

TABLE 5.2.1 Distribution of Fen Site Associations by biogeoclimatic zone

	BG PP	BWBS SWB	ESSF	ICH	IDF	MS	SBPS SBS	CDF	CWH	MH
<b>Wf01</b> Water sedge – Beaked sedge		xx	x	xx	xxx	xxx	xxx		x <sup>i</sup>	
<b>Wf02</b> Scrub birch – Water sedge		xxx	x	xx	xx	xx	xx			
<b>Wf03</b> Water sedge – Peat-moss			xx				x			
<b>Wf04</b> Barclay's willow – Water sedge – Glow mosses		x	xxx			x	x			
<b>Wf05</b> Slender sedge – Common hook-moss		x		xx	xx	xx	xx			
<b>Wf06</b> Slender sedge – Buckbean		x		x	x		x			
<b>Wf07</b> Scrub birch – Buckbean – Shore sedge		x		x	x		x			
<b>Wf08</b> Shore sedge – Buckbean – Hook-moss		x	x		x	x	x			
<b>Wf09</b> Few-flowered spike-rush – Hook-moss			x			x	x			
<b>Wf10</b> Hudson Bay clubrush – Red hook-moss							x			
<b>Wf11</b> Tufted clubrush – Star moss		x	x	x		x	x			
<b>Wf12</b> Narrow-leaved cotton-grass – Marsh-marigold			xxx							
<b>Wf13</b> Narrow-leaved cotton-grass – Shore sedge			xx			x				
<b>Wf50</b> Narrow-leaved cotton-grass – Peat-moss									x	xxx
<b>Wf51</b> Sitka sedge – Peat-moss				x				xx	xx	
<b>Wf52</b> Sweet gale – Sitka sedge								xx	xx <sup>s</sup>	
<b>Wf53</b> Slender sedge – White beak-rush								x	xx <sup>s</sup>	

x = incidental; &lt; 5% of wetlands

i = inland areas only

xx = minor; 5–25% of wetlands

s = southern subzones only

xxx = major; &gt;25% of wetlands

TABLE 5.2.2 Fen Species Importance Table

Species		WF01	WF02	WF03	WF04	WF05	WF06	WF07	WF08
Shrubs	<i>Betula nana</i>								
	<i>Salix barclayi</i>								
	<i>Salix pedicellaris</i>								
	<i>Spiraea douglasii</i>								
	<i>Myrica gale</i>								
Herbs and Dwarf Shrubs	<i>Carex utriculata</i>								
	<i>Carex aquatilis</i>								
	<i>Comarum palustre</i>								
	<i>Calamagrostis canadensis</i>								
	<i>Carex lasiocarpa</i>								
	<i>Menyanthes trifoliata</i>								
	<i>Carex limosa</i>								
	<i>Carex chordorrhiza</i>								
	<i>Eleocharis quinqueflora</i>								
	<i>Trichophorum alpinum</i>								
	<i>Trichophorum cespitosum</i>								
	<i>Eriophorum angustifolium</i>								
	<i>Caltha leptosepala</i>								
	<i>Carex anthoxanthea</i>								
	<i>Equisetum fluviatile</i>								
	<i>Carex magellanica</i>								
	<i>Carex sitchensis</i>								
	<i>Rhynchospora alba</i>								
	<i>Carex livida</i>								
	<i>Eriophorum chamissonis</i>								
	<i>Vahlodea atropurpurea</i>								
	<i>Drosera anglica</i>								
	<i>Hypericum anagalloides</i>								
	<i>Triantha glutinosa</i>								
	<i>Schoenoplectus tabernaemontani</i>								
	<i>Fauria crista-galli</i>								
	<i>Senecio triangularis</i>								
	<i>Andromeda polifolia</i>								
	<i>Kalmia microphylla</i>								
	<i>Oxycoccus oxycoccus</i>								
	<i>Triglochin maritima</i>								
	<i>Drosera rotundifolia</i>								
	<i>Leptarrhena pyrolifolia</i>								
	<i>Platanthera dilatata</i>								
	<i>Sanguisorba canadensis</i>								
	<i>Utricularia intermedia</i>								
	<i>Viola palustris</i>								
Lichens and Mosses	<i>Sphagnum</i> Group I								
	<i>Aulaacomnium palustre</i>								
	<i>Drepanocladus</i> spp.								
	<i>Sphagnum</i> Group II								
	<i>Tomentypnum nitens</i>								
	<i>Philonotis fontana</i>								
	<i>Calliergon stramineum</i>								
	<i>Scorpidium</i> spp.								
	<i>Campyllum stellatum</i>								
	<i>Warnstorfia</i> spp.								
	<i>Meesia triquetra</i>								

