



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

<http://cnvc-cnvc.ca>

Forest / Forêt

Association CNVC00102

Picea glauca* / *Rosa acicularis* / *Hylocomium splendens
White Spruce / Prickly Rose / Stairstep Moss
Épinette blanche / Rosier aciculaire / Hylocomie brillante

Subassociations: 102a *typic*, 102b *Viburnum edule*, 102c *Alnus viridis*, 102d *Vaccinium vitis-idaea*

CNVC Alliance: CA00035 *Picea glauca* – *Pinus contorta* / *Hylocomium splendens*

CNVC Group: CG0014 Cordilleran Boreal Mesic Trembling Aspen – White Spruce Forest

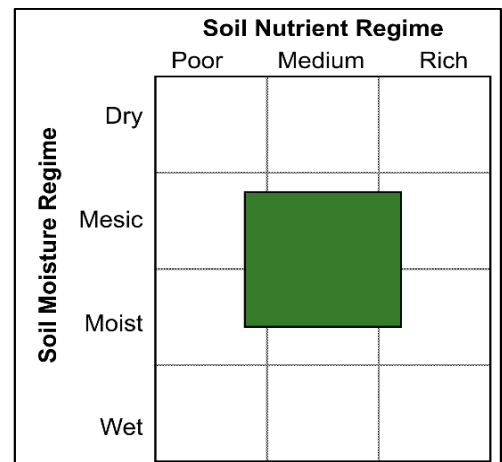


Source: Yukon government

Type Description

Concept: CNVC00102 is a boreal coniferous forest Association that occurs in Yukon, British Columbia and Alberta. It has a moderately closed canopy of white spruce (*Picea glauca*), sometimes with a minor component of lodgepole pine (*Pinus contorta*). The shrub layer is usually moderately developed but varies depending on the patchiness of shrubs. Prickly rose (*Rosa acicularis*) and squashberry (*Viburnum edule*) commonly occur and green alder (*Alnus viridis*) may be abundant where present. The herb and dwarf shrub layer is moderately to well developed and typically includes twinflower (*Linnaea borealis*), bunchberry (*Cornus canadensis*), tall bluebells (*Mertensia paniculata*), fireweed (*Chamerion angustifolium*) and one-sided wintergreen (*Orthilia secunda*). The moss layer is well developed to continuous with stairstep moss (*Hylocomium splendens*) dominant, followed by red-stemmed feathermoss (*Pleurozium schreberi*) and knight's plume moss (*Ptilium crista-castrensis*). CNVC00102 occurs in a region with a subhumid continental climate. It is most common on mesic to moist, nutrient-medium to rich sites. It is a late successional condition that tends to occur in areas that have escaped fire for a long period. Insect outbreaks and windthrow are the primary natural disturbances. Canopy gaps or large patches resulting from these disturbances promote self-replacement of this Association. Four subassociations are distinguished: *typic*, *Viburnum edule*, *Alnus viridis* and *Vaccinium vitis-idaea*.

Vegetation: CNVC00102 is a coniferous forest Association with a moderately closed canopy of *Picea glauca*, sometimes with a minor component of *Pinus contorta* (see Comments) or *Populus* spp. The shrub layer is usually moderately developed but can vary from sparse to well developed, depending on the patchiness of shrubs. *Rosa acicularis* and *Viburnum edule* are common. The moderately to well-developed herb layer typically includes *Linnaea borealis*, *Cornus canadensis*, *Mertensia paniculata*, *Chamerion angustifolium* and *Orthilia secunda*. The moss layer is well developed to continuous. *Hylocomium splendens* is dominant, with lower abundance of *Pleurozium schreberi* and *Ptilium crista-castrensis*. Compared to the *typic* subassociation, the *Viburnum edule* subassociation has higher constancy of *V. edule* in the shrub layer and a better developed herb layer that commonly includes higher frequency of species indicative of richer sites, such as *Mitella nuda*, *Petasites frigidus* and *Rubus pubescens*. The *Alnus viridis* subassociation has abundant *A. viridis* in its well-developed shrub layer. *Vaccinium vitis-idaea* is a constant species in the *V. vitis-idaea* subassociation, which has lower shrub and herb species diversity than other subassociations.





***Picea glauca* / *Rosa acicularis* / *Hylocomium splendens* CNVC00102**

Type Description (cont'd)

Environment: CNVC00102 occurs in a subhumid continental boreal climate. It is most frequently found on mesic to moist, nutrient-medium to rich sites. Stands are usually on level sites or gentle to moderately steep slopes, most commonly on middle-slope topopositions. On slopes, they are slightly more frequent on cool aspects (i.e., north or east-facing). Soils have variable textures, but are more commonly loams or clays. Parent materials are usually tills or (glacio)fluvial sediments. Mor humus forms are typical, but compared to other boreal Associations in the same range, moders are more frequent.

