

Ecological site R043BP501ID Alpine Group

Last updated: 3/01/2024
Accessed: 05/02/2024

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.

MLRA notes

Major Land Resource Area (MLRA): 043B–Central Rocky Mountains

The Central Rocky Mountains (MLRA 43B) of Idaho exist primarily in Central and SE portions of the state. The climate is extremely variable with precipitation lows of 9 to 100 inches per year and frost free days of less than 30 to over 110 days. The geology of the region is also highly variable. The combination of variable climate and geology create a complex relationship of plant communities. MLRA 43B elevations with most mountain peaks reach an elevation of 6,000 to 8,000 feet (1,830 to 2,440 meters), but peaks exceeding 10,000 feet (3,050 meters) are not uncommon.

LRU notes

LRU P: PES (Provisional Ecological Site or Group - PEG) A PROVISIONAL ECOLOGICAL SITE is a conceptual grouping of soil map unit components within a Major Land Resource Area (MLRA) based on the similarities in response to management. Although there may be wide variability in the productivity of the soils grouped into a Provisional Site, the soil vegetation interactions as expressed in the State and Transition Model are similar and the management actions required to achieve objectives, whether maintaining the existing ecological state or managing for an alternative state, are similar. Provisional Sites are likely to be refined into a more precise concept during the process of meeting the APPROVED ECOLOGICAL SITE DESCRIPTION criteria.

Classification relationships

This PROVISIONAL ECOLOGICAL SITE has been developed to meet the standards established in the National Ecological Site Handbook. The information associated with this ecological site does not meet the Approved Ecological Site Description Standard, but it has been through a Quality Control and Quality Assurance processes to assure consistency and completeness. Further investigations, reviews and correlations are necessary before it becomes an Approved Ecological Site Description.

Ecological site concept

- Site does not receive any additional water
- Soils are
 - Generally not saline or saline-sodic (limited extent)
 - Shallow, moderately deep, deep, or very deep
 - Strongly or violently effervescent within surface mineral 4"
 - Soil is not ashy or medial textural family
 - Stones and/or boulders cover >15% surface area or fragmental textural class
- Moisture Regime: Udic
- Temperature Regime: Cryic
- Dominant Cover: Non-forested land (typically associated with Krummholz vegetation)
- Elevation Range: 8000-12000

- Slope Range: 0-70%

Table 1. Dominant plant species

Tree	(1) <i>Pinus albicaulis</i>
Shrub	(1) <i>Juniperus communis</i> (2) <i>Arctostaphylos uva-ursi</i>
Herbaceous	(1) <i>Poa alpina</i> (2) <i>Festuca idahoensis</i>

Physiographic features

Site exists in the upper 1/3 of the landscape and is typically at the ridge of mountain landscape. Slopes are nearly level to steep (approx 70%).

Table 2. Representative physiographic features

Landforms	(1) Mountains > Ridge
Elevation	8,000–12,000 ft
Slope	0–70%

Climatic features

- Representative Value (RV) of range of Effective Precipitation: 24+ inches
- Representative Value (RV) of range of Frost Free Days: <30 days

Site does not have climate stations.

Table 3. Representative climatic features

Frost-free period (characteristic range)	10-30 days
Freeze-free period (characteristic range)	10-45 days
Precipitation total (characteristic range)	24-70 in
Frost-free period (average)	15 days
Freeze-free period (average)	30 days
Precipitation total (average)	30 in

Influencing water features

n/a

Soil features

Soils are variable from very shallow, shallow, moderately deep, deep, or very deep and Soils may or may not be strongly or violently effervescent within surface mineral 4". Soils are not ashy or medial. Soil texture is variable based on local geology. Parent material is colluvium and residuum

43B Upland Alpine

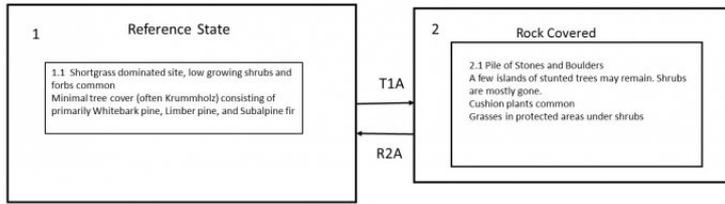


Figure 1.

Upland Alpine 43B (R043BP821MT)

1.1 Reference Community Phase: Shortgrasses (typically bluegrasses), sedges, forbs (*Dryas* sp) and shrubs share nearly equal dominance of this site. Grouse whortleberry, Bearberry and creeping juniper are most common shrubs. Minimal tree cover in form of Krummholz Limber pine, Whitebark pine, and Subalpine fir. Community is resistant to most disturbance (ie fire, grazing) due to remote locations and rocky nature of soil

T1A Vegetation removal due to catastrophic event; namely fire however drought, climate change, grazing may occur.

R2A Time and stability for vegetation to re-establish

2.1 Plant community is generally devoid of most species due to extreme fire. Grasses and fire resistant shrubs remain. Few trees remain as seed source for future communities.

Figure 2.

Table 4. Representative soil features

Parent material	(1) Colluvium (2) Residuum
Drainage class	Somewhat excessively drained
Depth to restrictive layer	2–100 in
Soil depth	2–100 in

Ecological dynamics

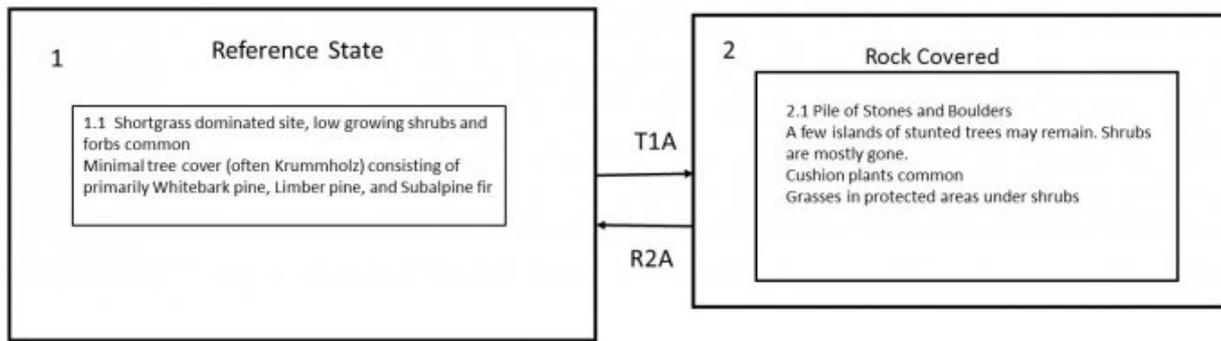
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State and transition model



Alpine 43B

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Animal community

Site is generally considered poor to good for livestock grazing due to remoteness and low production. Site considered good to excellent wildlife habitat

Recreational uses

hunting, hiking, camping, landscape viewing

Wood products

Site does not produce reliable timber. Trees, if present, are small and of little to no commercial value

Other references

Steele, Robert; Pfister, Robert D.; Ryker, Russell A.; Kittams, Jay A. 1981. Forest Habitat Types of Central Idaho. General Technical Report INT-114. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station. 138 p.

Steele, Robert; Cooper, Stephen V.; Ondov, David M.; Roberts, David W.; Pfister, Robert D. 1983. Forest habitat types of eastern Idaho-western Wyoming. Gen. Tech. Rep. INT-144. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station. 122 p.

Approval

Kirt Walstad, 3/01/2024

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	05/02/2024
Approved by	Kirt Walstad
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:**
