

CWHwm	CWHws1	CWHws2
78 013 88 0.7% 0 - 600 m	237 171 81 2.1 % 10 - 600 m	474 814 18 4.3 % 600 - 1000 m
Coast Mtns.; northern Kitimat Ranges and southern Boundary Ranges	Eastern slopes of Coast Mtns., Kitimat Ranges and western slopes of Hazelton Mtns.	Eastern slopes of Coast Mtns., Kitimat Ranges and western slopes of Hazelton Mtns.
Khutzeymateen R., Kateen R., Observatory Inlet, Portland Canal	Kitimat and Kitsumkalum valleys; Skeena R. from Exstew R. to Legate Ck.; Nass R. below Tseax R.	Above CWHws1; also inland to Kitwanga and Cranberry R. and south to shores of Morice, Tahtsa, Whitesail and Eutsuk lakes and upper Kitlope and Gamsby r.
Wet, humid, mild maritime, with heavier snow and a shorter growing season than more southerly subzones	Submaritime or coastal-transitional; warm, moist summers with significant dry spells; winters are the coldest and driest in the CWH	Wetter, with a cooler, shorter growing season and heavier snowpacks than the CWHws 1
Humo-Ferric and Ferro-Humic <u>Podzols</u> ; Typic <u>Folisols</u>	Orthic Humo-Ferric <u>Podzols</u>	Orthic Humo-Ferric and Ferro-Humic <u>Podzols</u>
Humimors; Hemihumimors; often compacted by snow	Orthihemimors; 5 - 20 cm thick	Orthihemimors; Orthihemihumimors; 3 - 13 cm thick
Hw, Ss	Hw, Ba, Cw, Ss, Sxs	Hw, Ba, Hm
Dr, Act	Dr, Act, Pl, Ep, At	Bl
HwSs - Blueberry	HwBa - Bramble	HwBa - Bramble

• Biogeoclimatic unit		CWH vh2	CWH vm1	CWH vm2	CWH wm	CWH ws1	CWH ws2	
• Tree layer	<i>Chamaecyparis nootkatensis</i>	■■■■ ^a	■	■■■	■			yellow-cedar
	<i>Taxus brevifolia</i>	■■■	■			■		western yew
	<i>Thuja plicata</i>	■■■■	■■■	■	■	■■■	■	western redcedar
	<i>Abies amabilis</i>	■	■■■	■■■		■■■	■■■	amabilis fir
	<i>Tsuga heterophylla</i>	■■■	■■■	■■■	■■■	■■■	■■■	western hemlock
	<i>Picea sitchensis</i>	■■■	■■■	■	■■■	■	■	Sitka spruce
	<i>Picea sitchensis</i> x <i>glauca</i>				■	■■■	■■■	Roche spruce
	<i>Pinus contorta</i>	■■■	■■■	■	■	■■■ ^b	■■■ ^b	shore/lodgepole pine
	<i>Pseudotsuga menziesii</i> ^c		■					Douglas-fir
	<i>Tsuga mertensiana</i>	■■■	■	■■■	■		■■■	mountain hemlock
	<i>Abies lasiocarpa</i>			■	■■■	■	■■■	subalpine fir
	<i>Alnus rubra</i>	■■■	■■■	■	■■■	■■■	■	red alder
	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>		■■■	■	■■■	■■■	■	black cottonwood
	<i>Betula papyrifera</i>		■		■	■	■	paper birch
<i>Populus tremuloides</i>		■		■	■	■	trembling aspen	
• Shrub layer	<i>Gaultheria shallon</i>	■■■	■					salal
	<i>Vaccinium parvifolium</i>	■■■	■■■	■	■■■	■■■	■	red huckleberry
	<i>Vaccinium membranaceum</i>			■	■	■	■■■	black huckleberry
	<i>Malus fusca</i>	■■■	■■■	■	■	■		Pacific crab apple
	<i>Ribes bracteosum</i>	■■■	■■■	■	■	■	■	stink currant
	<i>Rosa nutkana</i>	■	■	■	■	■■■	■	Nootka rose
	<i>Rosa acicularis</i>		■		■	■	■	prickly rose
	<i>Shepherdia canadensis</i>		■		■	■		soopolallie

^a Bars indicate the relative abundance of plants across all site series within a biogeoclimatic unit. These bars are defined in Section 3.3.2, page 3•6.

^b Mostly lodgepole pine (*Pinus contorta* var. *latifolia*).

^c Gardner Canal, Kitlope area only.

FIGURE 4.5. Vegetation table for CWH subzones and variants in the PRFR, south half.

Site Units

CWHws1

Wet Submaritime Subzone Submontane Variant

Adjacent biogeoclimatic units: CWHws2 at higher elevations; ICHmc2 at similar elevations inland; CWHvm1 at similar elevations towards the coast.

Elevation range: 10 - 600 m.

