



Forest / Forêt

Association CNVC00238

Populus tremuloides* (*Betula papyrifera*) / *Diervilla lonicera
Trembling Aspen (Paper Birch) / Northern Bush-honeysuckle
Peuplier faux-tremble (Bouleau à papier) / Dièreville chèvrefeuille

Subassociations: 238a *typic*, 238b *Alnus viridis*, 238c *Kalmia angustifolia*
CNVC Alliance: CA00014 *Betula papyrifera* – *Populus tremuloides* – *Abies balsamea* / *Clintonia borealis*
CNVC Group: CG0007 Ontario-Quebec Boreal Mesic Paper Birch – Balsam Fir – Trembling Aspen Forest



Source: Natural Resources Canada - Canadian Forest Service

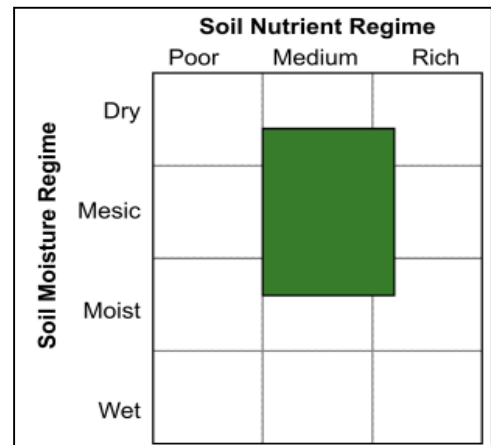
Type Description

Concept: CNVC00238 is a boreal hardwood forest Association that ranges from Manitoba to Quebec. It has a closed canopy dominated by trembling aspen (*Populus tremuloides*), usually with paper birch (*Betula papyrifera*), overtopping a well-developed to dense shrub layer. The shrub layer includes a mix of regenerating tree species, primarily trembling aspen, balsam fir (*Abies balsamea*), paper birch and black spruce (*Picea mariana*), as well as low shrub species, such as velvet-leaved blueberry (*Vaccinium myrtilloides*), northern bush-honeysuckle (*Diervilla lonicera*) and early lowbush blueberry (*V. angustifolium*). The herb layer is well developed and typically includes bunchberry (*Cornus canadensis*), wild lily-of-the-valley (*Maianthemum canadense*), wild sarsaparilla (*Aralia nudicaulis*), yellow clintonia (*Clintonia borealis*), twinflower (*Linnaea borealis*) and northern starflower (*Lysimachia borealis*). 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*). CNVC00238 is an early seral condition that typically establishes after fire or harvesting. It occurs in a region with a continental boreal climate that grades from subhumid in the west to humid in the east and is usually found on mesic, nutrient-medium sites. Three subassociations are distinguished: *typic*, *Alnus viridis* and *Kalmia angustifolia*.

Vegetation: CNVC00238 is a hardwood forest Association with a closed canopy dominated by *Populus tremuloides*, usually with *Betula papyrifera* as an associate. The shrub layer is well developed to dense, generally with roughly equal amounts of regenerating trees (*P. tremuloides*, *Abies balsamea*, *B. papyrifera* and *Picea mariana*) and low shrubs, especially *Vaccinium myrtilloides*, *Diervilla lonicera* and *V. angustifolium*. The herb layer is well developed and usually includes *Cornus canadensis*, *Maianthemum canadense*, *Aralia nudicaulis*, *Clintonia borealis*, *Linnaea borealis* and *Lysimachia borealis*. 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.

The *typic* subassociation has less shrub cover than the other two subassociations. The *Alnus viridis* subassociation has abundant *A. viridis* in the shrub layer and abundant *Lycopodium annotinum* in the herb layer. In the *Kalmia angustifolia* subassociation, the shrub layer is dominated by the ericaceous species *K. angustifolia*, *V. myrtilloides* and *V. angustifolium* and the herb layer by the fern *Pteridium aquilinum*. This subassociation also has higher constancy of the shrubs *Viburnum nudum* (see Comments), *Ilex mucronata* and *Prunus pensylvanica*.

