

- IH1 Large-tooth aspen / Lambkill / Bracken IH1a Red oak variant
 IH2 Red oak – Red maple / Witch-hazel IH2a Red oak variant
 IH3 Large-tooth aspen / Christmas fern – New York fern
 IH4 Trembling aspen / Wild raisin / Bunchberry
 IH5 Trembling aspen – White ash / Beaked hazelnut / Christmas fern
 IH6 White birch – Red maple / Sarsaparilla – Bracken IH6a Aspen variant
 IH7 Red maple / Hay-scented fern - Wood sorrel

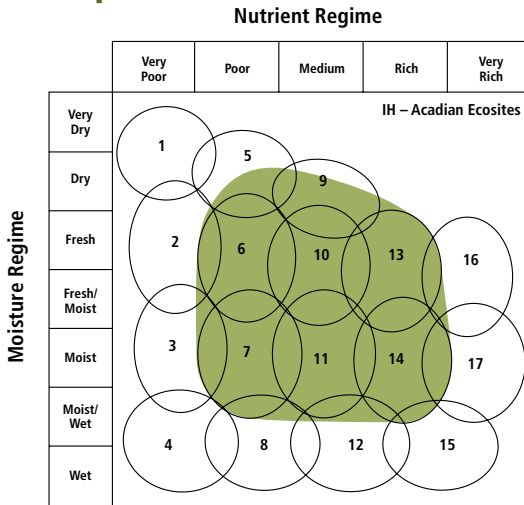
Concept: This group represents early to mid successional hardwood Vegetation Types (VT) found mainly on zonal sites within the Acadian Ecosite group. Red maple, white birch, grey birch and aspens are the dominant species. Vegetation types cover a range of soil moisture and nutrient regimes due (in part) to the ability of hardwoods in this group to adapt rooting patterns to site conditions. Well developed shrub and herb layers along with reduced bryophyte/lichen cover are typical. These are generally short-lived, even-aged forests that result from stand-level disturbance events.

Vegetation: Vegetation types are mainly closed canopy forests dominated by shade intolerant to intermediate hardwoods (red maple, white birch, grey birch, trembling aspen, large-tooth aspen, and to a lesser extent red oak and white ash). Overstory species occur in pure or mixed combinations, often with scattered residuals from the previous stand present. The shrub layer can be extensive with regenerating trees and typical woodland species such as wild raisin, serviceberry and honeysuckle. On poorer sites witch-hazel and ericaceous species will also be present. Herb diversity is usually high but variable depending on site conditions and overstory quality. Poorer sites will have bracken, mayflower and teaberry, whereas better sites will have species such as sarsaparilla, asters, goldenrods and grasses. The bryophyte layer is usually poorly developed.

Environmental Setting: Vegetation types in this group are found on a range of sites – the most broadly defined group in the FEC system. Moisture and nutrient regimes range from dry to moist and poor to rich. Soils are mainly derived from glacial till deposits. This group is found throughout the province as matrix forest or various size patches, although certain VTs are more ecoregion specific (e.g. red oak VTs in the Western (700) ecoregion).

Successional Dynamics: This group is mainly associated with early successional zonal VTs, but some types are more edaphic in nature. Red maple on tolerant hardwood sites should be considered mid-successional. Where red oak occurs this species will continue to form a component of future successional stages due to its longevity. Seed dispersal and clonal/coppice regeneration are two effective strategies that allow intolerant hardwoods to quickly establish themselves in stands that have been disturbed by harvesting, fire, or windthrow. These species also serve as a protective layer as more shade tolerant, late successional species start to regenerate in the understory.

Edatopic Grid



Ecological Features

These are early to mid successional, small to large patch forests. Short-lived overstory species colonize sites rapidly after disturbance acting as a ‘nurse crop’ for later successional species to develop in the understory. Many trees from this group can stump sprout and/or root sucker enabling stands to perpetuate after repeated disturbances. Sites with extensive ericaceous shrub and bracken cover usually occupy poorer sites, while better sites typically support well developed herb layers and frequent levels of white ash. Mature trees and stumps are prone to infection by shoe-string root rot, a widespread family of parasitic fungi. Regenerating stands provide important browse for deer, moose and snowshoe hare. Stands adjacent to streams are used by beavers to provide food and raw materials for lodge and dam building. Older stands may provide habitat for great crested flycatcher, grey catbird, yellow warbler, chestnut-sided warbler, common yellowthroat and ruffed grouse.

IH1

Large-tooth aspen / Lambkill / Bracken

Populus grandidentata / Kalmia angustifolium / Pteridium aquilinum

IH1a

Red oak variant

Quercus rubra

n=21



Black River Road,
Cumberland County

Concept: This early successional Vegetation Type (VT) has an overstory dominated by large-tooth aspen accompanied by a strong component of red maple. The IH1a variant describes stands where red oak is a significant part of the overstory. IH1 has a well-developed understory of disturbance-tolerant woody and herbaceous plants, but reduced bryophyte cover. Large-tooth aspen / Lambkill / Bracken usually follows stand-replacing disturbance events such as fire, windthrow or clearcutting. Most large-tooth aspen originates as vegetative regeneration from root suckers.

Vegetation: Large-tooth aspen and red maple are dominant overstory trees, but the latter species is usually less abundant. White birch, white pine and red oak are common associates – with red oak co-dominant in variant IH1a. The shrub layer is well developed, including wild raisin, serviceberry, velvet-leaf blueberry and bush-honeysuckle. The presence of regenerating balsam fir, red maple, red oak, white pine and black spruce indicate possible successional stages of this ecosystem. In the herb layer, species indicative of poor, dry conditions include bracken, teaberry, round-leaved pyrola, mayflower, pink lady's slipper and/or princes'-pine. The bryophyte layer is poorly developed.

Ecological Features

This early successional small patch forest is short lived. Large-tooth aspen is a very shade-intolerant tree and its regeneration is primarily through clonal reproduction from root suckers (which may 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

Environmental Setting: IH1 is mainly associated with dry to fresh, nutrient poor soils of glacial origin. Soils and sites are often stony. This VT is found mainly in the Western ecoregion, but is also scattered across mainland Nova Scotia on a variety of soils with low nutrient status. IH1 is common in central and southern New Brunswick but somewhat rare elsewhere in that province and on Prince Edward Island. The VT IH1a is even less common in New Brunswick and absent from Prince Edward Island.