Description and comparison of site series:

Zonal site series:

01 HwBa - Bramble is widespread in the variant at all slope positions and on a variety of parent materials. Forests are dominated by Hw and Ba with a minor component of Cw. Shrub layers are usually well developed and dominated by conifer regeneration and Alaskan blueberry; however, some sites may have little understory development. Bunchberry, five-leaved bramble, and Queen's cup are the major herb species, but these have low cover. Soils are coarse-textured Podzols with moderately thick Mor humus layers. Two phases are recognized: a **Typic phase (01a)** on colluvial, morainal, or lacustrine deposits; and a **Glaciofluvial phase (01b)**, which occurs on coarse-textured glaciofluvial and inactive fluvial deposits.

Drier sites: Two drier forested site series have been described.

02 Pl - Kinnikinnick is rare and confined to dry upper slopes and ridge crests with thin morainal/colluvial veneers over bedrock. These are stunted and widely spaced Pl forests with a small component of Hw. Shrub layers are sparse; herb layers typically have scattered kinnikinnick, dwarf blueberry, prince's pine, and rattlesnake-plantain. The moss layer is feathermoss patches with some rock moss and reindeer lichen occurring (contrast with 03).

03 HwPl - Feathermoss is widespread on gravelly glaciofluvial outwash (**Glaciofluvial phase 03b**) and coarse morainal and colluvial veneers (**Typic phase 03a**). Forests are either pure Pl stands (common in the upper Kitimat and Kitsumkalum valleys) or dense, small-diameter Hw stands with scattered Pl and Cw. Shrub and herb layers are very poorly developed; the moss layer is a continuous feathermoss carpet. It is differentiated from the drier 02 by better stand growth and absence of kinnikinnick. Submesic 01 forests have better growth and better-developed shrub and herb layers.

Fresh to wet sites: Five wetter forested site series have been described (excluding floodplain forests, page 5•65).

04 BaCw - Oak fern is widespread on mid to lower slopes in seepage areas where conditions are moist and rich. These are Hw-dominated forests with secondary components of Ba, Cw, or Sxs. A light cover of devil's club (<20%) is characteristic of this unit with oakfern as the dominant herb and scattered foamflower, spiny wood fern, bunchberry, and five-leaved bramble usually occurring. Step and lanky mosses form a continuous carpet with scattered leafy mosses. The 06 is similar in appearance, but wetter conditions, much higher cover of devil's club, lush understory, and dominance of leafy mosses distinguish it from the 04.

05 HwBa - Queen's cup is locally common in the Kitimat Valley but uncommon elsewhere in the subzone. It represents sites that are wetter than

the 01 but lack the rich-site indicators of the 04 and 06. Forest composition and growth are equivalent to the 01; understory species are also similar but typically more lush. Small patches of skunk cabbage in wet hollows are good indicators when present. The 05 is distinguished from 01 more on the basis of soil conditions than by vegetation; soils are imperfectly drained, gleyed Podzols, often with cemented horizons at depth.

06 BaCw - Devil's club is very productive and supports stands with large well-spaced Hw, Hw, and Sxs. These sites are found most typically on lower slopes, toes, level areas, or in gullies that receive abundant seepage. Soils are gleyed Podzols developed on morainal, colluvial, or fluvial deposits. The understory is usually dense devil's club and salmonberry thickets with lady fern, oak fern, spiny wood fern, and foamflower. Leafy mosses predominate (contrast with 04).

10 Pl - Sphagnum bog woodlands of scrubby Pl and Cw are uncommon in the CWHws1. They are restricted to some localized peat-filled depressions at the base of slopes or valley floors. Typical understory species are Labrador tea, skunk cabbage, sedges, and sphagnum. The 10 is easily distinguished from other units by its unique bog vegetation and stunted canopy.

11 CwSs - Skunk cabbage swamp forests occur mainly on wet gradual slopes or level sites (occasionally in complex with 05). Despite rich soil conditions, the Cw/Hw/Sxs forests have low productivity because of high water tables. The understory is composed of blueberries with scattered red-osier dogwood, highbush-cranberry, salmonberry, and abundant ferns and skunk cabbage. Soils are Gleysols and Organics developed on lacustrine or fluvial deposits. The 11 is distinguished from the 06 by soil characteristics, scattered devil's club, and greater abundance of skunk cabbage.

Floodplain sites: Three site series occur on active floodplains and reflect differences in bench height and frequency of flooding. Soils are poorly developed Brunisols or Regosols.

07 Ss - Salmonberry (High fluvial bench) occurs on elevated floodplain sites that have seasonally fluctuating water tables, but generally only flood every few years. Highly productive forests dominated by Ss are typical. Salmonberry and devil's club dominate the understory. Ferns are common in the moderately developed herb layer; leafy mosses are common in the moss layer.

