Forest / Forêt **Association CNVC00278**

Abies balsamea / Pleurozium schreberi – Sphagnum spp.

Balsam Fir / Red-stemmed Feathermoss – Peat Mosses

Sapin baumier / Pleurozie dorée – Sphaignes

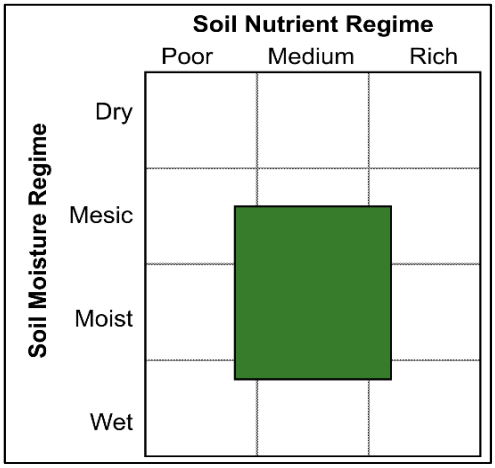
Subassociations: *278a typic, 278b Sphagnum spp., 278c Bazzania trilobata*
CNVC Alliance: CA00005 *Abies balsamea (Betula papyrifera) / Pleurozium schreberi*
CNVC Group: CG0003 Atlantic Boreal Mesic Balsam Fir – Paper Birch – White Spruce Forest

Type Description

Concept: CNVC00278 is a boreal coniferous forest Association that occurs in Quebec and insular Newfoundland. It has a closed canopy dominated by balsam fir (*Abies balsamea*), usually with smaller components of black spruce (*Picea mariana*) and paper birch (*Betula papyrifera*). Regeneration of these tree species, particularly balsam fir, also dominates the moderately to well-developed shrub layer. The herb layer can vary from poorly developed to dense, depending on subassociation, but usually includes bunchberry (*Cornus canadensis*), creeping snowberry (*Gaultheria hispidula*), twinflower (*Linnaea borealis*), yellow clintonia (*Clintonia borealis*), goldthread (*Coptis trifolia*) and northern starflower (*Lysimachia borealis*). Feathermosses, especially red-stemmed feathermoss (*Pleurozium schreberi*), but also knight's plume moss (*Ptilium crista-castrensis*) and stairstep moss (*Hylocomium splendens*), dominate the continuous moss layer, but peat mosses (*Sphagnum* spp.), are also abundant and help to characterize this Association. CNVC00278 occurs mainly on moist to mesic, nutrient-medium sites in a region with a boreal climate that grades from humid continental in the west to very humid and more maritime in the east. It is a late seral condition with dynamics that are mainly driven by insect outbreaks, especially of spruce budworm (*Choristoneura fumiferana*), windthrow and disease. There are three subassociations: *typic, Sphagnum spp.* and *Bazzania trilobata*.

Vegetation: CNVC00278 is a coniferous forest Association with a closed canopy dominated by *Abies balsamea,* often with minor components of *Picea mariana* and *Betula papyrifera*. Regeneration of these species, especially *A. balsamea,* dominates the moderately to well-developed shrub layer. Shrub species occur but not consistently. The herb layer is typically poorly developed, but it can be well developed or even dense in the *Sphagnum spp.* and *Bazzania trilobata* subassociations. *Cornus canadensis, Gaultheria hispidula, Linnaea borealis, Clintonia borealis, Coptis trifolia* and *Lysimachia borealis* are common species. The moss layer is continuous; feathermosses (*Pleurozium schreberi, Ptilium crista-castrensis* and *Hylocomium splendens*), together with *Sphagnum* mosses (primarily *S. girgensohnii, S. fuscum, S. capillifolium* and *S. quinquefarium*), form a thick mat. Minor amounts of *Dicranum* and *Polytrichum* mosses are also common. In the *typic* subassociation, feathermoss cover exceeds that of *Sphagnum* mosses, while the ratio is reversed in the *Sphagnum spp.* subassociation. The *Bazzania trilobata* subassociation often has *Taxus canadensis, Sorbus americana* and *Viburnum nudum* (see Comments) in the shrub layer, *Epigaea repens,* but not *Oxalis montana,* in the herb layer, and greater abundance of *B. trilobata* and *Dicranum majus* in the moss layer.

