Silty Drainages, Very Wet (131B_503)

Ecoregion Classification

Section: Yukon-Kuskokwim Bottomlands (131B)

Subsection(s): Minchumina Basin Lowlands (131B.V2)
Lowland Flood Plains & Terraces (131B.V1)
Eolian Lowlands (131B.L1)

Physiographic Features

	RV	Range
Elevation (meters):	197	168 to 289
Slope Gradient (percent):	0	0 to 1

Aspect (clockwise direction): non-influencing

Landform: drainageways on hills; drainageways on outwash plains; drainageways on plains

Landform Positions: footslopes

	Frequency	Duration	Beginning Month	Ending Month	Depth (cm)
Flooding:	Frequent	Long	May	Sep	
Ponding:	Frequent	Long	May	Sep	to

Climatic Features

	RV	Range
Annual Precipitation (millimeters):	392	336 to 565
Annual Air Temperature (°C):	-2.7	-3.0 to -2.5
Frost Free Days:	100	80 to 110

Soil Features

Parent Materials: mossy organic material and/or woody organic material over sandy and silty alluvium
mossy organic material and/or woody organic material over silty alluvium

Rooting Depth (cm): *RV:* 59 *Range:* 33 to 116

Soil Layers and Properties within Representative Rooting Depth:

Layers are described from the surface downward. If more than one texture is listed, the predominant texture is listed first. AWC = available water capacity. CEC = cation exchange capacity.

Thickness (cm)	Texture	Permeability	AWC (cm/cm)	pH	Effective CEC (me/100g)	CEC (me/100g)
24 to 43	mucky peat	moderately rapid	.34	3.6 to 6.8	30	80
16 to 35	silt loam, mucky peat	moderate or moderately rapid	.14 to .19	5.3 to 6.8	25	2

Restrictive Features: permafrost at 99 to 150 cm or more

Water Table (May to September): 0 to 50 cm

Drainage Class: very poorly drained

Vegetation Features

Common Vegetation Types:

Vegetation Type	Ecological Status
Leatherleaf-sweetgale/sedge scrub	Climax plant community

Ecological Status-Transition Description:

A single plant community with leatherleaf-sweetgale/sedge scrub is identified on this site and flooding is considered a transitional pathway between this site and other geographically associated sites.

Vascular Plant Species Richness:

Vascular plant species richness is based on 1999-2002 field season data only. Data from 1997 and 1998 were not used in the calculations.

Vegetation Type	Total	Per Stand Min.	Per Stand Avg.	Per Stand Max.	Number of Stands
Leatherleaf-sweetgale/sedge scrub	56	15	19	32	8

Notable Plants:

Notable plants Include rare plants, range extensions, and plants little known from Denali National Park and Preserve.

Vegetation Type	Symbol	Scientific Name
Leatherleaf-sweetgale/sedge scrub	CAPA	Calla palustris
	CACH5	Carex chordorrhiza
	CADI4	Carex diandra
	GLMAG	Glyceria maxima ssp. grandis
	TYLA	Typha latifolia

Characteristics of Leatherleaf-sweetgale/sedge scrub

Ecological Status: Climax plant community

Plant Species Cover, Constancy, and Importance:

Cover, constancy, and importance are based on 1997-2002 field season data. Number of stands sampled = 8. Only those vascular, lichen, and bryophyte species with average cover >=5% and constancy >=15% are listed.

Stratum	Symbol	Scientific Name	Percent Canopy Cover Min.	Percent Canopy Cover Avg.	Percent Canopy Cover Max.	Percent Constancy	Importance Value
SM	BEGL	Betula glandulosa	10.0	22	40	100	47
SM	SAPU15	Salix pulchra	0.1	7	20	62	21
SL	CHCA2	Chamaedaphne calyculata	20.0	33	60	100	57
SD-SL	VAUL	Vaccinium uliginosum	0.1	12	20	100	35
SL	MYGA	Myrica gale	5.0	19	40	62	34
SL	SAFU	Salix fuscescens	2.0	10	15	88	30
SL	LEGR	Ledum groenlandicum	1.0	10	20	25	16
GT	CACA4	Calamagrostis canadensis	0.1	14	40	88	35
GM-GT	CAAQ	Carex aquatilis	5.0	17	35	62	32
GM-GT	ERAN6	Eriophorum angustifolium	5.0	18	45	50	30
GM	ERSC2	Eriophorum scheuchzeri	5.0	8	10	25	14
GM	CAMAI2	Carex magellanica ssp. irrigua	5.0	6	7	25	12
L	LICHEN	total lichens	0.0	0	0	100	0
M	MOSS	total bryophytes-mosses and liverworts	10.0	58	95	100	76
M1	SPHAG2	Sphagnum	0.1	38	70	100	62
M1	ZZMOSS	unknown-mosses	10.0	15	30	100	39
M1	POLYT5	Polytrichum	0.1	7	20	62	21
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	10.0	39	80	100	62
B	WATER	water	1.0	26	55	100	51
B	LITTER2	litter-woody debris >2.5 cm	0.0	1	7	100	10
B	SOIL	mineral-bare soil	0.0	0	0	100	0
B	ROCK	mineral-surface rock fragments	0.0	0	0	100	0

Stratum Height:

Stratum height is based on 1997-2002 field season data. All plant species and ground layer records from all stands are included in the calculations.

Stratum Name	Included Strata	Height Min.	Height Avg.	Height Max.	Height Units	Number of Records
Trees	TT, TM, TS	2.5	6.2	8.0	m	3
Tree regeneration	TR	0.8	2.6	4.0	m	5
Medium shrubs	SM	1.2	1.5	2.0	m	8
Low shrubs	SL	40.0	67.1	90.0	cm	7
Tall and medium grasses and grass-likes	GT, GM	20.0	91.0	150.0	cm	10
Tall and medium forbs	FT, FM	20.0	42.0	130.0	cm	5
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	1.0	4.0	7.0	cm	11

Mapunit Components

Common Name (Soils Name):

Boreal-riparian scrub silty drains, frozen (Fluvaquentic Historthels, coarse-silty)

Boreal-scrub gravelly alluvial plains, wet (Histic Cryaquepts, loamy-skeletal)

Soil Map Units

Only those map units in which the landtype is a major component are listed. The landtype also may occur as a minor component in other map units.

Symbol:	*Common Name (Soils Name):*
1STW2	Boreal Groundwater Discharge Plains with Discontinuous Permafrost (Histic Cryaquepts, coarse-loamy-Terric Cryohemists, loamy Association)

Geographically Associated Landtypes

131B_400 — Loamy Frozen Slopes:

This site occurs on adjacent uplands that are not flooded and have loamy soils that have permafrost at moderate depths. The climax plant community is "Black spruce/Labrador tea woodland."

131B_402 — Loamy Frozen Slopes, Wet:

This site occurs on toeslopes of hills with wetter, moderately deep soils over permafrost. The climax plant community is "Black spruce/tussock cottongrass woodland."