

## SH10

### White spruce – Balsam fir / Broom moss

*Picea glauca* – *Abies balsamea* /  
*Dicranum scoparium*

n=3



Georgeville,  
Antigonish County

**Concept:** This mid-successional Vegetation Type (VT) has an overstory of white spruce and balsam fir along with a component of white birch (its relative abundance reflects time since disturbance). The absence of white spruce in the understory suggests this species will not form a significant part of later successional stages. White spruce – Balsam fir / Broom moss usually follows stand-replacing disturbance events such as insect infestation, windthrow or harvesting.

**Vegetation:** White spruce, balsam fir and white birch are the main overstory trees, but stands may also contain minor amounts of red maple and yellow birch. The shrub layer is completely made up of regenerating tree species, especially balsam fir. Both the herb and bryophyte layers have low species diversity and abundance. Typical upland forest flora are present including wild lily-of-the-valley, bunchberry, Schreber's moss and wavy dicranum.

#### Ecological Features

This is a large-patch closed canopy forest with limited distribution in eastern Nova Scotia. Balsam fir is very shade-tolerant and capable of regenerating extensively in the understory, while white spruce is slightly less tolerant.

Mature forests may provide habitat for red squirrels and flying squirrels. South facing slopes may provide winter cover for deer. Understory fir snags are favoured habitat for small cavity nesting songbirds. Young forests are preferred

habitat for snowshoe hare. These forests may support abundant fruiting of mycorrhizal mushrooms, including chanterelles and boletes. No plant or lichen species of conservation concern were found in available plot data.

**Environmental Setting:** SH10 is mainly associated with fresh to fresh-moist, nutrient medium soils of glacial origin. These soils are generally medium to coarse textured. This VT is most common in eastern Nova Scotia, particularly the Eastern Interior ecoregion where white spruce often replaces red spruce in spruce-fir stands.

**Successional Dynamics:** SH10 is a predominantly even-aged, mid-successional VT dominated by white spruce and balsam fir. This VT usually follows stand-replacing disturbances from insect infestation, windthrow or harvesting. Early successional stages may have an increased proportion of white birch. In the absence of stand-level disturbance, white spruce and balsam fir in this VT will eventually succumb to agents such as bark beetle, tussock moth and disease allowing red maple and yellow birch to increase in dominance. Possible later successional VTs include MW1 (Red spruce – Yellow birch / Evergreen wood fern) and TH7 (Yellow birch – White birch / Evergreen wood fern).

## Characteristic Plants

SH10

	Freq. (%)	Cover (%)
White spruce	100	33.0
White birch	100	9.7
Balsam fir	67	50.0
Red maple	33	10.0
Trembling aspen	33	8.0
Black spruce	33	7.0
Large-tooth aspen	33	4.0
Yellow birch	33	3.0
Tamarack	33	0.1
<b>Tree Layer (Mean % Cover)</b>		<b>87</b>
Red maple	100	0.4
Balsam fir	67	4.0
White birch	67	4.0
White spruce	33	2.0
Silver poplar	33	1.0
Trembling aspen	33	1.0
Mountain-ash	33	0.5
White ash	33	0.5
Yellow birch	33	0.1
<b>Shrub Layer (Mean % Cover)</b>		<b>7</b>
Wild lily-of-the-valley	67	8.5
Bunchberry	67	5.5
Bracken	67	0.5
Starflower	67	0.5
Indian pipe	67	0.3
Goldthread	67	0.1
Sarsaparilla	33	3.0
Twinflower	33	1.0
Wood aster	33	1.0
Eastern spreading wood fern	33	0.5
Hawkweeds	33	0.3
Running club-moss	33	0.3
Cinnamon fern	33	0.1
Creeping snowberry	33	0.1
Evergreen wood fern	33	0.1
Ground pine	33	0.1
New England sedge	33	0.1
<b>Herb Layer (Mean % Cover)</b>		<b>13</b>
Schreber's moss	100	12.2
Broom moss	100	0.8
Hair-cap moss	67	1.5
Wavy dicranum	67	1.5
Hypnum moss	67	1.1
Stair-step moss	33	37.0
Plume moss	33	2.0
Grey reindeer lichen	33	1.0
Bazzania	33	0.8
Fern moss	33	0.1
Pin cushion moss	33	0.1
Shaggy moss	33	0.1
<b>Bryo-Lichen Layer (Mean % Cover)</b>		<b>29</b>

## Distinguishing Features

White spruce growing with balsam fir and lesser white birch is diagnostic of this softwood forest usually found in eastern Nova Scotia.



Partridge-berry

## Site Characteristics

Slope Position:	Upper <sup>3</sup> Middle <sup>3</sup> Lower <sup>3</sup>
Surface Stoniness:	(Non - Slightly) <sup>10</sup>
Bedrock Outcrop:	(Non-rocky) <sup>10</sup>
Elevation Range:	100 - 159m
Slope Gradient:	Gentle <sup>10</sup>
Aspect:	North <sup>7</sup> South <sup>3</sup>
Exposure:	Moderate <sup>7</sup> Mod. exposed <sup>3</sup>
Microtopography:	Moderately <sup>7</sup> Slightly <sup>3</sup>
Drainage:	Moderately well <sup>7</sup> Well <sup>3</sup>

## Soil Characteristics

Soil Type:	ST2-L <sup>3</sup> ST3 <sup>3</sup> ST5 <sup>3</sup>
Parent Material:	Glacial till <sup>10</sup>
Rooting Depth (cm):	(<30) <sup>3</sup> (30-45) <sup>3</sup> (>45) <sup>3</sup>
Duff Thickness (cm):	(6-10) <sup>7</sup> (11-20) <sup>3</sup>

