



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

<http://cnvc-cnvc.ca>

Wetland / Tourbière boisée

Association CNVC00298

***Picea mariana* / *Alnus incana* / *Gaultheria hispidula* / *Sphagnum* spp.
Black Spruce / Speckled Alder / Creeping Snowberry / Peat Mosses
Épinette noire / Aulne rugueux / Petit thé / Sphaignes**

Subassociations: 298a *typic*, 298b *Rhododendron groenlandicum*, 298c *Abies balsamea*
CNVC Alliance: CA00045 *Picea mariana* / *Alnus incana* – *Rhododendron groenlandicum* / *Sphagnum* spp.
CNVC Group: CG0019 Ontario-Quebec Boreal Black Spruce Poor – Intermediate Treed Wetland

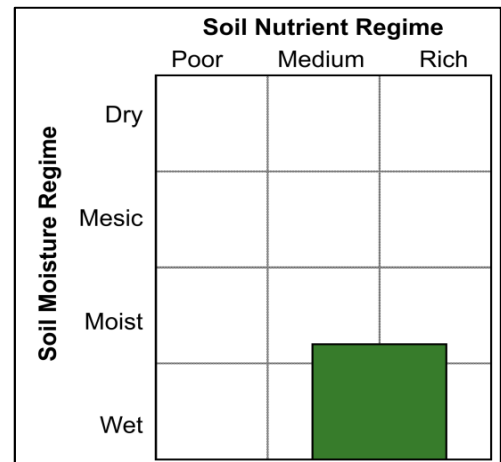


Source: Natural Resources Canada - Canadian Forest Service

Type Description

Concept: CNVC00298 is a boreal wetland coniferous forest Association that ranges from Manitoba to Quebec. It has a moderately closed canopy dominated by black spruce (*Picea mariana*), often with balsam fir (*Abies balsamea*) present, especially in the Quebec portion of the range. Speckled alder (*Alnus incana*) dominates the dense shrub layer, which also contains black spruce and balsam fir regeneration, common Labrador tea (*Rhododendron groenlandicum*), velvet-leaved blueberry (*Vaccinium myrtilloides*), sheep laurel (*Kalmia angustifolia*) and early lowbush blueberry (*V. angustifolium*). The herb layer is usually moderately developed, typically including creeping snowberry (*Gaultheria hispidula*), bunchberry (*Cornus canadensis*), sedges (*Carex* spp.), three-leaved false Solomon's seal (*Maianthemum trifolium*) and goldthread (*Coptis trifolia*). The moss layer is continuous and dominated by peat mosses (*Sphagnum* spp.), although red-stemmed feathermoss (*Pleurozium schreberi*) is common on drier sites (e.g., peat hummocks). CNVC00298 occurs on wet, nutrient-medium to rich sites in a region with a boreal climate that grades from subhumid continental in the west, to very humid and more maritime-influenced in the east. Substrates are usually organic soils formed from slowly decomposing *Sphagnum* and other mosses. Although fire can occasionally occur, this is typically a stable condition that is maintained by a persistently high water table; local hydrology is the main driver of vegetation dynamics. Three subassociations are distinguished: *typic*, *Rhododendron groenlandicum* and *Abies balsamea*.

Vegetation: CNVC00298 is a coniferous forest Association with a moderately closed canopy of *Picea mariana*. *Abies balsamea* is often present in the canopy, especially in the Quebec portion of the range. The dense shrub layer is characterized by abundant *Alnus incana* (see Comments), regenerating *P. mariana* and *A. balsamea* and *Rhododendron groenlandicum*. *Vaccinium myrtilloides*, *Kalmia angustifolia* (primarily in Quebec) and *V. angustifolium* are also common. The herb layer is moderately developed, with *Gaultheria hispidula*, *Cornus canadensis*, *Carex* spp., *Maianthemum trifolium* and *Coptis trifolia* occurring commonly. Species indicative of greater nutrient status, such as *Rubus pubescens* and *Mitella nuda*, are occasionally present. Herb richness and abundance often increase in wet hollows and along drainage ways where proximity to the water table enhances nutrient supply. The continuous moss layer is dominated by *Sphagnum* spp. (particularly *S. magellanicum* and *S. girgensohnii*), interspersed with patches of feathermosses (predominantly *Pleurozium schreberi*) on drier microsites (e.g., peat hummocks). Compared to the *typic* subassociation, the *Rhododendron groenlandicum* and *Abies balsamea* subassociations reflect conditions with high abundance of these species, respectively.





