

Gravelly Low Flood Plains, Acid (M135A_250)

Ecoregion Classification

Section: Alaska Mountains (M135A)

Subsection(s): Lowland Flood Plains & Terraces & Fans (M135A.V1L)

Physiographic Features

Elevation (meters): *RV* 572 *Range* 280 to 989

Slope Gradient (percent): 2 0 to 3

Aspect (clockwise direction): non-influencing

Landform: channels on flood plains; flood plains on alluvial fans on mountains

	<i>Frequency</i>	<i>Duration</i>	<i>Beginning Month</i>	<i>Ending Month</i>
Flooding:	Frequent	Long	May	Sep

Ponding: None

Climatic Features

Annual Precipitation (millimeters): *RV* 589 *Range* 344 to 923

Annual Air Temperature (°C): -3.1 -6.0 to -2.1

Frost Free Days: 70 60 to 80

Soil Features

Parent Materials: sandy and silty alluvium over sandy and gravelly alluvium derived from diorite
sandy and silty alluvium over sandy and gravelly alluvium derived from schist

Rooting Depth (cm): *RV:* 29 *Range:* 11 to 53

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)
1	slightly decomposed plant material	moderately rapid	.34	5.9		80
10 to 12	stratified sand to silt; stratified very fine sand to silt	moderate	.17 to .20	5.6 to 7.1		12
17 to 18	extremely cobbly coarse sand; extremely cobbly sand	rapid	.06	6.0 to 7.2		2

Restrictive Features: strongly contrasting textural stratification at 11 to 12 cm

Water Table (May to September): 50 to 70 cm

Drainage Class: somewhat poorly drained

Vegetation Features

Common Vegetation Types:

<i>Vegetation Type</i>	<i>Ecological Status</i>
Feltleaf willow-green alder scrub	Climax plant community

Ecological Status-Transition Description:

A single plant community with feltleaf willow-green alder 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			Number of Stands
		Min.	Avg.	Max.	
Feltleaf willow-green alder scrub					0

Characteristics of Feltleaf willow-green alder 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 = 4. 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.		
TM	PIGL	Picea glauca	5.0	5	5	25	11
TS	POBA2	Populus balsamifera	5.0	5	5	25	11
SM-ST	SAAL	Salix alaxensis	10.0	25	30	100	50
SM	ALVIC	Alnus viridis ssp. crispa	5.0	40	85	75	55
SM	SAPS	Salix pseudomonticola	15.0	18	20	50	30
SM	SAPU15	Salix pulchra	5.0	8	10	50	20
SL-SM	SHCA	Shepherdia canadensis	0.1	5	10	50	16
SL	VAUL	Vaccinium uliginosum	0.1	8	15	100	28
SL	PEFL15	Pentaphylloides floribunda	5.0	10	15	75	27
SL	BEGL	Betula glandulosa	5.0	5	5	25	11
SD	DRIN4	Dryas integrifolia	30.0	30	30	25	27
SD	SARE2	Salix reticulata	30.0	30	30	25	27
SD	ARRU6	Arctous rubra	5.0	8	10	50	20
GM	CACA4	Calamagrostis canadensis	80.0	80	80	25	45
GM	ZZGRAM	unknown-graminoids	50.0	50	50	25	35
GM	CAREX	Carex	5.0	18	30	50	30
GM	ZZGRASS	unknown-grasses	5.0	5	5	25	11
L	LICHEN	total lichens	0.0	0	0	100	0
M	MOSS	total bryophytes-mosses and liverworts	0.0	25	70	100	50
B	LITTER	litter-herbaceous, mulch, and woody debris <2.5 cm	0.0	10	25	100	32
B	LITTER2	litter-woody debris >2.5 cm	0.0	2	5	100	14
B	SOIL	mineral-bare soil	0.0	2	10	100	14
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	2.0	4.0	8.0	m	3
Tall shrubs	ST	3.0	3.5	4.0	m	2
Medium shrubs	SM	1.0	1.6	2.5	m	10
Low shrubs	SL	30.0	52.7	100.0	cm	11
Dwarf shrubs	SD	10.0	11.4	20.0	cm	7
Tall and medium forbs	FT, FM	20.0	21.8	30.0	cm	11
Dwarf herbs, lichens, and bryophytes	GD, FD, L, M	10.0	10.0	10.0	cm	15

Mapunit Components

Common Name (Soils Name):

Boreal-riparian scrub gravelly diorite flood plains, moderately wet (Oxyaquic Cryorthents, sandy-skeletal)

Boreal-riparian scrub gravelly schist flood plains, moderately wet (Oxyaquic Cryorthents, sandy-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):

7FP11	Boreal Diorite Flood Plains (Typic Cryaquents, coarse-loamy over sandy-skeletal-Typic Cryorthents, sandy skeletal-Oxyaquic Cryorthents, sandy-skeletal Complex)
8FP2	Boreal Schist Flood Plains and Terraces (Oxyaquic Cryorthents, sandy-skeletal-Typic Cryorthents, sandy-skeletal-Typic Haplogelods, sandy-skeletal Complex)

Geographically Associated Landtypes

M135A_151—Loamy High Flood Plains:

This site occurs on higher flood positions. The climax plant community is "White spruce/bog blueberry/feathermoss

M135A_156—Loamy Wet High Flood Plains:

This site occurs on higher positions with less frequent flooding and have wetter soils with a thick loamy surface mantle. The climax plant community is "White spruce/Richardson willow/horsetail woodland."

M135A_185—Gravelly High Flood Plains, High Elevation:

This site occurs on slightly higher positions with well drained soils. The climax plant community is "White spruce/willow forest."

Similar Landtypes

M135A_152—Loamy Wet Flood Plains, High Elevation:

This site occurs on soils with thick loamy surface mantles. The climax plant community is "Diamondleaf willow/horsetail-fragile sedge scrub."

M135A_153—Loamy Wet Flood Plains:

This site has soils with a thick loamy surface mantle. The climax plant community is "Feltleaf willow/shrubby cinquefoil/scouring rush meadow/scrub."

M135A_257—Gravelly Low Flood Plains, High Elevation:

This site occurs in the alpine biome at higher elevation. The climax plant community is "Feltleaf willow scrub, cool."

M135A_258—Gravelly Flood Plains, Cool:

This site has soils that are excessively drained. The climax plant community is "Feltleaf willow-mixed shrub/herbaceous scrub."