

MW5

White birch – Balsam fir / Starflower

Betula papyrifera – *Abies balsamea* /
Trientalis borealis

n=4



Fox River,
Cumberland County

Concept: This early successional mixedwood Vegetation Type (VT) has an overstory co-dominated by white birch and balsam fir. Various other trees may have a minor presence. MW5 is a broadly defined VT that follows stand-replacing disturbance events such as windthrow or harvesting. Residual trees (survivors of past disturbance events) should not be used for classifying this VT from others. Due to the short-lived nature of balsam fir, this VT often supports significant levels of coarse wood debris and/or numerous snags. White birch – Balsam fir / Starflower is commonly found VT in eastern Nova Scotia.

Vegetation: White birch and balsam fir are the dominant overstory trees, with lesser red spruce, yellow birch, white spruce and/or red maple. Minor amounts of black spruce, hemlock and white pine can also be found on some sites. The shrub layer is moderately developed and dominated by regenerating trees (especially balsam fir and red maple). The herb layer is represented by typical forest flora including wild lily-of-the-valley, starflower, bluebead lily, goldthread and wood sorrel. Bracken, hay-scented fern and cinnamon fern can also be found – their presence and relative abundance reflecting available moisture. Bryophyte development varies; its coverage

directly related to softwood overstory abundance. Schreber's moss, stair-step moss and broom moss are the main species. *Bazzania* can also be common where coarse woody debris has accumulated on the forest floor.

Environmental Setting: MW5 is mainly associated with fresh to moist, nutrient-medium soils of variable texture. This VT has not been well sampled but appears to occur throughout eastern Nova Scotia and is scattered elsewhere. It is common in New Brunswick and Prince Edward Island.

Successional Dynamics: MW5 is an early successional VT dominated by white birch and balsam fir. It is an even-aged VT that usually follows stand-level disturbances such as windthrow and harvesting. As the short-lived and shade-intolerant white birch starts to lose overstory dominance, other mid and late successional VTs can develop including SH5 (Red spruce – Balsam fir / Schreber's moss), SH6 (Red spruce – Balsam fir / Stair-step moss – Sphagnum) and SH8 (Balsam fir / Wood fern / Schreber's moss). Residuals in the overstory can provide evidence of pre-disturbance conditions and should be considered when assessing possible successional trends.

Ecological Features

This closed canopy patch forest typically follows stand-level disturbances such as harvesting. Regeneration is by seed or coppice. This ecosystem provides several ecological functions including the facilitation of nutrient cycling, rapid

site revegetation after disturbance, and the establishment of nurse crops for later successional species such as red spruce, hemlock and yellow birch. Residual trees from early successional stages are common and may provide notable

wildlife habitat values and increased forest structural complexity. Mixedwood forests provide both shelter and food for overwintering deer. Sapling stage occurrences may provide browsing habitat for snowshoe hare, deer and moose.

Characteristic Plants

MW5

	Freq. (%)	Cover (%)
White birch	100	41.8
Balsam fir	75	32.0
White spruce	75	7.7
Red spruce	50	13.5
Yellow birch	50	7.0
Hemlock	50	0.1
Red maple	50	0.1
Black spruce	25	5.0
White pine	25	5.0
Tree Layer (Mean % Cover)		84
Balsam fir	100	3.1
Wild raisin	75	0.4
Red maple	50	21.6
Black spruce	50	4.3
White birch	50	3.0
Velvet-leaf blueberry	50	0.5
Lambkill	50	0.1
Mountain-ash	50	0.1
White pine	50	0.1
Fly-honeysuckle	25	0.5
Striped maple	25	0.5
Beech	25	0.3
Bush-honeysuckle	25	0.1
False holly	25	0.1
Hemlock	25	0.1
Serviceberry	25	0.1
Sugar maple	25	0.1
Shrub Layer (Mean % Cover)		19
Starflower	100	0.1
Wild lily-of-the-valley	75	8.1
Bracken	75	4.3
Indian pipe	75	0.1
Evergreen wood fern	50	4.0
Bunchberry	50	3.0
Twinflower	50	1.1
Bluebead lily	50	0.1
Painted trillium	50	0.1
Wood-sorrel	25	40.0
Goldthread	25	16.0
Shining club-moss	25	4.5
Hay-scented fern	25	2.0
Bristly club-moss	25	0.1
Cinnamon fern	25	0.1
Cow-wheat	25	0.1
Eastern spreading wood fern	25	0.1
Interrupted fern	25	0.1
Partridge-berry	25	0.1
Pink lady's slipper	25	0.1
Rose twisted stalk	25	0.1
Running club-moss	25	0.1
Wood reed	25	0.1
Herb Layer (Mean % Cover)		30
Broom moss	100	2.9
Schreber's moss	75	6.7
Stair-step moss	75	1.9
Bazzania	75	1.3
Hypnum moss	75	1.1
Wavy dicranum	50	1.3
Bryo-Lichen Layer (Mean % Cover)		12

Distinguishing Features

This mixedwood forest of balsam fir and red maple establishes after a stand-level disturbance. The herbaceous layer is generally comprised of common woodland plants such as wild lily-of-the-valley, starflower, bluebead lily, goldthread and wood sorrel.



Starflower

Site Characteristics

Slope Position:	Middle ⁵ Upper ⁵
Surface Stoniness:	(Non - Slightly) ⁸ (Very - Excessively) ²
Bedrock Outcrop:	(Non-rocky) ¹⁰
Elevation Range:	83 - 144m
Slope Gradient:	Gentle ⁸ Steep ²
Aspect:	East ³ South ⁴ West ³
Exposure:	Moderate ⁵ Mod. exposed ⁵
Microtopography:	Moderately ⁶ Slightly ² Strongly ²
Drainage:	Well ⁸ Moderately well ²

Soil Characteristics

Soil Type:	ST2 ⁶ ST1 ² ST6 ²
Parent Material:	Glacial till ⁸ Colluvium ²
Rooting Depth (cm):	(30-45) ⁶ (>45) ² nd ²
Duff Thickness (cm):	(6-10) ⁸ nd ²