***Picea mariana* / *Alnus incana* / *Gaultheria hispidula* / *Sphagnum* spp. CNVC00298**

Type Description (cont'd)

Environment: CNVC00298 occurs on peat-accumulating sites with permanently high water tables in a region with a continental boreal climate that grades from subhumid in the west to humid in the east. Organic material thickness over mineral or bedrock substrates ranges from approximately 20 cm to > 1 m. Groundwater flow or seepage inputs create minerotrophic conditions in the rooting layer; nutrient status is medium to rich. *Alnus incana* is a nitrogen-fixing species, further enriching the soil nutrient status. Surface microtopography is moderately hummocky; hollows are often in contact with groundwater for much of the growing season.

CNVC00298 can form contiguous stands either in landscape basins or adjacent to larger wetland complexes, wherever the rooting layer remains in contact with mineral-rich water. It often occurs as a linear band along drainage features or in the narrow transition between poorer wetland *Picea mariana* forests (e.g., CNVC00282 [*Picea mariana* / *Rhododendron groenlandicum* – *Kalmia angustifolia* / *Sphagnum* spp.]) and adjacent uplands from which seepage originates (e.g., CNVC00295 [*Picea mariana* / *Alnus incana* / *Pleurozium schreberi*]).

Within the range of CNVC00298 regional fire cycles are intermediate (100-270 years), long (270-500 years) or even very long (>500 years).

Dynamics: CNVC00298 is a stable condition that is maintained by a persistently high water table and moderate to rich nutrient status. Local hydrology is the main driver of vegetation dynamics, although these stands can also succeed from an earlier seral *Larix laricina* condition such as CNVC00300 [*Larix laricina* – *Picea mariana* / *Alnus incana* / *Gaultheria hispidula* / *Sphagnum* spp.]. Although fires occur on peatlands, they are infrequent and of limited extent because these sites are so wet. Consequently, stands of CNVC00298 tend to be long lived and multi-aged, with trees up to or exceeding 200 years. *Picea mariana* can establish from seed under favourable conditions (e.g., suitable seedbed) but typically self-replaces on these sites by vegetative layering.

Long-term change in the water table (either by anthropogenic activities or natural causes [e.g., beaver dams]) usually results in changes to the vegetation community. A rise in the water table can result in tree mortality and transition to shrubby wetland vegetation. A drop in the water table can sometimes result in the development of more productive feathermoss forests (e.g., CNVC00295 [*Picea mariana* / *Alnus incana* / *Pleurozium schreberi*]).

Range: CNVC00298 occurs in the boreal region of Quebec and Ontario and likely extends into southeastern Manitoba as far west as Lake Winnipeg. In Quebec, it is more common in the west but ranges east to the Lower North Shore of the Gulf of Saint Lawrence near the St. Augustine River and occurs in the Gaspé region. The *typic* subassociation is described from Ontario and Quebec. The *Rhododendron groenlandicum* and *Abies balsamea* subassociations are described only from 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, Algonquin-Lake Nipissing, Central Laurentians, Lac Seul Upland, Lake Nipigon, Lake of the Woods, Lake Timiskaming Lowland, Mecatina Plateau, Rainy River, 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, Newfoundland-Labrador Barrens, Northern Clay, Northern Coniferous, Superior, Upper English River; Great Lakes-St. Lawrence: Algoma, Algonquin-Pontiac, Eastern Townships, Laurentian, Middle Ottawa, Quetico, Rainy River, 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