Site conditions vary slightly among subassociations. Compared to the *typic*, the *Viburnum edule* subassociation is more common on level sites and on fine-textured soils (i.e., clays and fine loams). The *Alnus viridis* subassociation is also commonly on fine-textured soils, but is usually on slopes. The *Vaccinium vitis-idaea* subassociation occurs on slightly drier sites that are not as rich.

Within the range of CNVC00102 regional fire cycles are intermediate (100-270 years), long (270-500 years) or very long (>500 years). Stands are found most frequently on sites that have escaped fire for a century or longer.

Dynamics: CNVC00102 is a self-perpetuating, late successional forest Association that develops after a century or more without fire. Natural disturbance processes are primarily insect outbreaks, windthrow or natural mortality of individual or small groups of trees by disease and other factors. Following these gap or patch disturbances, stands tend to regenerate through the release of *Picea glauca* in the understory.

After stand-replacing disturbance (especially fire), *P. glauca* is usually eliminated. The pioneer species *Pinus contorta*, *Populus tremuloides*, *P. balsamifera* and/or *Betula papyrifera* are likely to form the initial stand on these sites because they are adapted to disturbance (e.g., CNVC00094 [*Populus tremuloides* / *Rosa acicularis* – *Viburnum edule*]). *P. glauca* becomes established in these stands when seeds are disseminated from nearby sources, either at the same time as the pioneer hardwoods or by ingress into the stand over time. It grows more slowly, so usually requires several decades to attain canopy height. If seed sources are available, the stand is likely to return to *P. glauca* dominance over time, typically with intermediate stages characterized by mixedwoods (e.g., CNVC00095 [*Populus tremuloides* – *Picea glauca* / *Rosa acicularis* – *Viburnum edule*]). A fire-free interval of at least 100 years is usually necessary for the development of CNVC00102. Where present (usually on moist sites south of Yukon), *Calamagrostis canadensis* can compete with regenerating conifers after disturbance.

Range: CNVC00102 occurs in the boreal regions of Yukon, British Columbia and Alberta, as well as the Rocky Mountain foothills of Alberta. The *Viburnum edule* subassociation occurs throughout the range. The *typic* and *Vaccinium vitis-idaea* subassociations occur in Alberta and British Columbia, and the *Alnus viridis* subassociation is described only from Alberta.

Conservation Status (NatureServe)

Global Conservation Rank: no applicable rank

National Conservation Rank: not yet determined

Subnational Conservation Rank: not yet determined



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Distribution

Countries: Canada

Provinces / Territories / States: Alberta, British Columbia, Yukon

Terrestrial Ecozones and Ecoregions of Canada: Boreal Cordillera: Boreal Mountains and Plateaus, Hyland Highland, Liard Basin, Northern Canadian Rocky Mountains, Yukon-Stikine Highlands, Yukon Southern Lakes; Boreal Plains: Boreal Transition, Clear Hills Upland, Mid-Boreal Uplands, Muskwa Plateau, Peace Lowland, Wabasca Lowland, Western Alberta Upland, Western Boreal; Boreal Shield; Montane Cordillera: Central Canadian Rocky Mountains, Eastern Continental Ranges, Omineca Mountains, Skeena Mountains; Taiga Plains: Northern Alberta Uplands

Rowe's Forest Regions and Sections of Canada: Boreal: Alpine Forest - Tundra, Aspen Grove, Central Yukon, Eastern Yukon, Hay River, Lower Foothills, Mixedwood, Northern Foothills, Stikine Plateau, Upper Foothills, Upper Liard, Upper Mackenzie; Subalpine: East Slope Rockies, Interior Subalpine

NAAEC CEC Ecoregions of North America (Levels I & II): Northern Forests: Boreal Plains, Softwood Shield; Northwestern Forested Mountains: Boreal Cordillera, Western Cordillera; Taiga: Taiga Plains

