



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

<http://cnvc-cnvc.ca>

Forest / Forêt

Association CNVC00276

**Picea mariana / Rhododendron groenlandicum – Vaccinium angustifolium / Pleurozium schreberi (Sphagnum spp.)**

Black Spruce / Common Labrador Tea – Early Lowbush Blueberry / Red-stemmed Feathermoss (Peat Mosses)

Épinette noire / Thé du Labrador – Bleuet à feuilles étroites / Pleurozie dorée (Sphaignes)

**Subassociations:** 276a typic, 276b *Hylocomium splendens*, 276c *Rhododendron groenlandicum*

**CNVC Alliance:** CA00012 *Picea mariana* (*Pinus banksiana*) / *Vaccinium angustifolium* / *Pleurozium schreberi*

**CNVC Group:** CG0006 Ontario-Quebec Boreal Mesic-Moist Black Spruce (Jack Pine) Forest



Source: Natural Resources Canada - Canadian Forest Service

## Type Description

**Concept:** CNVC00276 is a boreal coniferous forest Association that ranges from Manitoba to Quebec. It has a moderately closed canopy dominated by black spruce (*Picea mariana*). The shrub layer is well developed to dense with abundant regenerating black spruce and balsam fir (*Abies balsamea*) as well as ericaceous species, including common Labrador tea (*Rhododendron groenlandicum*), velvet-leaved blueberry (*Vaccinium myrtilloides*), early lowbush blueberry (*V. angustifolium*) and sheep laurel (*Kalmia angustifolia*). The herb layer is sparse; only creeping snowberry (*Gaultheria hispida*) and bunchberry (*Cornus canadensis*) are common. Feathermosses, especially red-stemmed feathermoss (*Pleurozium schreberi*), dominate the continuous moss layer, but peat mosses (*Sphagnum* spp.) are also abundant and help to characterize this Association. CNVC00276 occurs primarily on moist, nutrient-poor to medium sites in a region with a boreal climate that grades from subhumid continental in the west, becoming increasingly humid and maritime in the east. Stands typically recolonize after fire and are self-replacing over time. Three subassociations are distinguished: *typic*, *Hylocomium splendens* and *Rhododendron groenlandicum*.

**Vegetation:** CNVC00276 is a coniferous forest Association with a moderately closed canopy of *Picea mariana*. *Abies balsamea* is often present in the overstory, especially in the eastern part of the range, whereas *Pinus banksiana* is an occasional canopy associate in the west. The shrub layer is well developed to dense and dominated by regenerating *P. mariana* and *A. balsamea* along with the ericaceous species *Rhododendron groenlandicum*, *Vaccinium myrtilloides*, *V. angustifolium* and, in the east, *Kalmia angustifolia*. The herb layer is sparse; *Gaultheria hispida* and *Cornus canadensis* are the only common species. The forest floor is covered by a continuous carpet of mosses, comprising both feathermosses (mostly *Pleurozium schreberi* but also *Ptilium crista-castrum* and *Hylocomium splendens*) and *Sphagnum* mosses, along with discontinuous patches of *Cladina* spp. and *Dicranum* spp. Total feathermoss cover exceeds *Sphagnum* cover.

The *Hylocomium splendens* and *Rhododendron groenlandicum* subassociations are characterized, in part, by abundance of these species. In the *Hylocomium splendens* subassociation, *A. balsamea* is more common and abundant, the shrub layer is dominated by regenerating conifers rather than ericaceous species, and *H. splendens* cover is greater than that of *P. schreberi*. Ericaceous shrubs dominate the understory of the *Rhododendron groenlandicum* subassociation.