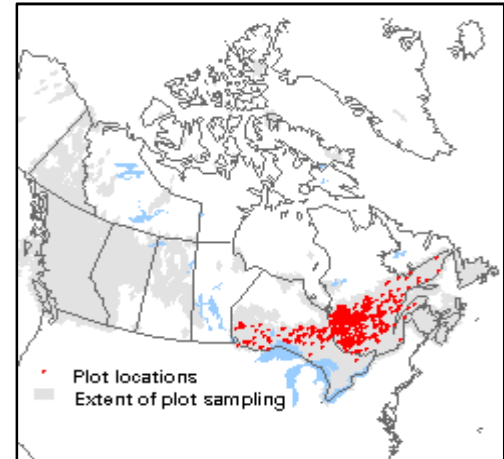
Nature Conservancy of Canada Ecoregions: Boreal Shield, Eastern Taiga Shield, Great Lakes, Hudson Plains, Northern Appalachians-Acadia, Superior-Lake of the Woods

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): 3E-1, 3E-2, 3E-3, 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, 5E-1, 5E-3, 5E-4, 5E-5, 5E-6, 5E-7, 5E-8, 5E-9, 5E-10, 5E-11, 5E-13, 5S-2

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



Corresponding Types and Associations

298a typic	Ontario	BwTr12-9	<i>Picea mariana</i> / <i>Alnus incana</i> / <i>Rubus pubescens</i> / <i>Sphagnum</i> spp.
	Quebec	QC033A	<i>Picea mariana</i> / <i>Alnus incana</i> / <i>Sphagnum</i> spp. [Typique]
298b Rhododendron groenlandicum	Quebec	QC033B	<i>Picea mariana</i> / <i>Alnus incana</i> / <i>Sphagnum</i> spp. [<i>Ledum groenlandicum</i>]
298c Abies balsamea	Quebec	QC018A	<i>Picea mariana</i> - <i>Abies balsamea</i> / <i>Alnus incana</i> / <i>Sphagnum</i> spp. [Typique]
		QC018B	<i>Picea mariana</i> - <i>Abies balsamea</i> / <i>Alnus incana</i> / <i>Sphagnum</i> spp. [<i>Sphagnum girgensohnii</i>]



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Vegetation Summary*

Species Name [†]	Association CNVC00298		Subassociation 298a <i>typic</i>		Subassociation 298b <i>Rhododendron groenlandicum</i>	
	534 plots		311 plots		169 plots	
	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]
Overstory Trees						
<i>Picea mariana</i>	34	99	34	99	37	100
<i>Abies balsamea</i>	9	50	7	45	6	44
<i>Betula papyrifera</i>	9	28	9	26	9	21
<i>Larix laricina</i>	8	23	10	26	6	22
Tree Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(20 32 46 62 66)		(19 32 44 66 66)		(32 33 48 53 66)	
Understory Woody Shrubs and Regenerating Trees						
<i>Alnus incana</i>	29	99	30	98	25	99
<i>Picea mariana</i>	15	98	13	96	19	100
<i>Rhododendron groenlandicum</i>	22	93	9	90	45	100
<i>Abies balsamea</i>	12	74	11	76	10	63
<i>Vaccinium myrtilloides</i>	4	73	3	68	5	86
<i>Kalmia angustifolia</i>	8	65	6	52	11	89
<i>Vaccinium angustifolium</i>	3	60	2	58	4	66
<i>Salix</i> sp.	6	41	6	28	6	67
<i>Betula papyrifera</i>	5	34	5	31	4	28
<i>Amelanchier</i> sp.	3	31	3	27	3	36
<i>Chamaedaphne calyculata</i>	7	27	3	18	11	49
<i>Sorbus americana</i>	4	26	5	27	4	20
<i>Rubus idaeus</i>	2	23	2	28	3	10
<i>Larix laricina</i>	3	19	3	17	3	27
<i>Ribes glandulosum</i>	2	19	2	21	2	9
<i>Ilex mucronata</i>	6	18	7	20	4	13
<i>Kalmia polifolia</i>	2	18	2	15	2	29
<i>Ribes triste</i>	2	16	2	21	2	10
<i>Viburnum edule</i>	3	12	3	12	2	8
Shrub Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(36 56 76 99 99)		(32 49 65 84 99)		(83 86 93 99 99)	
Understory Herbs and Dwarf Shrubs						
<i>Gaultheria hispidula</i>	5	97	4	96	7	99
<i>Cornus canadensis</i>	3	77	3	82	3	66
<i>Carex</i> sp.	8	67	9	59	6	78
<i>Maianthemum trifolium</i>	3	64	3	63	3	72
<i>Coptis trifolia</i>	2	63	2	70	3	50
<i>Lycopodium annotinum</i>	5	49	5	41	4	59
<i>Linnaea borealis</i>	2	46	2	50	2	36
<i>Clintonia borealis</i>	3	39	2	44	3	27
<i>Rubus pubescens</i>	3	38	3	48	3	20