Successional Dynamics: IH1 is an early successional VT that follows stand-level disturbances in both softwood and hardwood forests. Typical disturbance agents include fire, windthrow and harvesting. IH1 stands are typically dominated by even-aged, clonal-origin large-tooth aspen. The short-lived aspen will deteriorate due to natural senescence, with mortality further accelerated by insect predation, disease and/or wind damage. Possible successional VTs include IH2 (Red oak – Red maple / Witch-hazel), SP6 (Black spruce – Red maple / Bracken – Sarsaparilla), SP9 (Red oak – White pine / Teaberry) and SH4 (Red spruce – White pine / Lambkill / Bracken).

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 bird species. Aspen support many insects, most notably the forest tent caterpillar which is an important food for birds and small mammals.

Characteristic Plants	IH1		IH1a	
	Freq. (%)	Cover (%)	Freq. (%)	Cover (%)
Large-tooth aspen	100	66.2	100	38.6
Red maple	92	14.0	89	23.5
White pine	54	6.9	22	7.0
White birch	46	4.5	56	6.0
Black spruce	31	5.0	33	11.0
White spruce	31	4.5		
Red oak	31	3.5	100	18.2
Trembling aspen	23	0.1	11	5.0
Balsam fir	15	5.0	22	3.5
Hemlock	15	0.1		
Grey birch	8	2.0	11	4.0
Tree Layer (Mean % Cover)		89		88
Red maple	92	2.8	78	4.9
Serviceberry	92	0.8	78	0.1
Balsam fir	85	6.3	89	3.0
Wild raisin	85	2.1	78	0.2
Velvet-leaf blueberry	77	4.0	78	2.9
Lambkill	69	9.4	89	15.8
Red oak	69	1.3	89	0.7
White pine	69	0.9	67	0.8
Black spruce	54	3.0	67	6.3
Lowbush blueberry	54	2.3	67	1.3
Bush-honeysuckle	54	0.3		
Beaked hazelnut	38	4.4	11	0.1
Striped maple	38	1.1	44	2.8
Witch-hazel	38	0.6	44	12.7
White spruce	31	2.9		
Fly-honeysuckle	31	0.2	33	0.8
Large-tooth aspen	31	0.2	56	0.8
Beech	15	0.4	22	5.3
Huckleberry	8	0.1	33	12.0
Shrub Layer (Mean % Cover)		31		42
Sarsaparilla	100	4.6	78	4.0
Wild lily-of-the-valley	100	1.4	89	1.0
Bracken	92	15.3	89	6.9
Teaberry	69	10.6	89	11.9
Starflower	69	3.4	100	1.1
Partridge-berry	54	7.2	67	0.3
Bunchberry	54	3.4	67	2.8
Ground pine	54	1.5	11	0.6
Pink lady's slipper	54	0.1	33	0.1
Round-leaved pyrola	46	0.5	22	0.2
Mayflower	38	1.3	44	0.3
Wood aster	38	1.1	33	0.1
Indian cucumber root	38	0.1	33	0.3
Indian pipe	38	0.1	44	0.1
Painted trillium	38	0.1	22	0.1
Bluebead lily	31	0.5	56	0.1
Cow-wheat	31	0.1	22	0.1
Princes'-pine	15	0.5	33	0.8
Herb Layer (Mean % Cover)		35		26
Schreber's moss	77	0.8	89	0.6
Broom moss	62	1.0	78	0.7
Hypnum moss	46	1.0	78	1.2
Hair-cap moss	46	0.8	33	0.8
Wavy dicranum	15	1.1	56	0.2
Stair-step moss	8	0.3	44	1.2
Bryo-Lichen Layer (Mean % Cover)		2		3

Distinguishing Features

These hardwood forests occur on well drained, nutrient poor sites dominated by large-tooth aspen. Ericaceous shrubs as well as mayflower, teaberry, round-leaved pyrola, bracken fern, pink lady's slipper and princes'-pine are common. Red oak is diagnostic for the variant IH1a.



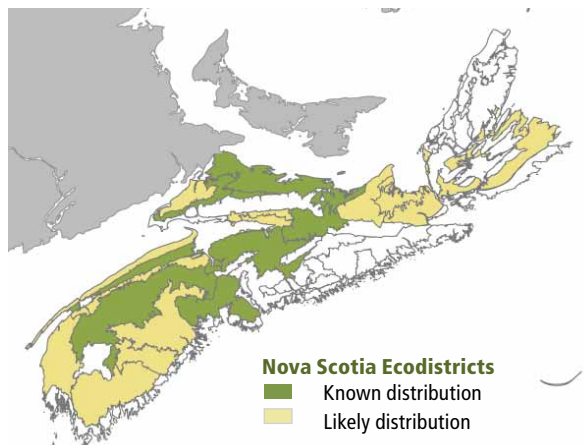
Large-tooth aspen

Site Characteristics

Slope Position:	Level ⁵ Middle ² Upper ² Crest ¹
Surface Stoniness:	(Non - Slightly) ⁶ (Moderately) ² (Very - Excessively) ²
Bedrock Outcrop:	(Non-rocky) ⁹ (Slightly - Moderately) ¹
Elevation Range:	15 - 189m
Slope Gradient:	Level ⁵ Gentle ² Other ² nd ¹
Aspect:	North ² East ¹ South ¹ West ¹ None ⁴ nd ¹
Exposure:	Moderate ⁷ Mod. exposed ² Other ¹
Microtopography:	Slightly ⁵ Moderately ³ Strongly ¹ Other ¹
Drainage:	Well ⁵ Moderately well ³ Imperfect ¹ Rapid ¹

Soil Characteristics

Soil Type:	ST1 ³ ST2 ³ ST2-L ² ST6 ¹ nd ¹
Parent Material:	Glacial till ⁸ Glaciofluvial ²
Rooting Depth (cm):	(<30) ¹ (30-45) ² (>45) ⁶ nd ¹
Duff Thickness (cm):	(0-5) ⁴ (6-10) ⁴ (11-40) ¹ nd ¹



IH2

Red oak – Red maple / Witch-hazel

Quercus rubra – *Acer rubrum* / *Hamamelis virginiana*

IH2a

Red oak variant

Quercus rubra

n=24



Holden Lake,
Lunenburg County

Concept: This early to mid-successional Vegetation Type (VT) has a mixed hardwood overstory with a strong component of red oak. It is the prominence of red oak that distinguishes this unit from other intolerant hardwood VTs. Stands dominated by red oak are described by variant IH2a, a condition that possibly results from earlier fire and/or harvesting disturbances. Red oak – Red maple / Witch-hazel usually follows stand-replacing disturbance events and is almost exclusively a Western ecoregion VT. Sometimes embedded within an IH2 site is the woodland OW5 (Red oak / Huckleberry / Cow-wheat – Rice grass / Reindeer lichen).

