TABLE 5.8.1
 Distribution of "Transition" Site Associations by biogeoclimatic zone

		BG	BWBS					SBPS			
		PP	SWB	ESSF	ICH	IDF	MS	SBS	CDF	CWH	MH
Gs01	Alkali saltgrass	XX				$xx^d$					
Gs02	Nuttall's alkaligrass – Foxtail barley					$xx^d$	$\mathbf{x}^{\mathbf{d}}$	$\mathbf{x}^{\mathbf{v}}$			
Gs03	Field sedge	XX				$xx^d$		$\mathbf{X}\mathbf{X}^{\mathbf{V}}$			
Gs04	Tufted hairgrass					$\mathbf{x}^{\mathbf{d}}$	$xx^d$	$\mathbf{x}\mathbf{x}^{\mathrm{v}}$			
Sc01	Scrub birch – Kinnikinnick		XX			$\mathbf{x}^{ ext{dc}}$	$xx^{dc}$	$\mathbf{X}\mathbf{X}^{\mathbf{V}}$			
Sc02	Grey-leaved willow – Glow moss		XX	$\mathbf{x}^{ ext{dc}}$		$\mathbf{x}^{ ext{dc}}$	$xx^{dc}$				
Sc03	Barclay's willow – Arrow-leaved groundsel		x	XXX							

x = incidental; < 5% of wetlands d = dry subzones only xx = minor; 5–25% of wetlands v = dry subzones of the SBPS only xxx = major; >25% of wetlands dc = dry and cold subzones only

 TABLE 5.8.2
 "Transition" Species Importance Table

	Species	Gs01	Gs02	Gs03	Gs04
Shrubs	Salix brachycarpa				
	Betula nana				
	Salix glauca				I
	Salix barclayi				
Herbs	Distichlis spicata var. stricta		I	1	
	Spartina gracilis		I		
	Suaeda calceoliformis	<u>!!!</u>	<u>l</u>		
	Aster ericoides ssp. pansus	<u> </u>	ļ.	ļ.	
	Poa secunda	<u>                                     </u>	!	i.	
	Hordeum jubatum			II	
	Puccinellia nuttalliana	II∎ II			
	Carex praegracilis	_ !			
	Elymus trachycaulus Poa pratensis	i	i	". II	i
	Aster ericoides	•	i	i i i	
	Potentilla anserina		İ	ī	I
	Juncus balticus	II	Ī	III	Ī
	Deschampsia cespitosa			II	
	Potentilla gracilis			I	1
	Taraxacum of <b>fi</b> cinale	I		II	I
	Carex utriculata				III.
	Achillea millefolium			ļ	II
	Muhlenbergia richardsonis			ı	
	Kobresia myosuroides				
	Koeleria macrantha			!	
	Arctostaphylos uva-ursi			1	
	Antennaria pulcherrima Maianthemum stellatum	1		1	
	Aster ciliolatus	'		i	
	Calamagrostis canadensis		ı	i	I
	Thalictrum occidentale		•	ï	ï
	Fragaria virginiana			i	i
	Senecio triangularis				
	Valeriana sitchensis				
	Epilobium angustifolium				
	Erigeron peregrinus				I
	Sanguisorba canadensis				
	Trollius albiflorus				
	Equistem arvense				
Mosses	Bryum pseudotriquetrum				I
	Drepanocladus spp.		I		II.
	Aulacomnium palustre				<u> </u>
	Brachythecium spp.			!	<b>!!</b>
	Mnium spp.			1	1

Distichlis spicata var. stricta

### **General Description**

The Alkali saltgrass Saline Meadow Site Association is uncommon in the BG, PP, and dry IDF of the Central Interior and Southern Interior at elevations below 1000 m. **Gs01** meadows occur in the seasonally flooded riparian zone of small potholes and shallow lakes where evaporation accumulates salts. Brief







flooding in the early season is followed by pronounced surface drying, occasionally leaving a distinct salt crust.

Only salt-tolerant plants are found on these sites; no shrubs or mosses occur. Distichlis spicata var. stricta is always prominent but some sites have high cover of Spartina gracilis, Amphiscirpus nevadensis, or Poa secunda ssp. juncifolia.

Soils are fine textured, saline or saline-alkali, imperfectly drained materials with minimal

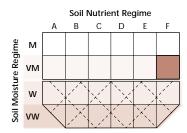
organic accumulation. Solonetzes and Gleysols are common soil groups.

# Characteristic Vegetation

Tree layer (0 - 0 - 0) Shrub layer (0 - 0 - 0) Herb layer (22 - 82 - 92) Amphiscirpus nevadensis, Aster ericoides ssp. pansus, Distichlis spicata var. stricta, Hordeum jubatum, Puccinellia nuttalliana,

calceoliformis Moss layer (0 - 0 - 0)

# Wetland Edatopic Grid



#### Comments

Sites occur that have a high abundance of Spartina gracilis, Amphiscirpus nevadensis, or Poa secunda ssp. juncifolia. These sites are currently considered variations of the Gs01;

Salicornia rubra, Spartina gracilis, Suaeda

further sampling might support separation of these ecosystems into new Site Associations.

