



# Canadian National Vegetation Classification (CNVC) Classification nationale de la végétation du Canada (CNVC)

<http://cnvc-cnvc.ca>

Forest / Forêt

Association CNVC00350

***Picea mariana* / *Pleurozium schreberi* – *Hylocomium splendens***

**Black Spruce / Red-stemmed Feathermoss – Stairstep Moss**

**Épinette noire / Pleurozie dorée – Hylocomie brillante**

**Subassociations:** 350a *typic*, 350b *Rhododendron canadense*, 350c *Dicranum majus*

**CNVC Alliance:** CA00003 *Picea mariana* – *Abies balsamea* / *Gaultheria hispida* / *Pleurozium schreberi*

**CNVC Group:** CG0002 Atlantic Boreal Mesic-Moist Black Spruce – Balsam Fir – Paper Birch Forest



Source: B. Meades

## Type Description

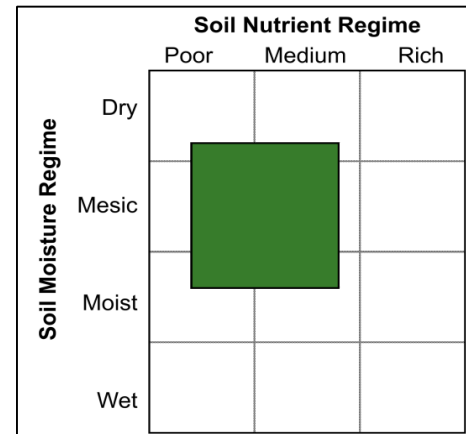
**Concept:** CNVC00350 is a boreal coniferous forest Association that occurs in Quebec and insular Newfoundland. It has a moderately closed to closed canopy dominated by black spruce (*Picea mariana*), typically with a minor component of balsam fir (*Abies balsamea*). The shrub layer is well developed to dense, comprising mostly black spruce and balsam fir regeneration, with presence of heath species, particularly early lowbush blueberry (*Vaccinium angustifolium*) and sheep laurel (*Kalmia angustifolia*). The herb layer is poorly developed; only creeping snowberry (*Gaultheria hispida*) and bunchberry (*Cornus canadensis*) are common. The moss layer is continuous and made up predominantly of red-stemmed feathermoss (*Pleurozium schreberi*) and stairstep moss (*Hylocomium splendens*), with smaller amounts of knight's plume moss (*Ptilium crista-castrensis*), broom mosses (*Dicranum* spp.), grey reindeer lichen (*Cladina rangiferina*) and *Cladonia* lichens. CNVC00350 typically occurs on mesic, nutrient-poor to medium sites in a region with a very humid, maritime-influenced boreal climate. Fire is required for the black spruce dominance that characterizes this Association. Three subassociations are distinguished: *typic*, *Rhododendron canadense* and *Dicranum majus*.

**Vegetation:** CNVC00350 is a coniferous forest Association with a moderately closed to closed canopy dominated by *Picea mariana*, usually with a minor component of *Abies balsamea*. *Betula papyrifera* occurs sporadically with low cover. The well-developed to dense shrub layer has abundant regenerating *P. mariana* and *A. balsamea*, typically with presence of the ericaceous shrubs *Vaccinium angustifolium* and *Kalmia angustifolia*. The sparse herb layer is mainly composed of *Gaultheria hispida* and *Cornus canadensis*. The moss layer is continuous; *Pleurozium schreberi* and *Hylocomium splendens* form a thick mat, often with smaller amounts of *Ptilium crista-castrensis*, *Dicranum* spp., *Cladina rangiferina* and *Cladonia* spp.

Three subassociations are distinguished: *typic*, *Rhododendron canadense* and *Dicranum majus*. Compared to the *typic*, the *Rhododendron canadense* subassociation has a more open canopy and a denser shrub layer, with abundant *Rhododendron canadense* and smaller amounts of *V. angustifolium*, *K. angustifolia*, *R. groenlandicum* and *V. myrtilloides*. The *Dicranum majus* subassociation has more abundant *D. majus* and other *Dicranum* species, as well as *Bazzania trilobata*, in the moss layer. It also has more abundant *Viburnum nudum* (see Comments) and *Ilex mucronata* in the shrub layer.

