

SH9

Balsam fir – Black spruce / Blueberry

Abies balsamea – *Picea mariana* / *Vaccinium* spp.

n=4



Mount Uniacke,
Hwy 101, Hants County

Concept: This early to mid-successional Vegetation Type (VT) has abundant balsam fir with minor coverage of black spruce, red maple and white pine. Due to the short-lived nature of balsam fir, this VT is often associated with significant coarse woody debris (CWD) and/or snags, as well as extensive balsam fir regeneration. Balsam fir – Black spruce / Blueberry usually follows stand-replacing disturbance events such as insect infestation, windthrow or harvesting.

Vegetation: Balsam fir is the dominant overstory tree along with varying amounts of black spruce, hybrid (red/black) spruce, red maple and white pine. White pine residuals can also be found in a super canopy. Understory layers have low species diversity, with the shrub layer providing the greatest coverage (mostly regenerating balsam fir, red maple and black spruce along with velvet-leaf blueberry and lambkill). Bracken and bunchberry are the most abundant herbs with Schreber's moss and stair-step moss the dominant bryophytes. Coverage of bazzania is influenced by the amount of CWD.

Ecological Features

This closed canopy forest occurs as small to large patches within broader spruce-fir matrix forests. The short life-span of balsam fir contributes substantial coarse woody material to the ecosystem, often occurring in pulses following insect outbreaks, disease or destructive wind

storms. Balsam fir is very shade-tolerant, regenerating well in the understory. On moist sites black spruce typically regenerates by layering, forming small clonal groups. Mature forests may provide habitat for red and flying squirrels, deer, moose, salamanders,

songbirds and small mammals, among other groups of wildlife. Old man's beard lichen is often abundant in old forests, providing important food and nest material. No plant or lichen species of conservation concern were found in available plot data.

Environmental Setting: SH9 is mainly associated with dry to fresh, nutrient poor soils of glacial origin. These soils are generally medium to coarse textured and often very stony. This VT is found throughout Nova Scotia, but is most common in the western ecoregion.

Successional Dynamics: SH9 is a predominantly even-aged, early to mid-successional VT dominated by balsam fir. This VT usually follows stand-replacing disturbances such as insect infestation, windthrow or harvesting. In the absence of disturbances that promote balsam fir cover, SH9 can succeed to SP4 (White pine / Blueberry / Bracken) and SP5 (Black spruce / Lambkill / Bracken) on poorer sites and to SH4 (Red spruce – White pine / Lambkill / Bracken) on more zonal sites.

Characteristic Plants

SH9

	Freq. (%)	Cover (%)
Balsam fir	100	43.0
Black spruce	75	12.7
Red maple	75	7.3
White pine	75	3.3
White birch	50	3.0
Yellow birch	25	5.0
Red spruce	25	3.0
Tree Layer (Mean % Cover)		64
Red maple	100	2.2
Velvet-leaf blueberry	75	5.7
Lambkill	75	2.6
Balsam fir	75	2.1
Black spruce	75	0.4
False holly	75	0.2
White pine	50	0.1
Yellow birch	50	0.1
Red spruce	25	3.0
Wild raisin	25	0.3
Huckleberry	25	0.2
Lowbush blueberry	25	0.1
Red oak	25	0.1
Serviceberry	25	0.1
Shrub Layer (Mean % Cover)		12
Bracken	75	11.3
Bunchberry	75	2.8
Starflower	75	0.7
Wild lily-of-the-valley	75	0.7
Bluebead lily	50	0.5
Twinflower	50	0.3
Hay-scented fern	50	0.2
Mayflower	50	0.1
Partridge-berry	50	0.1
Goldthread	25	8.0
New York fern	25	1.0
Cinnamon fern	25	0.1
Indian cucumber root	25	0.1
Indian pipe	25	0.1
Interrupted fern	25	0.1
Painted trillium	25	0.1
Shinleaf	25	0.1
Herb Layer (Mean % Cover)		15
Schreber's moss	100	59.5
Bazzania	100	12.0
Stair-step moss	100	8.0
Ladies' tresses	75	2.2
Wavy dicranum	75	1.4
Plume moss	50	0.4
Hair-cap moss	25	3.0
Russ's sphagnum	25	2.5
Broom moss	25	2.0
Hypnum moss	25	2.0
Pale fat-leaved sphagnum	25	0.3
Grey reindeer lichen	25	0.3
Common green sphagnum	25	0.1
Bryo-Lichen Layer (Mean % Cover)		85

Distinguishing Features

This balsam fir softwood forest occurs on well drained, nutrient poor soils. Black spruce and hybridized spruce are common with white pine often in a super canopy. Bracken is the most abundant herb.



Broom moss

Site Characteristics

Slope Position:	Middle ⁵ Level ³ Upper ²
Surface Stoniness:	(Very - Excessively) ⁵ (Non - Slightly) ³ (Moderately) ²
Bedrock Outcrop:	(Non-rocky) ⁷ (Slightly - Moderately) ³
Elevation Range:	37 - 198m
Slope Gradient:	Level ⁵ Gentle ⁵
Aspect:	West ⁵ None ² nd ³
Exposure:	Moderate ⁷ Exposed ³
Microtopography:	Slightly ⁵ Level ² Moderately ²
Drainage:	Well ⁴ Imperfect ³ Moderately well ³

Soil Characteristics

Soil Type:	ST15 ⁴ ST2 ³ ST3 ³
Parent Material:	Glacial till ⁸ Till/Bedrock ²
Rooting Depth (cm):	(<30) ³ (30-45) ⁷
Duff Thickness (cm):	(6-10) ³ (11-20) ⁷