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Vegetation Summary (cont'd)*

Species Name [†]	Association CNVC00298		Subassociation 298a <i>typic</i>		Subassociation 298b <i>Rhododendron groenlandicum</i>	
	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]
<i>Rubus chamaemorus</i>	5	36	4	25	5	59
<i>Equisetum</i> sp.	6	34	5	30	6	43
<i>Lysimachia borealis</i>	2	32	2	42	2	8
<i>Equisetum sylvaticum</i>	8	31	6	31	11	37
<i>Maianthemum canadense</i>	2	30	2	37	2	14
Poaceae	5	26	6	25	4	27
<i>Petasites frigidus</i>	3	24	3	26	3	20
<i>Mitella nuda</i>	2	20	2	28	2	9
<i>Viola</i> sp.	3	19	3	20	3	12
<i>Gymnocarpium dryopteris</i>	2	19	2	23	2	7
<i>Vaccinium oxycoccus</i>	2	18	2	7	3	43
<i>Dryopteris spinulosa</i> complex	3	17	4	19	2	5
<i>Oxalis montana</i>	4	11	4	13	6	2
Herb Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(16 16 26 33 50)		(16 16 28 33 50)		(16 16 23 33 36)	
Bryophytes and Lichens						
<i>Pleurozium schreberi</i>	13	92	11	89	16	98
<i>Sphagnum</i> sp.	55	71	53	59	60	86
<i>Cladina rangiferina</i>	3	62	2	52	3	79
<i>Dicranum</i> sp.	3	61	3	50	3	79
<i>Sphagnum magellanicum</i>	13	59	15	61	10	54
<i>Ptilium crista-castrensis</i>	4	54	4	57	4	54
<i>Sphagnum girgensohnii</i>	30	49	30	55	28	43
<i>Hylocomium splendens</i>	5	47	5	51	5	40
<i>Sphagnum fuscum</i>	8	44	6	38	10	57
<i>Cladonia</i> sp.	2	43	2	32	2	62
<i>Polytrichum</i> sp.	3	39	3	33	3	46
<i>Ptilidium ciliare</i>	3	21	2	12	3	40
<i>Cladina mitis</i>	2	17	2	12	2	30
<i>Sphagnum capillifolium</i>	13	15	13	26	-	-
<i>Cladina stellaris</i>	2	15	2	7	2	30
<i>Bazzania trilobata</i>	2	12	3	13	2	9
<i>Dicranum polysetum</i>	1	12	1	21	-	-
Bryo-Lichen Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(70 89 84 90 90)		(68 76 82 90 93)		(90 90 88 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_x = Xth percentile (e.g., P₁₀ = 10th percentile)



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Vegetation Summary (cont'd)*