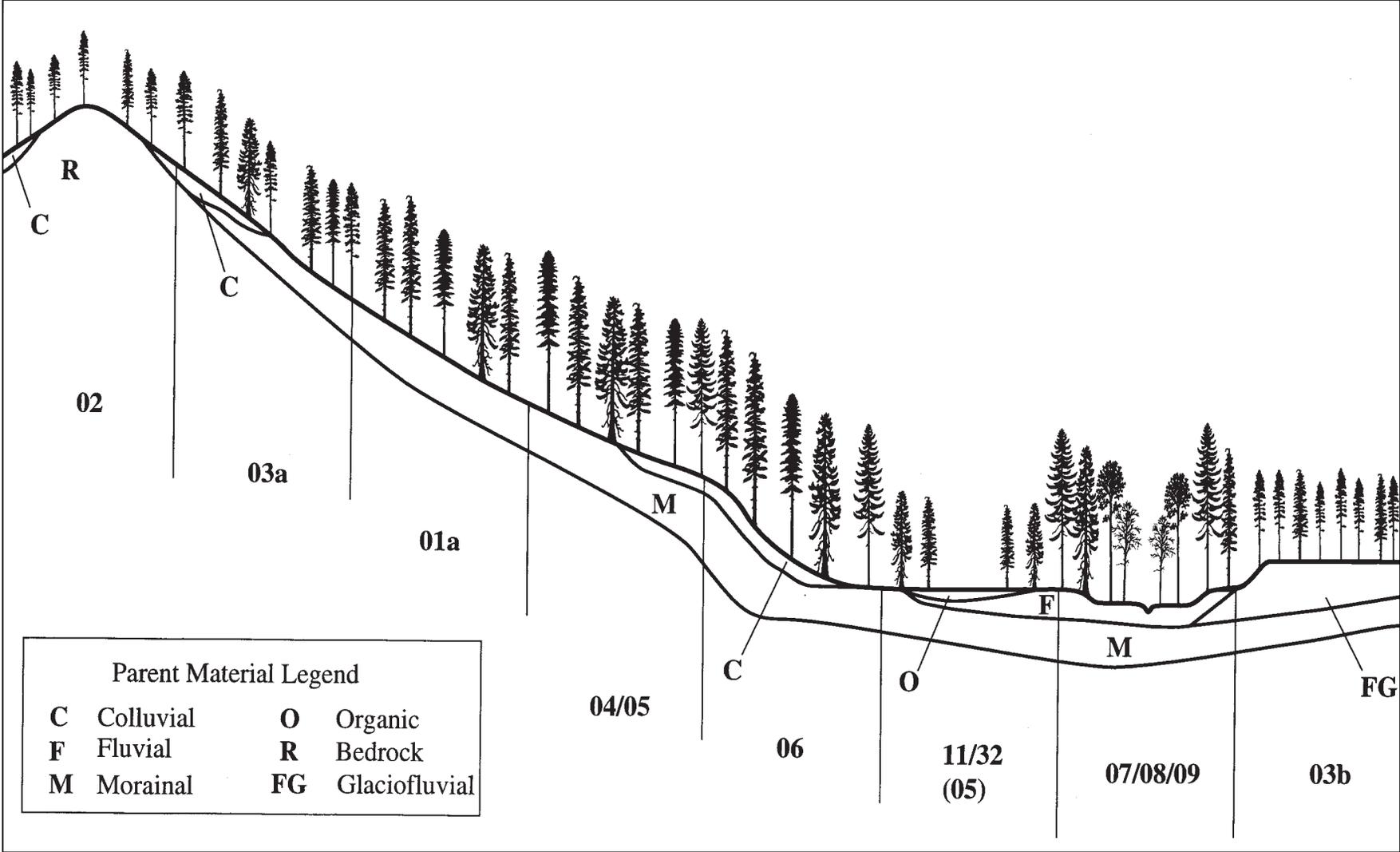
08 Act - Red-osier dogwood (Middle fluvial bench) experiences prolonged elevated water tables during the growing season that limit conifer establishment. Forests are dominated by Act with some Ss. Understories are dominated by thickets of salmonberry, red-osier dogwood, and red elderberry. Herb and moss layers are greatly reduced. Low cover of conifers distinguish the 08 from the 07. Lack of willows, greater forest stature, and higher bench height distinguish the 08 from the 09.

09 Act - Willow (Low fluvial bench) is usually situated directly streamside or in back channels that experience prolonged annual flooding and sediment erosion/deposition. This limits tree growth and scours vegetation that is not firmly rooted. Act is scattered in the unit; Dr, willows, and Sitka alder may dominate.

Non-forested site units: Two non-forested site series occur sporadically in the variant: **Non-forested bog (31)** and **Non-forested fen/marsh (32)**. See page 5 • 21 for general descriptions of CWH wetlands.