Soil Nutrient Regime		
	Poor	Medium
Dry		
Mesic		
Moist		
Wet		



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## ***Picea mariana / Rhododendron groenlandicum – Vaccinium angustifolium / Pleurozium schreberi (Sphagnum spp.) CNVC00276***

### Type Description (cont'd)

**Environment:** CNVC00276 occurs in a boreal climate that is subhumid continental in the west, becoming increasingly humid and maritime farther east. It occupies moist or mesic (sometimes wet), nutrient-poor to medium sites. Stands often occur on level sites in the transition between *Picea mariana* upland (e.g., CNVC00211 [*Picea mariana / Rhododendron groenlandicum – Kalmia angustifolia / Pleurozium schreberi*]) and wetland (e.g., CNVC00282 [*Picea mariana / Rhododendron groenlandicum – Kalmia angustifolia / Sphagnum spp.*]) forests, but they also occur on moisture-collecting, middle to lower or toe-slope topopositions. Sites usually have moderately deep to deep mineral soils, but stands also occur on shallow organic soils (i.e., approximately 40 cm of peat) overlying mineral substrates. Mineral soils can be coarse-textured, derived from morainal or glaciolacustrine surficial materials, or clays, silts or fine loams on lacustrine or glaciolacustrine deposits. CNVC00276 also includes forested peatland stands where the organic surface is raised above the water table sufficiently to encourage higher abundance of feathermosses relative to peat mosses; these sites typically have deeper organic soils. Humus forms are mors or peatymors.

Compared to the *typic* and *Rhododendron groenlandicum* subassociations, the *Hylocomium splendens* subassociation is more frequently found on middle-slope topopositions on morainal deposits in the northeastern part of the range, where the humid maritime-influenced climate maintains high soil moisture.

On wet or cool sites, paludification can reduce site productivity over time. This process happens as decomposition slows and organic matter (peat) accumulates, further insulating the soil and slowing nutrient cycling.

Within the range of CNVC00276 regional fire cycles are intermediate (100-270 years), long (270-500 years) or even very long (>500 years). However, these stands often occur where there are natural fire breaks (e.g., water bodies or wetlands) and are less prone to fire because of their moisture status and thick moss layer. Where the regional fire cycle is intermediate, stands are less likely to burn than the surrounding landscape.

**Dynamics:** CNVC00276 typically recolonizes after fire and maintains itself over time. *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 help 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. Over time, *P. mariana* is self-replacing because it is tolerant of shade and able to regenerate in the absence of fire.

Although *Abies balsamea* is not adapted to fire, its seedlings can survive on a thick moss carpet and are highly tolerant of shade. Where *A. balsamea* is more common (i.e., in the eastern part of the range), it is likely to establish in these stands, at least on sites with better nutrient status, potentially leading to the development of CNVC00277 [*Picea mariana – Abies balsamea / Pleurozium schreberi – Sphagnum spp.*].

Paludification is often a factor in the dynamics of CNVC00276. These stands can develop by paludification of *Picea mariana* /feathermoss forests, such as CNVC00211. Likewise, some stands of CNVC00276 could succeed to a wetland forest condition such as CNVC00282.

**Range:** CNVC00276 occurs in the boreal region of Quebec and Ontario and likely extends into southeastern Manitoba as far west as Lake Winnipeg. In Quebec, it ranges east to the Little Mecatina River on the Lower North Shore of the Gulf of Saint Lawrence and also occurs in the Gaspé region. The *typic* subassociation is described from Ontario and Quebec. The *Hylocomium splendens* and *Rhododendron groenlandicum* subassociations are described only from Quebec. The former is more prevalent in eastern Quebec while the latter is more prevalent in western Quebec.

### 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: Manitoba, Ontario, Quebec

**Terrestrial Ecozones and Ecoregions of Canada:** Atlantic Highlands: Appalachians, Northern New Brunswick Uplands; Boreal Shield: Abitibi Plains, Big Trout Lake, Central Laurentians, Lac Seul Upland, Lake Nipigon, Lake of the Woods, Lake Timiskaming Lowland, Mecatina Plateau, Rivière Rupert Plateau, Southern Laurentians, Thunder Bay-Quetico; Hudson Plains: James Bay Lowland; Taiga Shield: Mecatina River, Smallwood Reservoir-Michikamau

