

Black Spruce Woodland

State Rank S3

Community Description

These are boreal, open canopy woodlands in which black spruce is strongly dominant, though it is sometimes mixed with red spruce or white pine. Trees are stunted and canopy closure is usually less than half, although occasionally a site may have a more closed canopy (~85%). The shrub layer often has smaller black spruce and a scattering of evergreen and deciduous shrubs. The herb layer is usually extensive (>50% cover) and strongly dominated by heath shrubs. Herbs comprise <5% of the herb layer cover; bracken fern and bunchberry are typical. The bryoid layer is fairly well developed (>15% cover) and may be prominent, with abundant reindeer lichens. Peat mosses may be present in low pockets but are not abundant.

Soil and Site Characteristics

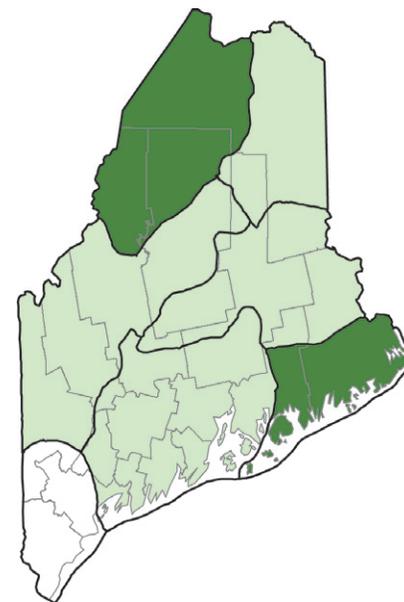
Sites are upland or transitional wetland-upland and are on flat or

slightly sloping ground. Substrate is bedrock with only a thin patchy layer (<12 cm) of sandy soil or poorly decomposed organic duff. At some sites, the sandy substrate is up to 30 cm over till. Soils are acidic (pH ~5.0) and well drained; moisture may accumulate in pockets of the substrate. Sites occur on cool and moist microclimates, mostly at the immediate coast or in northwest Maine at up to ~1200'.

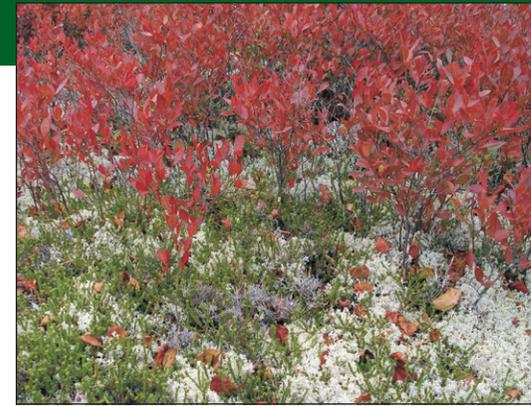
Diagnostics

Black spruce is strongly dominant, with canopy closure 25-60%; the dwarf shrub component of the herb layer is well developed and dominated by heaths.

Location Map



Community is known from this Ecoregion
 Community may occur in this Ecoregion
 Bailey's Ecoregion
 County



Black Huckleberry and Black Crowberry

Similar Types

Spruce - Heath Barrens have higher shrub cover and generally occur on deeper, poorly drained mineral soil rather than on bedrock, but the two types may co-occur, and further work is needed to distinguish the two. Spruce - Larch Wooded Bogs can have very similar species composition but grow on saturated peat moss, as part of a peatland. Labrador Tea Talus Dwarf-shrublands can have similar species but have <25% tree cover.

Conservation, Wildlife, and Management Considerations

Sites appear to receive little human impact other than some light recreational use. Some sites may be of fire origin.

A variety of conifer-nesting birds may use this habitat, including blackpoll warbler, bay-breasted warbler, and black-backed woodpecker. The only modern occurrence in Maine of the rare purple lesser fritillary butterfly is found within the northernmost example of this community type.

Characteristic Plants

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

Canopy

Black spruce*
Red spruce

Sapling/shrub

Black huckleberry*
Black spruce*
Gray birch*
Wild-raisin*

Dwarf Shrub

Black huckleberry*
Lowbush blueberry*
Sheep laurel*

Bryoid

Dicranum moss
Reindeer lichen

Associated Rare Animals

Purple lesser fritillary

Distribution

Known sites occur on either Downeast islands or extreme northwest Maine. More broadly, this type occurs in the Laurentian Mixed Forest Province, extending northward and eastward.

Landscape Pattern: Small Patch



Bunchberry in Fruit