*Carex aquatilis* – *Carex utriculata*

**General Description**

The Water sedge – Beaked sedge Fen Site Association is the most common and widespread Fen Site Association in the province. It occurs in all but the warmest and driest subzones from low to subalpine elevations on sites that are annually inundated by shallow, low-energy flood waters and that experience some late-season drawdown.

**Wf01** fens are found in a wide variety of landscape positions but most commonly palustrine basins. They occupy wetter zones in larger peatland complexes but also form extensive pure “meadows.”



Species diversity is low; *Carex*

*aquatilis* and *Carex utriculata* cover is often continuous, with scattered forbs, aquatics, and mosses in the understorey. On sites that dry out at the surface, *Calamagrostis canadensis* or *C. stricta* can become prominent, species diversity increases, and sites become more meadow-like.

Peat depths range from 30 to > 300 cm. Common soil types include typic and terric Fibrisols and Mesisols. This Site Association tolerates variable hydrology.

**Characteristic Vegetation**

- Tree layer (0 - 0 - 0)
- Shrub layer (0 - 0 - 10)
- Herb layer (13 - 80 - 100)
- Carex aquatilis*, *C. utriculata*
- Moss layer (0 - 5 - 100)
- Drepanocladus aduncus*

**Comments**

Sites dominated by *C. utriculata* and *C. aquatilis* but with mineral or humic soils are described by the **Wm01**. Because **Wf01** and **Wm01** sites are species-poor and the two dominant sedge species have a wide ecological amplitude, the plant community poorly differentiates between sites on peat (**Wf01**) and those on mineral soil (**Wm01**). **Wf01** sites typically have less *C. utriculata* and fewer aquatics than **Wm01** sites. The **Wf01** develops from the **Wm01** in most circumstances.

Sites that are drier or at least have more pronounced microtopography than the **Wf01** are usually occupied by communities with low shrubs and high moss cover (most commonly, the **Wf02**). However, at higher elevations few shrubs occur and only moss cover increases (**Wf03**). Sites with greater waterflow are characterized by tall-shrub swamps dominated by willows or alders, and water sedges, and have mineral or humic peat soils.

**Wetland Edatopic Grid**

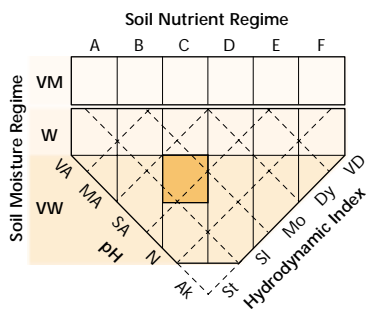


TABLE 5.4.1 Distribution of Swamp Site Associations by biogeoclimatic zone

	BG PP	BWBS SWB	ESSF	ICH	IDF	MS	SBPS SBS	CDF	CWH	MH
Ws01 Mountain alder – Skunk cabbage – Lady fern				XX			XX <sup>w</sup>			
Ws02 Mountain alder – Pink spirea – Sitka sedge		X	X	XX	X	X	X <sup>w</sup>		X	
Ws03 Bebb's willow – Bluejoint	X	XX			XX	X	XX			
Ws04 Drummond's willow – Beaked sedge				X	X	X	XX			
Ws05 MacCalla's willow – Beaked sedge					X		X			
Ws06 Sitka willow – Sitka sedge				XX			X <sup>w</sup>			
Ws07 Spruce – Common horsetail – Leafy moss		XX	X	XX	XX	XX	XXX			
Ws08 Subalpine fir – Sitka valerian – Common horsetail			XX							
Ws09 Black spruce – Skunk cabbage – Peat-moss				XX			X <sup>w</sup>			
Ws10 Western redcedar – Spruce – Skunk cabbage				XX						
Ws11 Spruce – Subalpine fir – Skunk cabbage							X <sup>w</sup>			
Ws50 Pink spirea – Sitka sedge				X			X <sup>w</sup>	XXX	XX	
Ws51 Sitka willow – Pacific willow – Skunk cabbage				X				X	X	
Ws52 Red alder – Skunk cabbage								XX	XX	
Ws53 Western redcedar – Sword fern – Skunk cabbage								X	X <sup>x</sup>	
Ws54 Western redcedar – Western hemlock – Skunk cabbage								X	XX	
Ws55 Yellow-cedar – Mountain hemlock – Skunk cabbage										XX