CWHws1 Landscape Profile^a

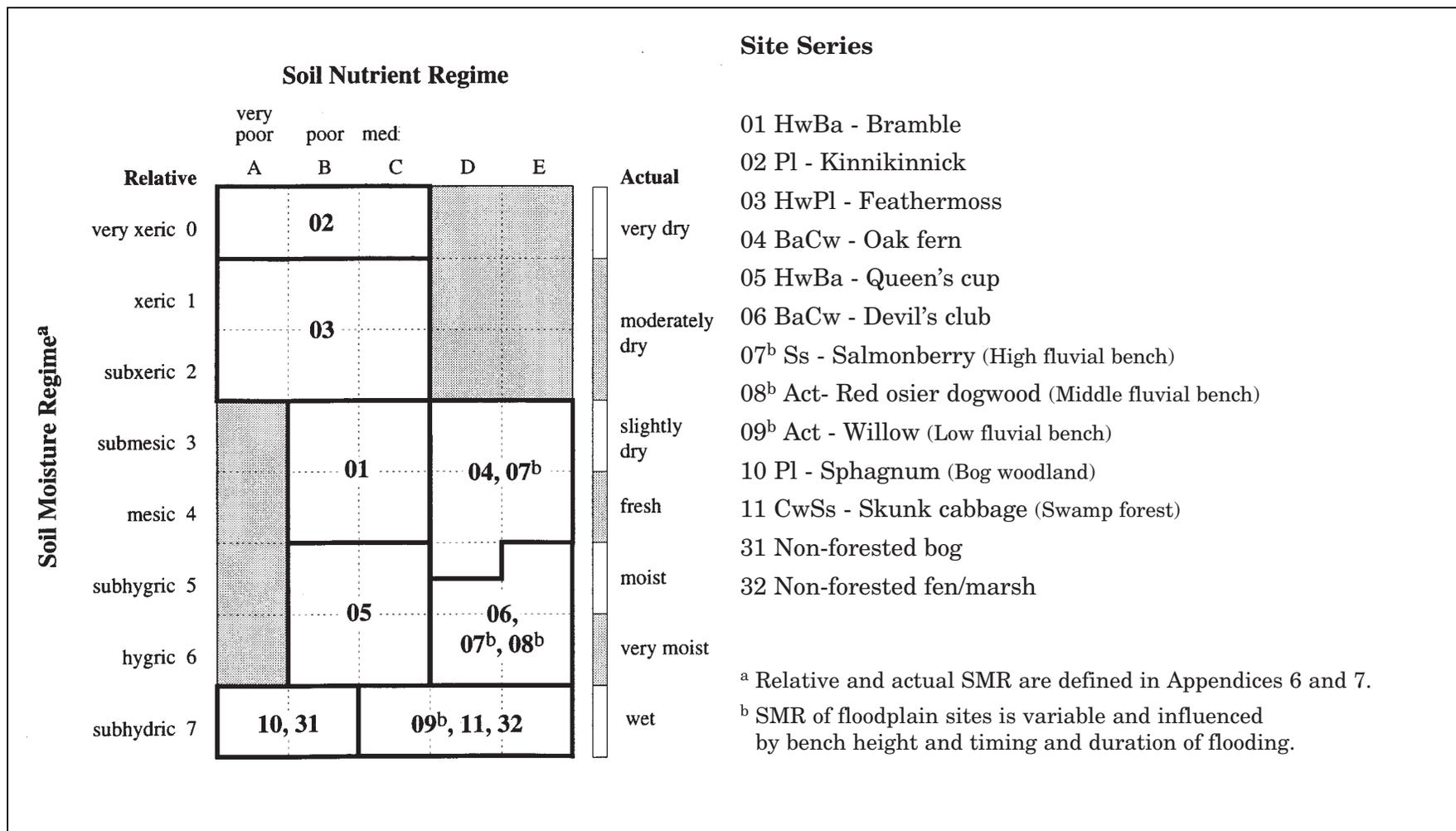
Site Units



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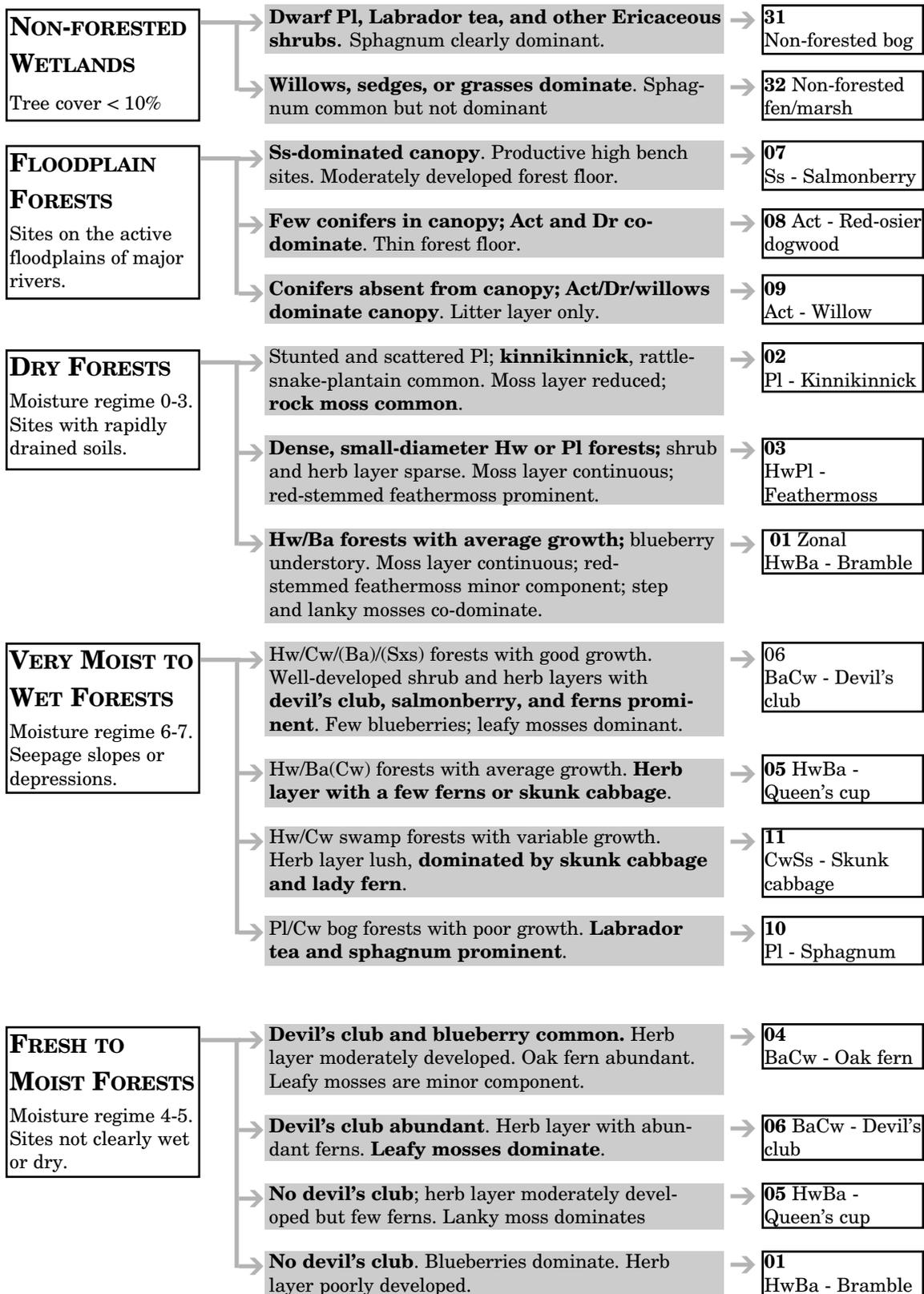
^a Tree symbols are defined in Appendix 3.

CWHws1 Edatopic Grid



Site Units

CWHws1 Site Series Flowchart



CWHws1 Vegetation Table^a

	Site Units	02 ^b	03	01	04	05 ^b	06	07	08	09 ^b	10	11	31 ^b	32 ^b		
• Tree layer	<i>Pinus contorta</i>	■													lodgepole pine	
	<i>Tsuga heterophylla</i>		■	■	■	■	■	■			■	■			western hemlock	
	<i>Thuja plicata</i>		■	■	■	■	■	■	■		■	■			western redcedar	
	<i>Abies amabilis</i>		■	■	■	■	■	■	■						amabilis fir	
	<i>Picea sitchensis</i> x <i>glauca</i>				■		■		■	■			■		Roche spruce	
	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>								■	■	■				black cottonwood	
	<i>Alnus rubra</i>								■	■	■		■		red alder	
• Shrub layer	<i>Pinus contorta</i>	■									■			■	lodgepole pine	
	<i>Vaccinium ovalifolium</i>		■	■	■	■	■	■			■	■			oval-leaved blueberry	
	<i>Tsuga heterophylla</i>		■	■	■	■	■	■			■	■		■	western hemlock	
	<i>Vaccinium alaskaense</i>		■	■	■	■	■	■				■	■		Alaskan blueberry	
	<i>Menziesia ferruginea</i>		■	■	■	■	■	■			■	■			false azalea	
	<i>Thuja plicata</i>		■	■	■	■	■	■			■	■			western redcedar	
	<i>Abies amabilis</i>			■	■	■	■	■							amabilis fir	
	<i>Oplopanax horridus</i>				■	■	■	■	■						devil's club	
	<i>Rubus spectabilis</i>						■	■	■				■		salmonberry	
	<i>Cornus stolonifera</i>								■	■		■			red-osier dogwood	
