

TH6

Red oak - Yellow birch / Striped maple

Quercus rubra – Betula alleghaniensis / Acer pensylvanicum

n=11

Baker Settlement, Lunenburg County

Concept: This mid to late successional Vegetation Type (VT) has an overstory dominated by red oak and yellow birch with lesser amounts of other species. Red oak's co-dominance with other hardwoods defines this VT. Due to the long-lived and shade-tolerant nature of dominant overstory trees, TH6 can develop old forest characteristics that are maintained by gap disturbance. However disturbance regimes associated with this VT are variable.

Vegetation: Red oak and yellow birch are the dominant overstory trees, with lesser amounts of sugar maple and/or red maple. Scattered beech, balsam fir, white birch, red spruce and white pine are also common. The shrub layer contains regenerating tree species (especially red oak) along with striped maple. Balsam fir can be locally abundant, but the balsam fir woolly adelgid often keeps this species from advancing into the overstory. A diverse and extensive herb layer is characterized by sarsaparilla, Indian cucumber root, partridge-berry, bunchberry and hay-scented fern. The bryophyte later is discontinuous and species-poor, especially where the forest floor is characterized by leaf litter and/or where the softwood component is low.

Environmental Setting: TH6 is mainly associated with dry to moist, nutrient medium soils of glacial origin. It occurs primarily on the upper and middle slopes of gentle to hilly terrain in the Western ecoregion, but may be scattered elsewhere. It is uncommon in New Brunswick and very rare on Prince Edward Island.

Successional Dynamics: TH6 is a mid to late successional hardwood VT that may have even-aged or uneven-aged structure, depending on disturbance history. The mechanism for maintenance of red oak in this VT is not fully understood, although low-intensity spring fires are thought to play a role. Increased presence of red maple and/or white birch generally indicates more intense past disturbances. Early successional stages can include IH4 (Trembling aspen / Wild raisin – Bunchberry) and IH6 (White birch – Red maple / Sarsaparilla – Bracken). On drier sites, TH6 may be the climax VT, while on more mesic sites TH6 may succeed to TH1 (Sugar maple / Hay-scented fern) or TH2 (Sugar maple / New York fern – Northern beech fern) in the absence of fire.

Ecological Features

In western Nova Scotia, this forest is distributed as a large patch spanning several hundred hectares. Longevity and high shade tolerance promote old growth potential. Beech scale disease, introduced from Europe in the 1890s, has decimated the beech component of these stands and reduced mast production. This forest may provide habitat for warblers, thrushes,

woodpeckers, flying squirrels and fishers. Large trees may provide nest sites for barred owls and northern goshawks, while downed coarse woody debris can provide cover for red-backed salamanders and small mammals. Hard mast from beech, oak and beaked hazelnut provides significant food for bears, squirrels, chipmunks, small mammals and birds.

Oak regeneration is favoured as browse by deer. Generally oak regeneration performs poorly in the understory unless enhanced by fire. Oak is the preferred host of maitake, or hen-of-the-woods, a prized edible mushroom. Black trumpet mushrooms may also be found as mycorrhizal partners with oak and beech.

Characteristic Plants	ТН6	
	Freq.	Cover (%)
Red oak	100	26.1
Yellow birch	91	22.9
Sugar maple	82	13.7
Red maple	64	24.1
White birch	55	9.3
Beech White ash	45 27	19.6 8.3
Balsam fir	27	6.3
Tree Layer (Mean % Cover)		93
Balsam fir	100	2.8
Striped maple	100	2.5
Red oak	100	1.3
Red maple Yellow birch	82 73	2.2 0.3
Sugar maple	64	7.0
White pine	64	1.5
Beech	55	4.5
Red spruce	36	2.4
Velvet-leaf blueberry	36	0.9
White spruce	36	0.3
Hemlock	27	1.4
Serviceberry Wild raisin	27 27	0.2 0.1
Shrub Layer (Mean % Cover)	27	20
Sarsaparilla	82	1.6
Wild lily-of-the-valley	82	0.6
Bunchberry	73	2.5
Partridge-berry	73	1.2
Starflower	73	0.9
Indian cucumber root	73	0.3
Bluebead lily Hay-scented fern	64 55	0.1 9.5
Evergreen wood fern	55	0.4
Indian pipe	55	0.1
Christmas fern	45	6.1
Goldthread	45	2.1
Violets	45	0.2
Rose twisted stalk	45	0.1
Wood aster	36	11.7
Shinleaf	36	0.9
Bristly club-moss Ground pine	36 36	0.6 0.4
False Solomon's seal	36	0.4
Lions paw	36	0.1
New York fern	27	18.4
Bracken	27	3.0
Large-leaved aster	27	0.2
Painted trillium	27	0.1
Teaberry Herb Layer (Mean % Cover)	27	0.1 34
Hair-cap moss	82	2.3
Stair-step moss	82	1.2
Broom moss	64	1.3
Schreber's moss	64	0.5
Hypnum moss	45	3.0
Bazzania	27	2.0
Fern moss	27	0.2
Bryo-Lichen Layer (Mean % Cover) 6		6

Distinguishing Features

Red oak and at least one northern hardwood species (yellow birch, sugar maple, beech) in the upper

canopy of this hardwood forest is diagnostic for classification. TH6 forest is typical of western Nova Scotia and usually found on drier soils than the other TH forests.



Cancer root

Site Characteristics

Slope Position: Upper⁵ Middle³ Crest¹ Level¹ Surface Stoniness: (Non - Slightly)4 (Moderately)4

(Very - Excessively)2

Bedrock Outcrop: (Non-rocky)10 Elevation Range: 50 - 201m

Slope Gradient: Gentle⁶ Steep² Level¹ Moderate¹ North³ Fast³ South³ None¹ Aspect:

Exposure: Moderate⁵ Exposed² Mod. exposed²

Mod. Sheltered¹

Moderately³ Strongly³ Level² Severely¹ Ultra¹ Microtopography:

Drainage: Well⁷ Moderately well² Rapid¹

Soil Characteristics

ST24 ST2-G2 ST82 ST11 ST2-L1 Soil Type: Parent Material: Glacial till⁵ Colluvium² nd³ Rooting Depth (cm): $(<30)^1(30-45)^5(>45)^3 \text{ nd}^1$ Duff Thickness (cm): (0-5)4 (6-10)4 (11-20)1 nd1

