



Forest / Forêt

Association CNVC00235

Abies balsamea* – *Betula papyrifera* / *Acer spicatum
Balsam Fir – Paper Birch / Mountain Maple
Sapin baumier – Bouleau à papier / Érable à épis

Subassociations: 235a *typic*, 235b *Rubus pubescens*

CNVC Alliance: CA00015 *Betula papyrifera* – *Populus tremuloides* – *Abies balsamea* / *Acer spicatum*

CNVC Group: CG0007 Ontario-Quebec Boreal Mesic Paper Birch – Balsam Fir – Trembling Aspen Forest

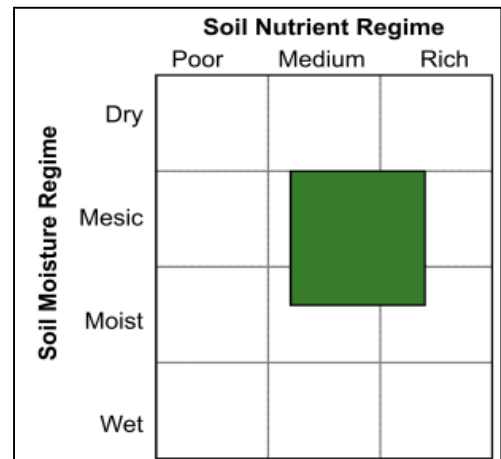


Source: Natural Resources Canada - Canadian Forest Service

Type Description

Concept: CNVC00235 is a boreal mixedwood forest Association that ranges from Manitoba to Quebec. It has a closed canopy of balsam fir (*Abies balsamea*) and/or white spruce (*Picea glauca*), with paper birch (*Betula papyrifera*) and/or trembling aspen (*Populus tremuloides*). The dense shrub layer has abundant mountain maple (*Acer spicatum*), beaked hazelnut (*Corylus cornuta*) and balsam fir regeneration, and lower abundance of paper birch saplings and northern bush-honeysuckle (*Diervilla lonicera*). The herb layer is well developed and commonly includes yellow clintonia (*Clintonia borealis*), wild sarsaparilla (*Aralia nudicaulis*), wild lily-of-the-valley (*Maianthemum canadense*), bunchberry (*Cornus canadensis*), northern starflower (*Lysimachia borealis*) and wood ferns (*Dryopteris* spp.). The forest floor cover is mainly broad-leaf litter, so the moss layer is sparse, with only minor cover of red-stemmed feathermoss (*Pleurozium schreberi*). CNVC00235 occurs in a region with a boreal continental climate that grades from subhumid continental in the western portion of its range to very humid and more maritime in the east. It is most frequently found on mesic, nutrient-medium to rich sites. It is a mid-seral condition that typically succeeds an early seral hardwood Association that establishes after fire or harvesting. As the fire cycle lengthens in the eastern portion of its range, outbreaks of spruce budworm (*Choristoneura fumiferana*) play a greater role in the dynamics of this Association. Two subassociations are distinguished, *typic* and *Rubus pubescens*.

Vegetation: CNVC00235 is a mixedwood forest Association with a closed canopy dominated by *Abies balsamea* and/or *Picea glauca*, with *Betula papyrifera* and/or *Populus tremuloides*. A dense layer of tall broad-leaved shrubs dominated by *Acer spicatum* and/or *Corylus cornuta*, with abundant regenerating *A. balsamea*, helps to characterize this Association. *B. papyrifera* saplings and the low shrub *Diervilla lonicera* are usually present in the shrub layer. *Taxus canadensis* is less common but can form large patches where present. The herb layer is well developed and commonly includes *Clintonia borealis*, *Aralia nudicaulis*, *Maianthemum canadense*, *Cornus canadensis*, *Lysimachia borealis* and *Dryopteris* spp. In eastern Ontario and Quebec, *Oxalis montana* can be abundant. Forest floor cover is predominantly broad-leaf litter, so the moss layer is poorly developed, with only *Pleurozium schreberi* common, mainly on fallen logs and at the base of trees. Compared to the *typic* subassociation, the *Rubus pubescens* subassociation has greater abundance of more nutrient-demanding species, such as *R. pubescens* and *Mitella nuda*.