**Rowe's Forest Regions and Sections of Canada:** Boreal: Central Plateau, Chibougamau-Natashquan, East James Bay, Gaspé, Gouin, Hudson Bay Lowlands, Laurentide-Onatchiway, Lower English River, Missinaibi-Cabonga, Northeastern Transition, Northern Clay, Northern Coniferous, Superior, Upper English River; Great Lakes-St. Lawrence: Algonquin-Pontiac, Eastern Townships, Haileybury Clay, Laurentian, Middle Ottawa, Quetico, Saguenay, Temiscouata-Restigouche, Timagami

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

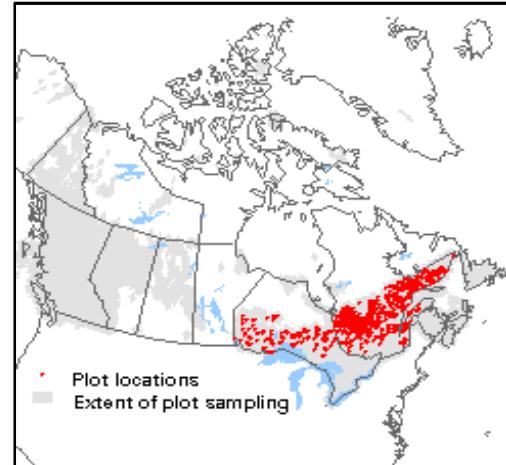
**Nature Conservancy of Canada Ecoregions:** Boreal Shield, Eastern Taiga Shield, Great Lakes, Hudson Plains, Northern Appalachians-Acadia, Superior-Lake of the Woods

**Ecozones and Ecoregions of Manitoba:** Boreal Shield

**Manitoba Protected Areas Initiative Natural Regions:** Manitoba Lowlands: Lake of the Woods; Precambrian Boreal Forest: Lac Seul Upland

**Ecological Land Classification of Ontario (ecoregions and ecodistricts):** 2E-2, 2E-4, 3E-1, 3E-2, 3E-4, 3E-5, 3E-6, 3E-7, 3S-1, 3S-2, 3S-3, 3S-4, 3S-5, 3W-1, 3W-2, 3W-3, 3W-4, 3W-5, 4E-1, 4E-3, 4E-4, 4E-5, 4S-1, 4S-2, 4S-3, 4S-4, 4S-5, 4S-6, 4W-1, 4W-2, 5S-2

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



## Corresponding Types and Associations

<b>276a typic</b>	Ontario	BwTr11-2	<i>Picea mariana / Rhododendron groenlandicum / Pleurozium schreberi (Sphagnum spp.)</i>
	Quebec	QC010A	<i>Picea mariana / Pleurozium schreberi - Sphagnum spp. [Typique]</i>
<b>276b Hylocomium splendens</b>	Quebec	QC010B	<i>Picea mariana / Pleurozium schreberi - Sphagnum spp. [Hylocomium splendens]</i>
<b>276c Rhododendron groenlandicum</b>	Quebec	QC031	<i>Picea mariana / Ledum groenlandicum / Pleurozium schreberi - Sphagnum spp.</i>