x = incidental; &lt; 5% of wetlands

w = wet subzones only

xx = minor; 5–25% of wetlands

x = very dry subzones only

xxx = major; &gt;25% of wetlands

TABLE 5.4.2 Swamp Species Importance Table

Species		Ws03	Ws04	Ws05	Ws02	Ws06	Ws07	Ws08	Ws01
Trees	<i>Picea X</i>								
	<i>Picea mariana</i>								
	<i>Abies lasiocarpa</i>								
	<i>Tsuga heterophylla</i>								
	<i>Thuja plicata</i>								
	<i>Picea sitchensis</i>								
	<i>Alnus rubra</i>								
	<i>Acer macrophyllum</i>								
	<i>Chamaecyparis nootkatensis</i>								
	<i>Tsuga mertensiana</i>								
	<i>Abies amabilis</i>								
	Shrubs	<i>Salix bebbiana</i>							
<i>Salix drummondiana</i>									
<i>Salix maccalliana</i>									
<i>Alnus incana</i>									
<i>Lonicera involucrata</i>									
<i>Spiraea douglasii</i>									
<i>Cornus stolonifera</i>									
<i>Vaccinium alaskaense/ovalifolium</i>									
<i>Salix sitchensis</i>									
<i>Salix lucida</i>									
<i>Rubus spectabilis</i>									
<i>Sambucus racemosa</i>									
<i>Gaultheria shallon</i>									
<i>Ribes bracteosum</i>									
<i>Elliottia pyroliflorus</i>									
Herbs and Dwarf Shrubs	<i>Calamagrostis canadensis</i>								
	<i>Carex aquatilis/sitchensis</i>								
	<i>Carex utriculata</i>								
	<i>Gymnocarpium dryopteris</i>								
	<i>Valeriana sitchensis</i>								
	<i>Scirpus microcarpus</i>								
	<i>Equisetum arvense</i>								
	<i>Lysichiton americanus</i>								
	<i>Athyrium filix-femina</i>								
	<i>Tiarella trifoliata</i>								
	<i>Streptopus lanceolatus</i>								
	<i>Maianthemum dilatatum</i>								
	<i>Oenanthe sarmentosa</i>								
	<i>Polystichum munitum</i>								
	<i>Equisetum telmateia</i>								
	<i>Blechnum spicant</i>								
	<i>Veratrum viride</i>								
	<i>Fauria crista-galli</i>								
Mosses and Lichens	<i>Drepanocladus</i> spp.								
	<i>Mnium</i> spp.								
	<i>Aulacomnium palustre</i>								
	<i>Sphagnum</i> spp.								
	<i>Hylocomium splendens</i>								
	<i>Pleurozium schreberi</i>								
	<i>Eurhynchium praelongum</i>								
	<i>Rhytidiadelphus loreus</i>								

*Alnus incana* – *Spiraea douglasii* – *Carex sitchensis*

### General Description

The Mountain alder – Pink spirea – Sitka sedge Swamp Site Association is common in wet climates of the Sub-Boreal Interior, Southern Interior Mountains, and interior transition areas of the Coast and Mountains. The **Ws02** occurs on beaver-flooded flats of small creeks, peripheral zones of wetlands, and lakeshores, where there is early season flooding, continuous seepage near the surface, and poor drainage.