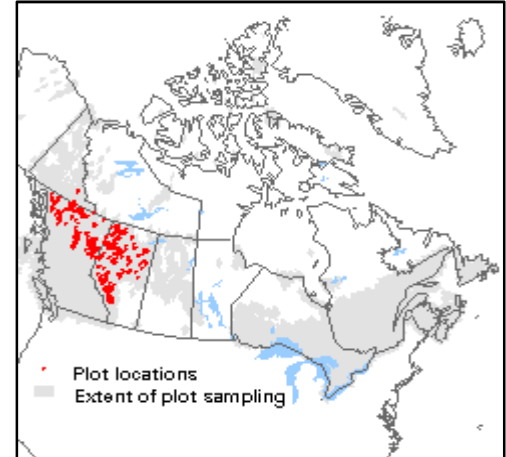
Nature Conservancy of Canada Ecoregions: Boreal Cordillera, Boreal Plains, Boreal Shield, Canadian Rocky Mountains, Central Interior, Montane Cordillera, Muskwa - Kechika, Taiga Plains

Ecozones and Ecoregions of the Yukon: Boreal Cordillera: Liard Basin; Boreal Plains: Muskwa Plateau

Biogeoclimatic Ecosystem Classification of British Columbia (zones and subzones): BWBSdk, BWBSmk, BWBSmw

British Columbia Ecoregion Classification (ecoregions): Boreal Mountains and Plateaus, Central Alberta Uplands, Central Canadian Rocky Mountains, Hay-Slave Lowland, Hyland Highland, Liard Basin, Northern Alberta Upland, Northern Canadian Rocky Mountains, Omineca Mountains, Peace River Basin, Southern Alberta Upland, Yukon Southern Lakes

Natural Regions and Subregions of Alberta: Boreal Forest: Athabasca Plain, Boreal Subarctic, Central Mixedwood, Dry Mixedwood, Lower Boreal Highlands, Northern Mixedwood, Upper Boreal Highlands; Foothills: Lower Foothills, Upper Foothills





***Picea glauca* / *Rosa acicularis* / *Hylocomium splendens* CNVC00102**

Corresponding Types and Associations

102a typic	British Columbia	BWBSdk /101	<i>Picea glauca</i> – <i>Shepherdia canadensis</i> – <i>Hylocomium splendens</i>	
	Alberta	NN/BH/D/03/04	Sw / feather moss	
		NN/BM/D/03/05	Sw / feather moss	
		SW/LF/D/04/03	Sw / feather moss	
		SW/UF/C/02/04	Sw / Canada buffalo-berry / stair-step moss	
		SW/UF/C/02/05	Sw / stair-step moss	
		SW/UF/H/01/02	Sw / stair-step moss	
		WC/LF/E/04/05	Sw / feather moss	
		WC/LF/I/03/02	Sw / feather moss	
		WC/UF/E/03/05	Sw / feather moss	
WC/UF/J/01/02	Sw / feather moss			
102b <i>Viburnum edule</i>	Yukon	Sw17	<i>Picea glauca</i> / <i>Viburnum edule</i> / Feathermoss	
	British Columbia	BWBSmw /101	<i>Picea glauca</i> – <i>Rubus pubescens</i> – <i>Hylocomium splendens</i>	
		Alberta	NN/BH/D/03/02	Sw / low-bush cranberry - rose
			NN/BM/D/03/01	Sw / Canada buffalo-berry
			NN/BM/D/03/03	Sw / low-bush cranberry
			NN/BM/F/03/02	Sw / feather moss
WC/LF/E/04/02	Sw / low-bush cranberry			
102c <i>Alnus viridis</i>	Alberta	NN/BH/D/03/01	Sw / green alder	
		NN/BM/D/03/02	Sw / green alder	
		SW/UF/C/02/01	Sw / green alder / stair-step moss	
		WC/LF/E/04/01	Sw / green alder	
		WC/UF/E/03/01	Sw / green alder / feather moss	
102d <i>Vaccinium vitis-idaea</i>	British Columbia	BWBSmk /101	<i>Picea glauca</i> – <i>Vaccinium vitis-idaea</i> – <i>Hylocomium splendens</i>	
		Alberta	NN/SB/B/04/01	Sw / feather moss
	SW/UF/C/02/03		Sw / bog cranberry / stair-step moss	
	WC/UF/E/03/03		Sw / Labrador tea / feather moss	