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## Vegetation Summary\*

Species Name <sup>T</sup>	Association CNVC00276		Subassociation 276a typic		Subassociation 276b <i>Hylocomium splendens</i>	
	823 plots		610 plots		35 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>	43	100	43	100	43	100
<i>Abies balsamea</i>	8	50	8	52	12	91
<i>Betula papyrifera</i>	6	22	6	24	5	26
<i>Pinus banksiana</i>	8	14	10	12	-	-
Tree Stratum Cover (P <sub>10</sub> P <sub>25</sub> Mean P <sub>75</sub> P <sub>90</sub> ) <sup>‡</sup>	(30 36 52 66 83)		(25 36 52 66 83)		(32 49 57 66 83)	
<b>Understory Woody Shrubs and Regenerating Trees</b>						
<i>Picea mariana</i>	18	98	17	97	26	100
<i>Rhododendron groenlandicum</i>	20	92	13	91	6	77
<i>Vaccinium myrtilloides</i>	5	80	4	78	3	63
<i>Vaccinium angustifolium</i>	5	74	4	73	4	69
<i>Abies balsamea</i>	11	70	11	75	22	100
<i>Kalmia angustifolia</i>	12	66	7	59	6	69
<i>Amelanchier sp.</i>	4	37	3	34	3	40
<i>Salix sp.</i>	4	31	4	28	4	6
<i>Betula papyrifera</i>	4	30	4	31	3	54
<i>Kalmia polifolia</i>	2	23	2	23	2	17
<i>Alnus incana</i>	5	22	5	23	4	11
<i>Ilex mucronata</i>	5	21	4	20	8	23
<i>Sorbus americana</i>	3	20	3	19	3	34
<i>Chamaedaphne calyculata</i>	5	19	3	15	2	9
Shrub Stratum Cover (P <sub>10</sub> P <sub>25</sub> Mean P <sub>75</sub> P <sub>90</sub> ) <sup>‡</sup>	(19 32 58 83 99)		(19 32 49 66 83)		(34 49 66 83 99)	
<b>Understory Herbs and Dwarf Shrubs</b>						
<i>Gaultheria hispida</i>	5	97	5	97	8	100
<i>Cornus canadensis</i>	4	83	4	86	6	94
<i>Coptis trifolia</i>	2	49	2	49	2	51
<i>Clintonia borealis</i>	3	43	3	45	4	49
<i>Carex sp.</i>	2	41	2	40	3	40
<i>Rubus chamaemorus</i>	3	35	2	33	3	49
<i>Linnaea borealis</i>	2	34	2	40	2	34
<i>Maianthemum canadense</i>	2	31	2	31	2	43
<i>Maianthemum trifolium</i>	2	31	2	31	3	31
<i>Lycopodium annotinum</i>	2	30	2	30	2	37
<i>Equisetum sylvaticum</i>	2	23	2	26	3	3
<i>Equisetum sp.</i>	3	16	2	14	3	29



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

Species Name <sup>†</sup>	Association CNVC00276		Subassociation 276a typic		Subassociation 276b <i>Hylocomium splendens</i>	
	% Cover <sup>‡</sup>	% Presence <sup>^</sup>	% Cover <sup>‡</sup>	% Presence <sup>^</sup>	% Cover <sup>‡</sup>	% Presence <sup>^</sup>
<i>Vaccinium vitis-idaea</i>	2	16	2	16	2	29
<i>Vaccinium oxycoccus</i>	2	11	2	7	2	3
<i>Neottia cordata</i>	2	11	2	12	2	23
<i>Orthilia secunda</i>	2	10	2	11	2	23
<b>Herb Stratum Cover (P<sub>10</sub> P<sub>25</sub> Mean P<sub>75</sub> P<sub>90</sub>)<sup>‡</sup></b>	(3 3 13 16 30)		(3 3 13 16 30)		(3 3 17 16 33)	
<b>Bryophytes and Lichens</b>						
<b><i>Pleurozium schreberi</i></b>	<b>42</b>	<b>100</b>	<b>42</b>	<b>100</b>	<b>30</b>	<b>100</b>
<i>Ptilium crista-castrensis</i>	10	86	10	88	7	91
<i>Cladina rangiferina</i>	4	83	3	81	2	74
<i>Dicranum sp.</i>	3	72	3	67	3	94
<b><i>Sphagnum sp.</i></b>	<b>29</b>	<b>70</b>	<b>30</b>	<b>65</b>	<b>30</b>	<b>91</b>
<b><i>Hylocomium splendens</i></b>	<b>8</b>	<b>63</b>	<b>6</b>	<b>68</b>	<b>40</b>	<b>100</b>
<i>Cladonia sp.</i>	2	51	2	49	2	60
<i>Polytrichum sp.</i>	3	49	3	49	3	51
<b><i>Sphagnum fuscum</i></b>	<b>8</b>	<b>46</b>	<b>7</b>	<b>41</b>	<b>4</b>	<b>51</b>
<i>Cladina stellaris</i>	4	42	3	36	2	14
<b><i>Sphagnum girgensohnii</i></b>	<b>14</b>	<b>41</b>	<b>14</b>	<b>45</b>	<b>14</b>	<b>20</b>
<i>Cladina mitis</i>	3	38	2	34	2	20
<i>Ptilidium ciliare</i>	3	28	3	23	5	29
<b><i>Sphagnum capillifolium</i></b>	<b>13</b>	<b>19</b>	<b>13</b>	<b>25</b>	-	-
<b><i>Sphagnum magellanicum</i></b>	<b>5</b>	<b>19</b>	<b>5</b>	<b>22</b>	<b>2</b>	<b>9</b>
<i>Bazzania trilobata</i>	3	19	3	19	4	46
<i>Dicranum polysetum</i>	2	18	2	24	-	-
<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>	(80 90 88 90 94)		(74 90 88 90 97)		(90 90 90 90 90)	