*Alnus incana* forms an open to sparse canopy. *Spiraea douglasii* can be scattered or prominent. *Carex aquatilis* or *C. sitchensis* is usually the dominant species of the herb layer, but *Scirpus microcarpus* dominates on some sites. Significant cover of *Calamagrostis canadensis* is common.



Soils are derived from fluvial or lacustrine material and often have a veneer or blanket of sedge peat. Organic horizons have silty or sandy lenses throughout, indicating periodic significant flood events.

### Characteristic Vegetation

**Tree layer** (0 - 0 - 2)

**Shrub layer** (12 - 44 - 99)

*Alnus incana*, *Spiraea douglasii*

**Herb layer** (20 - 72 - 100)

*Calamagrostis canadensis*, *Carex*

*aquatilis/sitchensis*, *Comarum*

*palustre*, *Scirpus microcarpus*

**Moss layer** (0 - 10 - 85)

*Mnium* spp.

### Comments

The **Ws02** is similar to Willow – Sedge Site Associations but occurs on sites with more dynamic water flow; willow-dominated sites (**Ws04–06**) tend to be more stagnant.

### Wetland Edatopic Grid

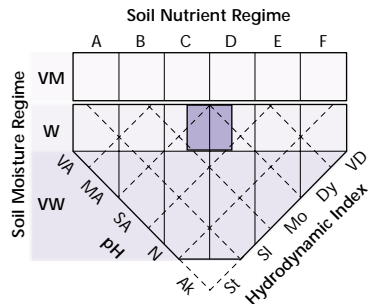


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	BG PP	BWBS SWB	ESSF	ICH	IDF	MS	SBPS SBS	CDF	CWH	MH
Wf01 Water sedge – Beaked sedge		xx	x	xx	xxx	xxx	xxx		x <sup>i</sup>	
Wf02 Scrub birch – Water sedge		xxx	x	xx	xx	xx	xx			
Wf03 Water sedge – Peat-moss			xx				x			
Wf04 Barclay's willow – Water sedge – Glow mosses		x	xxx			x	x			
Wf05 Slender sedge – Common hook-moss		x		xx	xx	xx	xx			
Wf06 Slender sedge – Buckbean		x		x	x		x			
Wf07 Scrub birch – Buckbean – Shore sedge		x		x	x		x			
Wf08 Shore sedge – Buckbean – Hook-moss		x	x		x	x	x			
Wf09 Few-flowered spike-rush – Hook-moss			x			x	x			
Wf10 Hudson Bay clubrush – Red hook-moss							x			
Wf11 Tufted clubrush – Star moss		x	x	x		x	x			
Wf12 Narrow-leaved cotton-grass – Marsh-marigold			xxx							
Wf13 Narrow-leaved cotton-grass – Shore sedge			xx			x				
Wf50 Narrow-leaved cotton-grass – Peat-moss									x	xxx
Wf51 Sitka sedge – Peat-moss				x				xx	xx	
Wf52 Sweet gale – Sitka sedge								xx	xx <sup>s</sup>	
Wf53 Slender sedge – White beak-rush								x	xx <sup>s</sup>	

x = incidental; &lt; 5% of wetlands

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TABLE 5.2.2 Fen Species Importance Table

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	<i>Salix pedicellaris</i>								
	<i>Spiraea douglasii</i>								
	<i>Myrica gale</i>								
Herbs and Dwarf Shrubs	<i>Carex utriculata</i>								
	<i>Carex aquatilis</i>								
Shrubs	<i>Comarum palustre</i>								
	<i>Calamagrostis canadensis</i>								
Shrubs	<i>Carex lasiocarpa</i>								
	<i>Menyanthes trifoliata</i>								
Shrubs	<i>Carex limosa</i>								
	<i>Carex chordorrhiza</i>								
Shrubs	<i>Eleocharis quinqueflora</i>								
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Shrubs	<i>Trichophorum cespitosum</i>								
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Shrubs	<i>Triglochin maritima</i>								
	<i>Drosera rotundifolia</i>								
Shrubs	<i>Leptarrhena pyrolifolia</i>								
	<i>Platanthera dilatata</i>								
Shrubs	<i>Sanguisorba canadensis</i>								
	<i>Utricularia intermedia</i>								
Shrubs	<i>Viola palustris</i>								
Lichens and Mosses	<i>Sphagnum Group I</i>								
	<i>Aulacomnium palustre</i>								
Mosses	<i>Drepanocladus spp.</i>								
	<i>Sphagnum Group II</i>								
Mosses	<i>Tomentypnum nitens</i>								
	<i>Philonotis fontana</i>								
Mosses	<i>Calliergon stramineum</i>								
	<i>Scorpidium spp.</i>								
Mosses	<i>Campyllum stellatum</i>								
	<i>Warnstorfia spp.</i>								
Mosses	<i>Meesia triquetra</i>								



