

Porter Hills

Porter, Maine

Description:

The Porter Hills area 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 – oak – ash woodland

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 of 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*) 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.

Rare Plants:

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.

Rare Species/Natural Community Table for Porter Hills:

Common Name	Scientific Name	Status	S-Rank	G-Rank
Rare and Exemplary Natural Communities				
Oak-Ash Woodland	Ironwood – Oak - Ash Woodland	n/a	S2S3	--
Oak – Northern Hardwoods Forest	Red Oak – Northern Hardwood – White pine Forest	n/a	S4	--
Rare Plants				
Missouri Rockcress	<i>Arabis missouriensis</i>	T	S1	G4G5Q
Ebony Spleenwort	<i>Asplenium platyneuron</i>	SC	S2	G5
Fern-leaved False Foxglove	<i>Aureolaria pedicularia</i>	SC	S2	G5
Hairy Wood Brome-grass	<i>Bromus pubescens</i>	PE	S1	G5
New Jersey tea	<i>Ceanothus americanus</i>	T	S1	G5
Bottlebrush Grass	<i>Elymus hystrix</i>	SC	S2	G5
Douglas’ Knotweed	<i>Polygonum douglasii</i>	T	S1	G5
Early Crowfoot	<i>Ranunculus fascicularis</i>	T	S1	G5
Summer grape	<i>Vitis aestivalis</i>	E	S1	G5t?
Blunt-lobed Woodsia	<i>Woodsia obtusa</i>	T	S1	G5

Other Resources Mapped by MDIFW:

Deer Wintering Area

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 (see Forestry Endangered and Threatened Species Guide) 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.

Protection Status:

The National Audubon Society owns a parcel on Bald Mountain, otherwise there is no conservation land within the area.

STATE RARITY RANKS

- S1** Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- 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.

Note: **State Ranks** are determined by the Maine Natural Areas Program.

GLOBAL RARITY RANKS

- G1** Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- 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.

Note: **Global Ranks** are determined by The Nature Conservancy.

STATE LEGAL STATUS FOR PLANTS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's endangered and threatened plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

- 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 considered Threatened or Endangered.

Visit our web site for more information on rare, threatened and endangered species!
<http://www.state.me.us/doc/nrimc/mnap/factsheets/mnapfact.htm>