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

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

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

^ percent frequency occurrence for a species within the total plots

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



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Épinette noire / Thé du Labrador – Bleuet à feuilles étroites / Pleurozie dorée (Sphaignes)

## Vegetation Summary (cont'd)\*

Species Name <sup>T</sup>	Subassociation 276c <i>Rhododendron groenlandicum</i>	
	% Cover <sup>‡</sup>	% Presence <sup>^</sup>
<b>Overstory Trees</b>		
<i>Picea mariana</i>	42	100
<i>Abies balsamea</i>	7	33
<i>Betula papyrifera</i>	5	12
<i>Pinus banksiana</i>	6	25
Tree Stratum Cover (P <sub>10</sub> P <sub>25</sub> Mean P <sub>75</sub> P <sub>90</sub> ) <sup>‡</sup>	(36 49 52 66 66)	

## Understory Woody Shrubs and Regenerating Trees

<i>Picea mariana</i>	21	100
<i>Rhododendron groenlandicum</i>	43	100
<i>Vaccinium myrtilloides</i>	8	91
<i>Vaccinium angustifolium</i>	9	76
<i>Abies balsamea</i>	7	46
<i>Kalmia angustifolia</i>	23	91
<i>Amelanchier sp.</i>	4	48
<i>Salix sp.</i>	4	49
<i>Betula papyrifera</i>	5	21
<i>Kalmia polifolia</i>	2	27
<i>Alnus incana</i>	5	20
<i>Ilex mucronata</i>	6	22
<i>Sorbus americana</i>	3	21
<i>Chamaedaphne calyculata</i>	8	34
Shrub Stratum Cover (P <sub>10</sub> P <sub>25</sub> Mean P <sub>75</sub> P <sub>90</sub> ) <sup>‡</sup>	(66 83 87 99 99)	

## Understory Herbs and Dwarf Shrubs

<i>Gaultheria hispida</i>	5	97
<i>Cornus canadensis</i>	4	71
<i>Coptis trifolia</i>	3	48
<i>Clintonia borealis</i>	3	33
<i>Carex sp.</i>	2	47
<i>Rubus chamaemorus</i>	3	38
<i>Linnaea borealis</i>	3	16
<i>Maianthemum canadense</i>	2	29
<i>Maianthemum trifolium</i>	3	31
<i>Lycopodium annotinum</i>	3	25
<i>Equisetum sylvaticum</i>	3	17
<i>Equisetum sp.</i>	3	20



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

<b>Species Name<sup>T</sup></b>	<b>Subassociation</b>	
	<b>276c Rhododendron groenlandicum</b>	
	<b>% Cover<sup>‡</sup>      % Presence<sup>^</sup></b>	
<i>Vaccinium vitis-idaea</i>	2	11
<i>Vaccinium oxycoccus</i>	2	28
<i>Neottia cordata</i>	2	6
<i>Orthilia secunda</i>	2	3
<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 16)</b>	

