Forest / Forêt **Association CNVC00295**

Picea mariana / Alnus incana / Pleurozium schreberi

Black Spruce / Speckled Alder / Red-stemmed Feathermoss
Épinette noire / Aulne rugueux / Pleurozie dorée

Subassociations: *295a Alnus incana, 295b Mitella nuda, 295c Larix laricina*
CNVC Alliance: CA00016 *Picea mariana / Alnus incana – Rhododendron groenlandicum / Pleurozium schreberi*
CNVC Group: CG0008 Ontario-Quebec Boreal Moist Black Spruce – Trembling Aspen – Balsam Fir – Paper Birch Forest

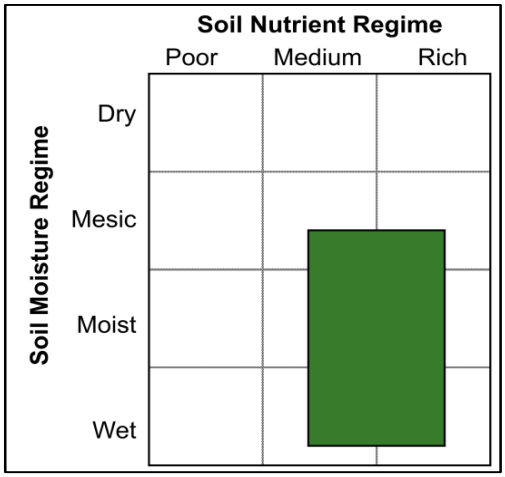
Type Description

Concept: CNVC00295 is a boreal coniferous forest Association that ranges from Manitoba to Quebec. It has an open to moderately closed canopy dominated by black spruce (*Picea mariana*). The shrub layer is moderately developed to dense and commonly includes black spruce and balsam fir (*Abies balsamea*) regeneration, speckled alder (*Alnus incana*), common Labrador tea (*Rhododendron groenlandicum*) and velvet-leaved blueberry (*Vaccinium myrtilloides*). Speckled alder sometimes forms dense thickets. The herb layer is moderately developed and usually includes bunchberry (*Cornus canadensis*), creeping snowberry (*Gaultheria hispidula*), goldthread (*Coptis trifolia*) and twinflower (*Linnaea borealis*), along with low abundance of several other species. The moss layer is well developed to continuous. Red-stemmed feathermoss (*Pleurozium schreberi*) is dominant, but knight's plume moss (*Ptilium crista-castrensis*) and stairstep moss *(Hylocomium splendens)* are also present, sometimes with discontinuous patches of peat mosses (*Sphagnum* spp.). CNVC00295 occurs in a region with a continental boreal climate that grades from subhumid in the western portion of its range to humid in the east. It is found on mesic to wet, nutrient-medium to rich sites. Stands typically recolonize after fire and are self-replacing over time. Three subassociations are distinguished: *Alnus incana*, *Mitella nuda* and *Larix laricina*.

Vegetation: CNVC00295 is a coniferous forest Association with an open to moderately closed canopy of *Picea mariana*. The shrub layer is usually well developed but can vary from moderately developed to dense depending on the patchiness of shrubs. It typically includes regenerating *P. mariana* and *Abies balsamea*, along with *Alnus incana* (see Comments), *Rhododendron groenlandicum* and *Vaccinium myrtilloides*. The herb layer is moderately developed and usually includes a large number of species, all with low cover; *Cornus canadensis*, *Gaultheria hispidula*, *Coptis trifolia* and *Linnaea borealis* are the most common. The forest floor is covered by a well-developed to continuous layer of feathermosses, predominantly *Pleurozium schreberi,* with lower cover of *Ptilium crista-castrensis* and *Hylocomium splendens* and small patches of *Sphagnum* spp.

The *Alnus incana* subassociation has a dense tall shrub layer with abundant, often thicket-forming, *A. incana*. The ericaceous species *Rhododendron groenlandicum, V. myrtilloides* and *V. angustifolium* are also more abundant in this subassociation. The *Mitella nuda* subassociation has lower overall cover in the tree and shrub layers and higher constancy of more nutrient-demanding herbs such as *Rubus pubescens, Mitella nuda* and *Petasites frigidus.* The *Larix laricina* subassociation also has greater constancy of nutrient-demanding herbs, compared to the *Alnus incana* subassociation, but is primarily characterized by codominance of *L. laricina* in the tree layer.