Vegetation: Red oak, red maple and white birch are the dominant overstory trees, along with occasional large-tooth aspen, black spruce and balsam fir. The overstory may also include a few scattered white pine in a super canopy position. These relict trees are usually survivors of past disturbance events. The shrub layer is well developed, often including wild raisin, serviceberry, velvet-leaf blueberry, witch-hazel and/or lambkill, along with regenerating trees (especially red oak, red maple, balsam fir and white pine). In the herb layer species indicative of poor, dry conditions include bracken, teaberry, round-leaved pyrola, mayflower, pink lady's slipper and/or princes'-pine. The bryophyte layer is poorly developed.

Environmental Setting: IH2 is mainly associated with dry to fresh, nutrient poor soils of glacial origin. Soils and sites are often stony. This VT is abundant throughout the Western ecoregion, especially in the South Mountain, Western Barrens, Rossignol and Sable ecodistricts. It is also occasionally found in central Nova Scotia on a variety of soils with low nutrient status. This VT is relatively rare in New Brunswick, where it is largely restricted to the south. It is extremely uncommon on Prince Edward Island.

Successional Dynamics: Relatively dry, nutrient poor soils associated with this VT may lead to an edaphic climax community dominated by red oak, white pine and black spruce. Historically, stand maintaining fires would have reduced understory fuel loads and promoted red oak and possibly white pine presence until the overstory was destroyed by intense canopy fire. (Although the role of low intensity fires in red oak development is not well understood, it appears to be an important component of successional history in some stands.) IH2 can develop from IH1 (Large-tooth aspen / Lambkill / Bracken) stands and, once established, can maintain itself or transition to SP9 (Red oak – White pine / Teaberry). As the potential impacts of fire are reduced through management, IH2 could succeed to SP4 (White pine / Blueberry / Bracken) or on better sites to SH4 (Red spruce – White pine / Lambkill / Bracken).

Ecological Features

This early to mid-successional large patch forest occurs primarily in western Nova Scotia. Red oak is intermediate in shade tolerance and may occur in both the understory and overstory. This tree is a valuable mast producer for wildlife species including small mammals, bear,

ruffed grouse and deer. Growth of oak regeneration may be enhanced by understory fire, which promotes vigorous sprouting from seedlings and saplings and gives them a competitive advantage. Red maple regenerates quickly as coppice and is a favoured browse by

deer and moose. Mature red maple flower before most other spring plants, providing one of the most important early and abundant pollen and nectar sources for a wide range of insects. Oak is the preferred host of maitake (or hen-of-the-woods) mushroom.

Characteristic Plants	IH2		IH2a	
	Freq. (%)	Cover (%)	Freq. (%)	Cover (%)
Red oak	100	32.2	100	59.4
Red maple	100	31.3	93	14.1
White pine	58	5.7	29	2.3
White birch	50	9.2	43	7.3
Balsam fir	50	7.0	7	3.0
Black spruce	25	10.0	29	3.8
Yellow birch	25	6.7	7	15.0
Red spruce	17	25.0	14	0.5
Beech	17	12.5	7	2.0
Sugar maple	17	4.5	14	1.5
Large-tooth aspen	8	15.0	14	11.5
White spruce			14	2.5
Tree Layer (Mean % Cover)		87		83
Red maple	100	2.5	93	6.5
Red oak	100	2.4	86	6.3
Balsam fir	75	9.0	43	1.4
Wild raisin	75	0.6	71	1.9
Velvet-leaf blueberry	67	4.3	79	7.0
White pine	67	0.7	50	5.4
Red spruce	58	4.2	36	0.5
Witch-hazel	50	11.3	64	2.8
Black spruce	42	6.5	36	2.9
Lambkill	42	3.0	79	10.1
Serviceberry	42	2.1	43	0.3
Striped maple	33	9.0	29	2.8
Beech	33	4.3	21	3.4
Huckleberry	25	7.3	43	16.5
Sugar maple	25	1.9	14	2.5
Lowbush blueberry	17	2.8	64	11.3
Large-tooth aspen			21	0.5
Shrub Layer (Mean % Cover)		38		41
Sarsaparilla	100	2.5	57	3.0
Wild lily-of-the-valley	92	1.2	64	1.1
Bracken	83	5.2	79	11.9
Starflower	83	1.3	93	0.3
Bunchberry	75	3.5	57	0.8
Partridge-berry	67	4.0	50	0.8
Mayflower	67	0.8	36	2.6
Teaberry	67	0.2	57	22.1
Bluebead lily	58	0.7	21	0.1
Indian cucumber root	58	0.3	43	0.4
Indian pipe	58	0.1	36	0.1
Goldthread	50	2.1	7	2.0
Pink lady's slipper	42	0.2	21	0.1
Wood aster	42	0.1	14	0.5
Princes'-pine	33	0.6	14	3.1
Painted trillium	33	0.1	36	0.3
Twinflower	25	3.3	14	10.0
Interrupted fern	25	0.2	14	19.1
Hay-scented fern	25	0.1	14	21.5
Lions paw			29	1.8
Herb Layer (Mean % Cover)		19		43
Broom moss	92	1.6	86	0.8
Hypnum moss	83	2.5	71	1.4
Stair-step moss	67	1.3	14	1.6
Schreber's moss	58	1.4	71	2.4
Grey reindeer lichen	25	0.2	29	7.5
Bryo-Lichen Layer (Mean % Cover)		6		8

Distinguishing Features

This hardwood forest occurs on well drained, nutrient poor sites dominated by red oak and red maple. Ericaceous shrubs, as well as mayflower, teaberry, round leaf pyrola, bracken fern, pink lady's slipper and princes'-pine are common. Red oak is diagnostic for the variant IH2a.