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Vegetation Summary*

Species Name [†]	Association CNVC00102 487 plots		Subassociation 102a <i>typic</i> 212 plots		Subassociation 102b <i>Viburnum edule</i> 132 plots	
	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]
Overstory Trees						
<i>Picea glauca</i>	34	97	33	97	35	99
<i>Pinus contorta</i>	15	40	12	42	13	26
<i>Populus tremuloides</i>	5	38	5	34	4	48
<i>Populus balsamifera</i>	3	17	3	14	5	23
<i>Abies lasiocarpa</i>	13	16	15	26	9	6
<i>Betula papyrifera</i>	4	16	5	8	4	23
<i>Picea mariana</i>	5	15	4	12	6	7
Tree Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(23 31 44 54 68)		(21 30 44 55 70)		(20 32 44 55 70)	
Understory Woody Shrubs and Regenerating Trees						
<i>Rosa acicularis</i>	5	84	3	77	7	95
<i>Viburnum edule</i>	6	67	5	54	7	93
<i>Picea glauca</i>	4	54	4	62	3	47
<i>Shepherdia canadensis</i>	4	46	4	51	3	45
<i>Alnus viridis</i>	14	28	11	16	6	24
<i>Populus tremuloides</i>	2	28	2	23	3	50
<i>Rhododendron groenlandicum</i>	4	25	1	21	2	13
<i>Abies lasiocarpa</i>	6	24	7	39	3	12
<i>Ribes lacustre</i>	1	23	1	19	1	36
<i>Ribes triste</i>	1	21	2	12	1	42
<i>Betula papyrifera</i>	2	15	1	7	2	21
<i>Cornus stolonifera</i>	3	14	4	7	3	30
<i>Lonicera involucrata</i>	2	14	2	11	2	27
<i>Rubus idaeus</i>	1	14	1	10	1	24
<i>Amelanchier alnifolia</i>	1	12	1	11	2	21
<i>Populus balsamifera</i>	2	11	2	8	1	21
<i>Ribes oxycanthoides</i>	1	11	1	5	1	28
<i>Spiraea lucida</i>	2	5	2	3	3	6
Shrub Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(5 10 23 32 48)		(5 9 19 25 43)		(7 13 24 34 46)	
Understory Herbs and Dwarf Shrubs						
<i>Linnaea borealis</i>	6	93	5	94	8	97
<i>Cornus canadensis</i>	9	81	7	76	9	95
<i>Mertensia paniculata</i>	3	68	2	67	4	83
<i>Chamerion angustifolium</i>	2	67	2	69	3	69
<i>Orthilia secunda</i>	1	65	1	66	1	60
<i>Vaccinium vitis-idaea</i>	6	48	3	39	7	30
<i>Mitella nuda</i>	2	48	2	42	2	71
<i>Petasites frigidus</i>	2	45	2	46	2	64
<i>Leymus innovatus</i>	5	43	4	47	7	45



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Vegetation Summary (cont'd)*

Species Name [†]	Association CNVC00102		Subassociation 102a <i>typic</i>		Subassociation 102b <i>Viburnum edule</i>	
	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]
<i>Pyrola asarifolia</i>	2	43	1	37	2	56
<i>Rubus pubescens</i>	4	41	2	26	5	83
<i>Geocaulon lividum</i>	3	34	4	36	2	23
<i>Arnica cordifolia</i>	2	34	2	48	2	21
<i>Galium boreale</i>	1	32	1	32	1	47
<i>Fragaria virginiana</i>	1	31	1	32	1	43
<i>Lathyrus ochroleucus</i>	2	30	1	21	2	61
<i>Calamagrostis canadensis</i>	4	23	2	22	7	36
<i>Equisetum scirpoides</i>	3	22	2	28	11	12
<i>Pyrola chlorantha</i>	1	22	1	20	1	34
<i>Goodyera repens</i>	1	22	1	20	1	27
<i>Maianthemum canadense</i>	2	20	1	10	2	41
<i>Lycopodium annotinum</i>	4	19	2	21	7	21
<i>Equisetum sylvaticum</i>	3	19	1	13	4	34
<i>Actaea rubra</i>	1	18	1	13	1	33
<i>Eurybia conspicua</i>	3	16	4	17	3	24
<i>Symphytotrichum ciliolatum</i>	1	16	1	18	1	27
<i>Viola renifolia</i>	1	16	1	11	1	31
<i>Aralia nudicaulis</i>	6	15	7	8	4	30
<i>Equisetum arvense</i>	1	15	1	13	2	22
<i>Galium trifidum</i>	2	5	1	4	1	8
Herb Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(8 15 34 45 70)		(7 13 28 40 54)		(12 24 47 67 95)	
Bryophytes and Lichens						
<i>Hylocomium splendens</i>	47	97	49	98	47	93
<i>Pleurozium schreberi</i>	22	85	25	85	17	86
<i>Ptilium crista-castrensis</i>	15	74	13	74	12	68
<i>Peltigera aphthosa</i>	2	58	2	69	2	30
<i>Cladonia sp.</i>	2	29	2	32	2	18
<i>Peltigera canina</i>	1	18	1	21	1	11
<i>Cladina mitis</i>	1	14	1	17	1	2
<i>Dicranum polysetum</i>	1	13	1	12	1	11
<i>Pohlia nutans</i>	1	12	1	15	1	7
<i>Dicranum fuscescens</i>	2	11	2	12	1	8
<i>Eurhynchium pulchellum</i>	2	10	1	10	3	16
<i>Dicranum sp.</i>	1	10	1	8	2	4
<i>Ptilidium pulcherrimum</i>	1	10	1	10	1	8
<i>Sanionia uncinata</i>	1	9	1	11	1	11
<i>Brachythecium salebrosum</i>	1	6	1	6	1	8
<i>Ceratodon purpureus</i>	1	5	1	5	1	4
Bryo-Lichen Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(43 70 79 95 100)		(50 80 83 96 100)		(30 57 71 91 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 = Xth percentile (e.g., P₁₀ = 10th percentile)