Source: Natural Resources Canada - Canadian Forest Service



Picea mariana / Alnus incana / Pleurozium schreberi CNVC00295

Type Description (cont'd)

Environment: CNVC00295 occurs in a continental boreal climate that is subhumid in the western part of its range, becoming increasingly humid farther east. It usually occupies the ecotone between upland and wetland *Picea mariana* forests on moist to wet (sometimes mesic), nutrient-medium to rich sites. Stands are usually small in extent. They are often on level sites where organic materials sometimes exceed 40cm over fine-textured, glaciolacustrine or lacustrine mineral soils. Less frequently, stands occur in linear bands along lower or toe-slope topopositions on coarse-textured soils derived from morainal or glaciofluvial parent materials. The medium to high nutrient status of these sites is maintained by cation-rich mineral substrates (e.g., fine loams, silts and clays) or from nutrient-rich seepage or groundwater fluctuation. Even in the subhumid climate of the western part of the range, these soils retain enough moisture to support *Alnus incana*, a shrub that fixes nitrogen, thereby further enriching the soil nutrient status. Mor humus forms are common, with peatymors developing on wetter sites.

Within the range of CNVC00295 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) 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: CNVC00295 can recolonize after fire or succeed earlier seral Associations in which pioneer species are dominant. *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.

Sometimes pioneer species play a greater role in the initial post-fire stand. The *Larix laricina* subassociation can describe younger stands. Likewise, CNVC00294 [*Pinus banksiana – Picea mariana / Alnus incana / Pleurozium schreberi*] is an earlier seral post-fire stand. Unless the time between successive fires is short (<100 years), these early seral conditions are likely to succeed to CNVC00295 as the slower growing, longer lived and more shade tolerant *P. mariana* becomes dominant and self-replaces over time.

Range: CNVC00295 occurs in the boreal region of western Quebec and Ontario and likely extends into southeastern Manitoba as far west as Lake Winnipeg. In Quebec it is most common north of Lake Abitibi on the Clay Belt but extends east to the Upper North Shore of the Saint Lawrence River near Baie-Comeau and occurs in the Gaspé region and on Anticosti Island. CNVC00295 occurs sporadically in the northern temperate region, usually on sites that are cooler than normal for that region. The *Alnus incana* subassociation is described from Ontario and Quebec. The *Mitella nuda* and *Larix laricina* subassociations are described only from Ontario.

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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Black Spruce / Speckled Alder / Red-stemmed Feathermoss
Épinette noire / Aulne rugueux / Pleurozie dorée

Distribution

Countries: Canada

Provinces / Territories / States: Manitoba, Ontario, Quebec

Terrestrial Ecozones and Ecoregions of Canada: Atlantic Highlands: Appalachians; Boreal Shield: Abitibi Plains, Algonquin-Lake Nipissing, Anticosti Island, Big Trout Lake, Central Laurentians, Lac Seul Upland, Lake Nipigon, Lake of the Woods, Lake Timiskaming Lowland, Rivière Rupert Plateau, Southern Laurentians, Thunder Bay-Quetico; Hudson Plains

Rowe's Forest Regions and Sections of Canada: Boreal: Anticosti, Central Plateau, Chibougamau-Natashquan, Gaspé, Gouin, Hudson Bay Lowlands, Laurentide-Onatchiway, Lower English River, Missinaibi-Cabonga, Northern Clay, Northern Coniferous, Superior, Upper English River; Great Lakes-St. Lawrence: Laurentian, Quetico, Saguenay, Sudbury-North Bay, Temiscouata-Restigouche, Timagami

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

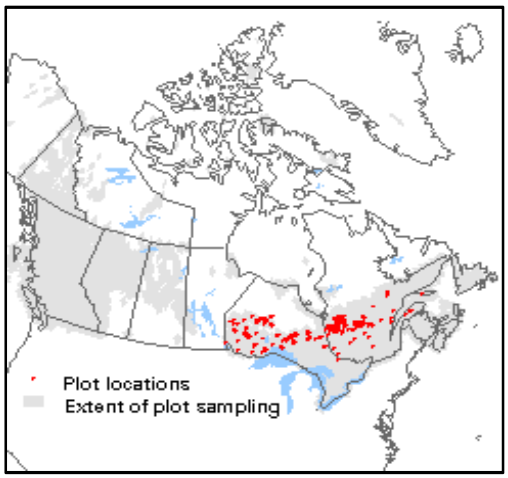
Nature Conservancy of Canada Ecoregions: Boreal Shield, Great Lakes, Hudson Plains, Northern Appalachians-Acadia, Superior-Lake of the Woods

