USDA Natural Resources Conservation Service

Ecological site R226XY085AK
Rocky Uplands (AK653 St Paul Island)

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General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on upland rocky slopes. Rock outcroppings are interspersed throughout the site.

Table 2. Representative physiographic features

Landforms	(1) Hill
Elevation	120–500 ft
Slope	0–30%

Climatic features

Table 3. Representative climatic features

Frost-free period (average)	120 days
Freeze-free period (average)	100 days
Precipitation total (average)	24 in

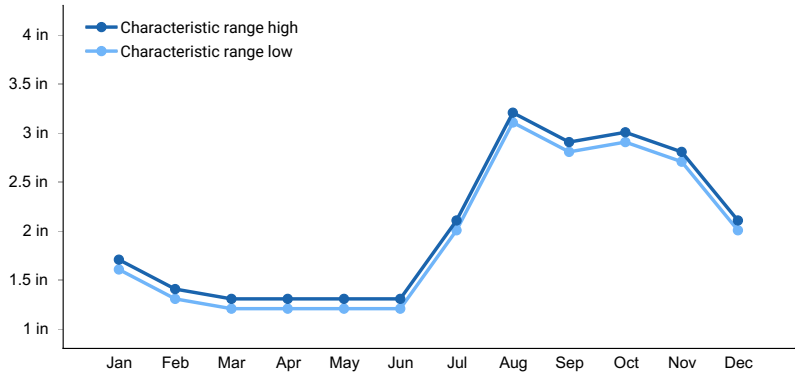

Figure 1. Monthly precipitation range

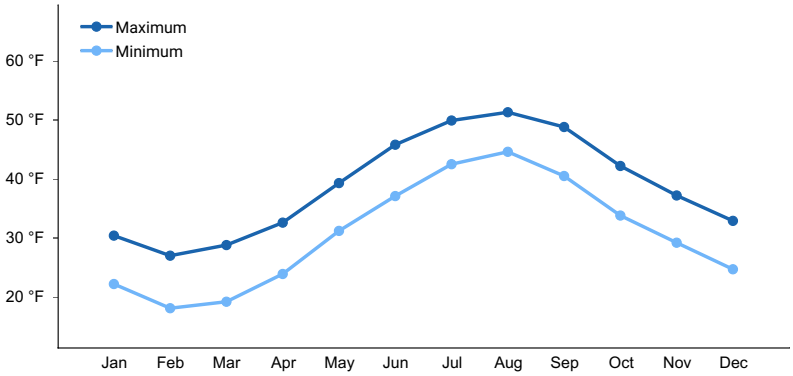

Figure 2. Monthly average minimum and maximum temperature

Influencing water features

Soil features

Soils are shallow to moderately deep and well drained. Soils are stony and cobbly, and textures are medium. Soil pH is moderately acid. Runoff is low to very low and permeability is moderate to moderately rapid.

Table 4. Representative soil features

Surface texture	(1) Stony silt loam (2) Medial
Family particle size	(1) Loamy
Drainage class	Well drained
Permeability class	Moderate to moderately rapid
Soil depth	10–40 in
Surface fragment cover <=3"	0%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	3.2–3.4 in
Calcium carbonate equivalent (0-40in)	0%
Electrical conductivity (0-40in)	0 mmhos/cm
Sodium adsorption ratio (0-40in)	0
Soil reaction (1:1 water) (0-40in)	5.6–6
Subsurface fragment volume <=3" (Depth not specified)	0%
Subsurface fragment volume >3" (Depth not specified)	0%

Ecological dynamics

State and transition model

Ecosystem states

1. Luzula multiflora/Empetrum nigrum

State 1 submodel, plant communities

1.1. Luzula multiflora/Empetrum nigrum

State 1
Luzula multiflora/Empetrum nigrum

Community 1.1
Luzula multiflora/Empetrum nigrum

Shrubs make up about 60% of the composition, forbs about 15% and grasses and sedges 25% of the composition. Total annual vascular herbage production is 420 pounds/acre. Total live lichen biomass is 5000 pounds/acre.

Additional community tables

Table 5. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass/Grasslike					
1				95–105	
	common woodrush	LUMU2	*Luzula multiflora*	95–105	–
	bluegrass	POA	*Poa*	0–1	–
	spike trisetum	TRSP2	*Trisetum spicatum*	0–1	–
	wideleaf polargrass	ARLA2	*Arctagrostis latifolia*	0–1	–
	fescue	FESTU	*Festuca*	0–1	–
Forb					
1				30–40	
	seacoast angelica	ANLU	*Angelica lucida*	25–35	–
	purple wormwood	ARGL8	*Artemisia globularia*	0–1	–
	mountain harebell	CALA7	*Campanula lasiocarpa*	0–1	–
	Pacific hemlockparsley	COGM	*Conioselinum gmelinii*	0–1	–
	spreading woodfern	DREX2	*Dryopteris expansa*	0–1	–
	pale gentian	GEGL	*Gentiana glauca*	0–1	–
	Ross' avens	GERO2	*Geum rossii*	0–1	–
	arctic stitchwort	MIAR3	*Minuartia arctica*	0–1	–
	rooted poppy	PARAR	*Papaver radicatum ssp. radicatum*	0–1	–
	tall Jacob's-ladder	POAC	*Polemonium acutiflorum*	0–1	–
	alpine bistort	POVI3	*Polygonum viviparum*	0–1	–
	heartleaf saxifrage	SANEN	*Saxifraga nelsoniana ssp. nelsoniana*	0–1	–

Animal community

This is a high value winter grazing site for reindeer. Willow growing on this site have high forage and preference value during winter and early spring months. Reindeer will tend to concentrate on this site which is very sensitive to grazing.

Contributors

Swanson

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:**

2. **Presence of water flow patterns:**

3. **Number and height of erosional pedestals or terracettes:**

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**

5. **Number of gullies and erosion associated with gullies:**

6. **Extent of wind scoured, blowouts and/or depositional areas:**

7. **Amount of litter movement (describe size and distance expected to travel):**

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**

12. **Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):**

    Dominant:

    Sub-dominant:

    Other:

Additional:

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):**

14. **Average percent litter cover (%) and depth (in):**

15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):**

16. **Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:**

17. **Perennial plant reproductive capability:**