Source: B. Meades



Abies balsamea / Pleurozium schreberi – Sphagnum spp. CNVC00278

Type Description (cont'd)

Environment: CNVC00278 occurs mainly in a very humid maritime boreal climate, becoming less common as the climate becomes less humid and more continental in the western part of its range. It is found primarily on moist or mesic, nutrient-medium sites. Stands usually occur on gentle to moderately steep slopes on middle to lower-slope topopositions, where seepage enhances moisture and nutrient availability. Frequently, stands are on cooler aspects (i.e., north or east-facing). Soils are usually moderately deep to deep, coarse-textured (often coarse loams) and well drained, derived primarily from morainal parent materials. Although mor humus forms are common, the cool, humid climate maintains moist site conditions that typically lead to the growth of *Sphagnum* mosses and slowing of decomposition rates, resulting in the accumulation of organic matter (peat). This process of paludification insulates the soil and slows nutrient cycling, promoting the development of peatymor humus forms; site productivity can decrease over time.

Compared to the *typic,* the *Sphagnum spp.* subassociation occurs more frequently on lower-slope topopositions. These sites are wetter and more frequently have peatymor humus. The *Bazzania trilobata* subassociation is most common near the borders of wetlands and on mineral soil islands in extensive wetland complexes that experience seasonal water table fluctuations.

Within the range of CNVC00278 regional fire cycles are intermediate (100-270 years), long (270-500 years) or 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 is the surrounding landscape.

Dynamics: CNVC00278 is a self-perpetuating, late successional forest Association. It occurs where fires are typically infrequent. Natural disturbance processes are primarily insect outbreaks, windthrow, or natural mortality of individual or small groups of trees by disease and other factors. Extensive outbreaks of spruce budworm (*Choristoneura fumiferana*) and hemlock looper (*Lambdina fiscellaria fiscellaria*) occur periodically across the range of this Association, causing widespread canopy mortality of *Abies balsamea*. Following disturbance, stands tend to recover rapidly through the release of abundant *A. balsamea* in the understory. Small-scale gap or patch disturbances typically result in an uneven-age structure within stands, but severe large-scale disturbances can release understory trees that are more or less the same age. Severe insect epidemics can enhance the proportions of *Picea mariana* and *Betula papyrifera* in the canopy since these species are less vulnerable to spruce budworm and hemlock looper, but ultimately the highly shade tolerant *A. balsamea* re-establishes canopy dominance.

When fires do occur, *A. balsamea* is eliminated. Instead, *B. papyrifera* or *P. mariana* are likely to dominate the initial post-fire stand. Over time however, the stand is likely to return to *A. balsamea* dominance, typically with intermediate stages characterized by mixedwoods (e.g., CNVC00270 [*Betula papyrifera – Picea mariana – Abies balsamea / Pleurozium schreberi – Sphagnum* spp.]).

If successive disturbances are frequent and severe (e.g., logging followed by repeated fires), *Alnus incana* and/or ericaceous shrub thickets could develop.

Paludification is often a factor in the dynamics of CNVC00278 because the moist site conditions and humid to very humid climate promote the accumulation of organic matter and growth of *Sphagnum* mosses. These stands can sometimes develop by paludification of CNVC00351 [*Picea mariana – Abies balsamea / Pleurozium schreberi (Hylocomium splendens)*]) or CNVC00222 [*Abies balsamea / Pleurozium schreberi*].

Range: CNVC00278 occurs in the boreal regions of Quebec and Newfoundland. In Quebec, it is most common in the eastern part of the province, especially on the Lower North Shore Gulf of Saint Lawrence, but it ranges westward to east of Lake Abitibi. In Newfoundland, CNVC00278 is described from southwestern Newfoundland near Gallants. The *typic* and *Sphagnum spp.* subassociations are both described from Quebec. The *Bazzania trilobata* subassociation is described from Newfoundland.