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Vegetation Summary (cont'd)*

Species Name†	Subassociation 102c <i>Alnus viridis</i> 24 plots		Subassociation 102d <i>Vaccinium vitis-idaea</i> 119 plots	
	% Cover‡	% Presence^	% Cover‡	% Presence^
Overstory Trees				
<i>Picea glauca</i>	41	96	32	94
<i>Pinus contorta</i>	19	50	18	50
<i>Populus tremuloides</i>	4	38	4	33
<i>Populus balsamifera</i>	3	17	2	17
<i>Abies lasiocarpa</i>	15	25	3	8
<i>Betula papyrifera</i>	4	13	4	23
<i>Picea mariana</i>	6	13	6	31
Tree Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)‡	(24 34 52 70 85)		(26 32 42 50 65)	
Understory Woody Shrubs and Regenerating Trees				
<i>Rosa acicularis</i>	6	100	4	82
<i>Viburnum edule</i>	9	71	4	61
<i>Picea glauca</i>	3	46	5	50
<i>Shepherdia canadensis</i>	4	17	5	45
<i>Alnus viridis</i>	26	100	16	39
<i>Populus tremuloides</i>	2	17	2	17
<i>Rhododendron groenlandicum</i>	3	21	7	49
<i>Abies lasiocarpa</i>	6	33	4	10
<i>Ribes lacustre</i>	1	33	1	14
<i>Ribes triste</i>	3	13	1	17
<i>Betula papyrifera</i>	2	21	2	20
<i>Cornus stolonifera</i>	1	8	1	8
<i>Lonicera involucrata</i>	1	25	3	4
<i>Rubus idaeus</i>	2	29	1	5
<i>Amelanchier alnifolia</i>	2	13	< 1	4
<i>Populus balsamifera</i>	1	8	2	4
<i>Ribes oxycanthoides</i>	2	17	< 1	4
<i>Spiraea lucida</i>	1	38	-	-
Shrub Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)‡	(23 28 47 62 85)		(5 10 25 35 57)	
Understory Herbs and Dwarf Shrubs				
<i>Linnaea borealis</i>	8	88	6	89
<i>Cornus canadensis</i>	13	83	10	75
<i>Mertensia paniculata</i>	3	71	1	52
<i>Chamerion angustifolium</i>	2	79	1	61
<i>Orthilia secunda</i>	1	63	1	71
<i>Vaccinium vitis-idaea</i>	8	33	8	86
<i>Mitella nuda</i>	3	71	2	28
<i>Petasites frigidus</i>	2	29	1	25
<i>Leymus innovatus</i>	8	58	4	32



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Vegetation Summary (cont'd)*

