

Peat Slopes, Frozen (131B_531)

Ecoregion Classification

Section: Yukon-Kuskokwim Bottomlands (131B)

Subsection(s): Eolian Lowlands (131B.L1)

Physiographic Features

Elevation (meters): *RV* 231 *Range* 153 to 381

Slope Gradient (percent): 6 0 to 10

Aspect (clockwise direction): non-influencing

Landform: plains

Frequency

Flooding: None

Ponding: None

Climatic Features

Annual Precipitation (millimeters): *RV* 479 *Range* 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: mossy organic material and/or woody organic material over silty eolian deposits

Rooting Depth (cm): *RV:* 49 *Range:* 39 to 58

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)
49	mucky peat	moderately rapid	.34	3.9	30	

Restrictive Features: permafrost at 66 cm
strongly contrasting textural stratification at 81 cm

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

Drainage Class: poorly drained

Vegetation Features

Common Vegetation Types:

Vegetation Type

Black spruce/cloudberry woodland

Ecological Status

Climax plant community

Ecological Status-Transition Description:

A single plant community with black spruce/cloudberry woodland is identified on this site. No transitional pathways to other communities have been identified for 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	Per Stand				Number of Stands
	Total	Min.	Avg.	Max.	
Black spruce/cloudberry woodland	23	12	16	20	5

Characteristics of Black spruce/cloudberry woodland

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 = 5. Only those vascular, lichen, and bryophyte species

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	Avg.	Max.		
TS	PIMA	Picea mariana	10.0	15	20	100	39
SD-SL	LEPAD	Ledum palustre ssp. decumbens	20.0	24	30	100	49
SD-SL	VAUL	Vaccinium uliginosum	2.0	8	15	100	28
SD	VAVIM99	Vaccinium vitis-idaea spp. Minus	5.0	8	10	100	28
SD	ANPO	Andromeda polifolia	0.1	6	15	100	24
SD	EMNI	Empetrum nigrum	1.0	6	10	80	22
FD	RUCH	Rubus chamaemorus	20.0	30	35	100	55
L	LICHEN	total lichens	10.0	25	45	100	50
L1	CLADI3	Cladina	3.0	6	10	80	22
L1	CLRA61	Cladina rangiferina group	0.1	5	10	100	22
L1	CLADO3	Cladonia	1.0	5	10	100	22
L1	CLMU60	Cladonia multiformis	2.0	7	15	60	20
L1	CLST60	Cladina stellaris	2.0	5	10	60	17
M	MOSS	total bryophytes-mosses and liverworts	45.0	67	90	100	82
M1	SPHAG2	Sphagnum	30.0	48	65	100	69
M1	PLSC70	Pleurozium schreberi	5.0	11	25	100	33
M1	ZZMOSS	unknown-mosses	0.1	8	15	100	28
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	4.0	15	20	100	39
B	LITTER2	litter-woody debris >2.5 cm	0.1	1	2	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
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			Units	Number of Records
		Min.	Avg.	Max.		
Trees	TT, TM, TS	4.0	4.3	4.5	m	5
Tree regeneration	TR	0.3	0.8	1.0	m	5
Low shrubs	SL	25.0	41.2	50.0	cm	4
Dwarf shrubs	SD	8.0	11.7	15.0	cm	3
Tall and medium grasses and grass-likes	GT, GM	50.0	50.0	50.0	cm	1
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	2.0	3.2	5.0	cm	12

Site Tree Measurements:

Only dominant, codominant, and open grown trees were measured. Height of Measurements = height above ground at which age and diameter was measured. G = ground level, B = breast height (ca 1.5 m).

Tree Species	Age (years)	Diameter (cm)	Height (m)	Number of Trees	Height of Measurements
Picea mariana	169	8.1	3.7	1	G
	169	8.1	3.7		Avg
	169	8.1	3.7		Max.

Mapunit Components

Common Name (Soils Name):

Boreal-taiga peat slopes, frozen (Terric Hemistels, loamy)

Soil Map Units

This landtype is a minor component in the map units listed. It does not occur as a major component in any map units.

Symbol: Common Name (Soils Name):

3FU Boreal Loess Plains and Hills with Continuous Permafrost
(Typic Historthels, coarse-silty-Typic Histoturbels, coarse-silty Association, 0 to 10 percent slopes)

Geographically Associated Landtypes

131B_400—Loamy Frozen Slopes:

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

131B_530—Depressions, Bogs:

This site occurs on wetter soils that lack permafrost. The climax plant community is "Sedge/sphagnum moss bog."