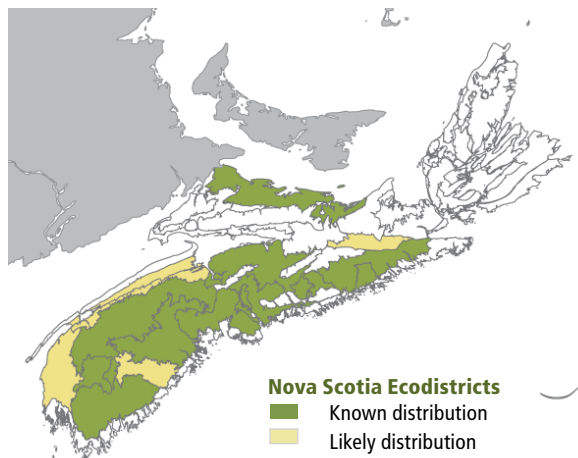
Witch-hazel

Site Characteristics

Slope Position:	Upper ⁶ Middle ³ Other ¹
Surface Stoniness:	(Moderately) ⁵ (Very - Excessively) ⁴ (Non - Slightly) ¹
Bedrock Outcrop:	(Non-rocky) ⁸ (Slightly - Moderately) ²
Elevation Range:	11 - 184m
Slope Gradient:	Gentle ² Level ¹ Moderate ¹ nd ¹
Aspect:	North ¹ East ⁴ South ² West ² None ¹
Exposure:	Moderate ⁵ Mod. exposed ⁵
Microtopography:	Slightly ⁴ Moderately ⁴ Strongly ²
Drainage:	Well ⁷ Moderately well ² Other ¹

Soil Characteristics

Soil Type:	ST2 ⁴ ST2-G ³ ST2-L ² ST6 ¹ nd ¹
Parent Material:	Glacial till ⁸ nd ²
Rooting Depth (cm):	(<30) ¹ (30-45) ³ (>45) ⁵ nd ¹
Duff Thickness (cm):	(0-5) ⁴ (6-10) ³ (11-20) ² nd ¹



IH3

Large-tooth aspen / Christmas fern – New York fern

Populus grandidentata / *Polystichum acrostichoides* –
Thelypteris noveboracensis

n=12



Lily Lake,
Annapolis County

Concept: This early successional Vegetation Type (VT) has an overstory dominated by large-tooth aspen and a variable mix of shade-tolerant hardwood species, balsam fir and red spruce. It is similar to IH1 (Large-tooth aspen / Lambkill / Bracken) but it is found on richer sites, as evidenced by a change in herbaceous cover and tree species composition. Large-tooth aspen / Christmas fern – New York fern usually follows stand-replacing disturbance events such as fire, windthrow or clearcutting. Most large-tooth aspen originates as vegetative regeneration from root suckers.

Vegetation: Large-tooth aspen is the dominant overstory tree, but a variety of other species can also be found including red maple, sugar maple, yellow birch, white ash, balsam fir and red spruce (among others). The shrub layer is moderately developed and includes regenerating trees, fly-honeysuckle, serviceberry and wild raisin. The herb layer has many plants indicative of moist and/or fertile site conditions including interrupted fern, New York fern, sensitive fern, bladder sedge, Christmas fern, lady fern, oak fern and large-leaved aster. The bryophyte layer is poorly developed.

Ecological Features

This early successional small patch forest is short lived. Large-tooth aspen is a very shade-intolerant tree and its regeneration is primarily through clonal reproduction from root suckers (which may support large fungal associates such as shoe-string root rot). Aspen colonizes sites rapidly after stand-level disturbances acting 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

Environmental Setting: IH3 is mainly associated with fresh to moist, nutrient medium to rich soils of variable texture. This VT is found scattered throughout western and central Nova Scotia. IH3 is relatively uncommon across southern New Brunswick and on Prince Edward Island.

Successional Dynamics: IH3 is an early successional VT that follows stand-level disturbances in both softwood and hardwood forests. Typical disturbance agents include fire, windthrow and harvesting. IH3 stands are usually dominated by even-aged, clonal-origin large-tooth aspen. Short-lived aspen will deteriorate due to natural senescence, with mortality further accelerated by insect predation, disease and/or wind damage. A mix of shade-tolerant softwoods and hardwoods in the shrub layer allows for a range of possible successional VTs including IH7 (Red maple / Hay-scented fern – Wood sorrel), MW1 (Red spruce – Yellow birch / Evergreen wood fern), MW3 (Hemlock – Yellow birch / Evergreen wood fern), SH3 (Red spruce – Hemlock / Wild lily-of-the-valley), TH1 (Sugar maple / Hay-scented fern), TH2 (Sugar maple / New York fern – Northern beech fern), TH3 (Sugar maple – White ash / Christmas fern), and in western Nova Scotia TH6 (Red oak – Yellow birch / Striped maple).

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 insects, most notably the forest tent caterpillar, which is an important food for birds and small mammals.

Characteristic Plants

IH3

	Freq. (%)	Cover (%)
Large-tooth aspen	100	54.5
Red maple	83	10.2
Balsam fir	58	8.1
Red spruce	50	6.8
Sugar maple	50	6.4
White ash	42	4.1
Yellow birch	33	5.0
White birch	33	4.0
Red oak	33	3.8
Beech	25	14.0
White pine	25	1.7
Trembling aspen	17	37.5
White spruce	17	7.5
Striped maple	17	5.5
Tree Layer (Mean % Cover)		90
Balsam fir	92	4.6
Red maple	83	0.4
Fly-honeysuckle	67	0.7
Striped maple	50	3.0
Red spruce	50	1.9
Large-tooth aspen	50	1.0
Sugar maple	50	0.9
Beech	42	2.5
White ash	42	2.2
Serviceberry	42	0.4
Wild raisin	42	0.2
Red oak	42	0.1
White pine	42	0.1
Yellow birch	33	7.4
Shrub Layer (Mean % Cover)		14
Wild lily-of-the-valley	92	1.7
Starflower	92	1.4
Sarsaparilla	75	3.8
Bluebead lily	67	1.3
Hay-scented fern	58	3.0
New York fern	58	1.3
Bracken	58	1.0
Christmas fern	58	0.8
Interrupted fern	58	0.7
Wood aster	58	0.6
Drooping wood sedge	50	0.2
Evergreen wood fern	42	0.1
Violets	42	0.1
Oak fern	33	1.3
Rose twisted stalk	33	0.1
Bristly club-moss	25	0.7
Sensitive fern	25	0.5
Cinnamon fern	25	0.4
Hawkweeds	25	0.4
Herb Layer (Mean % Cover)		14
Broom moss	83	0.4
Schreber's moss	67	0.6
Hair-cap moss	67	0.4
Stair-step moss	58	2.8
Hypnum moss	42	0.5
Wavy dicranum	33	0.5
Bazzania	33	0.1
Shaggy moss	25	11.7
Bryo-Lichen Layer (Mean % Cover)		6