Conservation Status (NatureServe)

Global Conservation Rank: no applicable rank
National Conservation Rank: not yet determined
Subnational Conservation Rank: not yet determined

Forest / Forêt **Association CNVC00278**

Abies balsamea / Pleurozium schreberi – Sphagnum spp.

Balsam Fir / Red-stemmed Feathermoss – Peat Mosses

Sapin baumier / Pleurozie dorée – Sphaignes

Distribution

Countries: Canada

Provinces / Territories / States: Newfoundland and Labrador, Quebec

Terrestrial Ecozones and Ecoregions of Canada: Atlantic Highlands: Appalachians; Boreal Shield: Abitibi Plains, Central Laurentians, Mecatina Plateau, Rivière Rupert Plateau, Southern Laurentians, Southwestern Newfoundland

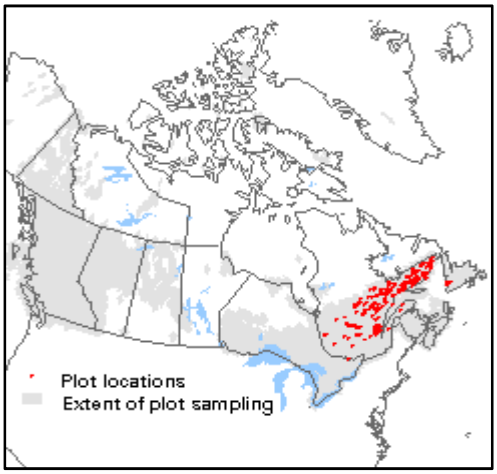
Rowe's Forest Regions and Sections of Canada: Boreal: Chibougamau-Natashquan, Corner Brook, Gaspé, Gouin, Laurentide-Onatchiway, Missinaibi-Cabonga, Newfoundland-Labrador Barrens, Northern Clay; Great Lakes-St. Lawrence: Laurentian, Middle Ottawa, Saguenay, Temiscouata-Restigouche

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

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

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

Ecoregions of Newfoundland: Southwestern Newfoundland



Corresponding Types and Associations

278a typic	Quebec	QC027A	*Abies balsamea / Sphagnum* spp. - *Pleurozium schreberi [Typique]*
		QC027B	*Abies balsamea / Sphagnum* spp. - *Pleurozium schreberi [Hylocomium splendens]*
		QC027C	*Abies balsamea / Sphagnum* spp. - *Pleurozium schreberi [Sphagnum girgensohnii]*
278b Sphagnum spp	Quebec	QC034	*Abies balsamea / Sphagnum* spp.
278c Bazzania trilobata	Newfoundland and Labrador	W Fg	Western: *Gaultheria* - balsam fir forest

Forest / Forêt **Association CNVC00278**

Abies balsamea / Pleurozium schreberi – Sphagnum spp.