*Carex limosa* – *Menyanthes trifoliata* – *Drepanocladus*

### General Description

The Shore sedge – Buckbean – Hook-moss is an uncommon, rich Fen Site Association that occurs mainly at higher elevations throughout the Interior (700–1800 m) in colder subzones. These fens occur on pond-side floating mats or in flarks of patterned fens where there is prolonged shallow flooding to no more than several centimetres.

*Carex limosa* rooted in shallow water is the constant dominant on these sites. *Menyanthes trifoliata* occurs on most sites but can be very sparse or absent on some. A diversity of species tolerant of permanent saturation such as *Carex chordorrhiza*, *Equisetum fluviatile*, and *Andromeda polifolia* commonly occur with low cover.



Peat deposits are shallow (0.5 m) to very deep (> 6 m), fibric or mesic, and derived from fine sedges and brown mosses. Fibrisols are the most common soil type.

### Characteristic Vegetation

**Tree layer** (0 - 0 - 0)

**Shrub layer** (0 - .5 - 10)

**Herb layer** (14 - 35 - 100)

*C. limosa*, *Menyanthes trifoliata*

**Moss layer** (1 - 85 - 100)

*Drepanocladus* spp.

### Comments

This is the most common and dominant Site Association in patterned fens. In weakly patterned fens, the Wf08 occurs over ribs and flarks. Where there is a more pronounced rib/flark pattern, the Wf08 will typically occur in flarks and the floristically similar, shrubby Wf07 on elevated ribs.

The Wf06 occurs on wetter and more hydrologically dynamic sites than the Wf08. Similarly stagnant sites with acidic soil water are occupied by the Wb13. The Wf08 has similar hydrology to the Wf09 and Wf10, but with more mobile groundwater and greater degree of surface flooding. Wf08 sites may become Wb13 sites in some circumstances.

Peat deposits are often consistent throughout the profile, and peat core contents of fine sedge and brown mosses are readily identifiable. This suggests that these ecosystems can be stable and long-lived.

### Wetland Edatopic Grid

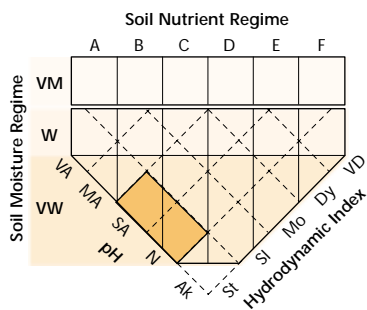


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Ws02 Mountain alder – Pink spirea – Sitka sedge		X	X	XX	X	X	X <sup>w</sup>		X	
Ws03 Bebb's willow – Bluejoint	X	XX			XX	X	XX			
Ws04 Drummond's willow – Beaked sedge				X	X	X	XX			
Ws05 MacCalla's willow – Beaked sedge					X		X			
Ws06 Sitka willow – Sitka sedge				XX			X <sup>w</sup>			
Ws07 Spruce – Common horsetail – Leafy moss		XX	X	XX	XX	XX	XXX			
Ws08 Subalpine fir – Sitka valerian – Common horsetail			XX							
Ws09 Black spruce – Skunk cabbage – Peat-moss				XX			X <sup>w</sup>			
Ws10 Western redcedar – Spruce – Skunk cabbage				XX						
Ws11 Spruce – Subalpine fir – Skunk cabbage							X <sup>w</sup>			
Ws50 Pink spirea – Sitka sedge				X			X <sup>w</sup>	XXX	XX	
Ws51 Sitka willow – Pacific willow – Skunk cabbage				X				X	X	
Ws52 Red alder – Skunk cabbage								XX	XX	
Ws53 Western redcedar – Sword fern – Skunk cabbage								X	X <sup>x</sup>	
Ws54 Western redcedar – Western hemlock – Skunk cabbage								X	XX	
Ws55 Yellow-cedar – Mountain hemlock – Skunk cabbage										XX