***Abies balsamea* – *Betula papyrifera* / *Acer spicatum* CNVC00235**

Type Description (cont'd)

Environment: CNVC00235 occurs in a boreal climate that is subhumid continental in the western part of its range, becoming increasingly humid and more maritime farther east, and more temperate farther south. Regional fire cycles within the range are intermediate (100-270 years), long (270-500 years) or even very long (>500 years). It is found most frequently on mesic, nutrient-medium to rich sites; these are some of the most productive sites in this region of the boreal. Stands are often on gentle to moderate slopes on middle to upper-slope topopositions. Seepage often enhances moisture and nutrient availability on these sites. Soils are usually moderately deep to deep, well drained and coarse-textured, often coarse loams or sands derived from morainal parent materials. Mor humus forms are common but compared to other boreal Associations, moders are relatively frequent, especially in the *Rubus pubescens* subassociation. Compared to the *typic*, the *Rubus pubescens* subassociation is slightly moister and richer, occurring more frequently on level or gentle grades, on moisture-receiving, lower or toe-slope topopositions and on finer-textured soils derived from lacustrine, glaciolacustrine or marine sediments.

Dynamics: CNVC00235 is a mid-seral condition that usually succeeds early seral Associations that establish after fire or harvesting (e.g., CNVC00239 [*Betula papyrifera* (*Populus tremuloides*) / *Acer spicatum* / *Clintonia borealis*]). *Abies balsamea* is eliminated by fire, but the pioneer species *Betula papyrifera* and *Populus tremuloides* are adapted to disturbance. Following any disturbance that does not kill their roots they can reproduce vegetatively, *B. papyrifera* from stump sprouts and *P. tremuloides* from root suckers. These species also produce abundant, light, wind-dispersed seeds that can readily colonize mineral soil seedbeds exposed by disturbance. Both species grow rapidly in full-light conditions but are intolerant of shade so do not replace themselves in a stand without further disturbance. The shade tolerant conifers *A. balsamea* and/or *Picea glauca* become established in these stands when seeds are disseminated from nearby areas, with trees growing into the canopy and forming CNVC00235 as the pioneer hardwood species decline. In the prolonged absence of disturbance, these stands could succeed to late seral Associations, such as CNVC00256 [*Picea glauca* – *Abies balsamea* / *Streptopus lanceolatus* / *Pleurozium schreberi*] in the western part of the range or CNVC00225 [*Abies balsamea* (*Picea glauca*) / *Acer spicatum* / *Oxalis montana*] in the east.

Harvesting and natural disturbances, such as outbreaks of spruce budworm (*Choristoneura fumiferana*) or windthrow events, help to maintain CNVC00235 on the landscape. Canopy openings that result from these disturbances can release the abundant *A. balsamea* regeneration in the understory or, conversely, provide opportunities for the hardwood species (especially *B. papyrifera*) to regenerate from seeds or sprouts, maintaining the mixedwood condition. *A. balsamea* is more vulnerable to spruce budworm than is *P. glauca*, so outbreaks of this insect can temporarily encourage dominance of *P. glauca*.

Acer spicatum and *Corylus cornuta* can form dense thickets in canopy openings, sometimes significantly delaying tree regeneration. Their deep roots can survive even high-severity fires and they respond quickly after disturbance by suckering. Being semi-shade tolerant, these tall shrubs persist as the canopy closes, limiting available light for plants beneath them.