### **Bryophytes and Lichens**

<b>Pleurozium schreberi</b>	<b>44</b>	<b>100</b>
<i>Ptilium crista-castrensis</i>	8	75
<i>Cladina rangiferina</i>	8	93
<i>Dicranum sp.</i>	3	87
<b>Sphagnum sp.</b>	<b>26</b>	<b>84</b>
<b>Hylocomium splendens</b>	5	40
<i>Cladonia sp.</i>	3	59
<i>Polytrichum sp.</i>	2	50
<b>Sphagnum fuscum</b>	<b>12</b>	<b>62</b>
<i>Cladina stellaris</i>	6	67
<b>Sphagnum girgensohnii</b>	<b>16</b>	<b>34</b>
<i>Cladina mitis</i>	3	57
<i>Ptilidium ciliare</i>	4	44
<b>Sphagnum capillifolium</b>	-	-
<b>Sphagnum magellanicum</b>	<b>6</b>	<b>10</b>
<i>Bazzania trilobata</i>	2	13
<i>Dicranum polysetum</i>	-	-
<b>Bryo-Lichen Stratum Cover</b>		
<b>(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 90)</b>	

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

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

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

^ percent frequency occurrence for a species within the total plots

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



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Épinette noire / Thé du Labrador – Bleuet à feuilles étroites / Pleurozie dorée (Sphaignes)

## Site / Soil Characteristics

Association CNVC00276	Subassociation 276a <i>typic</i>	Subassociation 276b <i>Hylocomium splendens</i>
823 plots	610 plots	35 plots

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

15–402–1110 missing data (0)	15–410–1110 missing data (1)	30–388–790 missing data (0)
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### Slope Gradient (% frequency)

very steep (1)	very steep (1)	very steep (0)
steep (2)	steep (2)	steep (6)
moderately steep (9)	moderately steep (8)	moderately steep (17)
moderate (16)	moderate (16)	<b>moderate (29)</b>
gentle (25)	gentle (24)	gentle (26)
<b>level (45)</b>	<b>level (46)</b>	level (23)
missing data (2)	missing data (3)	missing data (0)

### Aspect (% frequency)

north (18)	north (16)	<b>north (31)</b>
east (15)	east (14)	east (29)
south (14)	south (14)	south (14)
west (19)	west (19)	west (14)
<b>level (34)</b>	<b>level (36)</b>	level (11)
missing data (0)	missing data (0)	missing data (0)

### Meso Topoposition (% frequency)

crest / upper (11)	crest / upper (11)	crest / upper (3)
<b>mid (37)</b>	<b>mid (35)</b>	<b>mid (66)</b>
lower / toe (17)	lower / toe (16)	lower / toe (11)
depression (4)	depression (4)	depression (6)
level (31)	level (33)	level (14)

### Moisture Regime (% frequency)

very dry (0)	very dry (0)	very dry (0)
dry (4)	dry (4)	dry (6)
mesic (31)	mesic (30)	mesic (40)
<b>moist (45)</b>	<b>moist (44)</b>	<b>moist (46)</b>
wet (20)	wet (22)	wet (9)

### Nutrient Regime (% frequency)

missing data (100)	missing data (100)	missing data (100)
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# Canadian National Vegetation Classification (CNVC) Classification nationale de la végétation du Canada (CNVC)

<http://cnvc-cnvc.ca>

## **Picea mariana / Rhododendron groenlandicum – Vaccinium angustifolium / Pleurozium schreberi (Sphagnum spp.) CNVC00276**