	<i>Ledum groenlandicum</i>										■	■		■	Labrador tea	
	<i>Salix</i> spp.									■			■		willows	
	• Herb layer	<i>Arctostaphylos uva-ursi</i>	■													kinnikinnick
<i>Chimaphila umbellata</i>		■	■												prince's pine	
<i>Goodyera oblongifolia</i>		■	■												rattlesnake-plantain	
<i>Rubus pedatus</i>				■	■	■	■	■					■		five-leaved bramble	
<i>Cornus canadensis</i>		■	■	■	■	■	■	■			■	■		■	bunchberry	
<i>Clintonia uniflora</i>				■	■	■	■	■							queen's cup	
<i>Dryopteris expansa</i>					■	■	■	■							spiny wood fern	
<i>Gymnocarpium dryopteris</i>					■	■	■	■							oak fern	
<i>Athyrium filix-femina</i>					■	■	■	■	■				■	■	lady fern	
<i>Tiarella</i> spp.							■	■	■				■		foamflowers	
<i>Siretopus</i> spp.					■	■	■	■							twistedstalks	
<i>Lysichiton americanum</i>											■	■		■	skunk cabbage	
<i>Carex</i> spp.											■			■	sedges	
• Moss layer		<i>Rhacomitrium</i> spp.	■								■					rock mosses
		<i>Pleurozium schreberi</i>	■	■	■	■	■	■	■			■		■		red-stemmed feathermoss
	<i>Rhytidiopsis robusta</i>		■	■	■	■	■	■							pipecleaner moss	
	<i>Hylocomium splendens</i>	■	■	■	■	■	■	■			■	■			step moss	
	<i>Rhytidiadelphus loreus</i>	■	■	■	■	■	■	■			■	■			lanky moss	
	<i>Rhytidiadelphus triquetrus</i>	■	■	■	■	■	■	■							electrified cat's-tail moss	
	<i>Mnium</i> spp.				■	■	■	■							leafy mosses	
	<i>Sphagnum</i> spp.											■	■	■	sphagnum	
<i>Aulacomnium palustre</i>													■	glow moss		