x = incidental; &lt; 5% of wetlands

w = wet subzones only

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x = very dry subzones only

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	<i>Abies lasiocarpa</i>								
	<i>Tsuga heterophylla</i>								
	<i>Thuja plicata</i>								
	<i>Picea sitchensis</i>								
	<i>Alnus rubra</i>								
	<i>Acer macrophyllum</i>								
	<i>Chamaecyparis nootkatensis</i>								
	<i>Tsuga mertensiana</i>								
	<i>Abies amabilis</i>								
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<i>Salix drummondiana</i>									
<i>Salix maccalliana</i>									
<i>Alnus incana</i>									
<i>Lonicera involucrata</i>									
<i>Spiraea douglasii</i>									
<i>Cornus stolonifera</i>									
<i>Vaccinium alaskaense/ovalifolium</i>									
<i>Salix sitchensis</i>									
<i>Salix lucida</i>									
<i>Rubus spectabilis</i>									
<i>Sambucus racemosa</i>									
<i>Gaultheria shallon</i>									
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	<i>Carex aquatilis/sitchensis</i>								
	<i>Carex utriculata</i>								
	<i>Gymnocarpium dryopteris</i>								
	<i>Valeriana sitchensis</i>								
	<i>Scirpus microcarpus</i>								
	<i>Equisetum arvense</i>								
	<i>Lysichiton americanus</i>								
	<i>Athyrium filix-femina</i>								
	<i>Tiarella trifoliata</i>								
	<i>Streptopus lanceolatus</i>								
	<i>Maianthemum dilatatum</i>								
	<i>Oenanthe sarmentosa</i>								
	<i>Polystichum munitum</i>								
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	<i>Veratrum viride</i>								
	<i>Fauria crista-galli</i>								
Mosses and Lichens	<i>Drepanocladus spp.</i>								
	<i>Mnium spp.</i>								
	<i>Aulacomnium palustre</i>								
	<i>Sphagnum spp.</i>								
	<i>Hylocomium splendens</i>								
	<i>Pleurozium schreberi</i>								
	<i>Eurhynchium praelongum</i>								
	<i>Rhytidiadelphus loreus</i>								

*Picea X – Equisetum arvense – Mnium*

**General Description**

The Spruce – Common horsetail – Leafy moss Swamp Site Association is common in the Northern Boreal Mountains and Central and Sub-Boreal Interior from low to subalpine elevations. It occurs on lower and toe slopes and margins of wetlands, where there is significant flow of mineral-rich groundwater.



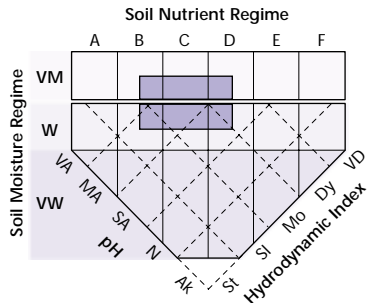
These can be moderately productive sites with spruce to 25 m tall rooting on elevated mounds. The shrub layer may be well developed or sparse with *Lonicera involucrata* the most prominent species. *Equisetum arvense* is always abundant but a diversity of other upland and wetland species is common. The moss layer can be diverse, with leafy mosses (*Mnium* spp.) and *Aulacomnium palustre* usually prominent in depressions and *Pleurozium schreberi* and other feathermosses on raised mounds.

Soils most often have a thin, dark, well-humified, woody peat veneer over fine-textured mineral soils but occasionally deeper peat deposits are encountered.