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, 2W-3, 3E-1, 3E-2, 3E-4, 3E-6, 3S-1, 3S-2, 3S-3, 3S-4, 3S-5, 3W-1, 3W-2, 3W-3, 3W-4, 3W-5, 4S-2, 4S-4, 4S-6, 4W-1, 4W-2, 5E-6

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

295a Alnus incana	Ontario	BwTr12-4	Picea mariana / Alnus incana - Rhododendron groenlandicum / Hylocomium splendens
	Quebec	QC038	Picea mariana / Alnus incana / Pleurozium schreberi
295b Mitella nuda	Ontario	BwTr12-8	Picea mariana / Rubus pubescens / Hylocomium
295c Larix laricina	Ontario	BwTr12-3	Picea mariana - Larix laricina / Rubus pubescens / Pleurozium schreberi

Forest / Forêt **Association CNVC00295**

Picea mariana / Alnus incana / Pleurozium schreberi

Black Spruce / Speckled Alder / Red-stemmed Feathermoss
Épinette noire / Aulne rugueux / Pleurozie dorée

Vegetation Summary*

Species Name[T]	Association CNVC00295 196 plots % Cover[±]	Association CNVC00295 196 plots % Presence[^]	Subassociation 295a *Alnus incana* 120 plots % Cover[±]	Subassociation 295a *Alnus incana* 120 plots % Presence[^]	Subassociation 295b *Mitella nuda* 46 plots % Cover[±]	Subassociation 295b *Mitella nuda* 46 plots % Presence[^]
Overstory Trees						
Picea mariana	**39**	**99**	**41**	**100**	**40**	**100**
Abies balsamea	6	26	6	35	2	9
Larix laricina	17	19	3	4	2	7
Pinus banksiana	9	16	10	22	-	-
Betula papyrifera	5	13	5	21	3	2
Tree Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})[‡]	**(26 36 50 66 75)**		**(32 49 54 66 68)**		**(16 22 38 52 72)**	
Understory Woody Shrubs and Regenerating Trees						
Picea mariana	14	90	16	96	7	85
Alnus incana	**24**	**88**	**34**	**98**	**8**	**74**
Rhododendron groenlandicum	16	83	22	88	4	72
Vaccinium myrtilloides	4	74	6	81	1	65
Abies balsamea	9	62	10	57	7	65
Vaccinium angustifolium	4	54	5	61	1	43
Kalmia angustifolia	8	37	9	52	1	20
Salix sp.	5	31	5	50	-	-
Rosa acicularis	2	29	2	13	2	65
Rubus idaeus	3	26	4	28	2	17
Ribes triste	1	24	2	14	1	37
Betula papyrifera	5	23	5	32	1	9
Amelanchier sp.	4	21	4	31	1	7
Sorbus decora	2	20	2	13	1	26
Ribes glandulosum	2	19	3	25	1	7
Sorbus americana	3	17	3	23	1	9
Cornus stolonifera	2	13	2	8	2	22
Lonicera villosa	1	12	2	6	1	24
Acer spicatum	7	11	6	5	9	17
Ribes lacustre	1	10	2	4	1	22
Amelanchier sanguinea	1	6	-	-	1	9
Shrub Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})[‡]	**(16 32 56 83 99)**		**(49 62 74 99 99)**		**(12 16 27 34 45)**	
Understory Herbs and Dwarf Shrubs						
Cornus canadensis	4	91	5	88	3	98
Gaultheria hispidula	5	83	5	86	3	76
Coptis trifolia	2	63	2	61	1	59
Linnaea borealis	2	61	3	54	2	76
Petasites frigidus	3	53	3	46	3	76
Equisetum sylvaticum	3	53	4	39	2	76
Rubus pubescens	3	52	3	36	3	87