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

	Association CNVC00276	Subassociation 276a <i>typic</i>	Subassociation 276b <i>Hylocomium splendens</i>
<b>Soil Parent Material (% frequency)</b>			
bedrock (1)	bedrock (1)	bedrock (1)	bedrock (3)
colluvium (1)	colluvium (1)	colluvium (0)	colluvium (0)
eolian (0)	eolian (0)	eolian (0)	eolian (0)
<b>moraine / till (57)</b>	<b>moraine / till (55)</b>	<b>moraine / till (86)</b>	<b>moraine / till (86)</b>
fluvial (0)	fluvial (1)	fluvial (0)	fluvial (0)
glaciofluvial (8)	glaciofluvial (8)	glaciofluvial (6)	glaciofluvial (6)
lacustrine (5)	lacustrine (7)	lacustrine (0)	lacustrine (0)
glaciolacustrine (11)	glaciolacustrine (9)	glaciolacustrine (0)	glaciolacustrine (0)
marine (1)	marine (1)	marine (0)	marine (0)
organic (15)	organic (16)	organic (6)	organic (6)
missing data (1)	missing data (2)	missing data (0)	missing data (0)
<b>Soil Rooting Zone Substrate (% frequency)</b>			
non-soil (2)	non-soil (2)	non-soil (3)	non-soil (3)
sandy (7)	sandy (7)	sandy (6)	sandy (6)
coarse loamy (10)	coarse loamy (10)	coarse loamy (6)	coarse loamy (6)
fine loamy (3)	fine loamy (3)	fine loamy (0)	fine loamy (0)
silty (1)	silty (1)	silty (0)	silty (0)
clayey (4)	clayey (4)	clayey (0)	clayey (0)
organic (17)	organic (18)	organic (9)	organic (9)
missing data (57)	missing data (55)	missing data (77)	missing data (77)
<b>Root Restricting Depth (% frequency)</b>			
0 – 20 cm (8)	0 – 20 cm (9)	0 – 20 cm (6)	0 – 20 cm (6)
<b>21 – 99 cm (62)</b>	<b>21 – 99 cm (62)</b>	<b>21 – 99 cm (57)</b>	<b>21 – 99 cm (57)</b>
≥ 100 cm (6)	≥ 100 cm (8)	≥ 100 cm (0)	≥ 100 cm (0)
missing data (24)	missing data (21)	missing data (37)	missing data (37)
<b>Humus Form (% frequency)</b>			
<b>mor (57)</b>	<b>mor (56)</b>	<b>mor (51)</b>	<b>moder (0)</b>
moder (2)	moder (3)	moder (0)	mull (0)
mull (0)	mull (0)	mull (0)	peatymor (49)
peatymor (39)	peatymor (40)	peatymor (49)	missing data (0)
missing data (1)	missing data (1)	missing data (0)	missing data (0)



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

<http://cnvc-cnvc.ca>

Forest / Forêt

Association CNVC00276

**Picea mariana / Rhododendron groenlandicum – Vaccinium angustifolium / Pleurozium schreberi (Sphagnum spp.)**

Black Spruce / Common Labrador Tea – Early Lowbush Blueberry / Red-stemmed Feathermoss (Peat Mosses)

Épinette noire / Thé du Labrador – Bleuet à feuilles étroites / Pleurozie dorée (Sphaignes)

## Site / Soil Characteristics (cont'd)

Subassociation  
276c *Rhododendron groenlandicum*  
178 plots

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

20–377–850  
missing data (0)

### Slope Gradient (% frequency)

very steep (0)  
steep (1)  
moderately steep (8)  
moderate (15)  
gentle (28)  
**level (48)**  
missing data (0)

### Aspect (% frequency)

north (20)  
east (17)  
south (12)  
west (19)  
**level (33)**  
missing data (0)

### Meso Topoposition (% frequency)

crest / upper (11)  
**mid (37)**  
lower / toe (21)  
depression (2)  
level (30)

### Moisture Regime (% frequency)

very dry (0)  
dry (2)  
mesic (33)  
**moist (47)**  
wet (19)

### Nutrient Regime (% frequency)

missing data (100)



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

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## ***Picea mariana / Rhododendron groenlandicum – Vaccinium angustifolium / Pleurozium schreberi (Sphagnum spp.) CNVC00276***

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

Subassociation  
276c *Rhododendron groenlandicum*

#### **Soil Parent Material (% frequency)**

bedrock (1)  
colluvium (0)  
eolian (0)  
**moraine / till (56)**  
fluvial (0)  
glaciofluvial (8)  
lacustrine (1)  
glaciolacustrine (20)  
marine (1)  
organic (15)  
missing data (0)

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

non-soil (1)  
sandy (10)  
coarse loamy (8)  
fine loamy (2)  
silty (2)  
clayey (4)  
organic (15)  
missing data (58)

#### **Root Restricting Depth (% frequency)**

0 – 20 cm (6)  
**21 – 99 cm (63)**  
≥ 100 cm (0)  
missing data (31)