**Characteristic Vegetation**

- Tree layer** (10 - 25 - 50)  
*Picea X*
- Shrub layer** (25 - 30 - 70)  
*Alnus incana, Lonicera involucrata, Picea X*
- Herb layer** (6 - 70 - 90)  
*Equisetum arvense*
- Moss layer** (5 - 70 - 99)  
*Aulacomnium palustre, Hylocomium splendens, Mnium spp., Pleurozium schreberi*

**Wetland Edatopic Grid**



**Comments**

Spruce – Horsetail units have been described for many interior biogeoclimatic subzones in regional field guides (see Appendix 4). Most of these Site Series include sites with freely drained soils supporting productive forests, as well as stands with wetland soils and poor tree productivity. Plant community composition does not clearly reflect these separate conditions because most species are facultative wetland indicators, and pronounced microtopography allows upland species to occur on wetland sites. The Ws07 therefore includes wetland and non-wetland sites. Wetland sites will have poor tree productivity and hydric soils.

A similar site with more stagnant hydrology and greater peat development is the Wb08. Ws08 ecosystems are generally similar to the Ws07 but occur at high elevations and have abundant subalpine indicators.

TABLE 5.2.1 Distribution of Fen Site Associations by biogeoclimatic zone

	BG PP	BWBS SWB	ESSF	ICH	IDF	MS	SBPS SBS	CDF	CWH	MH
Wf01 Water sedge – Beaked sedge		xx	x	xx	xxx	xxx	xxx		x <sup>i</sup>	
Wf02 Scrub birch – Water sedge		xxx	x	xx	xx	xx	xx			
Wf03 Water sedge – Peat-moss			xx				x			
Wf04 Barclay's willow – Water sedge – Glow mosses		x	xxx			x	x			
Wf05 Slender sedge – Common hook-moss		x		xx	xx	xx	xx			
Wf06 Slender sedge – Buckbean		x		x	x		x			
Wf07 Scrub birch – Buckbean – Shore sedge		x		x	x		x			
Wf08 Shore sedge – Buckbean – Hook-moss		x	x		x	x	x			
Wf09 Few-flowered spike-rush – Hook-moss			x			x	x			
Wf10 Hudson Bay clubrush – Red hook-moss							x			
Wf11 Tufted clubrush – Star moss		x	x	x		x	x			
Wf12 Narrow-leaved cotton-grass – Marsh-marigold			xxx							
Wf13 Narrow-leaved cotton-grass – Shore sedge			xx			x				
Wf50 Narrow-leaved cotton-grass – Peat-moss									x	xxx
Wf51 Sitka sedge – Peat-moss				x				xx	xx	
Wf52 Sweet gale – Sitka sedge								xx	xx <sup>s</sup>	
Wf53 Slender sedge – White beak-rush								x	xx <sup>s</sup>	