**Environment:** CNVC00350 occurs mainly in a very humid, maritime-influenced boreal climate, becoming less common as the climate becomes less humid and more continental farther west. It is typically found on mesic, nutrient-poor to medium sites. Stands are usually on level sites or gentle to moderately steep slopes on water-shedding, middle to upper-slope or crest topopositions. Soils are generally derived from acidic parent materials. Typically they are well-drained coarse loams or sands, in morainal, or much less frequently, glaciofluvial deposits. Occasionally, soils can be very thin or nonexistent over colluvium or bedrock but are usually moderately deep to deep. Mor humus forms are prevalent.

CNVC00350 occurs where regional fire cycles are long (270-500 years) or intermediate (100-270 years). Where the regional fire cycle is long, stands of CNVC00350 likely occur on sites that burn more frequently than the regional average.





***Picea mariana* / *Pleurozium schreberi* – *Hylocomium splendens* CNVC00350**

**Type Description (cont'd)**

**Dynamics:** CNVC00350 is an Association that is naturally perpetuated by fire. *Picea mariana* has thin bark and rarely survives even low-severity fires, but its semi-serotinous cones open when heated by fire and disperse seeds. Its seeds can germinate on a variety of substrates, and seedbeds are usually improved by a fire that reduces the organic matter and exposes mineral soil. Fire can also reduce competing vegetation and helps to release nutrients from the organic matter. Maximum seed release for *P. mariana* can therefore coincide with optimal conditions for seedling establishment, survival and growth.

*Abies balsamea* typically becomes established in stands of CNVC00350 over time, at least on sites with better nutrient status, promoting gradual succession to CNVC00351 [*Picea mariana* – *Abies balsamea* / *Pleurozium schreberi* (*Hylocomium splendens*)]. *A. balsamea* seedlings are able to establish on a thick moss carpet and are highly tolerant of shade. On upland nutrient-impooverished sites, however, *P. mariana* is self-replacing, able to regenerate in the absence of fire. The stand is then maintained as CNVC00350.

Outbreaks of spruce budworm (*Choristoneura fumiferana*) and hemlock looper (*Lambdina fiscellaria fiscellaria*) can also influence the dynamics of CNVC00350. *P. mariana* is less vulnerable to these insects, so outbreaks of either defoliator help promote its short-term dominance at the expense of *A. balsamea*, even in the absence of fire.

Repeated anthropogenic fires on dry, nutrient-poor sites near settlements have led to the conversion of some CNVC00350 stands to semi-stable open woodlands or heath conditions on insular Newfoundland (e.g., CNVC00307 [*Picea mariana* (*Abies balsamea*) / *Kalmia angustifolia* / *Pleurozium schreberi*] or CNVC00205 [*Picea mariana* / *Kalmia angustifolia* – *Rhododendron canadense* / *Cladina* spp.]).

**Range:** CNVC00350 occurs in the boreal regions of Quebec and insular Newfoundland. In Quebec, it is most common in the east but extends from the Labrador border on the Lower North Shore of the Gulf of Saint Lawrence as far west as Lake Evans in Abitibi. It also occurs in the Gaspé region and on Anticosti Island. In Newfoundland, CNVC00350 is described from the Northern Peninsula, western and central regions of the island and the Avalon Peninsula. The *typic* subassociation occurs in Quebec and Newfoundland. The *Rhododendron canadense* subassociation is described from the Lower North Shore of the Gulf of Saint Lawrence. The *Dicranum majus* subassociation is known from the Avalon Peninsula.

**Conservation Status (NatureServe)**

**Global Conservation Rank:** no applicable rank

**National Conservation Rank:** not yet determined

**Subnational Conservation Rank:** not yet determined



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## Distribution

**Countries:** Canada

**Provinces / Territories / States:** Newfoundland and Labrador, Quebec

**Terrestrial Ecozones and Ecoregions of Canada:** Atlantic Highlands: Appalachians, Northern New Brunswick Uplands; Boreal Shield: Anticosti Island, Central Laurentians, Central Newfoundland, Maritime Barrens, Mecatina Plateau, Northern Peninsula, Rivière Rupert Plateau, Southern Laurentians, Southwestern Newfoundland; Taiga Shield: Mecatina River