Picea mariana / *Alnus incana* / *Pleurozium schreberi* CNVC00295

Vegetation Summary (cont'd)*

Species Name[T]	Association CNVC00295 % Cover[±]	Association CNVC00295 % Presence[^]	Subassociation 295a *Alnus incana* % Cover[±]	Subassociation 295a *Alnus incana* % Presence[^]	Subassociation 295b *Mitella nuda* % Cover[±]	Subassociation 295b *Mitella nuda* % Presence[^]
Maianthemum canadense	2	48	3	41	1	57
Lysimachia borealis	2	44	2	37	1	50
Clintonia borealis	3	42	3	39	2	46
Lycopodium annotinum	7	40	9	45	5	22
Carex sp.	5	38	5	54	5	13
Mitella nuda	2	37	2	17	**2**	**83**
Maianthemum trifolium	3	29	3	29	2	30
Aralia nudicaulis	3	24	2	13	3	39
Chamerion angustifolium	2	24	2	26	1	20
Poaceae	5	23	5	37	-	-
Gymnocarpium dryopteris	2	23	3	22	2	24
Equisetum sp.	5	22	6	33	-	-
Goodyera repens	1	20	1	16	1	26
Viola sp.	2	19	3	27	1	9
Vaccinium vitis-idaea	1	19	2	18	1	13
Viola renifolia	1	19	1	4	1	54
Rubus chamaemorus	3	17	3	22	1	9
Galium triflorum	1	15	1	3	1	35
Dryopteris spinulosa complex	6	14	6	23	-	-
Carex vaginata	4	14	3	4	5	33
Orthilia secunda	1	14	2	11	1	24
Symphyotrichum ciliolatum	1	14	1	3	1	37
Equisetum pratense	1	13	2	3	1	30
Streptopus lanceolatus	1	13	2	7	1	26
Anemone quinquefolia	1	13	1	2	1	39
Fragaria virginiana	1	13	1	2	1	37
Mertensia paniculata	2	12	1	3	2	28
Eurybia macrophylla	4	11	6	7	3	24
Carex trisperma	1	10	1	1	2	28
Cinna latifolia	1	9	-	-	1	20
Dryopteris expansa	2	8	-	-	2	7
Herb Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})[‡]	**(4 16 28 36 62)**		**(3 16 26 33 50)**		**(16 21 33 39 56)**	
Bryophytes and Lichens						
Pleurozium schreberi	**40**	**98**	**38**	**97**	**48**	**100**
Ptilium crista-castrensis	11	88	9	87	11	93
Hylocomium splendens	13	68	11	60	16	93
Cladina rangiferina	2	59	3	73	1	48
Sphagnum girgensohnii	7	42	9	38	4	48
Dicranum sp.	3	41	3	67	-	-
Cladonia sp.	2	39	2	59	2	2
Dicranum polysetum	2	39	3	17	2	76
Sphagnum sp.	14	35	14	57	-	-
Sphagnum capillifolium	6	29	13	17	3	50
Polytrichum sp.	3	29	3	47	-	-
Ptilidium ciliare	2	23	3	31	1	13
Sphagnum fuscum	7	21	8	33	2	4
Cladina mitis	2	19	2	28	1	4

Picea mariana / *Alnus incana* / *Pleurozium schreberi* CNVC00295

Vegetation Summary (cont'd)*

Species Name[T]	Association CNVC00295 % Cover[±]	Association CNVC00295 % Presence[^]	Subassociation 295a *Alnus incana* % Cover[±]	Subassociation 295a *Alnus incana* % Presence[^]	Subassociation 295b *Mitella nuda* % Cover[±]	Subassociation 295b *Mitella nuda* % Presence[^]
Sphagnum magellanicum	4	18	5	26	1	4
Rhytidiadelphus triquetrus	4	18	2	9	6	37
Dicranum fuscescens	1	18	2	6	1	35
Cladina stellaris	3	15	3	23	1	2
Sphagnum wulfianum	2	13	4	8	1	17
Sanionia uncinata	1	11	0	4	1	20
Ptilidium pulcherrimum	1	10	1	1	1	22
Rhizomnium pseudopunctatum	2	9	1	2	2	28
Pohlia nutans	1	7	0	2	1	22
Bryo-Lichen Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})[‡]	**(33 70 76 90 96)**		**(33 70 74 90 90)**		**(65 81 86 96 98)**	

* 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

[‡] $P_x = X^{th}$ percentile (e.g., $P_{10} = 10^{th}$ percentile)

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Vegetation Summary (cont'd)*

