

## SH8

### Balsam fir / Wood fern / Schreber's moss

*Abies balsamea* / *Dryopteris* spp. /  
*Pleurozium schreberi*

n=23



MacInnis Lake,  
Cape Breton County

**Concept:** This early to mid-successional Vegetation Type (VT) has abundant balsam fir with minor amounts of other softwood and hardwood species. Due to the short-lived nature of balsam fir, this VT is often associated with significant coarse wood debris (CWD) and/or snags, as well as extensive balsam fir regeneration. Balsam fir / Wood fern / Schreber's moss usually follows stand-replacing disturbance events such as insect infestation, windthrow or harvesting.

**Vegetation:** Balsam fir is the dominant overstory tree, with varying amounts of red maple, red spruce, white spruce, black spruce, white birch and yellow birch (although not usually all found in one stand). Balsam fir regeneration can be extensive, with red maple usually present in lesser amounts. Other shrubs include false holly, wild raisin and mountain-ash. Typical herb species include evergreen wood fern, starflower, wild lily-of-the-valley, bunchberry, goldthread and wood sorrel. The often extensive bryophyte layer is made up of Schreber's moss, stair-step moss, wavy dicranum, broom moss, hypnum moss and bazzania.

#### Ecological Features

This closed canopy forest occurs primarily on mainland Nova Scotia, where it typically forms matrix and large-patch ecosystems. Balsam fir acts as a nurse species, promoting red spruce and hemlock regeneration. The short life-span of balsam fir contributes substantial

coarse woody material to the ecosystem, often in pulses following insect outbreaks, disease or wind storms. Balsam fir is very shade-tolerant in the understory and can sustain a significant presence throughout successional development. Mature forests may provide habitat for

numerous mammals (including flying squirrels, moose, deer), numerous bird species, and lichens (including abundant old man's beard, an important food and nest material). No plant or lichen species of conservation concern were found in available plot data.

## Characteristic Plants

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	Freq. (%)	Cover (%)
Balsam fir	100	60.5
White birch	57	3.3
Red maple	48	6.5
Red spruce	35	6.8
White spruce	30	12.9
Yellow birch	30	2.6
Black spruce	22	2.8
Hemlock	13	11.7
Trembling aspen	13	6.0
<b>Tree Layer (Mean % Cover)</b>		<b>75</b>
Red maple	91	0.5
Balsam fir	87	2.4
Yellow birch	30	0.9
White birch	30	0.8
False holly	30	0.1
Wild raisin	30	0.1
Red spruce	22	0.8
Mountain-ash	22	0.3
<b>Shrub Layer (Mean % Cover)</b>		<b>4</b>
Evergreen wood fern	65	1.4
Starflower	61	1.0
Wild lily-of-the-valley	57	1.5
Bunchberry	52	1.6
Wood-sorrel	48	2.1
Goldthread	39	1.3
Sarsaparilla	35	0.4
Indian pipe	35	0.1
Painted trillium	26	0.1
Bluebead lily	22	0.4
Twinflower	22	0.3
Pink lady's slipper	22	0.1
<b>Herb Layer (Mean % Cover)</b>		<b>7</b>
Schreber's moss	96	30.1
Stair-step moss	87	22.0
Bazzania	87	5.8
Broom moss	83	3.1
Hypnum moss	52	1.9
Hair-cap moss	48	0.5
Wavy dicranum	35	2.3
Plume moss	26	0.5
<b>Bryo-Lichen Layer (Mean % Cover)</b>		<b>59</b>

## Distinguishing Features

This softwood forest primarily of balsam fir usually follows a stand-level disturbance such as harvesting. This unit is not associated with coastal areas or the Cape Breton highland plateau.



Ground hemlock (Yew)

## Site Characteristics

Slope Position:	Upper <sup>4</sup> Level <sup>2</sup> Lower <sup>2</sup> Middle <sup>1</sup> Crest <sup>1</sup>
Surface Stoniness:	(Non - Slightly) <sup>6</sup> (Moderately) <sup>3</sup> (Very - Excessively) <sup>1</sup>
Bedrock Outcrop:	(Non-rocky) <sup>9</sup> (Slightly - Moderately) <sup>1</sup>
Elevation Range:	23 - 226m
Slope Gradient:	Gentle <sup>4</sup> Level <sup>2</sup> Moderate <sup>2</sup> Other <sup>1</sup> nd <sup>1</sup>
Aspect:	North <sup>1</sup> East <sup>2</sup> South <sup>1</sup> West <sup>2</sup> None <sup>4</sup>
Exposure:	Moderate <sup>5</sup> Mod. exposed <sup>3</sup> Other <sup>2</sup>
Microtopography:	Slightly <sup>5</sup> Moderately <sup>3</sup> Strongly <sup>1</sup> Other <sup>1</sup>
Drainage:	Well <sup>4</sup> Moderately well <sup>3</sup> Imperfect <sup>2</sup> Other <sup>1</sup>

## Soil Characteristics

Soil Type:	ST2 <sup>5</sup> ST3 <sup>2</sup> ST2-L <sup>1</sup> ST3-L <sup>1</sup> ST6 <sup>1</sup>
Parent Material:	Glacial till <sup>7</sup> Glaciofluvial <sup>2</sup> Till/Bedrock <sup>1</sup>
Rooting Depth (cm):	(<30) <sup>2</sup> (30-45) <sup>4</sup> (>45) <sup>3</sup> nd <sup>1</sup>
Duff Thickness (cm):	(0-5) <sup>2</sup> (6-10) <sup>5</sup> (11-20) <sup>2</sup> nd <sup>1</sup>