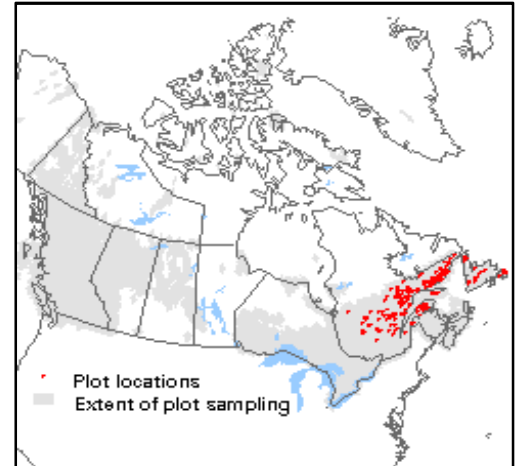
**Rowe's Forest Regions and Sections of Canada:** Boreal: Anticosti, Avalon, Chibougamau-Natashquan, Corner Brook, Gaspé, Gouin, Grand Falls, Laurentide-Onatchiway, Missinaibi-Cabonga, Newfoundland-Labrador Barrens, Northern Peninsula; Great Lakes-St. Lawrence: Laurentian, Saguenay, Temiscouata-Restigouche

**NAAEC CEC Ecoregions of North America (Levels I & II):** Northern Forests: Atlantic Highlands, Mixed Wood Shield, Softwood Shield; Taiga: Taiga Shield

**Nature Conservancy of Canada Ecoregions:** Boreal Shield, Eastern Taiga Shield, Northern Appalachians-Acadia

**Bioclimatic Domains and Subdomains of Québec:** 3 Est, 4 Est, 4 Ouest, 5 Est, 5 Ouest, 6 Est, 6 Ouest, 7

**Ecoregions of Newfoundland:** Central Newfoundland, Maritime Barrens, Northern Peninsula, Southwestern Newfoundland



## Corresponding Types and Associations

<b>350a typic</b>	Quebec	QC130A	<i>Picea mariana</i> / <i>Hylocomium splendens</i> [Typique]
	Newfoundland and Labrador	C bS_I	Central: Black spruce - moss forest (I)
		C bS_II	Central: Black spruce - moss forest (II)
		C bS_III	Central: Black spruce - moss forest (III)
		C bS_IV	Central: Black spruce - moss forest (IV)
		C bS_V	Central: Black spruce - moss forest (V)
		N LP	Northern: Lithosolic - black spruce forest
	N LPca	Northern: Lithosolic - black spruce forest (ca)	
	W P	Western: Black spruce - moss forest	
<b>350b <i>Rhododendron canadense</i></b>	Quebec	QC130B	<i>Picea mariana</i> / <i>Hylocomium splendens</i> [ <i>Rhododendron canadense</i> ]
<b>350c <i>Dicranum majus</i></b>	Newfoundland and Labrador	E bSml	Eastern: Black spruce - moss forest (I)
		E bSmlll	Eastern: Black spruce - moss forest (III)



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Vegetation Summary\*

Species Name <sup>T</sup>	Association CNVC00350		Subassociation 350a <i>typic</i>		Subassociation 350b <i>Rhododendron canadense</i>	
	207 plots		191 plots		8 plots	
	% Cover <sup>±</sup>	% Presence <sup>^</sup>	% Cover <sup>±</sup>	% Presence <sup>^</sup>	% Cover <sup>±</sup>	% Presence <sup>^</sup>
<b>Overstory Trees</b>						
<i>Picea mariana</i>	46	100	46	100	34	100
<i>Abies balsamea</i>	9	84	9	85	6	100
<i>Betula papyrifera</i>	6	40	6	41	4	13
<i>Larix laricina</i>	6	5	6	4	-	-
<b>Tree Stratum Cover (P<sub>10</sub> P<sub>25</sub> Mean P<sub>75</sub> P<sub>90</sub>)<sup>‡</sup></b>	<b>(33 49 60 66 86)</b>		<b>(34 49 60 66 86)</b>		<b>(32 35 47 53 66)</b>	
<b>Understory Woody Shrubs and Regenerating Trees</b>						
<i>Picea mariana</i>	22	93	22	94	34	100
<i>Abies balsamea</i>	15	92	15	94	6	100
<i>Vaccinium angustifolium</i>	4	62	4	60	6	100
<i>Kalmia angustifolia</i>	5	60	5	58	13	88
<i>Rhododendron groenlandicum</i>	5	49	5	47	3	88
<i>Betula papyrifera</i>	4	45	4	47	3	13
<i>Vaccinium myrtilloides</i>	3	44	3	45	5	63
<i>Amelanchier sp.</i>	3	36	3	36	2	75
<i>Sorbus americana</i>	3	24	3	25	2	13
<i>Ilex mucronata</i>	4	22	3	20	4	13
<i>Salix sp.</i>	4	13	4	12	7	38
<b><i>Rhododendron canadense</i></b>	21	12	10	8	46	100
<i>Alnus viridis</i>	6	12	6	11	-	-
<i>Viburnum nudum</i>	4	12	2	9	2	13
<i>Amelanchier bartramiana</i>	2	6	1	5	-	-
<b>Shrub Stratum Cover (P<sub>10</sub> P<sub>25</sub> Mean P<sub>75</sub> P<sub>90</sub>)<sup>‡</sup></b>	<b>(10 30 48 66 86)</b>		<b>(6 26 46 66 83)</b>		<b>(78 95 93 99 99)</b>	
<b>Understory Herbs and Dwarf Shrubs</b>						
<i>Gaultheria hispidula</i>	5	91	6	92	3	100
<i>Cornus canadensis</i>	4	89	4	89	5	88
<i>Clintonia borealis</i>	3	47	2	47	2	50
<i>Linnaea borealis</i>	2	47	2	48	2	13
<i>Maianthemum canadense</i>	3	45	3	48	3	13
<i>Coptis trifolia</i>	2	44	2	47	2	25
<i>Lysimachia borealis</i>	2	31	2	30	-	-
<i>Vaccinium vitis-idaea</i>	2	30	2	30	2	38
<i>Carex sp.</i>	2	22	2	23	2	13
<i>Lycopodium annotinum</i>	2	17	2	17	2	38
<i>Orthilia secunda</i>	2	17	2	17	-	-
<i>Empetrum nigrum</i>	3	12	3	11	2	38
<i>Rubus chamaemorus</i>	2	11	2	10	2	25



