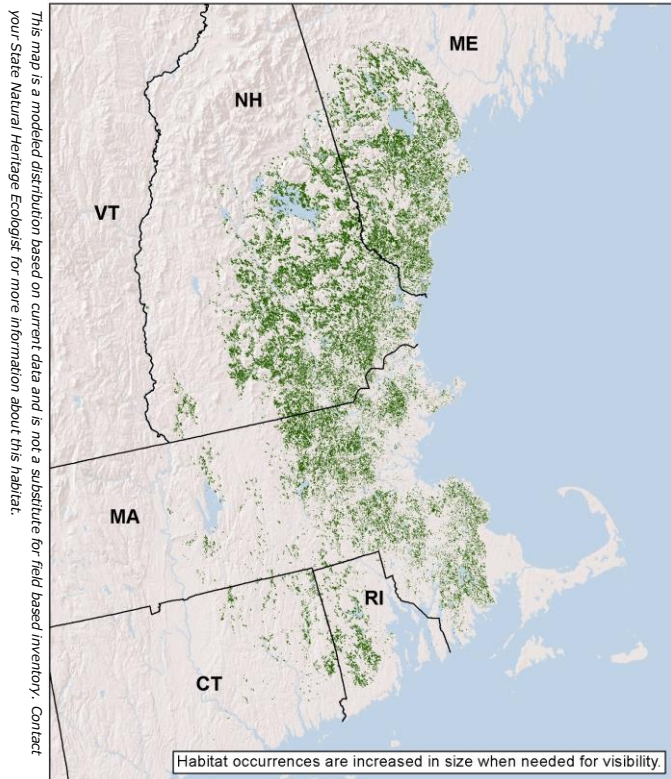




Macrogroup: Northern Hardwood & Conifer



© Maine Natural Areas Program

Description:

A mixed forest dominated by white pine, red oak, and hemlock in varying proportions. Red maple and white and black oak are common associates, and northern hardwoods like white ash and American beech can appear as minor components. This forest of low to moderate moisture is usually closed canopy and can be heavily coniferous, with some nearly pure stands of white pine and red maple; hemlock is often more abundant in moister settings. This system type occurs over broad areas, but most of it is in early to mid-successional stages and heavily fragmented. It may well be that it is more widespread and abundant as a result of human occupation of and changes to the New England landscape.

Ecological Setting and Natural Processes:

Usually occurs on flat to rolling glacial landscapes on nutrient-poor, sandy substrates, and is often found near water or wetlands. Upper elevation limit is about 1000' to 1200' (305-365m) in central Massachusetts and southern New Hampshire, but it is usually considerably lower.

Similar Habitat Types:

Often grades upslope to Appalachian (Hemlock-)Northern Hardwood, which has a stronger hardwood component. To the north, grades into Laurentian-Acadian Pine-Hemlock-Hardwood Forest, but it is not a Laurentian-Acadian system (from which white and black oak are essentially absent). Laurentian-Acadian Northern (Pine-)Oak Forests are cooler and drier, and feature red pine.

Crosswalk to State Wildlife Action Plans:

State Distribution: CT, MA, ME, NH, RI

Total Habitat Acreage: 1,538,080

Percent Conserved: 15.8%

State	State Habitat %	State Acreage	GAP 1&2 (acres)	GAP 3 (acres)	Unsecured (acres)
NH	43%	654,780	12,748	89,778	552,254
MA	26%	403,139	9,054	81,076	313,009
ME	25%	391,637	5,423	19,649	366,566
RI	3%	50,081	2,770	15,070	32,241
CT	2%	38,443	835	7,136	30,471

Crosswalk to State Name Examples:

White Pine-Oak Forest (MA), Oak-Hickory Forest (ME), Mixed Oak/White Pine Forest (RI)

Places to Visit this Habitat:

Pachaug State Forest | CT
 Harold Parker State Forest | MA
 Sebago Lake State Park | ME
 Great Bay National Wildlife Refuge | NH
 Arcadia Management Area | RI

Associated Species: *Appendix lists scientific names*

BIRDS: black-and-white warbler, blue-headed vireo, brown creeper, eastern wood-pewee, hermit thrush, ovenbird, pine warbler, scarlet tanager, veery, wood thrush

MAMMALS: black bear, gray fox, gray squirrel, northern flying squirrel, southern flying squirrel, white-footed mouse

HERPTILES: jefferson salamander, marbled salamander, black rat snake, eastern hognose snake, eastern worm snake, northern black racer, northern copperhead, northern redbelly snake

PLANTS: Sundial Lupine (*Lupinus perennis*), Large Whorled Pogonia (*Isotria verticillata*), Northern Blazingstar (*Liatris scariosa* var. *novae-angliae*), Philadelphia Panicgrass (*Panicum philadelphicum*), Sassafras (*Sassafras albidum*), Swamp Saxifrage (*Saxifraga pensylvanica*), Sand Violet (*Viola adunca*), Pale Green Orchid (*Platanthera flava* var. *herbiola*), Redtop Panicgrass (*Panicum rigidulum* var. *pubescens*)