Gs01 often occurs adjacent to shallow open-water sites and in complex with Gs02 sites. Sites that are highly saline are often dominated by Sueda calceoliformis or Salicornia rubra. Hordeum jubatum is a naturally occurring species on Gs01 sites but becomes more prominent with grazing or mineral soil exposure.

This Site Association was previously described as part of a Saltgrass – Alkaligrass Wet Meadow Site Association by Steen and Roberts (1988).

 TABLE 5.3.1
 Distribution of Marsh Site Associations by biogeoclimatic zone

Wm01 Beaked sedge - Water sedge	х	XX	X	XXX	XXX	XX	XX		x	
Wm02 Swamp horsetail – Beaked sedge		X		X	X	X	XX			
Wm03 Awned sedge	X				X					
Wm04 Common spike-rush	X	X		XX	X	X	XX		X	
Wm05 Cattail	XXX	X		XX	XX	X	XX	XX	$\mathbf{X}^{\mathbf{S}}$	
Wm06 Great bulrush	XXX	X		X	XX	XX	X	X	X	
Wm07 Baltic rush	X				XX					
Wm50 Sitka sedge – Hemlock-parsley								XX	XX	
Wm51 Three-way sedge				X				x	X	

x = incidental; < 5% of wetlands

xx = minor; 5–25% of wetlands

xxx = major; >25% of wetlands

s = southern subzones only

 TABLE 5.3.2
 Marsh Species Importance Table

	Species	Wm01	Wm02	Wm03	Wm04	Wm05
Herbs	Carex utriculata			1		II
and	Carex aquatilis		<b>II</b>	I		
Dwarf	Equisetum <b>fl</b> uviatile	ļ_			l	_
Shrubs	Comarum palustre	ļ.				ı
	Sium suave	I	I			
	Carex exsiccata					
	Carex atherodes					
	Polygonum amphibium	ı	-	II		-
	Eleocharis palustris Potamogeton richardsonii		I			1
	Typha latifolia		1			
	Schoenoplectus acutus					i
	Menyanthes trifoliata					
	Utricularia macrorhiza	1	1	1	1	1
	Iuncus balticus	İ	·	İ	•	
	Hordeum jubatum				1	
	Potentilla anserina			1		
	Calamagrostis canadensis		I	I		
	Cicuta douglasii		l			I
	Lysichiton americanus					ļ
	Oenanthe sarmentosa					ı
	Galium trifidum					
	Spiraea douglasii					ı
,	Carex sitchensis					
Γ	Nuphar lutea ssp. polysepala				ı	ı
	Dulichium arundinaceum					
Mosses	Drepanocladus spp.	I	I	I	I	I
	Warnstor <b>fi</b> a spp.	I	l	1	1	I

1	I	I	I	beaked sedge water sedge
I		II	II	swamp horsetail marsh cinquefoil
I	I I	I	II	hemlock water-parsnip inflated sedge awned sedge water smartweed
	l	I		common spike-rush Richardson's pondweed common cattail great bulrush
			<b>II</b> 	buckbean greater bladderwort Baltic rush foxtail barley
I	<b>   </b> 	    1  1		common silverweed bluejoint Douglas' water-hemlock skunk cabbage Pacific water-parsley
I			    <b>  </b>    <b>  </b>    <b>   </b>	small bedstraw pink spirea Sitka sedge yellow pond-lily three-way sedge
 	I			hook-mosses: intermediate hook-mosses: poor

Chapter 5.3 Marshes

### Schoenoplectus acutus



## **General Description**

Great bulrush marshes occur widely in subzones with warm and dry summers. Wave-exposed lake embayments with significant water movements, and grassland potholes with occasional substrate exposure (conditions that provide abundant aeration and limit organic accumulations), are the most common locations for this Site Association.

Plant diversity is low; typically, Schoenoplectus acutus is the only species with significant cover. Bulrush marshes are usually adjacent

to open water in wetland mosaics and can sometimes be found in complex with the **Wm05**.

Floodwaters to 1.5 m depth in the spring are typical, with significant growing-season drawdown occurring in potholes. Great bulrush is tolerant of alkali soils and often dominates in brackish potholes. Soils are mostly Gleysols and Humic Gleysols, though Terric Humisols occasionally occur.



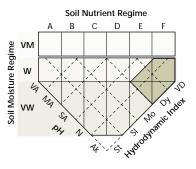
#### **Characteristic Vegetation**

Tree layer (0 - 0 - 0) **Shrub laver** (0 - **0** - 5) Herb layer (10 - 70 - 100) Schoenoplectus acutus Moss layer (0 - 0 - 60)

#### Comments

The Wm06 includes marshes dominated by S. tabernaemontani (soft-stemmed bulrush). On wave-exposed lake shorelines or where sites are more brackish, S. acutus is more frequent, while in protected waters and potholes with mucky substrates, S. tabernaemontani is typical.

# Wetland Edatopic Grid



#### Site conditions for Wm05 and Wm06 over-

lap. S. acutus dominates on sites with alkaline mineral soils, greater wave exposure, or pronounced surface drying. Where marshes are heavily grazed by Muskrat, S. acutus is often favoured over Typha latifolia because it stores nutrients in the root mass and recovers more rapidly from grazing.