Environment: CNVC00238 occurs in a continental boreal climate that is subhumid in the western part of its range, becoming increasingly humid farther east. 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 sites. Stands are often on level sites or gentle to moderate slopes on water-shedding, middle to upper-slope topositions. Soils are frequently moderately deep to deep, well drained and coarse-textured, often coarse loams or sands derived from morainal, or less commonly, glaciofluvial parent materials. Mor humus forms are prevalent. The *Alnus viridis* subassociation occurs more frequently on moist soils than do the *typic* and *Kalmia angustifolia* subassociations and is less common on drier, upper-slope topositions.





***Populus tremuloides* (*Betula papyrifera*) / *Diervilla lonicera* CNVC00238**

Type Description (cont'd)

Dynamics: CNVC00238 is an early seral condition that typically establishes after stand-replacing fire or harvesting. *Populus tremuloides* and *Betula papyrifera* are pioneer species adapted to disturbance. Following any disturbance that does not kill their roots, they can reproduce vegetatively, *P. tremuloides* from root suckers and *B. papyrifera* from stump sprouts. 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. If seed sources are available, shade tolerant conifers (especially *Abies balsamea*) can become established in these stands and may grow into the canopy as the pioneer species decline. After about 100 years, a mid-seral mixedwood Association could develop (e.g., CNVC00231 [*Abies balsamea* – *Betula papyrifera* – *Populus tremuloides* / *Clintonia borealis*]).

Occasionally, CNVC00238 can result when harvesting or a severe outbreak of spruce budworm (*Choristoneura fumiferana*) eliminates the mature conifers in a mixedwood Association (e.g., CNVC00231). The resulting stand of CNVC00238 is short lived, however, since the surviving *A. balsamea* in the understory quickly grows into the canopy, re-establishing the mixedwood condition.

Forest tent caterpillar (*Malacosoma disstria*) and *Armillaria* root disease (*Armillaria* spp.) can have significant impacts on *P. tremuloides*. Defoliation by the caterpillar can reduce growth, cause dieback and sometimes lead to mortality. *Armillaria* spp. can weaken or kill individual or small groups of trees. Canopy openings that result from insect or pathogen disturbance can promote forest succession by enhancing the growth of understory trees, such as *A. balsamea* and *P. mariana*.

Range: CNVC00238 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 the Natashquan River and to the Gaspé region but is more frequent in western Quebec, especially on the Clay Belt. CNVC00238 occurs sporadically in the northern temperate region, usually on sites with poor soils or that are cooler than normal for that region. The *typic* subassociation is recognized in Ontario and Quebec. The *Alnus viridis* and *Kalmia angustifolia* 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



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

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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, 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, Northern Clay, Superior, Upper English River; Great Lakes-St. Lawrence: Algoma, Eastern Townships, Haileybury Clay, Laurentian, Middle Ottawa, Quetico, Saguenay, Sudbury-North Bay, Temiscouata-Restigouche, Timagami

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

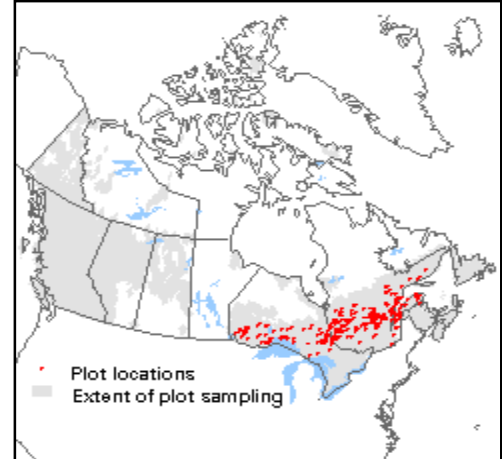
Nature Conservancy of Canada Ecoregions: Boreal Shield, Great Lakes, Northern Appalachians-Acadia, Superior-Lake of the Woods

