

Northern Hardwoods Forest

State Rank S5

Community Description

These closed canopy forests are dominated by a combination of beech, yellow birch, and sugar maple. Paper birch, red maple, conifers, and red oak may be present at lower cover. Conifers and red oak can each have <25% cover. Striped maple is a common subcanopy tree. The variable shrub layer is dominated by tree regeneration. Cover, richness and composition vary with site conditions.

Soil and Site Characteristics

Sites are typically found on the lower to middle portion of hillslopes (slopes generally 10-50%). Soils are generally mesic and well drained, though not deep (typically 15-50 cm) silt loams to sandy loams to loamy sands formed over glacial till, with pH 5.0-5.6; some occur on stabilized talus. Elevations range up to 2000'.

Diagnostics

A combination of beech, sugar maple, and yellow birch distinguishes this type. Though red oak is often entirely absent, conifers and red oak can be present and have up to 25% cover each. The herb layer lacks rich site indicators such as Dutchman's breeches, maidenhair fern, and blue cohosh.



Diseased Beech Bark

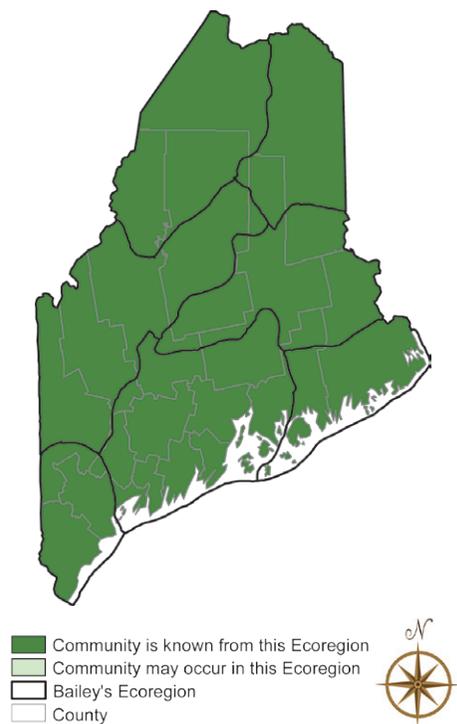
Similar Types

Maple - Basswood - Ash Forests and Sugar Maple Forests are similar to, and often contiguous with, this type. In them, beech is far less abundant, white ash is usually well represented in the canopy, and the herb layer contains species indicative of rich-soil areas. Red Oak - Northern Hardwoods - White Pine Forests have a higher proportion of red oak and can have a higher proportion of conifers (>25%). Spruce - Northern Hardwoods Forests also have >25% conifers in the canopy.

Conservation, Wildlife, and Management Considerations

This is the dominant hardwood type in Maine, and therefore it is extensively harvested and managed. Most management techniques diverge from the natural gap

Location Map



Northern Hardwoods Forest

pattern, which is at the scale of single trees or small groups of trees. Large (>1000 acres) examples reflecting only natural disturbance are scarce statewide, and intact examples in central and southern Maine tend to be smaller and more isolated.

Beech scale disease (*Nectria*) has devastated beech in many stands in eastern Maine. Although beech regenerates vigorously from sprouts after the trees have died, most sprouts succumb to the disease by the time they reach maturity. There are indications that some trees may express a genetic resistance to this disease.

Distribution

One of the predominant forest types in the New England - Adirondack Province and Laurentian Mixed Forest Province. Extends east, west, and north from Maine; occurs only as scattered areas southward.



Landscape Pattern: Matrix, typically hundreds of acres; high-quality patches usually now smaller.

American Beech with Beech Nuts

Characteristic Plants

These plants are frequently found in this community type. Those with an asterisk are often diagnostic of this community.

Canopy

- American beech*
- Eastern hemlock*
- Paper birch*
- Sugar maple*
- Yellow birch*

Sapling/shrub

- American beech*
- Hobblebush*
- Striped maple*
- Sugar maple*
- Yellow birch*

Herb

- Bluebead lily*
- Canada mayflower
- Shining clubmoss*
- Starflower
- Striped maple*
- Sugar maple*

Associated Rare Plants

- Autumn coral-root
- Boreal bedstraw
- Broad beech fern
- Cut-leaved toothwort
- Nodding pogonia
- Tall white violet

Associated Rare Animals

- Early hairstreak

Examples on Conservation Lands You Can Visit

- Baxter State Park - Piscataquis Co.
- Big & Little Squaw Mountain Public Lands - Piscataquis Co.
- Bigelow Preserve Public Lands - Franklin/Somerset Co.
- Deboullie Ponds Public Lands - Aroostook Co.
- Grafton Notch State Park & Mahoosuc Public Lands - Oxford Co.
- White Mountain National Forest - Oxford Co.