Species of Concern (G1-G4): *Appendix lists scientific names*

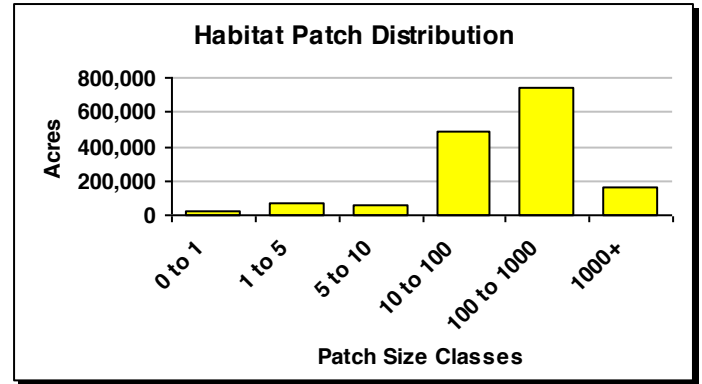
BIRDS: eastern whip-poor-will

INSECTS: red-winged swallow, ringed boghaunter

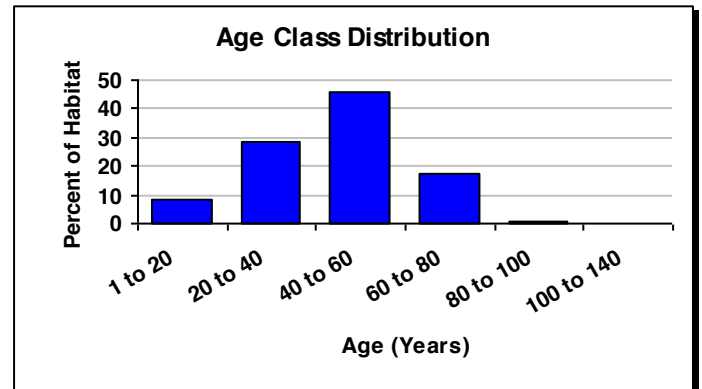
PLANTS: small whorled pogonia (*Isotria medeoloides*), climbing fern (*Lygodium palmatum*), plymouth gentian (*Sabatia kennedyana*)



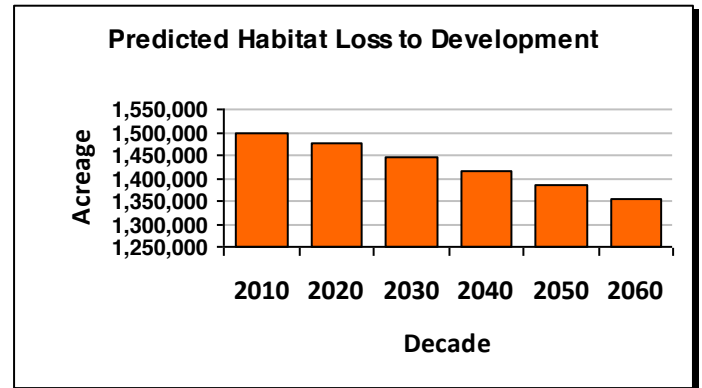
© Patricia Swain (Massachusetts Division of Fisheries & Wildlife/Natural Heritage & Endangered Species Program)



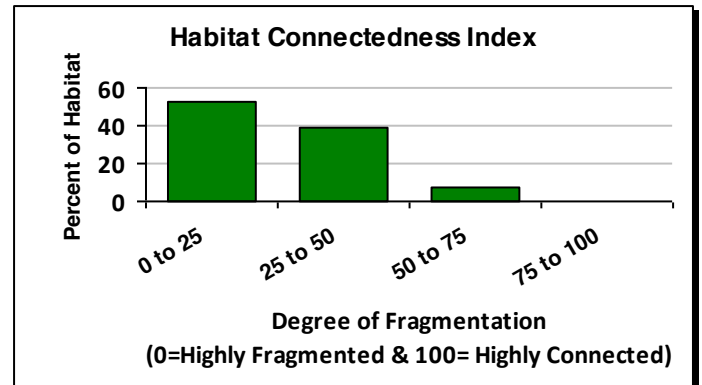
The average patch size for this habitat is 10 acres and the largest single patch is 2,638 acres. This chart shows the proportion of the habitat that is in each patch-size class.



This chart shows the average age of trees associated with this habitat based on forest inventory data. For non-forested systems or small habitats the average age is influenced by the surroundings.



This chart shows the predicted loss of habitat over the next five decades (146,436 acres) if loss continues at the same rate as 1990-2000. The average rate of loss is 2,929 acres per year.



This metric measures how connected or fragmented the land directly surrounding (18 square miles) the habitat is, this the chart shows the proportion of the habitat in each connectedness class.