x = incidental; &lt; 5% of wetlands

i = inland areas only

xx = minor; 5–25% of wetlands

s = southern subzones only

xxx = major; &gt;25% of wetlands

TABLE 5.2.2 Fen Species Importance Table

Species		WF01	WF02	WF03	WF04	WF05	WF06	WF07	WF08
Shrubs	<i>Betula nana</i>								
	<i>Salix barclayi</i>								
	<i>Salix pedicularis</i>								
	<i>Spiraea douglasii</i>								
	<i>Myrica gale</i>								
Herbs and Dwarf Shrubs	<i>Carex utriculata</i>								
	<i>Carex aquatilis</i>								
Shrubs	<i>Comarum palustre</i>								
	<i>Calamagrostis canadensis</i>								
Shrubs	<i>Carex lasiocarpa</i>								
	<i>Menyanthes trifoliata</i>								
Shrubs	<i>Carex limosa</i>								
	<i>Carex chordorrhiza</i>								
Shrubs	<i>Eleocharis quinqueflora</i>								
	<i>Trichophorum alpinum</i>								
Shrubs	<i>Trichophorum cespitosum</i>								
	<i>Eriophorum angustifolium</i>								
Shrubs	<i>Caltha leptosepala</i>								
	<i>Carex anthoxanthea</i>								
Shrubs	<i>Equisetum fluviatile</i>								
	<i>Carex magellanica</i>								
Shrubs	<i>Carex sitchensis</i>								
	<i>Rhynchospora alba</i>								
Shrubs	<i>Carex livida</i>								
	<i>Eriophorum chamissonis</i>								
Shrubs	<i>Vahlodea atropurpurea</i>								
	<i>Drosera anglica</i>								
Shrubs	<i>Hypericum anagalloides</i>								
	<i>Triantha glutinosa</i>								
Shrubs	<i>Schoenoplectus tabernaemontani</i>								
	<i>Fauria crista-galli</i>								
Shrubs	<i>Senecio triangularis</i>								
	<i>Andromeda polifolia</i>								
Shrubs	<i>Kalmia microphylla</i>								
	<i>Oxycoccus oxycoccus</i>								
Shrubs	<i>Triglochin maritima</i>								
	<i>Drosera rotundifolia</i>								
Shrubs	<i>Leptarrhena pyrolifolia</i>								
	<i>Platanthera dilatata</i>								
Shrubs	<i>Sanguisorba canadensis</i>								
	<i>Utricularia intermedia</i>								
Shrubs	<i>Viola palustris</i>								
	<i>Sphagnum</i> Group I								
Lichens and Mosses	<i>Aulaconnium palustre</i>								
	<i>Drepanocladus</i> spp.								
Lichens and Mosses	<i>Sphagnum</i> Group II								
	<i>Tomentypnum nitens</i>								
Lichens and Mosses	<i>Philonotis fontana</i>								
	<i>Calliergon stramineum</i>								
Lichens and Mosses	<i>Scorpidium</i> spp.								
	<i>Campyllum stellatum</i>								
Lichens and Mosses	<i>Warnstorfia</i> spp.								
	<i>Meesia triquetra</i>								

*Betula nana* – *Menyanthes trifoliata* – *Carex limosa*

**General Description**

Scrub birch – Buckbean – Shore sedge fens occur throughout the Central and Sub-Boreal Interior at middle elevations below 1400 m, in palustrine basins or patterned fens with permanently high watertables. Most sites are prominently hummocked or ribbed with elevated sites and permanent shallow-water hollows.



An open cover of *Betula nana* or *Salix pedicellaris* rooted on elevated microsites is distinctive. Low sedges such as *Carex chordorrhiza* and *C. limosa* are prominent throughout most sites, while *Comarum palustre* and *Menyanthes trifoliata* occupy inundated depressions. The composition of the well-developed bryophyte layer is variable. Mixed-species *Sphagnum* cover is common on some sites (not necessarily the most acidic), brown mosses are common on others, while true calciphiles such as *Scorpidium scorpioides* occur only on the most basic sites.

Mesisols and Fibrisols derived from sedge/moss peat are typical. Peat is often >1 m in depth but, less commonly, sites occur on peat veneers.

**Characteristic Vegetation**

- Tree layer (0 - 0 - 0)**
- Shrub layer (10 - 26 - 55)**  
*Betula nana*, *Salix pedicellaris*
- Herb layer (20 - 60 - 80)**  
*Carex aquatilis*, *C. chordorrhiza*, *C. limosa*,  
*Comarum palustre*, *Menyanthes trifoliata*
- Moss layer (20 - 95 - 100)**  
*Drepanocladus aduncus*, *Scorpidium* spp.,  
*Sphagnum* Group I, *Sphagnum* Group II,  
*Tomentypnum nitens*

**Comments**

The Wf07 covers much of the acidity/alkalinity gradient, with little change in the vascular flora but a marked difference in the bryophyte composition. Some sites have more *Sphagnum* and are generally more bog-like, while others are more clearly rich fens. These sites are similar to the Wb13 but have a well developed shrub layer. However, there is a high degree of intergradation with few clear environmental criteria to separate most sites (except at the extremes of the spectrum). Hence, the variation has been grouped into a single Site Association.

The open shrub cover of the the Wf07 distinguishes it from the wetter Wf08 or Wb13. The Wf07 may represent the middle stage of a peatland succession sequence: Wf08 >> Wf07 >> Wb11 in some regions.

**Wetland Edatopic Grid**