Range: CNVC00235 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 Lower North Shore of the Gulf of Saint Lawrence near Havre-Saint-Pierre but is most common in western Quebec and in the Gaspé region. CNVC00235 occurs sporadically in the northern temperate region, usually on sites that are cooler than normal for that region (e.g., at higher elevations or on north aspects). The *Rubus pubescens* subassociation is recognized in Ontario and Quebec. The *typic* subassociation is 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



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

<http://cnvc-cnvc.ca>

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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, 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

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

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

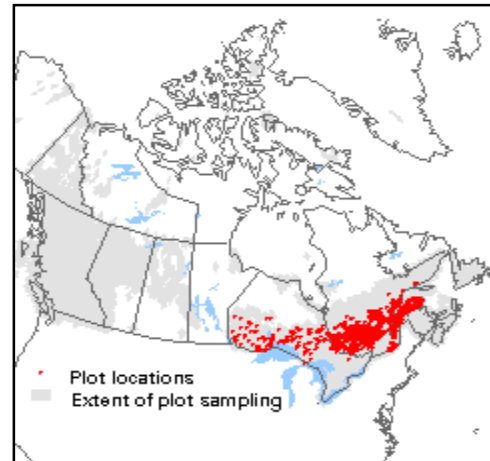
Nature Conservancy of Canada Ecoregions: Boreal Shield, Great Lakes, Northern Appalachians-Acadia, Superior-Lake of the Woods

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): 2W-3, 3E-1, 3E-2, 3E-4, 3E-5, 3E-6, 3E-7, 3S-1, 3S-2, 3S-4, 3S-5, 3W-1, 3W-2, 3W-3, 3W-4, 3W-5, 4E-1, 4E-3, 4E-4, 4S-1, 4S-2, 4S-3, 4S-4, 4S-5, 4S-6, 4W-1, 4W-2, 5E-1, 5E-6, 5E-10, 6E-17

Bioclimatic Domains and Subdomains of Québec: 2 Est, 2 Ouest, 3 Est, 3 Ouest, 4 Est, 4 Ouest, 5 Est, 5 Ouest, 6 Est, 6 Ouest



Corresponding Types and Associations

235a typic	Quebec	QC021A	<i>Abies balsamea</i> - <i>Betula papyrifera</i> / <i>Acer spicatum</i> [Typique]	
		QC078A	<i>Picea glauca</i> - <i>Betula papyrifera</i> (<i>Populus tremuloides</i>) / <i>Acer spicatum</i> [Typique]	
		QC094A	<i>Populus tremuloides</i> - <i>Abies balsamea</i> (<i>Betula papyrifera</i>) / <i>Acer spicatum</i> [Typique]	
		QC094B	<i>Populus tremuloides</i> - <i>Abies balsamea</i> (<i>Betula papyrifera</i>) / <i>Acer spicatum</i> [<i>Diervilla lonicera</i>]	
235b <i>Rubus pubescens</i>	Ontario	BTr8-3	<i>Populus tremuloides</i> - <i>Betula papyrifera</i> - <i>Abies balsamea</i> - <i>Picea glauca</i> / <i>Acer spicatum</i> / <i>Rubus pubescens</i>	
		Quebec	QC021B	<i>Abies balsamea</i> - <i>Betula papyrifera</i> / <i>Acer spicatum</i> [<i>Rubus pubescens</i>]
		QC078B	<i>Picea glauca</i> - <i>Betula papyrifera</i> (<i>Populus tremuloides</i>) / <i>Acer spicatum</i> [<i>Rubus pubescens</i>]	



***Abies balsamea* – *Betula papyrifera* / *Acer spicatum* CNVC00235**

Corresponding Types and Associations (cont'd)

<i>235b Rubus pubescens</i>	Quebec	QC094C	Populus tremuloides - <i>Abies balsamea</i> (<i>Betula papyrifera</i>) / <i>Acer spicatum</i> [<i>Rubus pubescens</i>]
		QC094D	Populus tremuloides - <i>Abies balsamea</i> (<i>Betula papyrifera</i>) / <i>Acer spicatum</i> [<i>Alnus incana</i>]
		QC118	Populus balsamifera - <i>Abies balsamea</i> (<i>Populus tremuloides</i>) / <i>Acer spicatum</i> / <i>Rubus pubescens</i>