	Subassociation 295c *Larix laricina* 30 plots	
Species Name[T]	% Cover[±]	% Presence[^]
Overstory Trees		
Picea mariana	**30**	**97**
Abies balsamea	8	17
Larix laricina	**21**	**100**
Pinus banksiana	5	13
Betula papyrifera	-	-
Tree Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})[‡]	**(27 35 50 69 80)**	
Understory Woody Shrubs and Regenerating Trees		
Picea mariana	11	73
Alnus incana	**6**	**67**
Rhododendron groenlandicum	6	77
Vaccinium myrtilloides	1	60
Abies balsamea	9	77
Vaccinium angustifolium	1	40
Kalmia angustifolia	3	3
Salix sp.	1	3
Rosa acicularis	1	40
Rubus idaeus	3	30
Ribes triste	1	47
Betula papyrifera	3	10
Amelanchier sp.	< 1	3
Sorbus decora	1	40
Ribes glandulosum	1	13
Sorbus americana	1	7
Cornus stolonifera	1	20
Lonicera villosa	1	20
Acer spicatum	4	23
Ribes lacustre	1	13
Amelanchier sanguinea	1	23
Shrub Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})[‡]	**(12 16 30 39 51)**	
Understory Herbs and Dwarf Shrubs		
Cornus canadensis	4	93
Gaultheria hispidula	3	83
Coptis trifolia	2	80
Linnaea borealis	3	67
Petasites frigidus	1	43
Equisetum sylvaticum	3	70
Rubus pubescens	3	60

Picea mariana / Alnus incana / Pleurozium schreberi CNVC00295

Vegetation Summary (cont'd)*

Species Name[T]	Subassociation 295c *Larix laricina* % Cover[±]	% Presence[^]
Maianthemum canadense	2	67
Lysimachia borealis	1	67
Clintonia borealis	1	50
Lycopodium annotinum	5	47
Carex sp.	5	10
Mitella nuda	1	43
Maianthemum trifolium	2	23
Aralia nudicaulis	3	47
Chamerion angustifolium	1	23
Poaceae	2	3
Gymnocarpium dryopteris	1	30
Equisetum sp.	1	10
Goodyera repens	1	27
Viola sp.	1	7
Vaccinium vitis-idaea	< 1	30
Viola renifolia	1	27
Rubus chamaemorus	4	13
Galium triflorum	1	37
Dryopteris spinulosa complex	-	-
Carex vaginata	2	23
Orthilia secunda	2	13
Symphyotrichum ciliolatum	1	23
Equisetum pratense	1	23
Streptopus lanceolatus	1	20
Anemone quinquefolia	1	20
Fragaria virginiana	1	23
Mertensia paniculata	1	23
Eurybia macrophylla	1	10
Carex trisperma	1	20
Cinna latifolia	1	27
Dryopteris expansa	2	40
Herb Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})[‡]	**(7 11 30 37 69)**	
Bryophytes and Lichens		
Pleurozium schreberi	**35**	**100**
Ptilium crista-castrensis	20	87
Hylocomium splendens	11	63
Cladina rangiferina	1	20
Sphagnum girgensohnii	3	50
Dicranum sp.	1	3
Cladonia sp.	1	13
Dicranum polysetum	2	70
Sphagnum sp.	-	-
Sphagnum capillifolium	1	43
Polytrichum sp.	-	-
Ptilidium ciliare	1	10
Sphagnum fuscum	-	-
Cladina mitis	< 1	3

Picea mariana / *Alnus incana* / *Pleurozium schreberi* CNVC00295

Vegetation Summary (cont'd)*

	Subassociation 295c *Larix laricina*	
Species Name[T]	% Cover[±]	% Presence[^]
Sphagnum magellanicum	1	10
Rhytidiadelphus triquetrus	5	23
Dicranum fuscescens	1	43
Cladina stellaris	-	-
Sphagnum wulfianum	1	27
Sanionia uncinata	1	27
Ptilidium pulcherrimum	1	27
Rhizomnium pseudopunctatum	1	7
Pohlia nutans	1	7
Bryo-Lichen Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})[‡]	**(24 53 71 94 96)**	

* 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

[‡] $P_x = X^{th}$ percentile (e.g., $P_{10} = 10^{th}$ percentile)

