Loamy Depressions, Eutrophic Bogs (131B_532)

Ecoregion Classification

Section: Yukon-Kuskokwim Bottomlands (131B)

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

Physiographic Features

	RV	Range
Elevation (meters):	252	232 to 266
Slope Gradient (percent):	0	0 to 0

Aspect (clockwise direction): non-influencing

Landform: depressions on outwash plains; depressions on plains

	Frequency	Duration	Beginning Month	Ending Month	Depth (cm)
Flooding:	None				
Ponding:	Occasional	Long	May	Sep	0 to 20

Climatic Features

	RV	Range
Annual Precipitation (millimeters):	479	359 to 651
Annual Air Temperature (°C):	-2.6	-2.9 to -2.4
Frost Free Days:	100	80 to 110

Soil Features

Parent Materials: silty eolian deposits over loamy eolian deposits

Rooting Depth (cm): *RV:* 61 *Range:* 32 to 150

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)
8	slightly decomposed plant material	moderately rapid	.34	3.4	30	
20	silt loam	moderate	.26	4.2	15	
33	fine sandy loam	moderate	.15	5.0	15	

Water Table (May to September): 0 cm

Drainage Class: very poorly drained

Vegetation Features

Common Vegetation Types:

Vegetation Type	Ecological Status
Bluejoint wet meadow	Climax plant community
Haircap moss-sphagnum moss wet meadow	Early stage of pond/fen/bog succession
Woolyfruit sedge wet meadow	Late stage of pond/fen/bog succession

Ecological Status-Transition Description:

Three plant communities are identified on this site based on relative position and associated wetness. An early pond succession community of haircap moss-sphagnum moss wet meadow is described where ponds have drained by natural processes including fire removal of permafrost from adjoining landscapes or infilling of ponds by natural erosion following fire. As succession proceeds this community is replaced by a late-seral community of woolyfruit sedge wet meadow and, eventually the potential community of bluejoint wet meadow. Pond succession is considered a transitional pathway between seral communities within this site.

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
Bluejoint wet meadow	49	4	13	22	7
Haircap moss-sphagnum moss wet meadow	10	10	10	10	1
Woolyfruit sedge wet meadow	63	11	19	25	6

Notable Plants:

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

Vegetation Type	Symbol	Scientific Name
Bluejoint wet meadow	CALAA5	Carex lasiocarpa ssp. americana
	LEMI3	Lemna minor
	LYDE	Lycopodium dendroideum
Woolyfruit sedge wet meadow	CAAD	Carex adelostoma
	CACH5	Carex chordorrhiza
	CALAA5	Carex lasiocarpa ssp. americana
	GLBO	Glyceria borealis
	ISEC	Isoetes echinospora
	POEP2	Potamogeton epihydrus
	SUAQ	Subularia aquatica
	UTMI	Utricularia minor

Characteristics of Bluejoint wet meadow

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 = 7. 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
GT	CACA4	Calamagrostis canadensis	25.0	67	90	100	82
GT	CALAA5	Carex lasiocarpa ssp. americana	15.0	33	50	43	38
GT	CARO6	Carex rostrata	0.1	6	15	71	21
GM-GT	CASAL2	Carex saxatilis ssp. laxa	1.0	7	15	43	17
GT	CAUT	Carex utriculata	5.0	8	10	29	15
GM	CARO7	Carex rotundata	3.0	6	10	29	13
L	LICHEN	total lichens	0.0	0	0	100	0
M	MOSS	total bryophytes-mosses and liverworts	0.0	38	85	100	62
M1	POLYT5	Polytrichum	0.1	12	60	86	32
M1	SPHAG2	Sphagnum	0.1	15	40	57	29
M1	ZZMOSS	unknown-mosses	3.0	10	20	86	29
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	40.0	77	95	100	88
B	WATER	water	0.0	15	35	100	39
B	LITTER2	litter-woody debris >2.5 cm	0.0	0	0	100	0
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.	Units	Number of Records
Trees	TT, TM, TS	2.5	4.5	6.5	m	2
Tree regeneration	TR	2.0	2.0	2.0	m	1
Tall shrubs	ST	3.0	3.0	3.0	m	1
Medium shrubs	SM	1.5	1.7	2.0	m	3
Low shrubs	SL	30.0	45.0	60.0	cm	2
Dwarf shrubs	SD	20.0	20.0	20.0	cm	2
Tall and medium grasses and grass-likes	GT, GM	30.0	103.0	170.0	cm	10
Tall and medium forbs	FT, FM	20.0	25.0	30.0	cm	2
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	0.1	1.7	3.0	cm	7

Characteristics of Haircap moss-sphagnum moss wet meadow

Ecological Status: Early stage of pond/fen/bog succession

Plant Species Cover, Constancy, and Importance:

Cover, constancy, and importance are based on 1997-2002 field season data. Number of stands sampled = 1. Only those vascular, lichen, and bryophyte species with average cover >=5% and constancy >=15% are listed.