Balsam Fir / Red-stemmed Feathermoss – Peat Mosses

Sapin baumier / Pleurozie dorée – Sphaignes

Vegetation Summary*

	Association CNVC00278		Subassociation 278a *typic*		Subassociation 278b *Sphagnum* spp.	
	256 plots		**224 plots**		**23 plots**	
Species Name†	% Cover±	% Presence^	% Cover±	% Presence^	% Cover±	% Presence^
Overstory Trees						
Abies balsamea	**41**	**100**	**41**	**100**	**38**	**100**
Picea mariana	11	80	11	80	9	74
Betula papyrifera	7	61	7	62	7	57
Picea glauca	10	38	10	37	11	65
Pinus strobus	2	1	-	-	-	-
Tree Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})‡	**(49 49 61 66 83)**		**(49 49 60 66 83)**		**(49 49 59 66 83)**	
Understory Woody Shrubs and Regenerating Trees						
Abies balsamea	31	100	32	100	25	100
Picea mariana	10	86	10	89	7	70
Betula papyrifera	6	86	7	90	4	78
Amelanchier sp.	4	52	4	56	3	26
Sorbus americana	3	36	3	35	3	35
Vaccinium angustifolium	3	34	3	34	2	22
Rhododendron groenlandicum	3	33	3	35	2	26
Picea glauca	4	32	5	31	4	57
Vaccinium myrtilloides	3	26	3	27	2	22
Alnus incana	9	23	10	23	4	35
Ribes glandulosum	3	23	3	22	2	39
Viburnum edule	3	21	3	23	2	13
Kalmia angustifolia	4	16	4	15	2	22
Ilex mucronata	4	9	4	9	4	9
Viburnum nudum	3	8	4	5	5	4
Taxus canadensis	3	4	3	1	2	4
Amelanchier bartramiana	1	1	-	-	-	-
Shrub Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})‡	**(19 32 53 66 83)**		**(32 36 55 66 86)**		**(19 32 40 49 66)**	
Understory Herbs and Dwarf Shrubs						
Cornus canadensis	5	93	4	92	4	91
Gaultheria hispidula	4	90	4	92	4	78
Linnaea borealis	3	67	3	67	2	57
Clintonia borealis	5	60	4	58	5	57
Coptis trifolia	3	60	3	62	4	43
Lysimachia borealis	2	60	2	59	2	57
Carex sp.	3	52	3	52	2	70
Maianthemum canadense	3	50	3	49	2	39
Dryopteris spinulosa complex	4	43	3	44	6	57
Oxalis montana	13	42	11	40	28	74
Gymnocarpium dryopteris	2	38	2	39	4	39

Abies balsamea / *Pleurozium schreberi* – *Sphagnum* spp. CNVC00278

Vegetation Summary (cont'd)*

Species Name†	Association CNVC00278 % Cover±	Association CNVC00278 % Presence^	Subassociation 278a *typic* % Cover±	Subassociation 278a *typic* % Presence^	Subassociation 278b *Sphagnum* spp. % Cover±	Subassociation 278b *Sphagnum* spp. % Presence^
Neottia cordata	2	34	2	35	2	22
Lycopodium annotinum	3	32	3	35	3	17
Rubus chamaemorus	3	30	3	31	2	35
Equisetum sp.	3	20	3	21	2	17
Phegopteris connectilis	3	18	3	18	3	26
Poaceae	3	17	3	16	5	39
Streptopus amplexifolius	2	17	2	17	2	22
Maianthemum trifolium	2	15	2	15	2	22
Monotropa uniflora	2	8	2	7	2	9
Solidago sp.	6	5	4	4	9	22
Osmundastrum cinnamomeum	5	5	8	4	-	-
Goodyera repens	2	4	2	4	-	-
Epigaea repens	4	3	-	-	-	-
Dryopteris carthusiana	2	2	-	-	-	-
Herb Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})‡	**(3 3 21 20 50)**		**(3 3 17 16 33)**		**(6 16 39 60 90)**	
Bryophytes and Lichens						
Pleurozium schreberi	**20**	**100**	**22**	**100**	**3**	**100**
Dicranum sp.	4	90	4	93	3	96
Ptilium crista-castrensis	8	88	8	90	2	70
Hylocomium splendens	19	86	19	87	3	74
Polytrichum sp.	2	82	2	85	3	83
Sphagnum sp.	**40**	**78**	**39**	**82**	**61**	**65**
Cladonia sp.	2	55	2	59	2	43
Cladina rangiferina	2	51	2	54	2	39
Sphagnum girgensohnii	32	44	31	45	47	52
Bazzania trilobata	4	40	3	39	2	22
Cladina mitis	2	27	2	28	2	30
Sphagnum fuscum	4	26	4	29	2	9
Ptilidium ciliare	2	18	2	17	2	26
Sphagnum capillifolium	13	3	-	-	-	-
Dicranum majus	6	3	-	-	-	-
Sphagnum quinquefarium	24	1	-	-	-	-
Hylocomiastrum umbratum	3	1	-	-	-	-
Bryo-Lichen Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})‡	**(70 90 87 90 90)**		**(70 90 87 90 90)**		**(54 90 82 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

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

Forest / Forêt **Association CNVC00278**

Abies balsamea / Pleurozium schreberi – Sphagnum spp.