Species Name [†]	Subassociation 102c <i>Alnus viridis</i>		Subassociation 102d <i>Vaccinium vitis-idaea</i>	
	% Cover [‡]	% Presence [^]	% Cover [‡]	% Presence [^]
<i>Pyrola asarifolia</i>	2	50	1	39
<i>Rubus pubescens</i>	5	50	4	19
<i>Geocaulon lividum</i>	1	8	2	49
<i>Arnica cordifolia</i>	3	42	2	20
<i>Galium boreale</i>	1	29	< 1	18
<i>Fragaria virginiana</i>	1	50	1	11
<i>Lathyrus ochroleucus</i>	1	29	1	13
<i>Calamagrostis canadensis</i>	2	17	2	13
<i>Equisetum scirpoides</i>	1	8	2	24
<i>Pyrola chlorantha</i>	1	17	1	15
<i>Goodyera repens</i>	1	13	1	24
<i>Maianthemum canadense</i>	2	38	1	12
<i>Lycopodium annotinum</i>	4	21	3	13
<i>Equisetum sylvaticum</i>	1	21	1	11
<i>Actaea rubra</i>	1	38	1	6
<i>Eurybia conspicua</i>	3	33	2	2
<i>Symphytotrichum ciliolatum</i>	2	8	< 1	3
<i>Viola renifolia</i>	1	29	< 1	8
<i>Aralia nudicaulis</i>	13	29	3	6
<i>Equisetum arvense</i>	2	4	1	14
<i>Galium trifidum</i>	4	25	< 1	1
Herb Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(10 18 47 79 99)		(7 11 28 41 56)	
Bryophytes and Lichens				
<i>Hylocomium splendens</i>	39	92	44	100
<i>Pleurozium schreberi</i>	15	71	24	87
<i>Ptilium crista-castrensis</i>	12	67	21	82
<i>Peltigera aphthosa</i>	1	54	2	70
<i>Cladonia</i> sp.	2	54	2	29
<i>Peltigera canina</i>	1	38	2	16
<i>Cladina mitis</i>	1	17	1	22
<i>Dicranum polysetum</i>	1	42	1	12
<i>Pohlia nutans</i>	2	38	1	8
<i>Dicranum fuscescens</i>	1	33	2	8
<i>Eurhynchium pulchellum</i>	1	21	< 1	1
<i>Dicranum</i> sp.	-	-	2	23
<i>Ptilidium pulcherrimum</i>	1	33	1	8
<i>Sanionia uncinata</i>	1	25	2	3
<i>Brachythecium salebrosum</i>	1	21	1	1
<i>Ceratodon purpureus</i>	1	21	1	3
Bryo-Lichen Stratum Cover (P₁₀ P₂₅ Mean P₇₅ P₉₀)[‡]	(34 53 65 79 89)		(61 80 86 96 99)	

* 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)



Forest / Forêt

Association CNVC00102

Picea glauca / *Rosa acicularis* / *Hylocomium splendens*

White Spruce / Prickly Rose / Stairstep Moss

Épinette blanche / Rosier aciculaire / Hylocomie brillante

Site / Soil Characteristics

	Association CNVC00102 487 plots	Subassociation 102a <i>typic</i> 212 plots	Subassociation 102b <i>Viburnum edule</i> 132 plots
Elevation Range (min–mean–max meters)	250–855–1960 missing data (6)	310–971–1960 missing data (4)	250–700–1120 missing data (11)
Slope Gradient (% frequency)	very steep (0) steep (7) moderately steep (13) moderate (13) gentle (20) level (42) missing data (6)	very steep (0) steep (7) moderately steep (18) moderate (16) gentle (23) level (33) missing data (3)	very steep (0) steep (5) moderately steep (6) moderate (7) gentle (14) level (60) missing data (9)
Aspect (% frequency)	north (24) east (19) south (13) west (17) level (21) missing data (7)	north (26) east (18) south (16) west (19) level (16) missing data (5)	north (26) east (17) south (9) west (14) level (26) missing data (8)
Meso Toposition (% frequency)	crest / upper (15) mid (34) lower / toe (15) depression (1) level (23) missing data (12)	crest / upper (15) mid (41) lower / toe (15) depression (0) level (19) missing data (10)	crest / upper (15) mid (22) lower / toe (14) depression (2) level (32) missing data (15)
Moisture Regime (% frequency)	very dry (0) dry (0) mesic (67) moist (28) wet (1) missing data (3)	very dry (0) dry (1) mesic (67) moist (31) wet (1) missing data (0)	very dry (1) dry (0) mesic (55) moist (34) wet (4) missing data (7)
Nutrient Regime (% frequency)	poor (14) medium (60) rich (21) missing data (5)	poor (14) medium (60) rich (23) missing data (3)	poor (5) medium (64) rich (22) missing data (9)



***Picea glauca* / *Rosa acicularis* / *Hylocomium splendens* CNVC00102**

Site / Soil Characteristics (cont'd)

