

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