***Picea mariana* / *Pleurozium schreberi* – *Hylocomium splendens* CNVC00350**

**Vegetation Summary (cont'd)\***

Species Name <sup>†</sup>	Association CNVC00350		Subassociation 350a <i>typic</i>		Subassociation 350b <i>Rhododendron canadense</i>	
	% Cover <sup>‡</sup>	% Presence <sup>^</sup>	% Cover <sup>‡</sup>	% Presence <sup>^</sup>	% Cover <sup>‡</sup>	% Presence <sup>^</sup>
<i>Maianthemum trifolium</i>	3	10	3	9	2	38
<i>Vaccinium caespitosum</i>	2	8	2	7	2	25
<i>Monotropa uniflora</i>	2	7	2	6	-	-
<i>Poaceae</i>	2	6	2	6	3	25
<i>Osmundastrum cinnamomeum</i>	2	3	2	2	-	-
<b>Herb Stratum Cover (P<sub>10</sub> P<sub>25</sub> Mean P<sub>75</sub> P<sub>90</sub>)<sup>‡</sup></b>	<b>(3 3 11 16 28)</b>		<b>(3 3 11 16 26)</b>		<b>(3 3 8 16 16)</b>	
<b>Bryophytes and Lichens</b>						
<i>Pleurozium schreberi</i>	<b>45</b>	<b>99</b>	<b>46</b>	<b>100</b>	<b>56</b>	<b>100</b>
<i>Hylocomium splendens</i>	<b>30</b>	<b>98</b>	<b>31</b>	<b>100</b>	<b>28</b>	<b>88</b>
<i>Ptilium crista-castrensis</i>	12	91	13	93	5	100
<i>Dicranum</i> sp.	3	79	3	81	3	100
<i>Cladina rangiferina</i>	3	71	3	73	8	88
<i>Cladonia</i> sp.	3	68	3	68	3	100
<i>Sphagnum</i> sp.	7	55	7	57	7	63
<i>Bazzania trilobata</i>	4	43	3	43	2	25
<i>Polytrichum</i> sp.	2	43	2	42	2	100
<i>Ptilidium ciliare</i>	3	30	3	30	2	50
<i>Cladina mitis</i>	2	30	2	31	2	50
<i>Sphagnum fuscum</i>	3	29	3	29	6	50
<i>Cladina stellaris</i>	2	23	2	22	3	63
<i>Peltigera aphthosa</i>	3	21	3	22	2	13
<i>Dicranum scoparium</i>	5	9	2	9	-	-
<b><i>Dicranum majus</i></b>	<b>7</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>-</b>	<b>-</b>
<i>Dicranum fuscescens</i>	4	6	2	3	-	-
<i>Dicranum polysetum</i>	10	2	-	-	-	-
<i>Sphagnum quinquefarium</i>	12	1	-	-	-	-
<i>Hypogymnia physodes</i>	3	1	-	-	-	-
<i>Usnea longissima</i>	3	1	-	-	-	-
<b>Bryo-Lichen Stratum Cover (P<sub>10</sub> P<sub>25</sub> Mean P<sub>75</sub> P<sub>90</sub>)<sup>‡</sup></b>	<b>(90 90 89 90 96)</b>		<b>(90 90 90 90 95)</b>		<b>(90 90 90 90 90)</b>	