Ecozones and Ecoregions of Manitoba: Boreal Shield

Manitoba Protected Areas Initiative Natural Regions: Manitoba Lowlands: Lake of the Woods

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

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

238a typic	Ontario	BTr10-2	Populus tremuloides - Betula papyrifera / Vaccinium angustifolium / Clintonia borealis
		BTr4-8	Populus tremuloides (Betula papyrifera) / Diervilla lonicera / Clintonia borealis
	Quebec	QC108A	Populus tremuloides (Betula papyrifera) / Cornus canadensis [Typique]
238b Alnus viridis	Quebec	QC108B	Populus tremuloides (Betula papyrifera) / Cornus canadensis [Alnus viridis]
238c Kalmia angustifolia	Quebec	QC110A	Populus tremuloides (Betula papyrifera) / Kalmia angustifolia - Vaccinium spp. [Typique]
		QC110B	Populus tremuloides (Betula papyrifera) / Kalmia angustifolia - Vaccinium spp. [Pteridium aquilinum]



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Vegetation Summary*

Species Name [†]	Association CNVC00238		Subassociation 238a <i>typic</i>		Subassociation 238b <i>Alnus viridis</i>	
	259 plots		190 plots		19 plots	
	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]
Overstory Trees						
<i>Populus tremuloides</i>	47	98	49	98	55	100
<i>Betula papyrifera</i>	17	74	18	72	16	53
<i>Abies balsamea</i>	8	51	9	53	8	42
<i>Picea mariana</i>	7	49	8	47	12	63
<i>Prunus pensylvanica</i>	6	33	5	26	6	37
<i>Picea glauca</i>	7	30	7	32	4	21
<i>Pinus banksiana</i>	6	18	6	15	10	26
Tree Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(32 50 69 86 99)		(32 54 70 86 99)		(46 60 73 86 99)	
Understory Woody Shrubs and Regenerating Trees						
<i>Populus tremuloides</i>	5	77	4	73	3	89
<i>Abies balsamea</i>	11	76	12	83	10	47
<i>Vaccinium myrtilloides</i>	9	71	5	68	8	84
<i>Betula papyrifera</i>	5	66	5	65	4	63
<i>Diervilla lonicera</i>	10	65	10	69	11	26
<i>Vaccinium angustifolium</i>	8	62	5	57	3	84
<i>Picea mariana</i>	6	61	6	58	5	74
<i>Salix</i> sp.	5	54	5	43	6	84
<i>Amelanchier</i> sp.	5	54	5	49	4	74
<i>Prunus pensylvanica</i>	4	47	4	40	3	32
<i>Alnus viridis</i>	22	39	14	33	53	100
<i>Kalmia angustifolia</i>	15	39	6	26	5	47
<i>Sorbus americana</i>	4	39	4	35	5	47
<i>Acer spicatum</i>	4	39	4	48	4	5
<i>Picea glauca</i>	4	38	4	44	3	21
<i>Rhododendron groenlandicum</i>	7	37	6	31	10	63
<i>Viburnum nudum</i>	7	33	8	25	4	26
<i>Ribes glandulosum</i>	2	32	2	33	3	74
<i>Corylus cornuta</i>	4	29	4	33	3	5
<i>Ilex mucronata</i>	5	27	4	22	8	16
<i>Rubus idaeus</i>	4	27	2	28	14	53
<i>Sorbus decora</i>	3	25	2	28	5	26
<i>Acer rubrum</i>	7	21	4	22	-	-
<i>Viburnum edule</i>	3	20	3	20	4	68
<i>Lonicera canadensis</i>	3	18	3	24	-	-
<i>Cornus stolonifera</i>	3	15	3	16	2	26
Shrub Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(25 32 59 83 99)		(19 32 50 66 88)		(63 66 83 99 99)	