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	*Avg.*	*Max.*		
SL	SPST3	Spiraea stevenii	10.1	10	10	100	32
GT	CACA4	Calamagrostis canadensis	5.0	5	5	100	22
FM	EQSY	Equisetum sylvaticum	15.0	15	15	100	39
L	LICHEN	total lichens	0.0	0	0	100	0
M	MOSS	total bryophytes-mosses and liverworts	95.0	95	95	100	97
M1	POLYT5	Polytrichum	65.0	65	65	100	81
M1	SPHAG2	Sphagnum	50.0	50	50	100	71
M1	ZZMOSS	unknown-mosses	5.0	5	5	100	22
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	15.0	15	15	100	39
B	LITTER2	litter-woody debris >2.5 cm	0.0	0	0	100	0
B	SOIL	mineral-bare soil	0.0	0	0	100	0
B	ROCK	mineral-surface rock fragments	0.0	0	0	100	0
B	WATER	water	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				Number of Records
		Min.	*Avg.*	*Max.*	*Units*	
Tree regeneration	TR	2.2	2.2	2.2	m	1
Tall and medium grasses and grass-likes	GT, GM	150.0	150.0	150.0	cm	1
Tall and medium forbs	FT, FM	30.0	30.0	30.0	cm	1
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	5.0	5.0	5.0	cm	1

Characteristics of Woolyfruit sedge wet meadow

Ecological Status: Late stage of pond/fen/bog succession

Plant Species Cover, Constancy, and Importance:

Cover, constancy, and importance are based on 1997-2002 field season data. Number of stands sampled = 6. Only those vascular, lichen, and bryophyte species with average cover >=5% and constancy >=15% are listed.

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	*Avg.*	*Max.*		
GT	CALAA5	Carex lasiocarpa ssp. americana	0.1	24	60	100	49
GT	ERAN6	Eriophorum angustifolium	10.0	40	70	33	36
GT	CARO6	Carex rostrata	5.0	15	20	50	27
GT	CAUT	Carex utriculata	35.0	35	35	17	24
GT	ERANS2	Eriophorum angustifolium ssp. subarcticum	35.0	35	35	17	24
GT	CACA4	Calamagrostis canadensis	4.0	8	15	67	23
GT	CAAD	Carex adelostoma	30.0	30	30	17	23
GM-GT	CAAQ	Carex aquatilis	2.0	9	20	50	21
GT	ELPA3	Eleocharis palustris	1.0	8	15	33	16
GM	CACH5	Carex chordorrhiza	0.1	7	15	50	19
GM	CARO7	Carex rotundata	2.0	11	20	33	19
GM	CAMAI2	Carex magellanica ssp. irrigua	0.1	5	10	67	18
GM	AGSC5	Agrostis scabra	15.0	15	15	17	16
GM	CALI7	Carex limosa	2.0	8	15	33	16
GM	CATE5	Carex tenuiflora	5.0	5	5	17	9
GM	ELAC	Eleocharis acicularis	5.0	5	5	17	9
FT	EQFL	Equisetum fluviatile	20.0	20	20	17	18
FD	METR3	Menyanthes trifoliata	1.0	7	15	50	19
FD	GATR2	Galium trifidum	5.0	5	5	17	9
FD	RUAR	Rubus arcticus	5.0	5	5	17	9
L	LICHEN	total lichens	0.0	0	0	100	0

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	*Avg.*	*Max.*		
M	MOSS	total bryophytes-mosses and liverworts	5.0	25	60	100	50
M1	DRRE99	Drepanocladus revolvens	50.0	50	50	17	29
M1	ZZMOSS	unknown-mosses	0.1	9	15	83	27
M1	SPHAG2	Sphagnum	0.1	7	30	83	24
M1	TONI70	Tomentypnum nitens	5.0	5	5	33	13
M1	CALLI10	Calliergon	5.0	5	5	17	9
B	WATER	water	40.0	58	85	100	76
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	5.0	48	90	100	69
B	SOIL	mineral-bare soil	0.0	3	15	100	17
B	LITTER2	litter-woody debris >2.5 cm	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				Number of Records
		Min.	*Avg.*	*Max.*	*Units*	
Medium shrubs	SM	1.5	1.6	1.8	m	2
Low shrubs	SL	40.0	60.0	70.0	cm	3
Dwarf shrubs	SD	20.0	20.0	20.0	cm	1
Tall and medium grasses and grass-likes	GT, GM	5.0	89.6	180.0	cm	14
Tall and medium forbs	FT, FM	40.0	60.0	120.0	cm	5
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	0.5	3.9	10.0	cm	9

Mapunit Components

Common Name (Soils Name):

Boreal-loamy wet meadows (Humic Cryaquepts, coarse-loamy)

Soil Map Units

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

Symbol: ***Common Name (Soils Name):***

3BG Boreal Wet Meadows and Bogs
(Humic Cryaquepts, coarse-loamy-Hydric Cryofibrists, dysic Complex)

Geographically Associated Landtypes

131B_104—Loamy Frozen Terraces:

This site occurs on terraces with loamy soils that have permafrost at moderate depths. The climax plant community is "Black spruce-tamarack/Labrador tea woodland."

131B_105—Loamy Frozen Terraces, Wet:

This site occurs on terraces with soils that are wetter and moderately deep over permafrost. The climax plant community is "Black spruce-tamarack/tussock cottongrass woodland."

131B_400—Loamy Frozen Slopes:

This site occurs on plains and hills with loamy soils that have permafrost at moderate depths. The climax plant

131B_402—Loamy Frozen Slopes, Wet:

This site occurs on loess plains and hills with soils that are wetter and moderately deep over permafrost. The climax plant community is "Black spruce/tussock cottongrass woodland."