typically higher in cover than forest herbs. These types are found on well drained loamy soils on mid - to lower slopes that are not very exposed.

The Porter Hills Focus Area includes diverse fishery resources. Colcord Pond is managed for coldwater species and includes a self-reproducing population of lake trout. The Ten Mile River Watershed supports an excellent wild brook trout population and is also stocked with Atlantic salmon.

Many rare plants species including **Missouri rock cress** (*Arabis missouriensis*), **ebony spleenwort** (*Asplenium platyneuron*), **Douglas' knotweed** (*Polygonum douglasii*), **blunt-lobed woodsia** (*Woodsia obtusa*), **early crowfoot** (*Ranunculus fascicularis*), and **fern-leaved false foxglove** (*Aureolaria pedicularia*) are found growing on the upper slopes of these hills. Down slope, where the canopy is thicker and the trees are taller, sugar maple, basswood, and white ash are common at several sites, and other rare plants such as **bottlebrush grass** (*Elymus* hystrix) and **hairy wood brome-grass** (*Bromus pubescens*) also occur. Most of these species are at the northern edge of their ranges in southern Maine.

Ecological Services of the Focus Area

- Supports habitat for diverse species of wildlife
- Contributes to regional biodiversity by providing habitat to both rare and common species
- Purifies run off

Economic Contributions of the Focus Area

- Provides forest products
- Provides recreational opportunities including hiking, hunting and fishing

CONSERVATION CONSIDERATIONS

» Preserving Natural Communities: Preserving natural communities and other sensitive features will be best achieved by conserving the integrity of the larger natural systems in which these features occur. Conserving the larger systems helps ensure both common and rare natural features will persist in this part of the state.

» Set Asides: Conservation planning for upland features should include setting some areas aside from timber harvests to allow for the development of some unmanaged forests.

» Vernal Pools: Close adherence to Best Management Practices for forestry activities near vernal pools (available from Maine Audubon Society at 207-781-6180 ext. 222 or bwilson@maineaudubon.org) will ensure the protection of wetlands and the amphibian food source they supply.

» Off Road Vehicle Use: No ATV access should be permitted on the summits and upper slopes of the mountains.

» Ironwood – Oak – Ash Woodlands rare plant populations will be best maintained by leaving them undisturbed. Timber harvesting that excludes buffered sensitive areas should be compatible with the long-term persistence of these features. Intact forest buffers of 250 feet or more should be maintained around known concentrations of rare plants.

» Invasive Species: Invasive plants and aquatic organisms have become an increasing problem in Maine and a threat to the state's natural communities. Disturbances to soils and natural vegetation and introductions of non-native species to terrestrial and aquatic habitats can create opportunities for colonization. Landowners and local conservation groups should be made aware of the potential threat of invasive species, of methods to limit establishment, and/or of appropriate techniques for removal. For more information on invasive plants visit: http://www.maine.gov/doc/nrimc/mnap/features/invasives.htm.

» Habitat Connections: With expected changes in climate over the next century, plant and wildlife species will shift their ranges. Maintaining landscape connections between undeveloped habitats will provide an important safety net for biodiversity as species adjust their ranges to future climate conditions.

Missouri Rockcress, Maine Natural Areas Program

For more information about Focus Areas of Statewide Ecological Significance, including a list of Focus Areas and an explanation of selection criteria, visit **www.beginningwithhabitat.org**

RARE SPECIES AND EXEMPLARY NATURAL COMMUNITIES OF THE FOCUS AREA

	Common Name	Scientific Name	State Status*	State Rarity Rank	Global Rarity Rank
Plants	Missouri Rockcress	*Arabis missouriensis*	T	S1	G5?Q
	Ebony Spleenwort	*Asplenium platyneuron*	SC	S2	G5
	Fern-leaved False Foxglove	*Aureolaria pedicularia*	SC	S3	G5
	Hairy Wood Brome-grass	*Bromus pubescens*	PE	S2	G5
	New Jersey Tea	*Ceanothus americanus*	T	S1S2	G5
	Bottlebrush Grass	*Elymus hystrix*	SC	S3	G5
	Douglas' Knotweed	*Polygonum douglasii*	T	S2	G5
	Early Crowfoot	*Ranunculus fascicularis*	T	S1	G5
	Summer Grape	*Vitis aestivalis*	T	S2	G5T5
	Blunt-lobed Woodsia	*Woodsia obtusa*	T	S1	G5
Natural Communities	Oak-Ash Woodland	Ironwood – Oak - Ash Woodland		S3	G3G5
	Oak - Northern Hardwood Forest	Red Oak - Northern Hardwoods- White Pine Forest		S4	GNR

State Status*

- **E** — Endangered: Rare and in danger of being lost from the state in the foreseeable future, or federally listed as Endangered.
- **T** — Threatened: Rare and, with further decline, could become endangered; or federally listed as Threatened.
- **SC** — Special Concern: Rare in Maine, based on available information, but not sufficiently rare to be Threatened or Endangered.

**State status rankings are not assigned to natural communities.*

State Rarity Rank

- **S1** — Critically imperiled in Maine because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres).
- **S2** — Imperiled in Maine because of rarity (6–20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- **S3** — Rare in Maine (on the order of 20–100 occurrences).
- **S4** — Apparently secure in Maine.
- **S5** — Demonstrably secure in Maine.

Global Rarity Rank

- **G1** — Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation.
- **G2** — Globally imperiled because of rarity (6–20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- **G3** — Globally rare (on the order of 20–100 occurrences).
- **G4** — Apparently secure globally.
- **G5** — Demonstrably secure globally.