Populus tremuloides (Betula papyrifera) / Diervilla lonicera CNVC00238

Vegetation Summary (cont'd)*

Species Name [†]	Association CNVC00238		Subassociation 238a <i>typic</i>		Subassociation 238b <i>Alnus viridis</i>	
	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]
Understory Herbs and Dwarf Shrubs						
<i>Cornus canadensis</i>	13	93	13	93	14	95
<i>Maianthemum canadense</i>	5	89	5	93	6	79
<i>Aralia nudicaulis</i>	9	78	10	84	5	58
<i>Clintonia borealis</i>	6	78	6	83	6	74
<i>Linnaea borealis</i>	4	71	4	74	3	74
<i>Lysimachia borealis</i>	2	66	2	68	3	68
<i>Lycopodium obscurum</i>	3	54	3	55	4	58
<i>Coptis trifolia</i>	2	51	2	54	2	42
<i>Pteridium aquilinum</i>	15	44	12	42	9	26
<i>Eurybia macrophylla</i>	13	43	14	49	3	26
<i>Lycopodium annotinum</i>	7	40	6	37	17	79
<i>Chamerion angustifolium</i>	3	38	3	38	2	47
<i>Lycopodium clavatum</i>	3	36	3	37	2	32
<i>Rubus pubescens</i>	2	32	2	39	3	32
<i>Streptopus lanceolatus</i>	2	32	2	39	2	16
<i>Viola</i> sp.	2	29	2	29	3	63
<i>Dryopteris spinulosa</i> complex	4	28	4	25	4	74
Poaceae	5	27	3	25	21	47
<i>Gaultheria hispidula</i>	3	27	2	26	2	37
<i>Carex</i> sp.	2	25	2	23	2	47
<i>Gymnocarpium dryopteris</i>	2	19	2	19	3	42
<i>Solidago macrophylla</i>	3	18	3	18	2	42
<i>Petasites frigidus</i>	2	16	2	17	3	32
<i>Galium</i> sp.	2	8	2	8	2	21
<i>Equisetum sylvaticum</i>	2	8	1	9	2	26
Herb Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(16 30 47 70 90)		(16 32 49 70 90)		(30 33 50 70 74)	
Bryophytes and Lichens						
<i>Pleurozium schreberi</i>	8	88	7	85	9	100
<i>Dicranum</i> sp.	3	59	3	52	3	95
<i>Ptilium crista-castrensis</i>	3	47	2	46	4	79
<i>Polytrichum</i> sp.	5	42	5	39	2	63
<i>Cladonia</i> sp.	2	38	2	36	2	74
<i>Cladina rangiferina</i>	3	37	2	31	2	42
<i>Rhytidiadelphus triquetrus</i>	2	20	2	20	2	58
<i>Hylocomium splendens</i>	4	19	3	21	7	32
<i>Cladina mitis</i>	3	15	2	12	2	16
<i>Sphagnum</i> sp.	3	10	3	6	2	37
<i>Mnium</i> sp.	2	8	2	7	2	32
Bryo-Lichen Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(3 3 14 16 33)		(2 3 12 16 33)		(3 3 16 16 54)	

* 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
 238c *Kalmia angustifolia*