Subassociation
 298c *Abies balsamea*

54 plots

Species Name [†]	% Cover [‡]	% Presence [^]
Overstory Trees		
<i>Picea mariana</i>	23	100
<i>Abies balsamea</i>	19	100
<i>Betula papyrifera</i>	7	57
<i>Larix laricina</i>	7	11
Tree Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(32 32 51 66 78)	
Understory Woody Shrubs and Regenerating Trees		
<i>Alnus incana</i>	38	98
<i>Picea mariana</i>	14	98
<i>Rhododendron groenlandicum</i>	15	85
<i>Abies balsamea</i>	20	100
<i>Vaccinium myrtilloides</i>	3	61
<i>Kalmia angustifolia</i>	5	61
<i>Vaccinium angustifolium</i>	4	57
<i>Salix</i> sp.	4	35
<i>Betula papyrifera</i>	4	67
<i>Amelanchier</i> sp.	3	37
<i>Chamaedaphne calyculata</i>	3	7
<i>Sorbus americana</i>	3	39
<i>Rubus idaeus</i>	3	39
<i>Larix laricina</i>	3	9
<i>Ribes glandulosum</i>	2	33
<i>Ilex mucronata</i>	6	24
<i>Kalmia polifolia</i>	2	4
<i>Ribes triste</i>	2	9
<i>Viburnum edule</i>	3	24
Shrub Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(49 66 81 99 99)	
Understory Herbs and Dwarf Shrubs		
<i>Gaultheria hispidula</i>	6	96
<i>Cornus canadensis</i>	3	80
<i>Carex</i> sp.	10	87
<i>Maianthemum trifolium</i>	4	48
<i>Coptis trifolia</i>	3	61
<i>Lycopodium annotinum</i>	6	56
<i>Linnaea borealis</i>	3	52
<i>Clintonia borealis</i>	2	50
<i>Rubus pubescens</i>	4	39



***Picea mariana* / *Alnus incana* / *Gaultheria hispidula* / *Sphagnum* spp. CNVC00298**

Vegetation Summary (cont'd)*

Species Name [†]	Subassociation 298c <i>Abies balsamea</i>	
	% Cover [‡]	% Presence [^]
<i>Rubus chamaemorus</i>	5	28
<i>Equisetum</i> sp.	8	35
<i>Lysimachia borealis</i>	2	48
<i>Equisetum sylvaticum</i>	10	13
<i>Maianthemum canadense</i>	2	37
Poaceae	3	31
<i>Petasites frigidus</i>	3	26
<i>Mitella nuda</i>	2	11
<i>Viola</i> sp.	2	30
<i>Gymnocarpium dryopteris</i>	2	41
<i>Vaccinium oxycoccos</i>	3	4
<i>Dryopteris spinulosa</i> complex	2	41
<i>Oxalis montana</i>	4	30
Herb Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(7 16 25 33 45)	
Bryophytes and Lichens		
<i>Pleurozium schreberi</i>	9	87
<i>Sphagnum</i> sp.	51	94
<i>Cladina rangiferina</i>	2	65
<i>Dicranum</i> sp.	3	70
<i>Sphagnum magellanicum</i>	12	63
<i>Ptilium crista-castrensis</i>	4	43
<i>Sphagnum girgensohnii</i>	36	39
<i>Hylocomium splendens</i>	8	43
<i>Sphagnum fuscum</i>	4	37
<i>Cladonia</i> sp.	2	54
<i>Polytrichum</i> sp.	3	54
<i>Ptilidium ciliare</i>	4	13
<i>Cladina mitis</i>	2	11
<i>Sphagnum capillifolium</i>	-	-
<i>Cladina stellaris</i>	2	9
<i>Bazzania trilobata</i>	2	20
<i>Dicranum polysetum</i>	-	-
Bryo-Lichen Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(50 70 80 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_x = Xth percentile (e.g., P₁₀ = 10th percentile)



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Épinette noire / Aulne rugueux / Petit thé / Sphaignes