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Site / Soil Characteristics

	Association CNVC00295 **196 plots**	Subassociation 295a *Alnus incana* **120 plots**	Subassociation 295b *Mitella nuda* **46 plots**
Elevation Range (min–mean–max meters)			
	105–310–516	105–315–512	136–277–418
	missing data (12)	missing data (13)	missing data (9)
Slope Gradient (% frequency)			
	very steep (1)	very steep (0)	very steep (0)
	steep (1)	steep (0)	steep (2)
	moderately steep (1)	moderately steep (1)	moderately steep (0)
	moderate (6)	moderate (7)	moderate (7)
	gentle (18)	gentle (24)	gentle (4)
	level (70)	**level (68)**	**level (74)**
	missing data (4)	missing data (1)	missing data (13)
Aspect (% frequency)			
	north (13)	north (13)	north (17)
	east (7)	east (7)	east (7)
	south (14)	south (14)	south (13)
	west (10)	west (10)	west (13)
	level (55)	**level (55)**	**level (48)**
	missing data (1)	missing data (1)	missing data (2)
Meso Topoposition (% frequency)			
	crest / upper (7)	crest / upper (7)	crest / upper (7)
	mid (16)	mid (21)	mid (11)
	lower / toe (20)	lower / toe (21)	lower / toe (20)
	depression (4)	depression (3)	depression (4)
	level (53)	**level (49)**	**level (59)**
Moisture Regime (% frequency)			
	dry (3)	dry (3)	dry (0)
	mesic (23)	mesic (22)	mesic (26)
	moist (36)	**moist (39)**	moist (30)
	wet (37)	wet (37)	**wet (43)**
Nutrient Regime (% frequency)			
	missing data (100)	missing data (100)	missing data (100)

Picea mariana / *Alnus incana* / *Pleurozium schreberi* CNVC00295

Site / Soil Characteristics (cont'd)

	Association CNVC00295	Subassociation 295a *Alnus incana*	Subassociation 295b *Mitella nuda*
Soil Parent Material (% frequency)			
	bedrock (1)	bedrock (1)	bedrock (0)
	colluvium (4)	colluvium (1)	colluvium (13)
	eolian (1)	eolian (1)	eolian (0)
	moraine / till (18)	moraine / till (26)	moraine / till (9)
	fluvial (2)	fluvial (1)	fluvial (0)
	glaciofluvial (8)	glaciofluvial (5)	glaciofluvial (4)
	lacustrine (15)	lacustrine (8)	lacustrine (28)
	glaciolacustrine (24)	**glaciolacustrine (39)**	glaciolacustrine (0)
	marine (1)	marine (1)	marine (0)
	organic (25)	organic (18)	**organic (41)**
	missing data (3)	missing data (0)	missing data (4)
Soil Rooting Zone Substrate (% frequency)			
	non-soil (5)	non-soil (2)	non-soil (13)
	sandy (5)	sandy (3)	sandy (0)
	coarse loamy (8)	coarse loamy (6)	coarse loamy (7)
	fine loamy (6)	fine loamy (7)	fine loamy (0)
	silty (2)	silty (1)	silty (0)
	clayey (11)	clayey (11)	clayey (15)
	organic (24)	organic (18)	**organic (41)**
	missing data (40)	missing data (53)	missing data (24)
Root Restricting Depth (% frequency)			
	0 – 20 cm (6)	0 – 20 cm (4)	0 – 20 cm (9)
	21 – 99 cm (59)	**21 – 99 cm (71)**	**21 – 99 cm (41)**
	≥ 100 cm (13)	≥ 100 cm (3)	≥ 100 cm (26)
	missing data (21)	missing data (23)	missing data (24)
Humus Form (% frequency)			
	mor (52)	**mor (59)**	mor (39)
	moder (6)	moder (3)	moder (7)
	mull (1)	mull (0)	mull (0)
	peatymor (40)	peatymor (38)	**peatymor (48)**
	missing data (2)	missing data (1)	missing data (7)

Forest / Forêt **Association CNVC00295**

Picea mariana / Alnus incana / Pleurozium schreberi

Black Spruce / Speckled Alder / Red-stemmed Feathermoss
Épinette noire / Aulne rugueux / Pleurozie dorée

Site / Soil Characteristics (cont'd)

	Subassociation
	295c *Larix laricina*
	30 plots
Elevation Range (min–mean–max meters)	
	171–348–516
	missing data (13)
Slope Gradient (% frequency)	
	very steep (3)
	steep (0)
	moderately steep (3)
	moderate (0)
	gentle (17)
	level (73)
	missing data (3)
Aspect (% frequency)	
	north (3)
	east (10)
	south (17)
	west (3)
	level (67)
	missing data (0)
Meso Topoposition (% frequency)	
	crest / upper (7)
	mid (7)
	lower / toe (17)
	depression (10)
	level (60)
Moisture Regime (% frequency)	
	dry (10)
	mesic (27)
	moist (33)
	wet (30)
Nutrient Regime (% frequency)	
	missing data (100)