Distinguishing Features

This hardwood forest occurs on well to imperfectly drained, nutrient rich soils and is dominated by large-tooth aspen. Moist site indicators include interrupted fern, cinnamon fern, sensitive fern, bladder sedge, other sedge species and buttercups. Rich site indicators are Christmas fern, lady fern and large leaf aster.



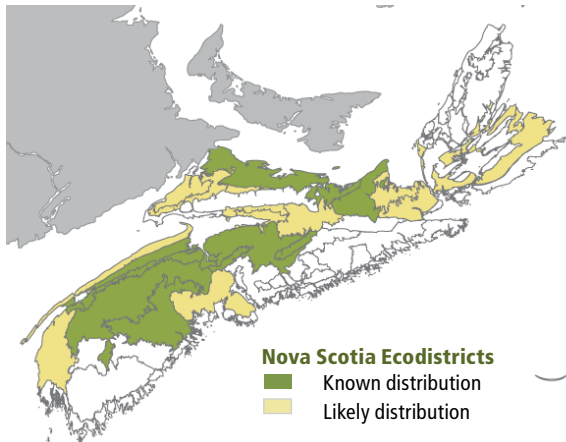
New York fern
[John Gillis]

Site Characteristics

Slope Position:	Level ⁴ Lower ² Middle ² Upper ²
Surface Stoniness:	(Non - Slightly) ⁶ (Moderately) ¹ (Very - Excessively) ¹ nd ²
Bedrock Outcrop:	(Non-rocky) ⁸ nd ²
Elevation Range:	33 - 190m
Slope Gradient:	Gentle ⁶ Level ³ Moderate ¹
Aspect:	North ³ East ² South ³ None ²
Exposure:	Moderate ⁶ Mod. exposed ² nd ²
Microtopography:	Slightly ⁴ Moderately ² Strongly ² nd ²
Drainage:	Moderately well ⁵ Imperfect ² Poor ¹ nd ²

Soil Characteristics

Soil Type:	ST12 ³ ST8 ² ST11 ² ST9 ¹ ST2-L ¹ nd ¹
Parent Material:	Glacial till ¹⁰
Rooting Depth (cm):	(30-45) ³ (>45) ⁵ nd ²
Duff Thickness (cm):	(0-5) ⁵ (6-10) ³ nd ²



IH4

Trembling aspen / Wild raisin / Bunchberry

Populus tremuloides / *Viburnum nudum* /
Cornus canadensis

n=15



Denmark,
Colchester County

Concept: Trembling aspen / Wild raisin / Bunchberry forest is an early successional Vegetation Type (VT) dominated by trembling aspen with a strong component of red maple and balsam fir. This VT has a well-developed understory of disturbance-tolerant woody and herbaceous plants, but reduced bryophyte cover. Trembling aspen / Wild raisin / Bunchberry usually follows stand-replacing disturbances events such as fire, windthrow or clearcutting.

Vegetation: Trembling aspen is the dominant overstory tree, with a lesser component of red maple and balsam fir. White spruce, white birch and red spruce are common canopy associates. The shrub layer is often well developed and includes red maple and balsam fir regeneration as well as woody shrubs like wild raisin, lambkill and blueberry species. A variety of plants can be found in the herb layer, but common species are limited to wild lily-of-the-valley, starflower, bunchberry, twinflower, wood aster and bracken. The bryophyte layer is poorly developed but Schreber's moss and broom moss are usually present.

Ecological Features

This early successional small patch forest is short lived. Trembling aspen is a very shade-intolerant tree and regenerates 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 acting as a "nurse crop" for

later successional species that tend to grow up through the aspen. This forms 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: IH4 is mainly associated with fresh to moist, nutrient medium soils of glacial origin. This VT is found primarily in the Valley/Central and Northumberland Bras d'Or Lowlands ecoregions. This VT is common on Prince Edward Island and, excluding the highlands, widespread and abundant across much of New Brunswick.

Successional Dynamics: IH4 is an early successional VT that follows stand-level disturbances in both softwood and hardwood forests. Typical disturbance agents include fire, windthrow and harvesting. IH4 stands are usually dominated by even-aged, clonal-origin trembling aspen. Short-lived aspen will deteriorate due to natural senescence, with mortality further accelerated by insect predation, disease and/or wind damage. Possible successional VTs include softwood or mixedwood types such as SH5 (Red spruce – Balsam fir / Schreber's moss), SH6 (Red spruce – Balsam fir / Stair-step moss – Sphagnum) and MW1 (Red spruce – Yellow birch / Evergreen wood fern). On Cape Breton Island MW4 (Balsam fir – Red maple / Wood sorrel – Goldthread) and SH8 Balsam fir / Wood fern / Schreber's moss) are more likely.