Site / Soil Characteristics

	Association CNVC00298 534 plots	Subassociation 298a <i>typic</i> 311 plots	Subassociation 298b <i>Rhododendron groenlandicum</i> 169 plots
Elevation Range (min–mean–max meters)	15–335–770	65–341–770	170–324–600
Slope Gradient (% frequency)	moderately steep (1) moderate (1) gentle (7) level (88) missing data (4)	moderately steep (1) moderate (0) gentle (7) level (84) missing data (7)	moderately steep (0) moderate (1) gentle (7) level (93) missing data (0)
Aspect (% frequency)	north (5) east (4) south (5) west (8) level (77) missing data (1)	north (6) east (5) south (5) west (7) level (76) missing data (2)	north (6) east (4) south (5) west (8) level (77) missing data (0)
Meso Topoposition (% frequency)	crest / upper (1) mid (8) lower / toe (10) depression (9) level (72)	crest / upper (1) mid (7) lower / toe (10) depression (13) level (69)	crest / upper (2) mid (10) lower / toe (9) depression (2) level (77)
Moisture Regime (% frequency)	very dry (0) mesic (2) moist (19) wet (78)	very dry (0) mesic (2) moist (18) wet (79)	very dry (0) mesic (1) moist (22) wet (76)
Nutrient Regime (% frequency)	missing data (100)	missing data (100)	missing data (100)



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Site / Soil Characteristics (cont'd)

	Association CNVC00298	Subassociation 298a <i>typic</i>	Subassociation 298b <i>Rhododendron groenlandicum</i>
Soil Parent Material (% frequency)	bedrock (0) colluvium (0) moraine / till (13) fluvial (1) glaciofluvial (4) lacustrine (3) glaciolacustrine (25) marine (1) organic (52) missing data (1)	bedrock (0) colluvium (0) moraine / till (10) fluvial (1) glaciofluvial (5) lacustrine (5) glaciolacustrine (21) marine (1) organic (54) missing data (3)	bedrock (0) colluvium (0) moraine / till (19) fluvial (1) glaciofluvial (3) lacustrine (1) glaciolacustrine (30) marine (0) organic (47) missing data (0)
Soil Rooting Zone Substrate (% frequency)	non-soil (0) sandy (2) coarse loamy (3) fine loamy (2) silty (1) clayey (5) organic (53) missing data (32)	non-soil (1) sandy (3) coarse loamy (4) fine loamy (2) silty (1) clayey (5) organic (56) missing data (30)	non-soil (0) sandy (2) coarse loamy (2) fine loamy (4) silty (1) clayey (6) organic (47) missing data (38)
Root Restricting Depth (% frequency)	0 – 20 cm (4) 21 – 99 cm (43) ≥ 100 cm (7) missing data (46)	0 – 20 cm (7) 21 – 99 cm (43) ≥ 100 cm (12) missing data (39)	0 – 20 cm (0) 21 – 99 cm (44) ≥ 100 cm (0) missing data (56)
Humus Form (% frequency)	mor (16) moder (1) mull (0) peatymor (82) missing data (1)	mor (16) moder (1) mull (1) peatymor (80) missing data (2)	mor (15) moder (0) mull (0) peatymor (85) missing data (0)



Wetland / Tourbière boisée

Association CNVC00298

Picea mariana / *Alnus incana* / *Gaultheria hispidula* / *Sphagnum* spp.

Black Spruce / Speckled Alder / Creeping Snowberry / Peat Mosses

Épinette noire / Aulne rugueux / Petit thé / Sphaignes

Site / Soil Characteristics (cont'd)

Subassociation
 298c *Abies balsamea*

54 plots

Elevation Range (min–mean–max meters)

15–336–715

Slope Gradient (% frequency)

moderately steep (2)
 moderate (4)
 gentle (4)
level (91)
 missing data (0)

Aspect (% frequency)

north (2)
 east (4)
 south (4)
 west (11)
level (80)
 missing data (0)

Meso Topoposition (% frequency)

crest / upper (0)
 mid (9)
 lower / toe (11)
 depression (4)
level (76)

Moisture Regime (% frequency)

very dry (0)
 mesic (2)
 moist (19)
wet (80)

Nutrient Regime (% frequency)

missing data (100)



Picea mariana / *Alnus incana* / *Gaultheria hispidula* / *Sphagnum* spp. CNVC00298