\* species present in > 20% of sample plots are listed

<sup>†</sup> see **Botanical Nomenclature** link at <http://cnvc-cnvc.ca> for botanical sources, synonyms and common names

<sup>‡</sup> average percent cover of a species within the plots in which it occurs (i.e., characteristic cover)

<sup>^</sup> percent frequency occurrence for a species within the total plots

<sup>‡</sup> P<sub>x</sub> = X<sup>th</sup> percentile (e.g., P<sub>10</sub> = 10<sup>th</sup> percentile)



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Black Spruce / Red-stemmed Feathermoss – Stairstep Moss

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Vegetation Summary (cont'd)\*

Species Name <sup>T</sup>	Subassociation	
	350c <i>Dicranum majus</i>	
	8 plots	
	% Cover <sup>±</sup>	% Presence <sup>^</sup>
<b>Overstory Trees</b>		
<i>Picea mariana</i>	57	100
<i>Abies balsamea</i>	16	50
<i>Betula papyrifera</i>	3	38
<i>Larix laricina</i>	6	38
<b>Tree Stratum Cover (P<sub>10</sub> P<sub>25</sub> Mean P<sub>75</sub> P<sub>90</sub>)<sup>‡</sup></b>	<b>(39 60 68 75 88)</b>	
<b>Understory Woody Shrubs and Regenerating Trees</b>		
<i>Picea mariana</i>	14	63
<i>Abies balsamea</i>	3	50
<i>Vaccinium angustifolium</i>	7	88
<i>Kalmia angustifolia</i>	9	88
<i>Rhododendron groenlandicum</i>	3	63
<i>Betula papyrifera</i>	3	50
<i>Vaccinium myrtilloides</i>	-	-
<i>Amelanchier</i> sp.	-	-
<i>Sorbus americana</i>	1	13
<i>Ilex mucronata</i>	7	75
<i>Salix</i> sp.	-	-
<b><i>Rhododendron canadense</i></b>	4	13
<i>Alnus viridis</i>	11	38
<i>Viburnum nudum</i>	10	88
<i>Amelanchier bartramiana</i>	4	25
<b>Shrub Stratum Cover (P<sub>10</sub> P<sub>25</sub> Mean P<sub>75</sub> P<sub>90</sub>)<sup>‡</sup></b>	<b>(24 30 47 59 81)</b>	
<b>Understory Herbs and Dwarf Shrubs</b>		
<i>Gaultheria hispidula</i>	4	75
<i>Cornus canadensis</i>	2	88
<i>Clintonia borealis</i>	14	38
<i>Linnaea borealis</i>	2	63
<i>Maianthemum canadense</i>	1	13
<i>Coptis trifolia</i>	1	13
<i>Lysimachia borealis</i>	2	75
<i>Vaccinium vitis-idaea</i>	1	38
<i>Carex</i> sp.	-	-
<i>Lycopodium annotinum</i>	-	-
<i>Orthilia secunda</i>	2	50
<i>Empetrum nigrum</i>	-	-
<i>Rubus chamaemorus</i>	-	-