50 plots

Species Name [†]	% Cover [‡]	% Presence [^]
Overstory Trees		
<i>Populus tremuloides</i>	35	100
<i>Betula papyrifera</i>	15	92
<i>Abies balsamea</i>	6	44
<i>Picea mariana</i>	4	50
<i>Prunus pensylvanica</i>	7	60
<i>Picea glauca</i>	6	28
<i>Pinus banksiana</i>	5	24
Tree Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(32 49 60 79 86)	
Understory Woody Shrubs and Regenerating Trees		
<i>Populus tremuloides</i>	6	88
<i>Abies balsamea</i>	11	62
<i>Vaccinium myrtilloides</i>	20	76
<i>Betula papyrifera</i>	6	70
<i>Diervilla lonicera</i>	11	62
<i>Vaccinium angustifolium</i>	18	72
<i>Picea mariana</i>	6	64
<i>Salix</i> sp.	5	82
<i>Amelanchier</i> sp.	4	66
<i>Prunus pensylvanica</i>	6	80
<i>Alnus viridis</i>	15	40
<i>Kalmia angustifolia</i>	28	84
<i>Sorbus americana</i>	4	48
<i>Acer spicatum</i>	5	20
<i>Picea glauca</i>	4	22
<i>Rhododendron groenlandicum</i>	7	50
<i>Viburnum nudum</i>	6	66
<i>Ribes glandulosum</i>	4	16
<i>Corylus cornuta</i>	4	22
<i>Ilex mucronata</i>	7	50
<i>Rubus idaeus</i>	2	12
<i>Sorbus decora</i>	8	12
<i>Acer rubrum</i>	16	26
<i>Viburnum edule</i>	4	4
<i>Lonicera canadensis</i>	3	2
<i>Cornus stolonifera</i>	2	6
Shrub Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(48 70 82 99 99)	



Populus tremuloides (Betula papyrifera) / Diervilla lonicera CNVC00238

Vegetation Summary (cont'd)*

Species Name [†]	Subassociation 238c <i>Kalmia angustifolia</i>	
	% Cover [‡]	% Presence [^]
Understory Herbs and Dwarf Shrubs		
<i>Cornus canadensis</i>	12	92
<i>Maianthemum canadense</i>	6	80
<i>Aralia nudicaulis</i>	5	66
<i>Clintonia borealis</i>	9	60
<i>Linnaea borealis</i>	4	58
<i>Lysimachia borealis</i>	2	60
<i>Lycopodium obscurum</i>	2	50
<i>Coptis trifolia</i>	2	40
<i>Pteridium aquilinum</i>	24	58
<i>Eurybia macrophylla</i>	7	26
<i>Lycopodium annotinum</i>	5	36
<i>Chamerion angustifolium</i>	2	34
<i>Lycopodium clavatum</i>	3	36
<i>Rubus pubescens</i>	3	4
<i>Streptopus lanceolatus</i>	2	14
<i>Viola</i> sp.	4	16
<i>Dryopteris spinulosa</i> complex	3	20
Poaceae	2	26
<i>Gaultheria hispidula</i>	6	30
<i>Carex</i> sp.	2	22
<i>Gymnocarpium dryopteris</i>	2	6
<i>Solidago macrophylla</i>	2	6
<i>Petasites frigidus</i>	2	6
<i>Galium</i> sp.	-	-
<i>Equisetum sylvaticum</i>	-	-
Herb Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(3 16 38 50 70)	
Bryophytes and Lichens		
<i>Pleurozium schreberi</i>	10	96
<i>Dicranum</i> sp.	3	74
<i>Ptilium crista-castrensis</i>	3	40
<i>Polytrichum</i> sp.	6	46
<i>Cladonia</i> sp.	2	34
<i>Cladina rangiferina</i>	5	58
<i>Rhytidiadelphus triquetrus</i>	2	6
<i>Hylocomium splendens</i>	2	6
<i>Cladina mitis</i>	5	28
<i>Sphagnum</i> sp.	2	14
<i>Mnium</i> sp.	2	6
Bryo-Lichen Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(3 3 18 16 50)	

* 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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Site / Soil Characteristics

