

SH4

Red spruce – White pine / Lambkill / Bracken

Picea rubens – *Pinus strobus* / *Kalmia angustifolium* /
Pteridium aquilinum

SH4a

Red spruce variant

Picea rubens

n=39



Sherbrooke Lake,
Lunenburg County

Concept: This late successional Vegetation Type (VT) has abundant red spruce and white pine with minor coverage of other species such as red maple, white birch, black spruce and balsam fir (hemlock is usually absent from this VT). There is one variant (SH4a) where red spruce cover is dominant with only scattered white pine. Red spruce – White pine / Lambkill / Bracken is a typical Acadian softwood VT found on dryer, poorer sites which are bordering on zonal conditions.

Vegetation: Red spruce and white pine are the dominant overstory trees with red maple, balsam fir, and black spruce occasionally co-dominant. Hybridization of red and black spruce is common and creates difficulty in distinguishing these two species. Regenerating balsam fir and red spruce are prominent in the shrub layer along with ericaceous species such as lambkill and blueberry. Overall coverage and diversity of herbs is low with bracken the most prevalent species. (Coverage may be higher in the red spruce variant SH4a.) *Bazzania* and Schreber's moss are the dominant bryophytes, with small patches of reindeer mosses occurring on drier sites.

Ecological Features

This matrix forest typically occurs over hundreds of hectares. The longevity of red spruce supports old growth development. This tree is very tolerant of understory shade, responding well to release after decades of suppression, whereas white pine, which has only intermediate shade tolerance, requires release at a young age. In old forests, white pine may outlive red

spruce, developing a supercanopy, and sometimes hollow, large stemmed trees. Mature forests provide large diameter cavity trees, snags and downed coarse woody material. This forest may provide cover for moose and deer, and habitat for fisher, flying squirrels and red squirrels. Coarse woody debris may provide cover for red-backed salamanders and small

mammals, while large trees can provide pileated woodpecker, barred owl and northern goshawk nest sites. Boreal chickadee, pine siskin and both the white-winged and red crossbills eat red spruce and white pine seeds. Creeping rattlesnake plantain is the only known rare plant.

Characteristic Plants	SH4		SH4a	
	Freq. (%)	Cover (%)	Freq. (%)	Cover (%)
Red spruce	100	43.2	100	51.5
White pine	100	19.8	67	4.4
Red maple	78	6.0	75	5.0
Balsam fir	44	8.7	58	12.4
White birch	33	3.6	33	6.5
Black spruce	30	9.5	33	23.3
Red oak	11	4.3		
Large-tooth aspen	11	4.0	8	3.0
Hemlock	11	3.7	17	2.5
Tree Layer (Mean % Cover)		78		76
Balsam fir	93	3.3	92	5.0
Red maple	85	0.4	92	0.3
Red spruce	81	3.9	92	3.6
Lambkill	70	2.7	92	3.1
White pine	63	0.1	42	0.8
Velvet-leaf blueberry	56	2.9	67	1.0
Wild raisin	52	0.1	67	0.1
Huckleberry	30	0.7		
Red oak	30	0.7	8	0.1
Witch-hazel	30	0.4		
False holly	30	0.1	50	0.3
Lowbush blueberry	26	0.1	33	0.9
Serviceberry	22	0.1	17	0.1
Shrub Layer (Mean % Cover)		12		14
Bracken	70	2.1	100	14.1
Wild lily-of-the-valley	70	0.3	67	2.0
Starflower	59	0.4	75	0.2
Bluebead lily	56	0.2	58	0.4
Bunchberry	52	0.9	58	1.6
Indian pipe	52	0.1	25	0.1
Goldthread	44	1.0	42	3.8
Painted trillium	41	0.1	92	0.4
Partridge-berry	33	1.1	8	0.1
Teaberry	33	0.4	42	0.6
Sarsaparilla	30	1.3	42	1.2
Indian cucumber root	30	0.2	25	0.1
Mayflower	26	0.1	17	0.1
Pink lady's slipper	22	0.1	33	0.1
Twinflower	19	0.4	25	0.4
Creeping snowberry	19	0.1	42	0.8
Herb Layer (Mean % Cover)		5		21
Bazzania	96	16.3	100	5.7
Schreber's moss	93	23.1	100	67.4
Broom moss	78	1.1	42	0.8
Hypnum moss	74	2.1	42	2.0
Stair-step moss	59	5.2	92	5.1
Wavy dicranum	56	2.3	75	4.4
Grey reindeer lichen	44	1.0	58	0.4
Cup lichens	41	0.1	17	0.1
Pin cushion moss	37	0.2	25	0.2
Ladies' tresses	22	1.1	25	0.7
Hair-cap moss	19	0.3	25	0.4
Bryo-Lichen Layer (Mean % Cover)		45		83

Distinguishing Features

Red spruce and white pine are the dominant overstory species in this softwood forest. Hybridization of red and black spruce is common. Bracken and ericaceous shrubs such as lambkill and blueberry are indicative of poor and dry conditions. Hemlock is absent. The variant SH4a is similar with reduced levels of white pine.



Blueberry

Site Characteristics

Slope Position: Upper⁴ Crest² Level² Lower¹ Middle¹
 Surface Stoniness: (Non - Slightly)⁴ (Very - Excessively)⁴ (Moderately)²
 Bedrock Outcrop: (Non-rocky)⁷ (Slightly - Moderately)³
 Elevation Range: 20 - 255m
 Slope Gradient: Gentle⁴ Level² Moderate² Steep¹ nd¹
 Aspect: North² East² South¹ West² None³
 Exposure: Moderate⁷ Mod. exposed¹ Exposed¹ nd¹
 Microtopography: Slightly⁵ Moderately³ Other²
 Drainage: Well⁵ Moderately well² Rapid² Imperfect¹

Soil Characteristics

Soil Type: ST2⁵ ST1¹ ST2-G¹ ST2-L¹ ST6¹ ST15¹
 Parent Material: Glacial till⁸ Till/Bedrock¹ nd¹
 Rooting Depth (cm): (<30)¹ (30-45)⁵ (>45)³ nd¹
 Duff Thickness (cm): (6-10)² (11-20)⁶ (21-40)¹ nd¹