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

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Vegetation Summary*

Species Name [†]	Association CNVC00235		Subassociation 235a <i>typic</i>		Subassociation 235b <i>Rubus pubescens</i>	
	1040 plots		613 plots		427 plots	
	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]
Overstory Trees						
<i>Abies balsamea</i>	22	93	23	97	21	87
<i>Betula papyrifera</i>	22	90	23	97	20	80
<i>Picea glauca</i>	12	68	10	68	14	68
<i>Populus tremuloides</i>	29	43	21	33	36	56
<i>Prunus pensylvanica</i>	8	27	8	34	9	18
<i>Picea mariana</i>	7	24	7	27	8	19
<i>Acer rubrum</i>	10	23	10	32	8	10
<i>Betula alleghaniensis</i>	10	17	10	22	8	10
Tree Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(36 49 70 86 99)		(34 49 70 86 99)		(38 49 69 86 99)	
Understory Woody Shrubs and Regenerating Trees						
<i>Abies balsamea</i>	14	99	15	100	12	98
<i>Acer spicatum</i>	33	97	32	98	34	95
<i>Corylus cornuta</i>	14	67	13	65	14	70
<i>Betula papyrifera</i>	5	66	6	75	4	54
<i>Diervilla lonicera</i>	8	61	9	65	6	56
<i>Picea glauca</i>	4	48	3	48	4	48
<i>Lonicera canadensis</i>	3	48	3	45	3	53
<i>Sorbus americana</i>	4	46	4	58	4	29
<i>Amelanchier</i> sp.	4	45	4	54	3	33
<i>Rubus idaeus</i>	6	35	6	33	5	37
<i>Populus tremuloides</i>	3	33	3	28	3	41
<i>Viburnum nudum</i>	6	32	6	45	9	14
<i>Acer rubrum</i>	6	32	6	43	4	16
<i>Sorbus decora</i>	3	31	4	23	2	42
<i>Picea mariana</i>	4	29	4	35	3	22
<i>Prunus pensylvanica</i>	3	29	3	36	4	18
<i>Vaccinium myrtilloides</i>	3	28	3	33	2	20
<i>Ribes glandulosum</i>	3	28	3	26	4	30
<i>Vaccinium angustifolium</i>	3	26	3	31	2	19
<i>Sambucus racemosa</i>	3	23	3	24	3	21
<i>Viburnum edule</i>	3	22	3	14	3	33
<i>Ribes lacustre</i>	2	20	2	9	2	34
<i>Taxus canadensis</i>	16	19	17	22	13	15
<i>Cornus stolonifera</i>	4	18	3	6	4	34
<i>Alnus incana</i>	7	17	3	10	10	26
<i>Ilex mucronata</i>	4	16	4	23	4	6
<i>Betula alleghaniensis</i>	3	16	3	22	3	7
<i>Ribes triste</i>	2	14	2	4	2	28
Shrub Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(32 49 68 86 99)		(32 49 71 99 99)		(32 47 64 84 99)	



