

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

	BG PP	BWBS SWB	ESSF	ICH	IDF	MS	SBPS SBS	CDF	CWH	MH
Gs01 Alkali saltgrass	xx				xx ^d					
Gs02 Nuttall's alkaligrass – Foxtail barley					xx ^d	x ^d	x ^v			
Gs03 Field sedge	xx				xx ^d		xx ^v			
Gs04 Tufted hairgrass					x ^d	xx ^d	xx ^v			
Sc01 Scrub birch – Kinnikinnick		xx			x ^{dc}	xx ^{dc}	xx ^v			
Sc02 Grey-leaved willow – Glow moss		xx	x ^{dc}		x ^{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	<i>Salix brachycarpa</i>				
	<i>Betula nana</i>				
	<i>Salix glauca</i>				
	<i>Salix barclayi</i>				
Herbs	<i>Distichlis spicata</i> var. <i>stricta</i>				
	<i>Spartina gracilis</i>				
	<i>Suaeda calceoliformis</i>				
	<i>Aster ericoides</i> ssp. <i>pansus</i>				
	<i>Poa secunda</i>				
	<i>Hordeum jubatum</i>				
	<i>Puccinellia nuttalliana</i>				
	<i>Carex praegracilis</i>				
	<i>Elymus trachycaulus</i>				
	<i>Poa pratensis</i>				
	<i>Aster ericoides</i>				
	<i>Potentilla anserina</i>				
	<i>Juncus balticus</i>				
	<i>Deschampsia cespitosa</i>				
	<i>Potentilla gracilis</i>				
	<i>Taraxacum officinale</i>				
	<i>Carex utriculata</i>				
	<i>Achillea millefolium</i>				
	<i>Muhlenbergia richardsonis</i>				
	<i>Kobresia myosuroides</i>				
	<i>Koeleria macrantha</i>				
	<i>Arctostaphylos uva-ursi</i>				
	<i>Antennaria pulcherrima</i>				
	<i>Maianthemum stellatum</i>				
	<i>Aster ciliolatus</i>				
	<i>Calamagrostis canadensis</i>				
	<i>Thalictrum occidentale</i>				
	<i>Fragaria virginiana</i>				
	<i>Senecio triangularis</i>				
	<i>Valeriana sitchensis</i>				
	<i>Epilobium angustifolium</i>				
	<i>Erigeron peregrinus</i>				
<i>Sanguisorba canadensis</i>					
<i>Trollius albiflorus</i>					
<i>Equistem arvense</i>					
Mosses	<i>Bryum pseudotriquetrum</i>				
	<i>Drepanocladus</i> spp.				
	<i>Aulacomnium palustre</i>				
	<i>Brachythecium</i> spp.				
	<i>Mnium</i> spp.				

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. Solonchets 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*, *Salicornia rubra*, *Spartina gracilis*, *Suaeda calceoliformis*

Moss layer (0 - 0 - 0)

Wetland Edatopic Grid

		Soil Nutrient Regime					
		A	B	C	D	E	F
Soil Moisture Regime	M						
	VM						
	W						
	VW						

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; 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 *Suaeda 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

	BG PP	BWBS SWB	ESSF	ICH	IDF	MS	SBPS SBS	CDF	CWH	MH
Wm01 Beaked sedge – Water sedge	x	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	x ^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 and Dwarf Shrubs	<i>Carex utriculata</i>					
	<i>Carex aquatilis</i>					
	<i>Equisetum fluviatile</i>					
	<i>Comarum palustre</i>					
	<i>Sium suave</i>					
	<i>Carex exsiccata</i>					
	<i>Carex atherodes</i>					
	<i>Polygonum amphibium</i>					
	<i>Eleocharis palustris</i>					
	<i>Potamogeton richardsonii</i>					
	<i>Typha latifolia</i>					
	<i>Schoenoplectus acutus</i>					
	<i>Menyanthes trifoliata</i>					
	<i>Utricularia macrorhiza</i>					
	<i>Juncus balticus</i>					
	<i>Hordeum jubatum</i>					
	<i>Potentilla anserina</i>					
	<i>Calamagrostis canadensis</i>					
	<i>Cicuta douglasii</i>					
	<i>Lysichiton americanus</i>					
	<i>Oenanthe sarmentosa</i>					
	<i>Galium trifidum</i>					
	<i>Spiraea douglasii</i>					
	<i>Carex sitchensis</i>					
	<i>Nuphar lutea</i> ssp. <i>polysepala</i>					
	<i>Dulichium arundinaceum</i>					
Mosses	<i>Drepanocladus</i> spp.					
	<i>Wamstorfia</i> spp.					

Wm06	Wm07	Wm50	Wm51	Common Name
				beaked sedge
				water sedge
				swamp horsetail
				marsh cinquefoil
				hemlock water-parsnip
				inflated sedge
				awned sedge
				water smartweed
				common spike-rush
				Richardson's pondweed
				common cattail
				great bulrush
				buckbean
				greater bladderwort
				Baltic rush
				foxtail barley
				common silverweed
				bluejoint
				Douglas' water-hemlock
				skunk cabbage
				Pacific water-parsley
				small bedstraw
				pink spirea
				Sitka sedge
				yellow pond-lily
				three-way sedge
				hook-mosses: intermediate
				hook-mosses: poor

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 layer (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.

Site conditions for **Wm05** and **Wm06** overlap. *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.

Wetland Edatopic Grid