***Picea mariana* / *Pleurozium schreberi* – *Hylocomium splendens* CNVC00350**

**Vegetation Summary (cont'd)\***

Species Name <sup>†</sup>	Subassociation 350c <i>Dicranum majus</i>	
	% Cover <sup>‡</sup>	% Presence <sup>^</sup>
<i>Maianthemum trifolium</i>	-	-
<i>Vaccinium caespitosum</i>	-	-
<i>Monotropa uniflora</i>	2	25
<i>Poaceae</i>	-	-
<i>Osmundastrum cinnamomeum</i>	3	38
<b>Herb Stratum Cover (P<sub>10</sub> P<sub>25</sub> Mean P<sub>75</sub> P<sub>90</sub>)<sup>‡</sup></b>	<b>(4 4 16 17 38)</b>	
<b>Bryophytes and Lichens</b>		
<b><i>Pleurozium schreberi</i></b>	<b>27</b>	<b>75</b>
<b><i>Hylocomium splendens</i></b>	<b>17</b>	<b>63</b>
<i>Ptilium crista-castrensis</i>	5	38
<i>Dicranum</i> sp.	-	-
<i>Cladina rangiferina</i>	-	-
<i>Cladonia</i> sp.	4	50
<i>Sphagnum</i> sp.	-	-
<i>Bazzania trilobata</i>	10	75
<i>Polytrichum</i> sp.	-	-
<i>Ptilidium ciliare</i>	2	13
<i>Cladina mitis</i>	-	-
<i>Sphagnum fuscum</i>	-	-
<i>Cladina stellaris</i>	-	-
<i>Peltigera aphthosa</i>	-	-
<i>Dicranum scoparium</i>	29	25
<b><i>Dicranum majus</i></b>	<b>13</b>	<b>75</b>
<i>Dicranum fuscescens</i>	5	88
<i>Dicranum polysetum</i>	10	50
<i>Sphagnum quinquefarium</i>	12	25
<i>Hypogymnia physodes</i>	3	38
<i>Usnea longissima</i>	3	25
<b>Bryo-Lichen Stratum Cover (P<sub>10</sub> P<sub>25</sub> Mean P<sub>75</sub> P<sub>90</sub>)<sup>‡</sup></b>	<b>(28 48 68 98 100)</b>	

\* species present in > 20% of sample plots are listed

<sup>†</sup> see **Botanical Nomenclature** link at <http://cnvc-cnvc.ca> for botanical sources, synonyms and common names

<sup>‡</sup> average percent cover of a species within the plots in which it occurs (i.e., characteristic cover)

<sup>^</sup> percent frequency occurrence for a species within the total plots

<sup>‡</sup> P<sub>x</sub> = X<sup>th</sup> percentile (e.g., P<sub>10</sub> = 10<sup>th</sup> percentile)



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Black Spruce / Red-stemmed Feathermoss – Stairstep Moss

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Site / Soil Characteristics

	Association CNVC00350	Subassociation 350a <i>typic</i>	Subassociation 350b <i>Rhododendron canadense</i>
	207 plots	191 plots	8 plots
<b>Elevation Range (min–mean–max meters)</b>	30–308–820 missing data (7)	30–320–820 missing data (8)	60–204–360 missing data (0)
<b>Slope Gradient (% frequency)</b>	very steep (0) steep (10) moderately steep (21) <b>moderate (24)</b> gentle (15) level (21) missing data (8)	very steep (1) steep (10) moderately steep (23) <b>moderate (24)</b> gentle (15) level (19) missing data (8)	very steep (0) steep (0) moderately steep (0) <b>moderate (63)</b> gentle (0) level (38) missing data (0)
<b>Aspect (% frequency)</b>	north (20) east (22) south (14) <b>west (23)</b> level (13) missing data (8)	north (20) east (21) south (14) <b>west (24)</b> level (13) missing data (8)	<b>north (38)</b> east (25) south (0) west (13) level (25) missing data (0)
<b>Meso Toposition (% frequency)</b>	crest / upper (19) <b>mid (51)</b> lower / toe (6) level (11) missing data (13)	crest / upper (17) <b>mid (53)</b> lower / toe (6) level (11) missing data (13)	<b>crest / upper (50)</b> mid (25) lower / toe (13) level (13) missing data (0)
<b>Moisture Regime (% frequency)</b>	very dry (0) dry (5) <b>mesic (77)</b> moist (14) wet (3)	very dry (1) dry (5) <b>mesic (79)</b> moist (13) wet (3)	very dry (0) dry (0) <b>mesic (88)</b> moist (13) wet (0)
<b>Nutrient Regime (% frequency)</b>	missing data (100)	missing data (100)	missing data (100)