***Abies balsamea* - *Betula papyrifera* / *Acer spicatum* CNVC00235**

Vegetation Summary (cont'd)*

Species Name [†]	Association CNVC00235		Subassociation 235a <i>typic</i>		Subassociation 235b <i>Rubus pubescens</i>	
	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]
Understory Herbs and Dwarf Shrubs						
<i>Clintonia borealis</i>	7	89	7	92	5	84
<i>Aralia nudicaulis</i>	7	88	7	88	6	87
<i>Maianthemum canadense</i>	4	78	5	80	3	76
<i>Cornus canadensis</i>	6	75	6	75	5	75
<i>Lysimachia borealis</i>	2	74	3	75	2	73
<i>Dryopteris spinulosa complex</i>	8	60	8	73	9	40
<i>Streptopus lanceolatus</i>	2	54	2	47	2	64
<i>Linnaea borealis</i>	3	51	4	49	3	52
<i>Coptis trifolia</i>	3	49	3	53	2	43
<i>Eurybia macrophylla</i>	9	47	8	42	9	54
<i>Oxalis montana</i>	12	45	14	53	10	34
<i>Rubus pubescens</i>	5	44	2	23	6	74
<i>Lycopodium obscurum</i>	3	44	3	49	2	37
<i>Viola</i> sp.	3	41	2	45	4	37
<i>Pteridium aquilinum</i>	8	38	9	49	6	23
<i>Gymnocarpium dryopteris</i>	3	33	2	23	3	48
<i>Phegopteris connectilis</i>	3	29	2	27	4	32
<i>Carex</i> sp.	3	29	2	29	3	30
<i>Lycopodium annotinum</i>	4	28	4	24	4	33
<i>Huperzia lucidula</i>	4	27	4	35	4	15
<i>Oclemena acuminata</i>	4	23	3	30	6	14
Poaceae	3	23	3	19	3	28
<i>Athyrium filix-femina</i>	4	22	2	12	5	36
<i>Mitella nuda</i>	3	22	2	5	3	48
<i>Solidago macrophylla</i>	2	21	2	25	3	15
<i>Osmunda claytoniana</i>	3	20	2	17	4	23
<i>Galium triflorum</i>	1	16	2	4	1	34
<i>Orthilia secunda</i>	2	15	2	9	1	22
<i>Galium</i> sp.	2	14	2	9	3	22
<i>Actaea rubra</i>	2	14	2	6	2	25
<i>Viola renifolia</i>	1	14	-	-	1	34
<i>Petasites frigidus</i>	1	9	3	0	1	21
<i>Anemone quinquefolia</i>	1	8	-	-	1	21
Herb Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(16 25 41 50 70)		(16 16 39 50 70)		(16 28 43 52 70)	
Bryophytes and Lichens						
<i>Pleurozium schreberi</i>	7	84	8	86	5	80
<i>Dicranum</i> sp.	3	66	4	85	3	38
<i>Ptilium crista-castrensis</i>	3	46	3	45	2	47
<i>Polytrichum</i> sp.	2	43	2	57	2	23
<i>Cladonia</i> sp.	2	40	2	44	2	34
<i>Hylacomium splendens</i>	4	32	5	30	4	34
<i>Rhytidiadelphus triquetrus</i>	4	19	3	8	4	33
<i>Cladina rangiferina</i>	2	19	2	27	2	9
<i>Bazzania trilobata</i>	2	17	2	24	2	7
Bryo-Lichen Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(3 3 14 16 33)		(3 3 14 16 33)		(3 3 13 16 33)	



***Abies balsamea* - *Betula papyrifera* / *Acer spicatum* CNVC00235**

Vegetation Summary (cont'd)*

* 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

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



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Site / Soil Characteristics

	Association CNVC00235 1040 plots	Subassociation 235a <i>typic</i> 613 plots	Subassociation 235b <i>Rubus pubescens</i> 427 plots
Elevation Range (min–mean–max meters)	10–361–880 missing data (0)	20–378–880 missing data (0)	10–337–720 missing data (1)
Slope Gradient (% frequency)	very steep (2) steep (10) moderately steep (18) moderate (26) gentle (25) level (19) missing data (0)	very steep (2) steep (14) moderately steep (22) moderate (30) gentle (23) level (10) missing data (0)	very steep (2) steep (5) moderately steep (12) moderate (20) gentle (28) level (32) missing data (1)
Aspect (% frequency)	north (23) east (25) south (20) west (19) level (13)	north (23) east (25) south (21) west (21) level (10)	north (23) east (25) south (19) west (17) level (16)
Meso Topoposition (% frequency)	crest / upper (20) mid (56) lower / toe (12) depression (3) level (10)	crest / upper (20) mid (65) lower / toe (8) depression (2) level (6)	crest / upper (19) mid (44) lower / toe (19) depression (4) level (15)
Moisture Regime (% frequency)	very dry (0) dry (5) mesic (78) moist (15) wet (1)	very dry (0) dry (3) mesic (89) moist (8) wet (0)	very dry (1) dry (8) mesic (63) moist (25) wet (3)
Nutrient Regime (% frequency)	missing data (100)	missing data (100)	missing data (100)



***Abies balsamea* – *Betula papyrifera* / *Acer spicatum* CNVC00235**

Site / Soil Characteristics (cont'd)

