

IH5

Trembling aspen – White Ash / Beaked hazelnut / Christmas fern

Populus tremuloides – *Fraxinus americana* /
Corylus cornuta / *Polystichum acrostichoides*

n=9



Angevine Lake,
Cumberland County

Concept: This early to mid-successional Vegetation Type (VT) has an overstory co-dominated by trembling aspen and white ash with lesser amounts of red maple and yellow birch. It is similar to IH4 (Trembling aspen / Wild raisin / Bunchberry) but is found on somewhat richer sites, as evidenced by associated shifts in herbaceous cover and tree species composition. Trembling aspen – White ash / Beaked hazelnut / Christmas fern usually follows stand-replacing disturbance events such as fire, windthrow or clearcutting.

Vegetation: Trembling aspen dominates the overstory with a significant component of white ash. Lesser amounts of yellow birch, red maple, sugar maple and balsam fir are also common. The shrub layer is moderately developed and includes regenerating white ash and balsam fir along with beaked hazelnut and fly-honeysuckle. The herb layer has many plants indicative of moist and/or fertile site conditions including interrupted fern, New York fern, sensitive fern, Christmas fern, large-leaved aster and dwarf raspberry. Although the bryophyte layer is poorly developed, shaggy moss and stair-step moss are usually present.

Ecological Features

This early successional small patch forest is short lived except for the white ash component that will continue into later successional stages. Trembling aspen is a very shade-intolerant tree and its regeneration is primarily through clonal reproduction from root suckers (which may also support large fungal associates such as shoe-string root rot). Aspen colonizes sites rapidly

after stand-level disturbances. It acts as a “nurse crop” for later successional species that tend to grow up through the aspen, forming two-layered stands before the aspen is overtaken and dies out. Regenerating aspen stands provide cover and forage for many species. Moose and deer feed on its leaves and twigs, ruffed grouse eat its winter buds, snowshoe hare and mice

consume its bark and twigs, and beavers make its bark a dietary staple. Resin from aspen buds is the primary source of bee propolis, an essential hive material. Older aspen trees provide soft snags and cavities for several species of birds. Aspen support many species of insects, most notably the forest tent caterpillar, which is an important food for birds and small mammals.

Environmental Setting: IH5 is mainly associated with fresh to moist, nutrient medium to rich soils of variable texture. This VT is found primarily in the Valley/Central and Northumberland Bras d’Or Lowlands ecoregions. It is common in Prince Edward Island and in the warmer ecoregions of New Brunswick.

Successional Dynamics: IH5 is an early to mid-successional VT that follows stand-level disturbances in both softwood and hardwood forests. Typical disturbance agents include fire, windthrow and harvesting. IH5 stands are typically dominated by even-aged, clonal-origin trembling aspen. Depending on the intensity of disturbance, the aspen may perpetuate as an overstory component with little successional advancement of the stand. However, short-lived aspen deteriorate quickly due to natural senescence, insect predation, disease and/or wind damage. Later successional VTs are likely to remain hardwood dominated, although the presence of balsam fir and red spruce may move some stands to a mixedwood forest condition. Possible successional VTs include MW1 (Red spruce – Yellow birch / Evergreen wood fern), MW3 (Hemlock – Yellow birch / Evergreen wood fern), MW4 (Balsam fir – Red maple / Wood sorrel – Gold thread), SH3 (Red spruce – Hemlock / Wild lily-of-the-valley) and TH3 (Sugar maple – White ash / Christmas fern).

Characteristic Plants

IH5

	Freq. (%)	Cover (%)
Trembling aspen	100	58.8
White ash	89	11.8
Red maple	67	14.7
Yellow birch	56	3.8
Balsam fir	44	25.0
Red spruce	33	9.7
White spruce	22	17.5
Hemlock	22	7.5
Sugar maple	22	7.0
Ironwood	22	2.0
White birch	11	4.0
Black spruce	11	3.0
Tree Layer (Mean % Cover)		91
White ash	89	10.8
Trembling aspen	89	2.1
Balsam fir	78	8.4
Red maple	78	2.0
Serviceberry	67	0.2
Beaked hazelnut	56	5.7
Fly-honeysuckle	56	3.5
Red spruce	44	0.5
White spruce	33	3.7
Striped maple	33	0.7
Bush-honeysuckle	33	0.4
Wild Raisin	33	0.2
Speckled alder	33	0.1
Shrub Layer (Mean % Cover)		34
Starflower	89	0.2
Interrupted fern	78	2.2
New York fern	78	1.3
Wild lily-of-the-valley	78	1.2
Bunchberry	67	4.4
Christmas fern	67	0.6
White panicle aster	67	0.4
Large-leaved aster	56	4.1
Evergreen wood fern	56	0.9
Partridge-berry	56	0.9
Dwarf raspberry	44	3.4
Lady fern	44	1.3
Strawberry	44	0.6
Sarsaparilla	33	8.3
Sensitive fern	33	3.5
Bracken	33	2.7
Goldthread	33	2.0
Oak fern	33	2.0
Wood aster	33	1.8
Twinflower	33	1.7
Cinnamon fern	33	0.7
Woodland horsetail	33	0.3
Herb Layer (Mean % Cover)		34
Shaggy moss	67	4.5
Stair-step moss	56	6.9
Schreber's moss	56	2.3
Broom moss	56	0.7
Hypnum moss	33	3.0
Bazzania	33	0.4
Wavy dicranum	33	0.4
Hair-cap moss	33	0.1
Bryo-Lichen Layer (Mean % Cover)		11

Distinguishing Features

These hardwood forests are dominated by trembling aspen with a component of white ash in the overstory, and with richer soils than IH4.



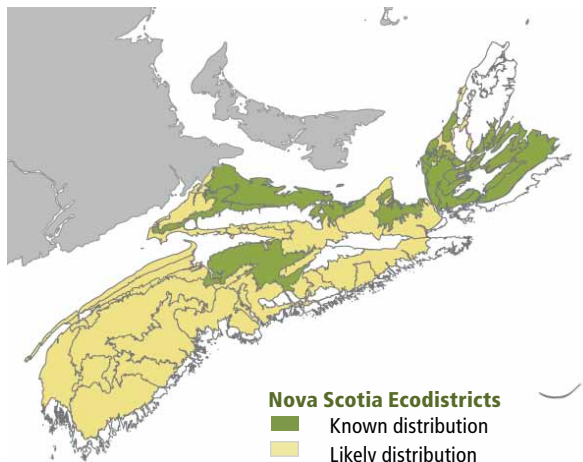
Bristly club-moss

Site Characteristics

Slope Position:	Lower ⁵ Middle ³ Toe ¹ Upper ¹
Surface Stoniness:	(Non - Slightly) ¹⁰
Bedrock Outcrop:	(Non-rocky) ¹⁰
Elevation Range:	34 - 80m
Slope Gradient:	Gentle ⁸ nd ²
Aspect:	North ⁴ South ⁵ nd ¹
Exposure:	Moderate ⁸ Mod. sheltered ¹ nd ¹
Microtopography:	Slightly ⁷ Moderately ³
Drainage:	Imperfect ⁷ Moderately well ³

Soil Characteristics

Soil Type:	ST9 ⁴ ST6 ² ST12 ² ST8 ¹ ST16 ¹
Parent Material:	Glacial till ⁹ Alluvium ¹
Rooting Depth (cm):	(<30) ⁴ (30-45) ³ (>45) ¹ nd ²
Duff Thickness (cm):	(0-5) ⁵ (6-10) ⁴ nd ¹



Nova Scotia Ecodistricts
■ Known distribution
■ Likely distribution