Characteristic Plants

IH4

	Freq. (%)	Cover (%)
Trembling aspen	100	55.7
Red maple	93	8.1
Balsam fir	60	16.7
White birch	47	13.0
White spruce	47	1.7
Black spruce	27	9.0
Red spruce	27	7.5
Large-tooth aspen	20	6.7
White pine	20	3.0
White ash	20	0.1
Grey birch	13	10.0
Hemlock	7	5.0
Striped maple	7	4.0
Yellow birch	7	3.0
Mountain-ash	7	0.1
Tree Layer (Mean % Cover)		88
Red maple	93	8.5
Wild Raisin	87	2.5
Balsam fir	80	6.6
Trembling aspen	67	2.8
Lambkill	40	2.6
White ash	40	1.5
Serviceberry	40	0.5
Velvet-leaf blueberry	33	15.3
Lowbush blueberry	33	3.1
Black spruce	33	1.2
White pine	33	0.5
Striped maple	27	10.2
Bush-honeysuckle	27	1.5
False holly	27	0.3
Shrub Layer (Mean % Cover)		32
Wild lily-of-the-valley	80	1.3
Bunchberry	73	11.0
Starflower	73	0.8
Bracken	60	7.9
Twinflower	53	3.8
Wood aster	53	0.7
Sarsaparilla	47	2.9
Evergreen wood fern	47	0.5
Cinnamon fern	40	4.2
Interrupted fern	40	0.8
Bluebead lily	33	0.2
Drooping wood sedge	33	0.1
Goldthread	33	0.1
Shinleaf	33	0.1
Teaberry	27	3.5
Dwarf raspberry	27	1.8
Partridge-berry	27	0.7
New York fern	27	0.1
Herb Layer (Mean % Cover)		30
Schreber's moss	73	2.8
Broom moss	73	0.6
Stair step moss	60	1.8
Bazzania	53	0.9
Shaggy moss	47	1.9
Wavy dicranum	47	0.3
Hair-cap moss	33	4.2
Hypnum moss	27	0.2
Bryo-Lichen Layer (Mean % Cover)		7

Distinguishing Features

These hardwood forests are dominated by trembling aspen with a strong component of red maple and balsam fir. Aspen root suckers are common in the shrub layer.



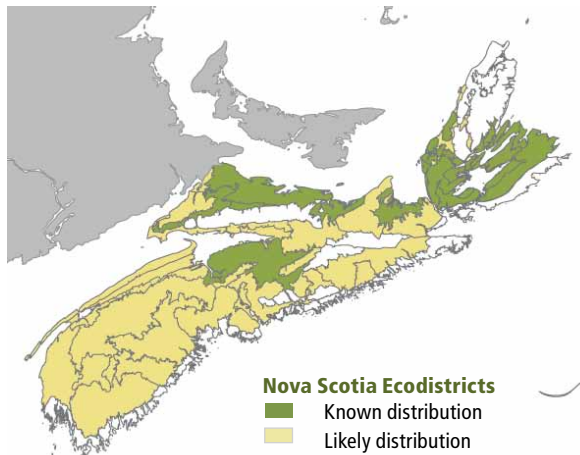
Bunchberry

Site Characteristics

Slope Position:	Level ⁵ Upper ³ Lower ¹ Middle ¹
Surface Stoniness:	(Non - Slightly) ⁹ (Moderately) ¹
Bedrock Outcrop:	(Non-rocky) ¹⁰
Elevation Range:	14 - 123m
Slope Gradient:	Gentle ⁵ Level ⁴ nd ¹
Aspect:	North ¹ South ³ West ² None ⁴
Exposure:	Moderate ¹⁰
Microtopography:	Moderately ³ Slightly ² Strongly ³ Level ¹
Drainage:	Imperfect ⁵ Moderately well ⁴ Well ¹

Soil Characteristics

Soil Type:	ST6 ⁵ ST2 ² ST3 ¹ ST3L ¹ ST9 ¹
Parent Material:	Glacial till ¹⁰
Rooting Depth (cm):	(<30) ¹ (30-45) ⁶ (>45) ² nd ¹
Duff Thickness (cm):	(0-5) ¹ (6-10) ² (11-20) ¹ nd ¹



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.



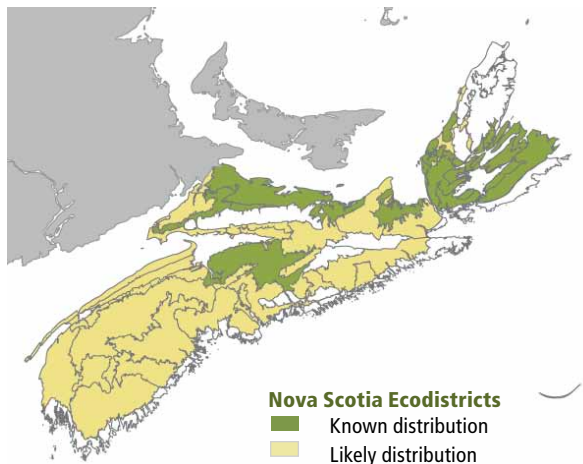
Bristly club-moss

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

IH6

White birch – Red maple / Sarsaparilla – Bracken

Betula papyrifera – *Acer rubrum* /
Aralia nudicaulis – *Pteridium aquilinum*

IH6a

Aspen variant

Populus grandidentata – *Populus tremuloides*

n=46



Black Lake,
Cumberland County

Concept: This early successional Vegetation Type (VT) has an overstory co-dominated by white birch and red maple, with minor associates. The IH6a variant describes stands where aspen (trembling and/or large-tooth) co-dominates with the birch and maple. Together with its variant, IH6 can grow in a wide range of ecological conditions —from dry to moist and poor to rich sites. White birch – Red maple / Sarsaparilla – Bracken usually follows stand-replacing disturbances events such as fire, windthrow or clearcutting.

Vegetation: White birch and red maple are the dominant overstory trees, while aspen species are co-dominant in variant IH6a. Balsam fir, red spruce, white pine, yellow birch and/or white spruce are common canopy associates. The shrub layer is often well developed and includes several regenerating tree species, wild raisin, lambkill, velvet-leaf blueberry, striped maple and serviceberry. A variety of plants can be found in the herb layer, reflecting the range of site conditions supporting this VT. However, the majority of plants are associated with relatively poor fertility and fresh to dry soils. Common herbaceous species include starflower, bunchberry, sarsaparilla, bracken and ground pine. The bryophyte layer is usually poorly

developed, but often contains patches of Schreber's moss, hypnum moss on decaying wood, and hair-cap moss on recently disturbed soil.

Environmental Setting: IH6 is associated with a range of site conditions ranging from relatively dry, poor, coarse textured soils to relatively moist, rich, fine textured soils (and combinations in between). This VT is common and widespread throughout the province. This is the most common white birch VT in the Acadian Forest, ranging widely across New Brunswick and Prince Edward Island.