^a Prominence bars are described in Section 3.2.2, page 3 • 6.

^b Limited data; unit described from fewer than three plots.

Site Units

CWHws1 Environment Table

Site series	Phase	Soil moisture/nutrients	Slope position	Slope % range	Parent material ^a
01	a) Typic	3-4B-C	upper - level	0 - 80	C, M, L
01	b) Glacio-fluvial	3-4B-C	mid - level	0 - 35	F, FG
02 ^b		0/A-C	crest - upper	0 - 100	Cv/R, M/R
03	a) Typic	1-2/A-C	crest - mid	0 - 100	C, M, Mv/R
03	b) Glacio-fluvial	1-2/A-C	level	0 - 5	FG, F
04		3-(5)/D-E	mid - level	10 - 65	C, M, F
05 ^b		5-6B-C	mid - level	0 - 20	M, F, W
06		5-6/D-E	lower	10 - 26	C
07		4-6/D-E	level	0 - 10	F
08 ^b		5-6/D-E	level	0 - 10	F
09 ^b		(6)7/C-E	level	0 - 5	F
10		7/A-B	level, depression	0 - 1	O, F
11 ^b		7/C-E	toe - level	0 - 20	F Ov/M
31 ^b		7+/A-B	depressions	0	O
32 ^b		7+/C-E	depressions	0	O

^a Codes are described in Section 3.2.2, page 3 • 8.

^b Limited data; unit described from fewer than three plots.

Soil particle size^a	Soil classification^a	Humus form depth (cm) min-mean-max	Important site features
KL(s), S(s)	HFP, FHP	Mors 3 - 15 - 34	Widespread on a variety of mesic sites.
KLs, S, (FL)	HFP	Mors 4 - 10 - 19	Glaciofluvial terraces between Terrace and Kitimat.
KL, S (f or s)	DYB	Mors 1 - 3 - 6	Extremely dry rock outcrops and ridges; rare.
Ss, Ss, Ls	HFP	Mors 5 - 12 - 40	Shallow and/or coarse-textured parent materials.
Ss	HFP, (DYB)	Mors 6 - 7 - 10	Coarse outwash gravels in major valley bottoms.
KL, L, S	DYB, FO; (gleyed)	Moders, Mors 6 - 31 - 55	Freely drained mid to lower slopes with intermittent seepage.
L, KL, C	HFP (gleyed)	Mors 5 - 15 - 34	Imperfect drainage or perched water table.
Ls	HFP (gleyed)	Moders 5 - 8 - 13	Very productive rich seepage sites on lower slopes.
S, L, KL (s)	R, DYB (HFP)	Moders 3 - 10 - 20	Active floodplain high bench sites; fluctuating water table.
S, KL(s)	R	Moders, Mors 2 - 3 - 5	Active floodplain medium bench sites; periodic (annual) flooding.
S, KL (s)	R	Moders, Mors 3 - 3 - 5	Active floodplain low bench sites; annual, often high-velocity flooding.
FL	G, H	peaty "O" horizons >1 m	Wet, acidic bog woodlands; rare in CWHws1.
L, FL	G	Moders 30 - 35 - 40	Wet, gleyed, stagnant mineral soils.
--	M, F	peaty "O" horizons > 1 m	Very wet, poor acidic soils. Too wet for tree growth.
--	M, F, G	peaty "O" horizons > 1 m	Very wet soils with some mineral seepage. Too wet for tree growth.