Balsam Fir / Red-stemmed Feathermoss – Peat Mosses

Sapin baumier / Pleurozie dorée – Sphaignes

Vegetation Summary (cont'd)*

	Subassociation 278c *Bazzania trilobata* 9 plots	
Species Name[†]	% Cover[±]	% Presence[^]
Overstory Trees		
Abies balsamea	**53**	**89**
Picea mariana	26	78
Betula papyrifera	1	56
Picea glauca	2	11
Pinus strobus	2	22
Tree Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})[‡]	**(38 68 68 89 91)**	
Understory Woody Shrubs and Regenerating Trees		
Abies balsamea	13	100
Picea mariana	6	44
Betula papyrifera	1	22
Amelanchier sp.	-	-
Sorbus americana	1	78
Vaccinium angustifolium	1	56
Rhododendron groenlandicum	-	-
Picea glauca	-	-
Vaccinium myrtilloides	-	-
Alnus incana	-	-
Ribes glandulosum	-	-
Viburnum edule	-	-
Kalmia angustifolia	1	33
Ilex mucronata	2	22
Viburnum nudum	1	78
Taxus canadensis	4	89
Amelanchier bartramiana	1	33
Shrub Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})[‡]	**(6 7 23 28 39)**	
Understory Herbs and Dwarf Shrubs		
Cornus canadensis	15	100
Gaultheria hispidula	12	78
Linnaea borealis	9	89
Clintonia borealis	18	100
Coptis trifolia	2	56
Lysimachia borealis	3	89
Carex sp.	-	-
Maianthemum canadense	6	100
Dryopteris spinulosa complex	-	-
Oxalis montana	-	-
Gymnocarpium dryopteris	-	-

Abies balsamea / *Pleurozium schreberi* – *Sphagnum* spp. CNVC00278

Vegetation Summary (cont'd)*

	Subassociation 278c *Bazzania trilobata*	
Species Name†	% Cover±	% Presence^
Neottia cordata	1	33
Lycopodium annotinum	-	-
Rubus chamaemorus	-	-
Equisetum sp.	-	-
Phegopteris connectilis	-	-
Poaceae	-	-
Streptopus amplexifolius	-	-
Maianthemum trifolium	-	-
Monotropa uniflora	1	44
Solidago sp.	-	-
Osmundastrum cinnamomeum	1	56
Goodyera repens	2	22
Epigaea repens	4	78
Dryopteris carthusiana	2	56
Herb Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})‡	**(42 47 66 78 98)**	
Bryophytes and Lichens		
Pleurozium schreberi	**14**	**100**
Dicranum sp.	-	-
Ptilium crista-castrensis	11	100
Hylocomium splendens	49	100
Polytrichum sp.	-	-
Sphagnum sp.	**-**	**-**
Cladonia sp.	-	-
Cladina rangiferina	-	-
Sphagnum girgensohnii	-	-
Bazzania trilobata	**12**	**100**
Cladina mitis	-	-
Sphagnum fuscum	-	-
Ptilidium ciliare	-	-
Sphagnum capillifolium	13	78
Dicranum majus	6	89
Sphagnum quinquefarium	24	22
Hylocomiastrum umbratum	3	22
Bryo-Lichen Stratum Cover (P_{10} P_{25} Mean P_{75} P_{90})‡	**(87 98 97 100 100)**	

* 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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Balsam Fir / Red-stemmed Feathermoss – Peat Mosses