	Association CNVC00238 259 plots	Subassociation 238a <i>typic</i> 190 plots	Subassociation 238b <i>Alnus viridis</i> 19 plots
Elevation Range (min–mean–max meters)	15–318–575 missing data (3)	15–328–575 missing data (4)	125–309–445 missing data (0)
Slope Gradient (% frequency)	very steep (0) steep (5) moderately steep (14) moderate (20) gentle (29) level (31) missing data (2)	very steep (1) steep (5) moderately steep (15) moderate (19) gentle (27) level (32) missing data (2)	very steep (0) steep (11) moderately steep (0) moderate (16) gentle (53) level (21) missing data (0)
Aspect (% frequency)	north (16) east (18) south (23) west (21) level (21) missing data (2)	north (16) east (18) south (23) west (21) level (20) missing data (2)	north (5) east (21) south (32) west (21) level (21) missing data (0)
Meso Toposition (% frequency)	crest / upper (29) mid (44) lower / toe (10) depression (1) level (16)	crest / upper (29) mid (44) lower / toe (10) depression (1) level (16)	crest / upper (5) mid (74) lower / toe (0) depression (0) level (21)
Moisture Regime (% frequency)	very dry (1) dry (15) mesic (70) moist (14) wet (0) missing data (1)	very dry (1) dry (17) mesic (66) moist (14) wet (1) missing data (1)	very dry (5) dry (0) mesic (68) moist (26) wet (0) missing data (0)
Nutrient Regime (% frequency)	missing data (100)	missing data (100)	missing data (100)



***Populus tremuloides (Betula papyrifera) / Diervilla lonicera* CNVC00238**

Site / Soil Characteristics (cont'd)

	Association CNVC00238	Subassociation 238a <i>typic</i>	Subassociation 238b <i>Alnus viridis</i>
Soil Parent Material (% frequency)	bedrock (2) colluvium (2) eolian (1) moraine / till (57) fluvial (2) glaciofluvial (14) lacustrine (6) glaciolacustrine (11) marine (5) missing data (2)	bedrock (1) colluvium (2) eolian (0) moraine / till (59) fluvial (2) glaciofluvial (12) lacustrine (8) glaciolacustrine (10) marine (3) missing data (3)	bedrock (5) colluvium (0) eolian (0) moraine / till (53) fluvial (0) glaciofluvial (5) lacustrine (0) glaciolacustrine (37) marine (0) missing data (0)
Soil Rooting Zone Substrate (% frequency)	non-soil (3) sandy (14) coarse loamy (16) fine loamy (6) silty (2) clayey (6) missing data (52)	non-soil (3) sandy (14) coarse loamy (16) fine loamy (7) silty (2) clayey (7) missing data (50)	non-soil (5) sandy (16) coarse loamy (0) fine loamy (0) silty (0) clayey (11) missing data (68)
Root Restricting Depth (% frequency)	0 – 20 cm (2) 21 – 99 cm (55) ≥ 100 cm (13) missing data (30)	0 – 20 cm (1) 21 – 99 cm (48) ≥ 100 cm (18) missing data (33)	0 – 20 cm (11) 21 – 99 cm (63) ≥ 100 cm (0) missing data (26)
Humus Form (% frequency)	mor (77) moder (15) mull (2) peatymor (1) missing data (6)	mor (72) moder (18) mull (2) peatymor (1) missing data (8)	mor (95) moder (5) mull (0) peatymor (0) missing data (0)



Forest / Forêt

Association CNVC00238

Populus tremuloides (Betula papyrifera) / Diervilla lonicera

Trembling Aspen (Paper Birch) / Northern Bush-honeysuckle

Peuplier faux-tremble (Bouleau à papier) / Dièreville chèvrefeuille

Site / Soil Characteristics (cont'd)

Subassociation

238c *Kalmia angustifolia*

50 plots

Elevation Range (min–mean–max meters)

75–285–545

missing data (0)

Slope Gradient (% frequency)

very steep (0)

steep (4)

moderately steep (14)

moderate (24)

gentle (28)

level (30)

missing data (0)

Aspect (% frequency)

north (18)

east (14)

south (20)

west (22)

level (26)

missing data (0)

Meso Topoposition (% frequency)

crest / upper (36)

mid (32)

lower / toe (14)

depression (2)

level (16)

Moisture Regime (% frequency)

very dry (0)

dry (10)

mesic (84)

moist (6)

wet (0)

missing data (0)

Nutrient Regime (% frequency)

missing data (100)