Picea mariana / *Alnus incana* / *Pleurozium schreberi* CNVC00295

Site / Soil Characteristics (cont'd)

	Subassociation 295c *Larix laricina*
Soil Parent Material (% frequency)	
	bedrock (0)
	colluvium (3)
	eolian (0)
	moraine / till (3)
	fluvial (7)
	glaciofluvial (23)
	lacustrine (27)
	glaciolacustrine (0)
	marine (0)
	organic (27)
	missing data (10)
Soil Rooting Zone Substrate (% frequency)	
	non-soil (3)
	sandy (20)
	coarse loamy (20)
	fine loamy (10)
	silty (7)
	clayey (3)
	organic (23)
	missing data (13)
Root Restricting Depth (% frequency)	
	0 – 20 cm (10)
	21 – 99 cm (40)
	≥ 100 cm (37)
	missing data (13)
Humus Form (% frequency)	
	mor (43)
	moder (17)
	mull (3)
	peatymor (37)
	missing data (0)

Forest / Forêt **Association CNVC00295**

Picea mariana / Alnus incana / Pleurozium schreberi

Black Spruce / Speckled Alder / Red-stemmed Feathermoss
Épinette noire / Aulne rugueux / Pleurozie dorée

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 on mesic, medium sites in Ontario and has a less-developed shrub layer without *Alnus incana*.

CNVC00211 [*Picea mariana / Rhododendron groenlandicum – Kalmia angustifolia / Pleurozium schreberi*] occurs on mesic, medium sites in northeastern Ontario and Quebec and has a shrub layer with abundant ericaceous species and little to no *Alnus incana*.

CNVC00276 [*Picea mariana / Rhododendron groenlandicum – Vaccinium angustifolium / Pleurozium schreberi (Sphagnum* spp.*)*] occurs in the same range on sites that are not as rich. It has little to no *Alnus incana* in the shrub layer and often has greater cover of *Sphagnum* mosses.

CNVC00294 [*Pinus banksiana – Picea mariana / Alnus incana / Pleurozium schreberi*] occurs on comparable sites in western Quebec, but *Pinus banksiana* is dominant or codominant in the overstory (see Dynamics).

CNVC00296 [*Picea mariana – Abies balsamea / Alnus incana*] occurs on comparable sites in the same range, but *Abies balsamea* is codominant in the overstory.

CNVC00298 [*Picea mariana / Alnus incana / Gaultheria hispidula / Sphagnum* spp.] typically occurs on organic soils (i.e., wetter sites) in the same range and has a moss layer dominated by *Sphagnum* spp. rather than feathermosses.

Related United States National Vegetation Classification Associations:

Relationships with Other Classifications:

Comments

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

Picea mariana / Alnus incana / Pleurozium schreberi CNVC00295

Source Information

Number of source plots for CNVC00295: 196
Number of source plots for 295a Alnus incana: 120
Number of source plots for 295b Mitella nuda: 46
Number of source plots for 295c Larix laricina: 30
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, K. Chapman and J.-P. Saucier
Date of Concept: November, 2011
Date of Description: March, 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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Uhlig, P.W.C., Chapman, K., Baldwin, K., Wester, M., Yanni, S. 2016. Draft boreal treed vegetation type factsheets. Ecol. Land Class. Prog., Ont. Min. Nat. Resour. & For., Sci. & Info Branch, Sault Ste. Marie, ON.

Characterization References:

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Fryer, J.L. 2014. Picea mariana. In: Fire Effects Information System. U.S. Dept. Agric., For. Serv., Rocky Mt. Res. Stn., Fire Sci. Lab., Missoula, MT, US. Available: http://www.fs.fed.us/database/feis/plants/tree/picmar/all.html (accessed: May 26, 2015).

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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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Picea mariana / Alnus incana / Pleurozium schreberi CNVC00295

Characterization References (cont'd):

Ministère des Ressources naturelles du Québec, Forêt Québec. 2002+. Les guides de reconnaissance des types écologiques. Gouv. du Québec, Québec, QC. Available: http://www.mffp.gouv.qc.ca/forets/inventaire/guide-types-ecologiques-carte.jsp (accessed: May 2015).

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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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