	Association CNVC00102	Subassociation 102a <i>typic</i>	Subassociation 102b <i>Viburnum edule</i>
Soil Parent Material (% frequency)	bedrock (0) colluvium (7) eolian (4) moraine / till (26) fluvial (14) glaciofluvial (8) lacustrine (3) glaciolacustrine (7) organic (0) missing data (30)	bedrock (0) colluvium (13) eolian (5) moraine / till (30) fluvial (21) glaciofluvial (7) lacustrine (2) glaciolacustrine (5) organic (0) missing data (17)	bedrock (0) colluvium (2) eolian (3) moraine / till (28) fluvial (8) glaciofluvial (7) lacustrine (8) glaciolacustrine (8) organic (1) missing data (36)
Soil Rooting Zone Substrate (% frequency)	non-soil (7) sandy (8) coarse loamy (20) fine loamy (19) silty (6) clayey (16) organic (0) missing data (24)	non-soil (13) sandy (10) coarse loamy (24) fine loamy (15) silty (9) clayey (9) organic (0) missing data (20)	non-soil (2) sandy (7) coarse loamy (16) fine loamy (20) silty (2) clayey (32) organic (1) missing data (20)
Root Restricting Depth (% frequency)	0 – 20 cm (1) 21 – 99 cm (4) ≥ 100 cm (6) missing data (89)	0 – 20 cm (0) 21 – 99 cm (3) ≥ 100 cm (6) missing data (91)	0 – 20 cm (1) 21 – 99 cm (0) ≥ 100 cm (2) missing data (97)
Humus Form (% frequency)	mor (53) moder (9) mull (1) peatymor (1) missing data (35)	mor (66) moder (6) mull (3) peatymor (2) missing data (23)	mor (38) moder (12) mull (0) peatymor (2) missing data (48)



Forest / Forêt

Association CNVC00102

Picea glauca / *Rosa acicularis* / *Hylocomium splendens*

White Spruce / Prickly Rose / Stairstep Moss

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Site / Soil Characteristics (cont'd)

	Subassociation 102c <i>Alnus viridis</i> 24 plots	Subassociation 102d <i>Vaccinium vitis-idaea</i> 119 plots
Elevation Range (min–mean–max meters)	260–1058–1960 missing data (4)	320–764–1680 missing data (5)
Slope Gradient (% frequency)	very steep (4) steep (8) moderately steep (0) moderate (21) gentle (33) level (29) missing data (4)	very steep (0) steep (8) moderately steep (16) moderate (13) gentle (17) level (40) missing data (6)
Aspect (% frequency)	north (25) east (29) south (17) west (17) level (8) missing data (4)	north (17) east (20) south (10) west (17) level (28) missing data (8)
Meso Toposition (% frequency)	crest / upper (13) mid (46) lower / toe (13) depression (0) level (4) missing data (25)	crest / upper (17) mid (33) lower / toe (16) depression (0) level (25) missing data (9)
Moisture Regime (% frequency)	very dry (0) dry (0) mesic (71) moist (25) wet (0) missing data (4)	very dry (0) dry (0) mesic (81) moist (16) wet (0) missing data (3)
Nutrient Regime (% frequency)	poor (17) medium (58) rich (21) missing data (4)	poor (24) medium (55) rich (18) missing data (3)



***Picea glauca* / *Rosa acicularis* / *Hylocomium splendens* CNVC00102**

Site / Soil Characteristics (cont'd)

	Subassociation 102c <i>Alnus viridis</i>	Subassociation 102d <i>Vaccinium vitis-idaea</i>
Soil Parent Material (% frequency)		
	bedrock (4)	bedrock (0)
	colluvium (4)	colluvium (4)
	eolian (17)	eolian (2)
	moraine / till (33)	moraine / till (17)
	fluvial (4)	fluvial (11)
	glaciofluvial (8)	glaciofluvial (10)
	lacustrine (0)	lacustrine (2)
	glaciolacustrine (13)	glaciolacustrine (6)
	organic (0)	organic (0)
	missing data (17)	missing data (49)
Soil Rooting Zone Substrate (% frequency)		
	non-soil (8)	non-soil (4)
	sandy (0)	sandy (8)
	coarse loamy (13)	coarse loamy (17)
	fine loamy (21)	fine loamy (24)
	silty (8)	silty (3)
	clayey (33)	clayey (8)
	organic (0)	organic (0)
	missing data (17)	missing data (35)
Root Restricting Depth (% frequency)		
	0 – 20 cm (0)	0 – 20 cm (2)
	21 – 99 cm (0)	21 – 99 cm (11)
	≥ 100 cm (0)	≥ 100 cm (12)
	missing data (100)	missing data (76)
Humus Form (% frequency)		
	mor (29)	mor (53)
	moder (4)	moder (12)
	mull (0)	mull (0)
	peatymor (0)	peatymor (0)
	missing data (67)	missing data (35)



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

<http://cnvc-cnvc.ca>

Forest / Forêt

Association CNVC00102

Picea glauca / *Rosa acicularis* / *Hylocomium splendens*

White Spruce / Prickly Rose / Stairstep Moss

Épinette blanche / Rosier aciculaire / Hylocomie brillante

Additional Characteristics

Species of High Conservation Concern:

Non-native Species:

Management Issues:

Type Statistics

Internal Similarity:

Confidence:

Strength:

Related Concepts

Similar CNVC Associations:

CNVC00096 [*Picea glauca* / *Equisetum arvense* – *E. pratense*] occurs on moist, nutrient-rich sites (often floodplains) in the same range. It has abundant *Equisetum* spp. in the understory.