***Populus tremuloides (Betula papyrifera) / Diervilla lonicera* CNVC00238**

Site / Soil Characteristics (cont'd)

Subassociation
238c *Kalmia angustifolia*

Soil Parent Material (% frequency)

bedrock (2)
colluvium (0)
eolian (4)
moraine / till (52)
fluvial (2)
glaciofluvial (22)
lacustrine (0)
glaciolacustrine (4)
marine (14)
missing data (0)

Soil Rooting Zone Substrate (% frequency)

non-soil (2)
sandy (14)
coarse loamy (22)
fine loamy (4)
silty (2)
clayey (2)
missing data (54)

Root Restricting Depth (% frequency)

0 – 20 cm (4)
21 – 99 cm (76)
≥ 100 cm (0)
missing data (20)

Humus Form (% frequency)

mor (90)
moder (8)
mull (0)
peatymor (2)
missing data (0)



Forest / Forêt

Association CNVC00238

Populus tremuloides (Betula papyrifera) / Diervilla lonicera

Trembling Aspen (Paper Birch) / Northern Bush-honeysuckle

Peuplier faux-tremble (Bouleau à papier) / Dièreville chèvrefeuille

Additional Characteristics

Species of High Conservation Concern:

Non-native Species:

Management Issues:

Type Statistics

Internal Similarity:

Confidence:

Strength:

Related Concepts

Similar CNVC Associations:

CNVC00213 [*Populus tremuloides* – *Betula papyrifera* – *Picea mariana* – *Pinus banksiana* / *Diervilla lonicera* / *Pleurozium schreberi*] is a similar mixedwood Association that occurs on comparable sites in the same range.

CNVC00231 [*Abies balsamea* – *Betula papyrifera* – *Populus tremuloides* / *Clintonia borealis*] is a similar mixedwood Association that occurs on comparable sites in the same range (see Dynamics).

CNVC00237 [*Betula papyrifera* / *Vaccinium angustifolium* – *Kalmia angustifolia* / *Pleurozium schreberi*] occurs on slightly poorer sites in the same range and has less *Populus tremuloides* and more ericaceous shrubs.

CNVC00239 [*Betula papyrifera (Populus tremuloides)* / *Acer spicatum* / *Clintonia borealis*] occurs on slightly richer sites in the same range and has more abundant *Acer spicatum* and *Corylus cornuta* in the shrub layer.

CNVC00241 [*Populus tremuloides (P. balsamifera)* / *Alnus incana* / *Eurybia macrophylla*] occurs on moister, richer sites in the same range and has more abundant *Alnus incana* in the shrub layer.

CNVC00242 [*Betula papyrifera / Alnus incana*] occurs in Quebec on moister, richer sites and has abundant *Alnus incana* in the shrub layer.

CNVC00305 [*Populus tremuloides* / *Alnus viridis (Rosa acicularis)*] occurs on slightly richer sites in northwestern Ontario and eastern Manitoba. It has less *Abies balsamea*, *Vaccinium angustifolium* and *Eurybia macrophylla*.

Related United States National Vegetation Classification Associations:

Relationships with Other Classifications:

Comments

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



Populus tremuloides (Betula papyrifera) / Diervilla lonicera CNVC00238

Source Information

Number of source plots for CNVC00238: 259

Number of source plots for 238a typic: 190

Number of source plots for 238b *Alnus viridis*: 19

Number of source plots for 238c *Kalmia angustifolia*: 50

Information Sources:

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

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

Date of Concept: August, 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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Canadian National Vegetation Classification (CNVC)
Classification nationale de la végétation du Canada (CNVC)

<http://cnvc-cnvc.ca>

***Populus tremuloides (Betula papyrifera) / Diervilla lonicera* CNVC00238**

Characterization References (cont'd):

Kenkel, N.C.; Walker, D.J.; Watson, P.R.; Caners, R.T.; Lastra, R.A. 1997. Vegetation dynamics in boreal forest ecosystems. *Coenoses* 12(2-3):97-108.

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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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