***Picea mariana* / *Pleurozium schreberi* – *Hylocomium splendens* CNVC00350**

**Site / Soil Characteristics (cont'd)**

	Association CNVC00350	Subassociation 350a <i>typic</i>	Subassociation 350b <i>Rhododendron canadense</i>
<b>Soil Parent Material (% frequency)</b>	bedrock (2) colluvium (5) eolian (0) <b>moraine / till (71)</b> fluvial (1) glaciofluvial (10) glaciolacustrine (2) marine (2) organic (3) missing data (3)	bedrock (3) colluvium (5) eolian (0) <b>moraine / till (72)</b> fluvial (1) glaciofluvial (10) glaciolacustrine (2) marine (1) organic (4) missing data (3)	bedrock (0) colluvium (0) eolian (0) <b>moraine / till (63)</b> fluvial (0) glaciofluvial (13) glaciolacustrine (0) marine (25) organic (0) missing data (0)
<b>Soil Rooting Zone Substrate (% frequency)</b>	non-soil (7) sandy (6) coarse loamy (16) fine loamy (3) silty (0) clayey (1) organic (4) missing data (61)	non-soil (7) sandy (5) coarse loamy (17) fine loamy (4) silty (1) clayey (1) organic (5) missing data (60)	non-soil (0) sandy (38) coarse loamy (0) fine loamy (0) silty (0) clayey (0) organic (0) missing data (63)
<b>Root Restricting Depth (% frequency)</b>	0 – 20 cm (5) 21 – 99 cm (47) missing data (48)	0 – 20 cm (6) 21 – 99 cm (47) missing data (48)	0 – 20 cm (0) <b>21 – 99 cm (100)</b> missing data (0)
<b>Humus Form (% frequency)</b>	<b>mor (76)</b> moder (0) peatymor (7) missing data (16)	<b>mor (79)</b> moder (0) peatymor (8) missing data (13)	<b>mor (88)</b> moder (13) peatymor (0) missing data (0)



Forest / Forêt

Association CNVC00350

*Picea mariana* / *Pleurozium schreberi* – *Hylocomium splendens*

Black Spruce / Red-stemmed Feathermoss – Stairstep Moss

Épinette noire / Pleurozie dorée – Hylocomie brillante

**Site / Soil Characteristics (cont'd)**

Subassociation  
 350c *Dicranum majus*

8 plots

**Elevation Range (min–mean–max meters)**

110–160–200  
 missing data (0)

**Slope Gradient (% frequency)**

very steep (0)  
 steep (0)  
 moderately steep (13)  
 moderate (0)  
 gentle (38)  
**level (50)**  
 missing data (0)

**Aspect (% frequency)**

north (13)  
 east (38)  
 south (38)  
 west (13)  
 level (0)  
 missing data (0)

**Meso Toposition (% frequency)**

**crest / upper (38)**  
 mid (25)  
 lower / toe (13)  
 level (13)  
 missing data (13)

**Moisture Regime (% frequency)**

very dry (0)  
 dry (13)  
 mesic (25)  
**moist (50)**  
 wet (13)

**Nutrient Regime (% frequency)**

missing data (100)



***Picea mariana* / *Pleurozium schreberi* – *Hylocomium splendens* CNVC00350**

**Site / Soil Characteristics (cont'd)**

Subassociation  
350c *Dicranum majus*

**Soil Parent Material (% frequency)**

bedrock (0)  
colluvium (13)  
eolian (13)  
**moraine / till (63)**  
fluvial (0)  
glaciofluvial (0)  
glaciolacustrine (0)  
marine (0)  
organic (0)  
missing data (13)

**Soil Rooting Zone Substrate (% frequency)**

non-soil (13)  
sandy (0)  
coarse loamy (0)  
fine loamy (0)  
silty (0)  
clayey (13)  
organic (0)  
missing data (75)

**Root Restricting Depth (% frequency)**

0 – 20 cm (0)  
21 – 99 cm (0)  
missing data (100)

**Humus Form (% frequency)**

mor (0)  
moder (0)  
peatymor (0)  
missing data (100)



# Canadian National Vegetation Classification (CNVC) Classification nationale de la végétation du Canada (CNVC)

<http://cnvc-cnvc.ca>

Forest / Forêt

Association CNVC00350

*Picea mariana* / *Pleurozium schreberi* – *Hylocomium splendens*

Black Spruce / Red-stemmed Feathermoss – Stairstep Moss

Épinette noire / Pleurozie dorée – Hylocomie brillante

## Additional Characteristics

Species of High Conservation Concern:

Non-native Species:

Management Issues:

## Type Statistics

Internal Similarity:

Confidence:

Strength:

## Related Concepts

### Similar CNVC Associations:

CNVC00204 [*Picea mariana* / *Rhododendron groenlandicum* – *Kalmia angustifolium* / *Cladina* spp.] occurs on poorer sites in Quebec. It has abundant ericaceous shrubs and a moss layer with lower cover of feathermosses and more of *Cladina* lichens.

CNVC00205 [*Picea mariana* / *Kalmia angustifolia* – *Rhododendron canadense* / *Cladina* spp.] occurs on drier, poorer sites on insular Newfoundland. It has an open tree layer, abundant ericaceous shrubs and a moss layer with lower cover of feathermosses and more of *Cladina* lichens (see Dynamics).