Successional Dynamics: IH6 is an early successional VT that follows stand-level disturbances in both softwood and hardwood forests. Typical disturbance agents include fire, windthrow and harvesting. With time, short-lived white birch and aspen will deteriorate due to natural senescence, insects and disease and/or wind damage – leading to a range of possible successional VTs. The presence of other canopy and understory species, particularly residual trees from pre-disturbance conditions, should be used to assess likely successional trends.

Ecological Features

This early successional deciduous forest typically occurs as large patches following stand level disturbances such as fire or tree harvesting. Regeneration is by seed and coppice. White birch is shade-intolerant and is short-lived. The sudden exposure of white birch

stems to increased sunlight and heat, which usually occurs after a partial stand disturbance, usually leads to birch mortality. Red maple has greater longevity and shade tolerance, both of which facilitate its persistence into later successional stages. It also

flowers before most other spring plants, providing one of the most important early and abundant pollen and nectar sources used by a wide range of insects. Both species, but red maple in particular, are favoured as browse for deer and moose.

Characteristic Plants	IH6		IH6a	
	Freq. (%)	Cover (%)	Freq. (%)	Cover (%)
White birch	97	35.1	89	18.6
Red maple	94	29.8	100	36.4
Balsam fir	33	17.3	33	11.7
Red spruce	28	6.0	44	8.8
White pine	28	4.8	11	15.0
Yellow birch	25	9.0	11	5.0
Large-tooth aspen	22	8.9	33	20.0
White spruce	14	6.6	22	6.5
Sugar maple	11	10.5	22	9.0
Red oak	11	8.8	22	7.5
Trembling aspen	11	5.5	67	27.3
Tree Layer (Mean % Cover)	80		94	
Balsam fir	78	5.9	67	7.1
Red maple	69	5.1	56	1.1
Wild raisin	67	1.8	56	1.9
Lambkill	61	16.5	56	2.3
Velvet-leaf blueberry	58	12.9	56	5.7
Striped maple	53	2.4	44	2.9
White pine	50	1.8	44	0.3
Black spruce	44	3.5	56	1.0
Serviceberry	44	0.6	89	0.3
Lowbush blueberry	42	4.8	44	2.3
Red spruce	42	2.7	44	1.6
False holly	36	0.9	11	0.1
Red oak	33	1.3	67	0.2
Witch-hazel	28	3.3	44	0.1
Beaked hazelnut	28	0.5	56	9.4
Shrub Layer (Mean % Cover)	43		22	
Wild lily-of-the-valley	89	1.7	100	2.0
Starflower	89	0.9	100	0.7
Bunchberry	81	7.2	78	3.5
Sarsaparilla	78	3.0	89	5.4
Bracken	72	12.1	89	12.6
Ground pine	61	0.7	67	0.1
Goldthread	50	2.9	78	0.8
Partridge-berry	50	0.5	89	3.0
Teaberry	44	17.8	56	6.6
Evergreen wood fern	39	2.2	22	1.5
Wood aster	39	0.7	33	0.5
Painted trillium	39	0.1	33	0.1
Twinflower	36	2.0	11	0.5
Mayflower	36	1.0	33	0.2
Indian cucumber root	36	0.3	56	0.1
Bluebead lily	33	2.0	44	0.2
Hay-scented fern	31	7.4		
Violets	11	6.3	44	1.3
Large-leaved aster	11	0.7	33	0.4
Short husk	11	0.1	56	0.1
Interrupted fern	8	0.7	44	8.3
New York fern	3	35.0	33	20.7
Herb Layer (Mean % Cover)	38		42	
Schreber's moss	86	3.1	89	1.2
Hypnum moss	75	1.7	44	1.1
Broom moss	72	0.7	78	1.0
Hair-cap moss	64	0.8	100	1.7
Stair-step moss	39	1.8	44	0.4
Shaggy moss			33	0.5
Bryo-Lichen Layer (Mean % Cover)	7		6	

Distinguishing Features

The canopy of this hardwood forest is dominated by early successional species (red maple, white birch, trembling and large-tooth aspen). Wild raisin, blueberry, lambkill, bracken and sarsaparilla are usually present. Aspen is diagnostic for the variant IH6a.



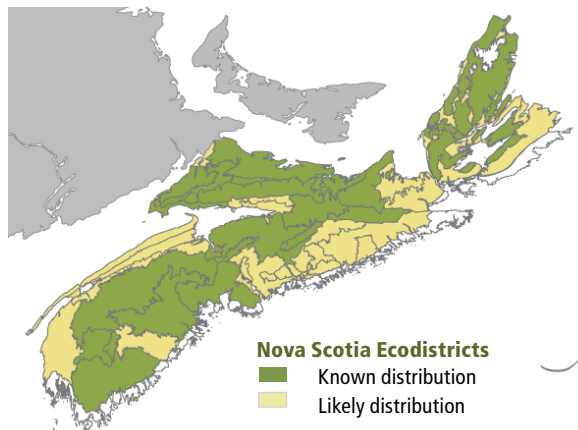
Sarsaparilla

Site Characteristics

Slope Position: Upper⁵ Middle³ Level¹ Lower¹
 Surface Stoniness: (Non - Slightly)⁶ (Moderately)³ (Very - Excessively)¹
 Bedrock Outcrop: (Non-rocky)⁹ (Slightly - Moderately)¹
 Elevation Range: 8 - 229m
 Slope Gradient: Gentle⁷ Moderate¹ Level¹ nd¹
 Aspect: North³ East¹ South² West³ None¹
 Exposure: Moderate⁸ Mod. exposed²
 Microtopography: Moderately⁶ Slightly³ Strongly¹
 Drainage: Well⁶ Moderately well² Imperfect²

Soil Characteristics

Soil Type: ST2⁴ ST2-L² ST6¹ ST15¹ Other²
 Parent Material: Glacial till⁹ Till/Bedrock¹
 Rooting Depth (cm): (<30)¹ (30-45)³ (>45)⁴ nd²
 Duff Thickness (cm): (0-5)³ (6-10)⁴ (11-20)¹ nd²



IH7

Red maple / Hay-scented fern – Wood sorrel

Acer rubrum / *Dennstaedtia punctilobula*
– *Oxalis acetosella*

n=18



Tyndal Road,
Cumberland County

Concept: This early to mid-successional Vegetation Type (VT) has an overstory dominated by red maple and lesser amounts of several shade-tolerant associates, possibly including sugar maple, yellow birch and/or red spruce. IH7 is also distinguished by its diverse herb layer, which is indicative of mesic Nova Scotia hardwood forests. Red maple / Hay-scented fern – Wood sorrel usually follows stand-replacing disturbances events such as fire, windthrow or clearcutting, but it can also result from partial harvesting within hardwood forests.

