

SP7

Black spruce / False holly / Ladies' tresses sphagnum

Picea mariana / *Nemopanthus mucronata* /
Sphagnum capillifolium

n=39



Black Lake,
Cumberland County

Concept: This edaphic Vegetation Type (VT) has abundant black spruce and a well-developed woody shrub layer. Trees often have a hybridized appearance with traits of both black and red spruce expressed. Black spruce / False holly / Ladies' tresses occupies moister site conditions between drier upland spruce-pine types (SP1, SP2, SP3, SP4, SP5) and wet black spruce types (WC1, WC2, WC3, WC4).

Vegetation: Black spruce is the dominant overstory tree along with tamarack, red maple and balsam fir. Hybrid (red/black) spruce occurs on sites with slightly higher fertility. The shrub layer is occupied by ericaceous species such as lambkill, velvet-leaf blueberry and lowbush blueberry, along with false holly and wild raisin. A variety of herb species are possible, but the dominant plants are bunchberry, bracken and goldthread. Scattered sedges, creeping snowberry and cinnamon fern indicate the presence of increased moisture; while bracken, lady slipper and mayflower indicate low nutrient status. Bryophyte cover is dominated by Schreber's moss, wavy dicranum and stair-step moss. Pockets of sphagnum moss indicate elevated moisture levels.

Ecological Features

This forest occurs as large-patch and sometimes matrix in many parts of the province. It can exhibit closed or open canopies, depending on past disturbances and the degree of surface stoniness, which is often excessive in this ecosystem. Black spruce has intermediate shade tolerance and does not seed well under

closed canopies. Vegetative regeneration by layering is common especially where there is a thick duff layer. Spruce grouse eat conifer needles in winter and may be found in this habitat. This forest may provide habitat for wetland associated species such as olive-sided flycatchers, mourning warblers, star-nosed moles and

Environmental Setting: SP7 is found throughout Nova Scotia on a variety of moist, nutrient poor soil types. Thick, ericaceous duff layers are common, limiting tree regeneration by seed unless disturbance creates more exposed micro-sites. Without disturbance, black spruce regeneration is usually by vegetative layering. Sites supporting this VT tend to have minimal mounding due to the shallow rooted nature of the overstory spruce. This VT is widespread and common across the Maritime Provinces.

Successional Dynamics: Moist, nutrient poor soils associated with this VT lead to an edaphic climax community dominated by black spruce. This generally even-aged VT follows stand-replacing disturbances such as fire, windthrow and harvesting. Due to its unique ecological setting, this VT does not shift to other vegetation types after disturbance, but does change in development stage. Under less frequent disturbance events, natural senescence can create some unevenness in both age class and stand structure.

four-toed salamanders. Dwarf mistletoe sometimes creates dense witches brooms that may provide nest and rest areas for small mammals. Mature forests develop abundant old man's beard, lichen that provides important nest and forage material for some species.

Characteristic Plants

SP7

	Freq. (%)	Cover (%)
Black spruce	95	51.6
Balsam fir	56	10.9
Red maple	41	2.3
Tamarack	36	6.6
White pine	23	1.2
White spruce	10	7.0
Tree Layer (Mean % Cover)		66
Lambkill	90	7.5
Balsam fir	90	5.2
Black spruce	77	9.0
False holly	77	1.6
Velvet-leaf blueberry	74	4.3
Wild raisin	74	0.7
Red maple	74	0.5
Lowbush blueberry	41	0.9
Serviceberry	26	0.1
Shrub Layer (Mean % Cover)		25
Bunchberry	90	8.7
Bracken	69	11.4
Goldthread	67	1.2
Wild lily-of-the-valley	64	0.5
Cinnamon fern	49	1.5
Creeping snowberry	44	2.4
Starflower	44	0.2
Mayflower	36	0.3
Twinflower	33	2.2
Pink lady's slipper	26	0.1
Teaberry	23	0.2
Bluebead lily	21	0.8
Three seeded sedge	21	0.7
Herb Layer (Mean % Cover)		21
Schreber's moss	100	63.6
Wavy dicranum	92	4.2
Stair-step moss	79	17.2
Ladies' tresses	79	4.3
Bazzania	62	6.6
Broom moss	51	4.1
Grey reindeer lichen	49	2.4
Cup lichens	41	0.4
Hair-cap moss	36	0.3
Common green sphagnum	33	0.1
Plume moss	28	1.0
Hypnum moss	26	6.8
Bryo-Lichen Layer (Mean % Cover)		95

Distinguishing Features

This softwood forest of black spruce occurs on imperfectly drained soils. Species indicative of moist soils should be present, especially sphagnum in the depressions, cinnamon fern and/or creeping snowberry. False holly and sedges are common.



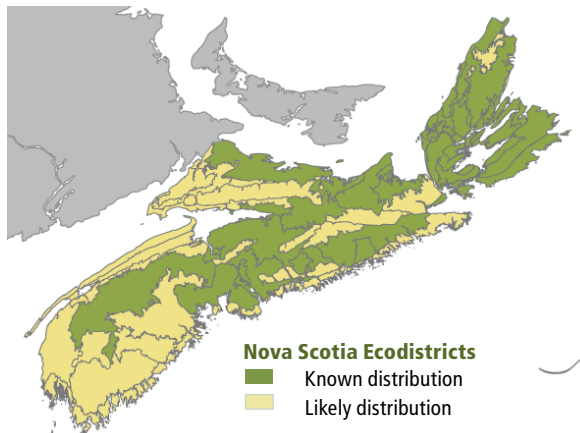
Imperfectly drained soil

Site Characteristics

Slope Position:	Level ⁶ Middle ² Lower ¹ Upper ¹
Surface Stoniness:	(Non - Slightly) ⁸ (Very - Excessively) ¹ (Moderately) ¹
Bedrock Outcrop:	(Non-rocky) ⁹ (Slightly - Moderately) ¹
Elevation Range:	12 - 407m
Slope Gradient:	Level ⁷ Gentle ³
Aspect:	North ¹ East ² South ¹ None ⁶
Exposure:	Moderate ⁸ Mod. exposed ¹ Exposed ¹
Microtopography:	Slightly ⁴ Level ³ Moderately ² Strongly ¹
Drainage:	Imperfect ⁹ Poor ¹

Soil Characteristics

Soil Type:	ST6 ⁵ ST3 ³ ST16 ¹ Other ¹
Parent Material:	Glacial till ⁸ Till/Bedrock ¹ Glaciofluvial ¹
Rooting Depth (cm):	(<30) ⁸ (30-45) ¹ (>45) ¹
Duff Thickness (cm):	(6-10) ³ (11-20) ⁵ (21+) ¹ nd ¹



Nova Scotia Ecodistricts
 ■ Known distribution
 ■ Likely distribution