TABLE 5.1.1 Distribution of Bog Site Associations by biogeoclimatic zone

	BG PP	BWBS SWB	ESSF	ICH	IDF	MS	SBPS SBS	CDF	CWH	MH
Wb01 Black spruce – Creeping-snowberry – Peat-moss							X			
Wb02 Lodgepole pine – Bog rosemary – Peat-moss				X			X ^w			
Wb03 Black spruce – Lingonberry – Peat-moss		xxx								
Wb04 Western hemlock – Cloudberry – Peat-moss				x ⁿ						
Wb05 Black spruce – Water sedge – Peat-moss		xx		X		X	xxx			
Wb06 Tamarack – Water sedge – Fen moss		xxx					X			
Wb07 Lodgepole pine – Water sedge – Peat-moss			X	X	X	X				
Wb08 Black spruce – Soft-leaved sedge – Peat-moss				X	X	X	xx			
Wb09 Black spruce – Common horsetail – Peat-moss		xx					X			
Wb10 Lodgepole pine – Few-flowered sedge – Peat-moss			X	X			X			
Wb11 Black spruce – Buckbean – Peat-moss				X			X ^w			
Wb12 Scheuchzeria – Peat-moss		X		X			X			
Wb13 Shore sedge – Buckbean – Peat-moss			X	X			X			
Wb50 Labrador tea – Bog-laurel – Peat-moss								X	X ^s	
Wb51 Shore pine – Crowberry – Tough peat-moss									xx	
Wb52 Common juniper – Tufted clubrush – Rock moss									xxx ^{oc}	
Wb53 Shore pine – Yellow-cedar – Tufted clubrush									xxx ^{oc}	

x = incidental; < 5% of wetlands

w = wet/very wet subzones only

s = southern subzones only

xx = minor; 5–25% of wetlands

n = northern subzones only

xxx = major; >25% of wetlands

oc = outer coast (hypermaritime) only

TABLE 5.1.2 Bog Species Importance Table

Species		Wb01	Wb02	Wb03	Wb04	Wb05	Wb06	Wb07	Wb08
Trees	<i>Picea mariana</i>								
	<i>Larix laricina</i>								
	<i>Tsuga heterophylla</i>								
	<i>Pinus contorta</i> var. <i>latifolia</i>								
	<i>Picea</i> X								
	<i>Thuja plicata</i>								
	<i>Pinus contorta</i> var. <i>contorta</i> <i>Chamaecyparis nootkatensis</i>								
Shrubs	<i>Ledum groenlandicum</i>								
	<i>Betula nana</i>								
	<i>Salix myrtilifolia</i>								
	<i>Lonicera involucrata</i>								
	<i>Salix pedicellaris</i>								
	<i>Myrica gale</i>								
	<i>Vaccinium uliginosum</i> <i>Juniperus communis</i>								
Herbs and Dwarf Shrubs	<i>Oxycoccus oxycoccos</i>								
	<i>Gaultheria hispidula</i>								
	<i>Vaccinium vitis-idaea</i>								
	<i>Rubus chamaemorus</i>								
	<i>Carex aquatilis/sitchensis</i>								
	<i>Carex disperma</i>								
	<i>Carex tenuiflora</i>								
	<i>Comarum palustre</i>								
	<i>Equisetum arvense</i>								
	<i>Carex pauciflora</i>								
	<i>Andromeda polifolia</i>								
	<i>Empetrum nigrum</i>								
	<i>Carex limosa</i>								
	<i>Menyanthes trifoliata</i>								
	<i>Eriophorum angustifolium</i>								
	<i>Kalmia microphylla</i>								
	<i>Scheuchzeria palustris</i>								
	<i>Drosera anglica</i>								
	<i>Drosera rotundifolia</i>								
	<i>Coptis trifolia</i>								
	<i>Carex pluriflora</i>								
	<i>Fauria crista-galli</i>								
	<i>Carex livida</i>								
	<i>Sanguisorba officinalis</i>								
	<i>Triantha glutinosa</i>								
	<i>Trichophorum cespitosum</i>								
	<i>Rhynchospora alba</i>								
<i>Agrostis aequivalvis</i>									
Lichens and Mosses	<i>Sphagnum</i> Group I								
	<i>Pleurozium schreberi</i>								
	<i>Hylocomium splendens</i>								
	<i>Aulacomnium palustre</i>								
	<i>Tomentypnum nitens</i>								
	<i>Sphagnum</i> Group III								
	<i>Cladina</i> spp.								
	<i>Cladonia</i> spp.								
	<i>Sphagnum</i> Group IV								
	<i>Racomitrium lanuginosum</i> <i>Siphula ceratites</i> <i>Campylopus atrovirens</i>								

Wb09	Wb10	Wb11	Wb12	Wb13	Wb50	Wb51	Wb52	Wb53	Common Name
									black spruce
									tamarack
									western hemlock
									lodgepole pine
									spruce
									western redcedar
									shore pine
									yellow-cedar
									Labrador tea
									scrub birch
									bilberry willow
									black twinberry
									bog willow
									sweet gale
									bog blueberry
									common juniper
									bog cranberry
									creeping-snowberry
									lingonberry
									cloudberry
									water sedge/Sitka sedge
									soft-leaved sedge
									sparse-leaved sedge
									marsh cinquefoil
									common horsetail
									few-flowered sedge
									bog-rosemary
									crowberry
									shore sedge
									buckbean
									narrow-leaved cotton-grass
									western bog-laurel
									scheuchzeria
									great sundew
									round-leaved sundew
									three-leaved goldthread
									many-flowered sedge
									deer-cabbage
									pale sedge
									great burnet
									sticky false-asphodel
									tufted clubrush
									white beak-rush
									Alaska bentgrass
									peat-moss Group I
									red-stemmed feathermoss
									step moss
									glow moss
									golden fuzzy fen moss
									peat-moss Group III
									reindeer lichens
									clad lichens
									peat-moss Group IV
									hoary rock-moss
									northern waterfingers
									bristly swan-neck moss

Carex limosa – *Menyanthes trifoliata* – *Sphagnum*

General Description

Shore sedge – Buckbean – Peat-moss bogs are uncommon in the interior rainforest and coastal transition regions at elevations below 1600 m. They occur as components of larger acidic peatlands, occupying the central, wettest portions of the peatland: either grounded, highly saturated peat blankets, or floating mats.