Vegetation: Red maple is the dominant overstory tree, accompanied by a lesser amount of sugar maple, yellow birch, red spruce and/or beech. The shrub layer is moderately developed and includes regenerating trees (including balsam fir), fly-honeysuckle and striped maple. The herb layer is dominated by several species of ferns, most notably hay-scented fern which can be an aggressive competitor in open, disturbed sites. Other common species include New York fern, evergreen wood fern, rose twisted stalk, Indian cucumber root, wood aster, wood sorrel, bristly and shining club-moss, and various violet species. The bryophyte layer is poorly developed.

Ecological Features

This early successional closed canopy hardwood forest typically develops following stand-level disturbance. Regeneration is by seed or coppice. The longevity and relatively high shade tolerance of red maple facilitate its

persistence into later successional stages. Red maple regenerates quickly as coppice and is a favoured browse by both deer and moose. It flowers before most other spring plants, providing one of the most important early and abundant

pollen and nectar sources used by a wide range of insects. With increased light availability caused by canopy disturbances, hay-scented fern can be very invasive and spread aggressively, which restricts tree regeneration.

Environmental Setting: IH7 is associated with fresh to moist, nutrient medium to rich soils of variable texture. This VT is found scattered throughout Nova Scotia, but is particularly common on upper slope positions within the Nova Scotia Uplands ecoregion. This VT is common in New Brunswick and on Prince Edward Island. It is the most widespread red maple forest in the Maritimes.

Successional Dynamics: IH7 is an early to mid-successional VT that usually follows stand-level disturbance events in hardwood forests. The main disturbance agents are typically windthrow and harvesting, including aggressive partial harvesting, which can promote coppice red maple regeneration. The smothering and competitive nature of hay-scented fern can also restrict and/or delay establishment of other hardwood species. With sufficient time between disturbance events, IH7 can succeed to TH1 (Sugar maple / Hay-scented fern), TH2 (Sugar maple / New York fern – Northern beech fern), TH6 (Red oak – Yellow birch / Striped maple) or MW1 (Red spruce – Yellow birch / Evergreen wood fern).

Characteristic Plants

IH7

	Freq. (%)	Cover (%)
Red maple	100	66.4
Sugar maple	56	17.8
Yellow birch	56	7.3
Red spruce	33	3.8
Beech	33	3.2
White spruce	11	2.0
White ash	11	1.5
Tree Layer (Mean % Cover)		84
Balsam fir	89	4.0
Yellow birch	78	2.4
Red maple	78	1.2
Sugar maple	67	5.4
Fly-honeysuckle	56	1.1
Red spruce	44	1.2
Striped maple	39	2.2
Beech	39	0.7
White spruce	33	3.4
Wild raisin	22	0.8
White pine	22	0.3
Beaked hazelnut	22	0.1
Shrub Layer (Mean % Cover)		15
Hay-scented fern	94	48.2
Evergreen wood fern	89	6.3
Violets	89	1.2
Wild lily-of-the-valley	72	1.3
Goldthread	67	1.7
Wood-sorrel	67	1.6
Starflower	67	0.7
Sarsaparilla	56	1.1
Wood aster	56	0.6
Rose twisted stalk	56	0.5
Indian cucumber root	50	0.3
Bristly club-moss	44	4.4
Ground pine	44	0.7
Partridge-berry	44	0.7
Drooping wood sedge	44	0.1
Painted trillium	44	0.1
New York fern	39	9.0
Bluebead lily	39	0.1
Short husk	39	0.1
Christmas fern	33	2.4
Northern beech fern	33	0.9
Bunchberry	28	0.4
Shining club-moss	28	0.4
Dwarf raspberry	28	0.2
Three seeded sedge	28	0.1
Bracken	22	2.5
Cinnamon fern	22	1.0
Blue joint	22	0.1
White lettuce	22	0.1
Wood reed	22	0.1
Herb Layer (Mean % Cover)		66
Hypnum moss	67	1.8
Hair-cap moss	67	0.2
Broom moss	39	1.8
Stair-step moss	39	1.1
Fern moss	39	0.7
Bazzania	33	0.3
Bryo-Lichen Layer (Mean % Cover)		3

Distinguishing Features

This hardwood forest on well drained soils is dominated by red maple. On better sites sugar maple, yellow birch and beech are present. Extensive hay-scented fern cover is diagnostic for this unit. New York fern and evergreen wood fern are also common.



Hay-scented fern

Site Characteristics

Slope Position:	Middle ⁴ Upper ³ Crest ² Level ¹
Surface Stoniness:	(Non - Slightly) ⁷ (Moderately) ¹ (Very - Excessively) ¹ nd ¹
Bedrock Outcrop:	(Non-rocky) ⁹ (Slightly - Moderately) ¹
Elevation Range:	28 - 261m
Slope Gradient:	Gentle ⁴ Moderate ³ Level ² Steep ¹
Aspect:	North ⁴ East ² South ¹ West ¹ None ¹ nd ¹
Exposure:	Moderate ⁵ Mod. exposed ⁴ Mod. sheltered ¹
Microtopography:	Moderately ⁴ Strongly ⁴ Other ²
Drainage:	Moderately well ⁵ Well ⁵

Soil Characteristics

Soil Type:	ST2-L ⁴ ST5 ² ST2 ¹ ST8 ¹ Other ²
Parent Material:	Glacial till ¹⁰
Rooting Depth (cm):	(30-45) ⁴ (>45) ⁶
Duff Thickness (cm):	(0-5) ² (6-10) ⁵ (11-20) ¹ (>40) ¹ nd ¹

