

# Loamy Frozen Slopes, Very Wet (M131B\_403)

## Ecoregion Classification

**Section:** Kuskokwim Mountains (M131B)

**Subsection(s):** Boreal Low Mountains (M131B.M1)

## Physiographic Features

**Elevation (meters):** *RV* 200 *Range* 193 to 242

**Slope Gradient (percent):** 2 0 to 6

**Aspect (clockwise direction):** non-influencing

**Landform:** turf hummocks on mountains

**Landform Positions:** toeslopes

	<i>Frequency</i>	<i>Duration</i>	<i>Beginning Month</i>	<i>Ending Month</i>	<i>Depth (cm)</i>
<b>Flooding:</b>	None				

<b>Ponding:</b>	Frequent	Long	May	Jun	to
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## Climatic Features

**Annual Precipitation (millimeters):** *RV* 423 *Range* 345 to 549

**Annual Air Temperature (°C):** -2.5 -2.9 to -1.2

**Frost Free Days:** 80 60 to 100

## Soil Features

**Parent Materials:** grassy organic material over silty cryoturbate derived from schist

**Rooting Depth (cm):** *RV:* 50 *Range:* 38 to 62

## 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)
40	peat	moderately rapid	.34	3.3	30	
10	silt loam, muck	moderate	.19	5.3	16	

**Restrictive Features:** permafrost at 77 cm

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

**Drainage Class:** very poorly drained

## Vegetation Features

### Common Vegetation Types:

Vegetation Type	Ecological Status
Tussock cottongrass/mixed ericaceous shrub meadow3	Climax plant community

### Ecological Status-Transition Description:

A single plant community with tussock cottongrass/mixed ericaceous shrub meadow3 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	Total	Per Stand			Number of Stands
		Min.	Avg.	Max.	
Tussock cottongrass/mixed ericaceous shrub meadow3	17	13	15	17	2

### Characteristics of Tussock cottongrass/mixed ericaceous shrub meadow3

**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 = 2. Only those vascular, lichen, and bryophyte species

Stratum	Symbol	Scientific Name	Percent Canopy Cover			Percent Constancy	Importance Value
			Min.	Avg.	Max.		
SD-SL	LEPAD	Ledum palustre ssp. decumbens	25.0	35	45	100	59
SL	BEGL	Betula glandulosa	20.0	22	25	100	47
SD-SL	VAUL	Vaccinium uliginosum	15.0	18	20	100	42
SD	VAVIM99	Vaccinium vitis-idaea spp. Minus	5.0	22	40	100	47
GM	ERBR6	Eriophorum brachyantherum	65.0	70	75	100	84
FD	RUCH	Rubus chamaemorus	5.0	12	20	100	35
L	LICHEN	total lichens	0.1	1	1	100	10
M	MOSS	total bryophytes-mosses and liverworts	30.0	32	35	100	57
M1	SPHAG2	Sphagnum	20.0	22	25	100	47
M1	ZZMOSS	unknown-mosses	5.0	8	10	100	28
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	80.0	82	85	100	91
B	LITTER2	litter-woody debris >2.5 cm	0.1	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			Units	Number of Records
		Min.	Avg.	Max.		
Tree regeneration	TR	0.7	1.0	1.5	m	3
Medium shrubs	SM	2.0	2.0	2.0	m	1
Low shrubs	SL	20.0	30.0	40.0	cm	2
Dwarf shrubs	SD	5.0	8.5	12.0	cm	2
Tall and medium grasses and grass-likes	GT, GM	30.0	35.0	40.0	cm	2
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	3.0	4.0	7.0	cm	5

### Mapunit Components

#### Common Name (Soils Name):

Boreal-tussock-scrub mica rich silty loess slopes, frozen (Typic Histoturbels, coarse-silty)

#### 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):

4TS Boreal Mica-Rich Mountain Toeslopes with Continuous Permafrost  
(Typic Histoturbels, coarse-silty-Typic Historthels, coarse-silty Association, 0 to 5 percent slopes)

### Geographically Associated Landtypes

#### M131B\_504 — Silty Drainages, Frozen:

This site occurs on narrow drainages with wetter, flooded soils. The climax plant community is "Diamondleaf willow-green alder-leatherleaf scrub."

#### Similar Landtypes

#### M131B\_179 — Gravelly Frozen Slopes, Wet:

This site occurs within the alpine biome at higher elevation. The climax plant community is "Tussock cottongrass/mixed ericaceous shrub meadow2."

#### M131B\_400 — Loamy Frozen Slopes:

This site occurs on wetter soils that are moderately deep over permafrost. The climax plant community is "Black spruce/Labrador tea woodland."