CNVC00211 [*Picea mariana* / *Rhododendron groenlandicum* – *Kalmia angustifolia* / *Pleurozium schreberi*] occurs on similar sites in Quebec but has less *Abies balsamea* regeneration, more abundant ericaceous shrubs, especially *Rhododendron groenlandicum* and *Kalmia angustifolia*, and less *Hylocomium splendens* in the moss layer.

CNVC00217 [*Picea mariana* – *Abies balsamea* / *Rhododendron groenlandicum* / *Pleurozium schreberi*] occurs on similar sites in Quebec but has *Abies balsamea* codominant in the overstory and more abundant ericaceous shrubs.

CNVC00276 [*Picea mariana* / *Rhododendron groenlandicum* – *Vaccinium angustifolium* / *Pleurozium schreberi* (*Sphagnum* spp.)] occurs on moister sites in Quebec and has greater cover of *Sphagnum* mosses.

CNVC00295 [*Picea mariana* / *Alnus incana* / *Pleurozium schreberi*] occurs on moister, richer sites in Quebec and has a shrub layer with abundant *Alnus incana*.

CNVC00307 [*Picea mariana* (*Abies balsamea*) / *Kalmia angustifolia* / *Pleurozium schreberi*] occurs on insular Newfoundland on slightly poorer sites. It has abundant ericaceous shrubs (see Dynamics).

CNVC00338 [*Picea mariana* / *Rhododendron canadense* – *Taxus canadensis* / *Pleurozium schreberi*] occurs on insular Newfoundland on moister and often poorer sites and has more *Rhododendron canadense* and *Taxus canadensis* in the shrub layer.

CNVC00351 [*Picea mariana* – *Abies balsamea* / *Pleurozium schreberi* (*Hylocomium splendens*)] occurs on similar sites in the same range but has *Abies balsamea* codominant in the canopy (see Dynamics).

### Related United States National Vegetation Classification Associations:

### Relationships with Other Classifications:

CNVC00350 includes the concepts of SM/R #13 [Black spruce – Feathermoss / Bedrock], SM/vD #14 [Black spruce – Feathermoss / Very dry], SM/D #15 [Black spruce – Feathermoss / Dry], SM/B #16 [Black spruce – Feathermoss / Bog] and SM/M #17 [Black spruce – Feathermoss / Moist] from Meades & Moores 1994.

## Comments

*Viburnum nudum* here refers to var. *cassinoides* (wild raisin).



***Picea mariana* / *Pleurozium schreberi* – *Hylocomium splendens* CNVC00350**

**Source Information**

**Number of source plots for CNVC00350:** 207

**Number of source plots for 350a typic:** 191

**Number of source plots for 350b *Rhododendron canadense*:** 8

**Number of source plots for 350c *Dicranum majus*:** 8

**Information Sources:**

Ministère des Ressources naturelles, de la Faune et des Parcs, Forêt Québec. 2003. Base de données des points d'observation écologique (version 2003). Gouv. du Qué., Min. des Res. nat., de la Faune et des Parcs, Forêt Qué., Dir. des inv. for., QC.

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**Concept Authors:** K. Baldwin, K. Chapman, M. Major, B. Meades, C. Morneau

**Description Authors:** B. Meades, K. Chapman, J.-P. Saucier and K. Baldwin

**Date of Concept:** October, 2013

**Date of Description:** February, 2016

**Classification References:**

Bergeron, J.-F.; Grondin, P.; Blouin, J. 1999. Rapport de classification écologique du sous-domaine bioclimatique de la pessière à mousses de l'ouest. Min. des Res. nat. du Qué., Dir. des inv. for., Sainte-Foy, QC.

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**Characterization References:**

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***Picea mariana* / *Pleurozium schreberi* – *Hylocomium splendens* CNVC00350**

**Characterization References (cont'd):**

Gauthier, S.; Raulier, F.; Robitaille, A.; Chabot, M.; Duval, J.; Lord, D. 2013. Vulnérabilité face au risque de feu: description du critère et de l'indicateur, justification des seuils, méthode retenue et résultats détaillés. Chapitre 4 dans Rapport du Comité scientifique chargé d'examiner la limite nordique des forêts attribuables. Min. des Res. nat. du Qué., Sect. des for., QC.

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For more information about the contents of this factsheet and definitions of attribute names and data classes, see the **Understanding the Factsheet** link at <http://cnvc-cnvc.ca>.

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