Sapin baumier / Pleurozie dorée – Sphaignes

Site / Soil Characteristics

	Association CNVC00278 **256 plots**	Subassociation 278a *typic* **224 plots**	Subassociation 278b *Sphagnum spp.* **23 plots**
Elevation Range (min–mean–max meters)			
	10–503–1025	15–507–1025	10–589–990
Slope Gradient (% frequency)			
	very steep (1)	very steep (1)	very steep (0)
	steep (10)	steep (11)	steep (4)
	moderately steep (24)	moderately steep (24)	**moderately steep (35)**
	moderate (24)	moderate (25)	moderate (26)
	gentle (26)	**gentle (28)**	gentle (13)
	level (14)	level (12)	level (22)
	missing data (1)	missing data (0)	missing data (0)
Aspect (% frequency)			
	north (31)	**north (32)**	north (26)
	east (26)	east (27)	east (22)
	south (17)	south (17)	south (13)
	west (18)	west (17)	**west (30)**
	level (7)	level (7)	level (9)
	missing data (1)	missing data (0)	missing data (0)
Meso Topoposition (% frequency)			
	crest / upper (5)	crest / upper (5)	crest / upper (9)
	mid (64)	**mid (67)**	**mid (57)**
	lower / toe (14)	lower / toe (14)	lower / toe (22)
	depression (5)	depression (6)	depression (4)
	level (7)	level (8)	level (9)
	missing data (4)	missing data (0)	missing data (0)
Moisture Regime (% frequency)			
	dry (0)	dry (0)	dry (0)
	mesic (29)	mesic (32)	mesic (9)
	moist (64)	**moist (62)**	**moist (70)**
	wet (7)	wet (6)	wet (22)
Nutrient Regime (% frequency)			
	missing data (100)	missing data (100)	missing data (100)

Abies balsamea / *Pleurozium schreberi* – *Sphagnum* spp. CNVC00278

Site / Soil Characteristics (cont'd)

	Association CNVC00278	Subassociation 278a *typic*	Subassociation 278b *Sphagnum spp*.
Soil Parent Material (% frequency)			
	bedrock (0)	bedrock (0)	bedrock (0)
	colluvium (2)	colluvium (2)	colluvium (4)
	moraine / till (82)	**moraine / till (84)**	**moraine / till (70)**
	fluvial (2)	fluvial (3)	fluvial (0)
	glaciofluvial (2)	glaciofluvial (0)	glaciofluvial (4)
	glaciolacustrine (0)	glaciolacustrine (0)	glaciolacustrine (0)
	marine (5)	marine (5)	marine (9)
	organic (5)	organic (4)	organic (13)
Soil Rooting Zone Substrate (% frequency)			
	non-soil (2)	non-soil (2)	non-soil (4)
	sandy (6)	sandy (6)	sandy (0)
	coarse loamy (18)	coarse loamy (18)	coarse loamy (30)
	fine loamy (2)	fine loamy (2)	fine loamy (0)
	silty (3)	silty (3)	silty (4)
	organic (5)	organic (5)	organic (13)
	missing data (64)	missing data (64)	missing data (48)
Root Restricting Depth (% frequency)			
	0 – 20 cm (4)	0 – 20 cm (4)	0 – 20 cm (4)
	21 – 99 cm (62)	**21 – 99 cm (66)**	21 – 99 cm (48)
	missing data (34)	missing data (30)	missing data (48)
Humus Form (% frequency)			
	mor (69)	**mor (72)**	mor (43)
	moder (2)	moder (2)	moder (0)
	peatymor (28)	peatymor (26)	**peatymor (57)**
	missing data (2)	missing data (0)	missing data (0)

Forest / Forêt **Association CNVC00278**

Abies balsamea / Pleurozium schreberi – Sphagnum spp.

Balsam Fir / Red-stemmed Feathermoss – Peat Mosses

Sapin baumier / Pleurozie dorée – Sphaignes

Site / Soil Characteristics (cont'd)

Subassociation
278c *Bazzania trilobata*
9 plots

Elevation Range (min–mean–max meters)
107–176–213

Slope Gradient (% frequency)
very steep (0)
steep (0)
moderately steep (0)
moderate (11)
gentle (22)
level (33)
missing data (33)

Aspect (% frequency)
north (11)
east (22)
south (22)
west (11)
level (0)
missing data (33)

Meso Topoposition (% frequency)
crest / upper (0)
mid (0)
lower / toe (0)
depression (0)
level (0)
missing data (100)

Moisture Regime (% frequency)
dry (0)
mesic (0)
moist (100)
wet (0)

Nutrient Regime (% frequency)
missing data (100)

Abies balsamea / *Pleurozium schreberi* – *Sphagnum* spp. CNVC00278

Site / Soil Characteristics (cont'd)