	Association CNVC00235	Subassociation 235a <i>typic</i>	Subassociation 235b <i>Rubus pubescens</i>
Soil Parent Material (% frequency)	bedrock (0) colluvium (5) eolian (0) moraine / till (69) fluvial (2) glaciofluvial (10) lacustrine (6) glaciolacustrine (4) marine (2) glaciomarine (0) organic (1) missing data (1)	bedrock (0) colluvium (5) eolian (0) moraine / till (82) fluvial (0) glaciofluvial (8) lacustrine (0) glaciolacustrine (3) marine (1) glaciomarine (0) organic (0) missing data (0)	bedrock (0) colluvium (5) eolian (0) moraine / till (52) fluvial (4) glaciofluvial (13) lacustrine (14) glaciolacustrine (5) marine (4) glaciomarine (0) organic (2) missing data (1)
Soil Rooting Zone Substrate (% frequency)	non-soil (5) sandy (7) coarse loamy (17) fine loamy (4) silty (5) clayey (3) organic (1) missing data (58)	non-soil (5) sandy (5) coarse loamy (16) fine loamy (2) silty (2) clayey (0) organic (0) missing data (68)	non-soil (5) sandy (10) coarse loamy (18) fine loamy (5) silty (9) clayey (6) organic (2) missing data (44)
Root Restricting Depth (% frequency)	0 – 20 cm (3) 21 – 99 cm (59) ≥ 100 cm (13) missing data (25)	0 – 20 cm (3) 21 – 99 cm (69) ≥ 100 cm (0) missing data (28)	0 – 20 cm (2) 21 – 99 cm (45) ≥ 100 cm (32) missing data (21)
Humus Form (% frequency)	mor (71) moder (24) mull (3) peatymor (2) missing data (1)	mor (77) moder (21) mull (1) peatymor (0) missing data (0)	mor (61) moder (27) mull (6) peatymor (4) missing data (2)



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Additional Characteristics

Species of High Conservation Concern:

Non-native Species:

Management Issues:

Type Statistics

Internal Similarity:

Confidence:

Strength:

Related Concepts

Similar CNVC Associations:

CNVC00216 [*Picea mariana* – *Betula papyrifera* (*Abies balsamea*) / *Acer spicatum*] occurs in Quebec on similar sites but has more overstory *Picea mariana*.

CNVC00231 [*Abies balsamea* – *Betula papyrifera* – *Populus tremuloides* / *Clintonia borealis*] occurs on slightly poorer sites in the same range and has less *Acer spicatum* and *Corylus cornuta* in the shrub layer.

CNVC00232 [*Abies balsamea* – *Betula papyrifera* / *Pleurozium schreberi*] occurs in Quebec on slightly poorer sites and has an understory dominated by feathermosses rather than tall, broad-leaved shrubs.

CNVC00233 [*Abies balsamea* – *Betula papyrifera* / *Oxalis montana* / *Pleurozium schreberi*] occurs on slightly poorer sites in New Brunswick, Nova Scotia and Quebec, often at higher elevations. It has less *Acer spicatum* and more *Sorbus americana* in the shrub layer and more *Oxalis montana* and *Dryopteris* spp. in the herb layer.

CNVC00239 [*Betula papyrifera* (*Populus tremuloides*) / *Acer spicatum* / *Clintonia borealis*] is a similar hardwood Association that occurs on comparable sites in the same range (see Dynamics).

CNVC00274 [*Betula papyrifera* – *Abies balsamea* / *Alnus incana*] occurs in Quebec on moister, richer sites and has abundant *Alnus incana*, rather than *Acer spicatum*, in the shrub layer.

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>

***Abies balsamea* – *Betula papyrifera* / *Acer spicatum* CNVC00235**

Source Information

Number of source plots for CNVC00235: 1040

Number of source plots for 235a typic: 613

Number of source plots for 235b *Rubus pubescens*: 427

Information Sources:

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

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

Date of Concept: February, 2012

Date of Description: February, 2016

Classification References:

Gosselin, J.; Grondin, P.; Saucier, J.-P. 1998. Rapport de classification écologique du sous-domaine bioclimatique de l'érablière à bouleau jaune de l'est. Min. des Res. nat. du Qué., Dir. de la gestion des stocks forestiers, QC.

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

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***Abies balsamea* – *Betula papyrifera* / *Acer spicatum* CNVC00235**

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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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