Species tolerant of acidic, continually saturated conditions and concurrent lack of oxygen are prominent. The most consistent of these is *Carex limosa*. *Drosera anglica*, *Menyanthes trifoliata*, *Kalmia microphylla*, and other species can be abundant, sparse, or absent on **Wb13** sites. *Sphagnum angustifolium*, *S. magellanicum*, or *S. fuscum* often form a continuous lawn or there may be a mix of species in hummock-hollow patterns.

Soils are deep (to > 5 m) sedge-derived Mesisols with a surface tier of poorly decomposed *Sphagnum* peat. The watertable is typically at or near the surface but there is little standing water.

Characteristic Vegetation

- Tree layer (0 - 0 - 0)
- Shrub layer (0 - .5 - 10)
- Herb layer (15 - 73 - 100)
- Carex limosa*, *Drosera anglica*, *Eriophorum angustifolium*, *Kalmia microphylla*, *Menyanthes trifoliata*, *Trientalis europaea* ssp. *arctica*
- Moss layer (30 - 90 - 100)
- Sphagnum* Group I

Comments

The *Wf08* is a similar unit that occurs in drier interior climates on saturated sites.

This unit most frequently occurs in wetter locations adjacent to the *Wb11* or *Wb02*, and beside peatland ponds or lakes.

Wetland Edatopic Grid

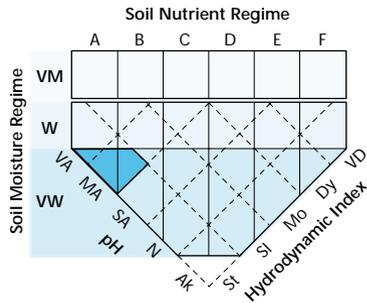


TABLE 5.2.1 Distribution of Fen Site Associations by biogeoclimatic zone

	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 ⁱ	
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 ^s	
Wf53 Slender sedge – White beak-rush								x	xx ^s	

x = incidental; < 5% of wetlands

i = inland areas only

xx = minor; 5–25% of wetlands

s = southern subzones only

xxx = major; >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>								
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 Group I</i>								
Lichens and Mosses	<i>Aulaacomnium palustre</i>								
	<i>Drepanocladus spp.</i>								
Lichens and Mosses	<i>Sphagnum Group II</i>								
	<i>Tomentypnum nitens</i>								
Lichens and Mosses	<i>Philonotis fontana</i>								
	<i>Calliergon stramineum</i>								
Lichens and Mosses	<i>Scorpidium spp.</i>								
	<i>Campyllum stellatum</i>								
Lichens and Mosses	<i>Warnstorfia spp.</i>								
	<i>Meesia triquetra</i>								

Carex lasiocarpa – *Menyanthes trifoliata***General Description**

Slender sedge – Buckbean fens are uncommon in the Central and Sub-Boreal Interior at elevations below 1300 m. They occur on floating mats adjacent to small lakes and peatland ponds, or in flarks of patterned fens where there is permanent surface saturation and shallow inundation.

Sites are often slightly hummocked, with *Menyanthes trifoliata* occurring in the wet depressions and *Carex lasiocarpa* and *Drepanocladus* spp. and other mosses occurring on mounds. A sparse shrub layer can occur and the moss layer is always well developed. Hook-mosses are the most common component of the moss layer but *Sphagnum* spp. or *Campylium stellatum* may dominate on some sites.

Sites have sedge peat to 2.5 m, often with a subsurface water lens or supersaturated horizon. Fibrisols and Mesisols are typical soil types.

**Characteristic Vegetation**

Tree layer (0 - 0 - 0)

Shrub layer (0 - 3 - 10)

Herb layer (20 - 65 - 85)

Carex lasiocarpa, *Menyanthes trifoliata*

Moss layer (30 - 55 - 100)

Drepanocladus aduncus, *Warnstorfia* spp.

Comments

Wf06 site conditions are intermediate between the Wf05 and the Wf08. The Wf06 has a more equable water regime with less flooding, less water flow, and greater peat saturation than the related Wf05, but has deeper and more dynamic surface water than the Wf08. Slender-sedge fens (Wf05, Wf06) occur in locations similar to the Wf01 but seem to represent sites with longer surface saturation and more basic soil water. The Wf06 almost always occurs as a floating mat adjacent to a waterbody.

Similar sites in coastal areas are described by the Wf53.

Wetland Edatopic Grid