#### **Humus Form (% frequency)**

**mor (65)**  
moder (1)  
mull (0)  
peatymor (35)  
missing data (0)



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

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Forest / Forêt

Association CNVC00276

***Picea mariana / Rhododendron groenlandicum – Vaccinium angustifolium / Pleurozium schreberi (Sphagnum spp.)***

Black Spruce / Common Labrador Tea – Early Lowbush Blueberry / Red-stemmed Feathermoss (Peat Mosses)

Épinette noire / Thé du Labrador – Bleuet à feuilles étroites / Pleurozie dorée (Sphaignes)

## Additional Characteristics

Species of High Conservation Concern:

Non-native Species:

Management Issues:

## Type Statistics

Internal Similarity:

Confidence:

Strength:

## Related Concepts

Similar CNVC Associations:

CNVC00208 [*Picea mariana – Pinus banksiana / Vaccinium angustifolium / Pleurozium schreberi*] occurs primarily on dry to mesic sites in Ontario and southeastern Manitoba and has less cover of *Sphagnum* mosses.

CNVC00211 [*Picea mariana / Rhododendron groenlandicum – Kalmia angustifolia / Pleurozium schreberi*] occurs primarily on mesic sites in northeastern Ontario and Quebec and has less cover of *Sphagnum* mosses (see Environment and Dynamics).

CNVC00277 [*Picea mariana – Abies balsamea / Pleurozium schreberi – Sphagnum spp.*] occurs on comparable sites in Quebec but has a canopy codominated by *Abies balsamea*.

CNVC00282 [*Picea mariana / Rhododendron groenlandicum – Kalmia angustifolia / Sphagnum spp.*] occurs on wet, nutrient-poor sites in the same range, has a more open tree layer and a moss layer that is dominated by *Sphagnum* mosses (see Environment and Dynamics).

CNVC00295 [*Picea mariana / Alnus incana / Pleurozium schreberi*] occurs on richer sites in the same range and has greater abundance of more nutrient-demanding species such as *Larix laricina*, *Alnus incana*, *Rubus pubescens* and *Mitella nuda*.

CNVC00350 [*Picea mariana / Pleurozium schreberi – Hylocomium splendens*] occurs on mesic sites in northeastern Quebec. It has lower abundance of ericaceous shrubs and a moss layer with lower cover of *Sphagnum* mosses.

Related United States National Vegetation Classification Associations:

Relationships with Other Classifications:

## Comments



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

<http://cnvc-cnvc.ca>

## **Picea mariana / Rhododendron groenlandicum – Vaccinium angustifolium / Pleurozium schreberi (Sphagnum spp.) CNVC00276**

### Source Information

Number of source plots for CNVC00276: 823

Number of source plots for 276a *typic*: 610

Number of source plots for 276b *Hylocomium splendens*: 35

Number of source plots for 276c *Rhododendron groenlandicum*: 178

#### Information Sources:

McMurray, S.C., Johnson, J.A., Zhou, K., Uhlig, P.W.C. 2015. Ontario ecological land classification program - Ecological Data Repository (EDR). Ont. Min. Nat. Resour. & For., Sci.& Info. Branch, Sault Ste. Marie, ON.

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.

**Concept Authors:** K. Baldwin, K. Chapman, C. Morneau, P. Uhlig, M. Wester

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

**Date of Concept:** November, 2011

**Date of Description:** December, 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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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.

Greene, D.F.; Zasada, J.C.; Sirois, L.; Kneeshaw, D.; Morin, H.; Charron, I.; Simard, M.J. 1999. A review of the regeneration dynamics of North American boreal forest tree species. Can. J. For. Res. 29:824-839.

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

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## ***Picea mariana / Rhododendron groenlandicum – Vaccinium angustifolium / Pleurozium schreberi (Sphagnum spp.) CNVC00276***

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

Lavoie, M.; Paré, D.; Fenton, N.; Groot, A.; Taylor, K. 2005. Paludification and management of forested peatlands in Canada: a literature review. Environ. Rev. 13:21-50.

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The information contained in this factsheet is based on data and expert knowledge that is current to the date of description. As new information becomes available, the factsheet will be updated.

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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