	Subassociation 278c *Bazzania trilobata*
Soil Parent Material (% frequency)	
	bedrock (0)
	colluvium (0)
	moraine / till (67)
	fluvial (0)
	glaciofluvial (33)
	glaciolacustrine (0)
	marine (0)
	organic (0)
Soil Rooting Zone Substrate (% frequency)	
	non-soil (0)
	sandy (11)
	coarse loamy (0)
	fine loamy (0)
	silty (0)
	organic (0)
	missing data (89)
Root Restricting Depth (% frequency)	
	0 – 20 cm (0)
	21 – 99 cm (0)
	missing data (100)
Humus Form (% frequency)	
	mor (44)
	moder (0)
	peatymor (0)
	missing data (56)

Forest / Forêt **Association CNVC00278**

Abies balsamea / Pleurozium schreberi – Sphagnum spp.

Balsam Fir / Red-stemmed Feathermoss – Peat Mosses
Sapin baumier / 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:

CNVC00222 [*Abies balsamea / Pleurozium schreberi*] occurs in the same range on sites that are not as moist, and has less *Sphagnum* moss cover (see Dynamics).

CNVC00225 [*Abies balsamea (Picea glauca) / Acer spicatum / Oxalis montana*] occurs in New Brunswick, Nova Scotia and Quebec on richer boreal sites. It has greater abundance of *Picea glauca* in the tree and shrub layers, greater diversity of shrub species such as *Acer spicatum* and *Corylus cornuta*, a herb layer with more *Rubus pubescens* and *Oxalis montana*, and less *Sphagnum* moss cover.

CNVC00279 [*Abies balsamea / Ilex mucronata / Osmundastrum cinnamomeum / Sphagnum* spp.] is a similar Association that occurs on comparable temperate sites in Quebec, New Brunswick, Nova Scotia and Prince Edward Island. It has greater abundance of temperate species such as *Acer rubrum, Ilex mucronata* and *Osmundastrum cinnamomeum*, and less feathermoss cover.

CNVC00310 [*Abies balsamea / Dryopteris* spp. */ Hylocomiastrum umbratum*] occurs on boreal sites that are not as moist in Newfoundland, New Brunswick and on Cape Breton Island, Nova Scotia. It has less *Picea mariana* in tree and shrub layers, abundant *Dryopteris spinulosa* and/or *D. campyloptera* in the herb layer and less *Sphagnum* moss cover.

CNVC00334 [*Abies balsamea / Osmundastrum cinnamomeum – Carex trisperma / Sphagnum* spp.] is an *Abies balsamea* wetland Association that occurs in Newfoundland and on Cape Breton Island, Nova Scotia. It has abundant ferns, especially *Osmundastrum cinnamomeum* and *Dryopteris spinulosa*, and *Carex trisperma* in the herb layer, and less feathermoss cover.

CNVC00348 [*Abies balsamea / Taxus canadensis / Rubus pubescens / Dicranum majus*] occurs on richer boreal sites in Newfoundland. It has greater abundance of *Taxus canadensis, Acer spicatum* and *Cornus stolonifera* in the shrub layer, greater *Dryopteris spinulosa, Rubus pubescens* and *Mitella nuda* in the herb layer, and much less *Sphagnum* moss cover.

Related United States National Vegetation Classification Associations:

Relationships with Other Classifications: CNVC00278 includes the concept of Fg #10 [Gaultheria – Balsam fir] from Meades & Moores 1994.

Comments

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

Abies balsamea / *Pleurozium schreberi* – *Sphagnum* spp. CNVC00278

Source Information

Number of source plots for CNVC00278: 256
Number of source plots for 278a *typic*: 224
Number of source plots for 278b *Sphagnum spp*.: 23
Number of source plots for 278c *Bazzania trilobata*: 9

Information Sources:

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Concept Authors: K. Baldwin, K. Chapman, M. Major, B. Meades, C. Morneau
Description Authors: B. Meades, K. Chapman, K. Baldwin and J.-P. Saucier
Date of Concept: January, 2011
Date of Description: December, 2017

Classification References:

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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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