Site / Soil Characteristics (cont'd)

Subassociation
298c *Abies balsamea*

Soil Parent Material (% frequency)

bedrock (0)
colluvium (0)
moraine / till (11)
fluvial (2)
glaciofluvial (6)
lacustrine (0)
glaciolacustrine (26)
marine (0)
organic (56)
missing data (0)

Soil Rooting Zone Substrate (% frequency)

non-soil (0)
sandy (2)
coarse loamy (6)
fine loamy (2)
silty (2)
clayey (4)
organic (57)
missing data (28)

Root Restricting Depth (% frequency)

0 – 20 cm (0)
21 – 99 cm (43)
≥ 100 cm (0)
missing data (57)

Humus Form (% frequency)

mor (15)
moder (0)
mull (0)
peatymor (85)
missing data (0)



Wetland / Tourbière boisée

Association CNVC00298

Picea mariana / *Alnus incana* / *Gaultheria hispidula* / *Sphagnum* spp.

Black Spruce / Speckled Alder / Creeping Snowberry / Peat Mosses

Épinette noire / Aulne rugueux / Petit thé / Sphaignes

Additional Characteristics

Species of High Conservation Concern:

Non-native Species:

Management Issues:

Type Statistics

Internal Similarity:

Confidence:

Strength:

Related Concepts

Similar CNVC Associations:

CNVC00294 [*Pinus banksiana* – *Picea mariana* / *Alnus incana* / *Pleurozium schreberi*] occurs on upland sites in western Quebec, but *Pinus banksiana* is dominant or codominant in the overstory and the moss layer is dominated by *Pleurozium schreberi* with much less cover of *Sphagnum* mosses.

CNVC00295 [*Picea mariana* / *Alnus incana* / *Pleurozium schreberi*] occurs on upland sites in the same range and has a moss layer dominated by feathermosses, especially *Pleurozium schreberi*, with much less cover of *Sphagnum* mosses (see Environment and Dynamics).

CNVC00296 [*Picea mariana* – *Abies balsamea* / *Alnus incana*] occurs on upland sites in the same range, but *Abies balsamea* is codominant in the overstory and the moss layer has much less cover of *Sphagnum* mosses.

CNVC00300 [*Larix laricina* – *Picea mariana* / *Alnus incana* / *Gaultheria hispidula* / *Sphagnum* spp.] occurs on comparable sites in Quebec, but *Larix laricina* is codominant in the overstory (see Dynamics).

CNVC00353 [*Picea mariana* / *Alnus incana* / *Carex vaginata* / *Rhytidiadelphus triquetrus*] occurs on comparable sites on insular Newfoundland. It has more cover of *Carex* spp. (e.g., *C. vaginata*) and a moss layer with more cover of *Rhytidiadelphus triquetrus* and less cover of *Sphagnum* mosses.

Related United States National Vegetation Classification Associations:

Relationships with Other Classifications:

Comments

Alnus incana here refers to ssp. *rugosa* (speckled alder).

CNVC00298 is consistent with the concept of a coniferous treed swamp in the Canadian Wetland Classification System.



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

<http://cnvc-cnvc.ca>

Picea mariana / *Alnus incana* / *Gaultheria hispidula* / *Sphagnum* spp. CNVC00298

Source Information

Number of source plots for CNVC00298: 534

Number of source plots for 298a *typic*: 311

Number of source plots for 298b *Rhododendron groenlandicum*: 169

Number of source plots for 298c *Abies balsamea*: 54

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.

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

Description Authors: K. Baldwin and K. Chapman

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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Canadian National Vegetation Classification (CNVC)
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***Picea mariana* / *Alnus incana* / *Gaultheria hispidula* / *Sphagnum* spp. CNVC00298**

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National Wetlands Working Group. 1988. Wetlands of Canada. Sustain. Dev. Branch, Environ. Can., Ottawa, ON and Polyscience Publications Inc., Montreal, QC. ELC Series No. 24.

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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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