CNVC00097 [*Picea glauca* / *Lonicera involucrata* / *Rubus pubescens*] occurs on moist, nutrient-rich sites in the same range and has greater constancy and cover of more nutrient-demanding herb and dwarf shrub species, like *Mitella nuda*, *Rubus pubescens* and *Petasites frigidus*.

CNVC00103 [*Picea glauca* – *Abies balsamea* / *Rosa acicularis* / *Aralia nudicaulis*] includes *Picea glauca*-dominated stands on similar boreal sites from Alberta to northwestern Ontario. *Abies balsamea* is usually an important component of the understory and overstory (often codominant). CNVC00103 also has lower constancy of *Shepherdia canadensis*, *Leymus innovatus* and *Chamerion angustifolium* and greater constancy of *Aralia nudicaulis*.

CNVC00105 [*Abies lasiocarpa* – *Picea glauca* – *Pinus contorta* / *Hylocomium splendens*] occurs on comparable sites in the Rocky Mountain foothills of Alberta but has a mixed overstory that is dominated by *Abies lasiocarpa*, but also includes *Picea glauca* and/or *Pinus contorta*.

CNVC00108 [*Picea glauca* / *Betula glandulosa* / *Hylocomium splendens*] is a *Picea glauca*-dominated Association that occurs on comparable but likely cooler sites (i.e., at higher elevations or latitudes) in Yukon. It has greater constancy and cover of indicators of these cooler site conditions, like *Betula glandulosa*, *Vaccinium uliginosum*, *Festuca altaica*, *Lupinus arcticus* and *Empetrum nigrum*.

CNVC00370 [*Picea glauca* / *Hylocomium splendens*] is a similar condition that occurs on comparable boreal sites in Yukon. It has depauperate shrub and herb layers with lower constancy and cover of *Rosa acicularis*, *Viburnum edule*, *Mertensia paniculata* and *Cornus canadensis*. Typically, there is only minor cover of *Shepherdia canadensis* and/or *Geocaulon lividum*.

CNVC00371 [*Picea glauca* / *Rhododendron groenlandicum* / *Vaccinium vitis-idaea* – *Empetrum nigrum* / *Hylocomium splendens*] is a similar condition that occurs on comparable boreal sites in Yukon but has abundant *Rhododendron groenlandicum*, *Vaccinium vitis-idaea* and *Empetrum nigrum* in the understory.

Related United States National Vegetation Classification Associations:

Relationships with Other Classifications:

Comments

Pinus contorta here refers to var. *latifolia* (lodgepole pine).



***Picea glauca* / *Rosa acicularis* / *Hylocomium splendens* CNVC00102**

Source Information

Number of source plots for CNVC00102: 487

Number of source plots for 102a typic: 212

Number of source plots for 102b *Viburnum edule*: 132

Number of source plots for 102c *Alnus viridis*: 24

Number of source plots for 102d *Vaccinium vitis-idaea*: 119

Information Sources:

Alberta Environment and Parks. 2014. Ecological Site Information System (ESIS). Govt. AB, Edmonton, AB.

Biogeoclimatic Ecosystem Classification Program of British Columbia. 2011. BECMaster ecosystem plot database [VPro13/MSAccess 2010 format]. W.H. MacKenzie, (ed.) B.C. Min. For., Lands, and Nat. Res. Ops., Smithers, BC. Available: www.for.gov.bc.ca/hre/becweb/resources/information-requests. (accessed: June 2015).

Ecosystem and Landscape Classification Program. 2017. YBECMaster ecosystem plot database [VPro13/MSAccess 2010 format]. Ecol. Land Class. Prog. Dept. Env., Govt. Yukon, Whitehorse, Yukon.

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Description Authors: K. Chapman, K. Baldwin, D. Downing and D. Meidinger

Date of Concept: March, 2012

Date of Description: August, 2017

Classification References:

Archibald, J.H.; Klappstein, G.D.; Corns, I.G.W. 1996. Field guide to ecosites of southwestern Alberta. Nat. Resour. Can., Can. For. Ser., North. For. Centre, Edmonton, AB. Spec. Rep. 8.

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***Picea glauca* / *Rosa acicularis* / *Hylocomium splendens* CNVC00102**

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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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