Ecological site R006XB016OR
Wet Marsh 14-26 PZ

Accessed: 05/13/2024

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.

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

Table 2. Representative physiographic features

Landforms	(1) Alluvial fan (2) Basin floor (3) Depression
Ponding duration	Very long (more than 30 days)
Ponding frequency	Frequent
Elevation	1,219–1,829 m
Slope	0–1%
Ponding depth	0–91 cm
Water table depth	0–152 cm
Aspect	Aspect is not a significant factor

Climatic features

The site is characterized by relatively short, hot summers and cold, snowy winters. The site receives approximately 20 inches of precipitation per year, the bulk of which is snowfall. There are frequent thunderstorms in the summer months. There may be ground fogs in the mornings during the growing season which affect stomatal gas exchange and photosynthetic activity.

Table 3. Representative climatic features

Frost-free period (average)	20 days
Freeze-free period (average)	49 days
Precipitation total (average)	635 mm

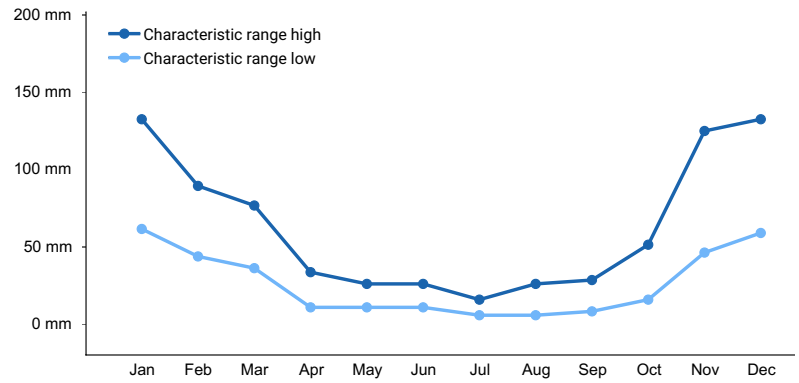

Figure 1. Monthly precipitation range

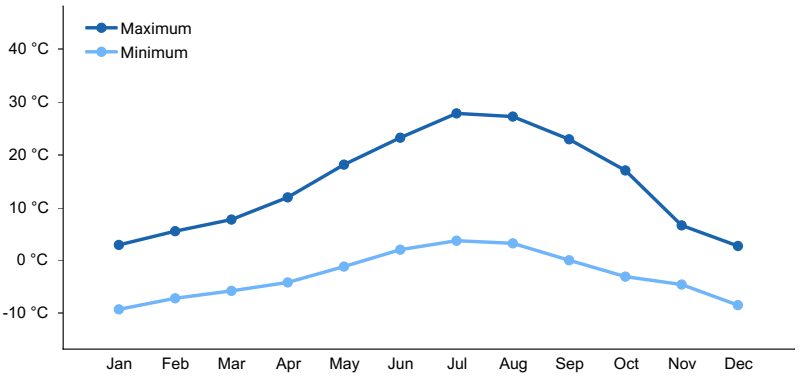

Figure 2. Monthly average minimum and maximum temperature

Influencing water features

Soil features

Ecological dynamics

This site is ponded for much of the year. The site is usually located in swales, old channels, oxbows, and deeper depressions. An apparent water table appears at or near the surface in all but the driest portions of the year, when it only recedes to about 3 to 6 inches below the surface. The combination of an omnipresent water table, cryic soil temperatures, deep organic surface horizons, and short growing season has resulted in a aplant community with little diversity. ONly five species were identified for this site. In the same area there may be different plant communities on the same soils. This variablility may be due to slight differences in hydrology, position, and elevation (micro relief), or the mere fact that one of these plant communities pioneered and came to dominate the site. The interpretative plant community for this site is the Historic Climax Plant Community (HCPC).

State and transition model

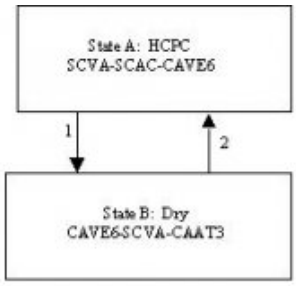

Figure 3. Wet Marsh State and Transition Model

State 1
HCPC: SCVA-SCAC-CAVE6

Community 1.1
HCPC: SCVA-SCAC-CAVE6

This plant community is dominated with Soft-stemmed and Hard-stemmed bulrushes. There may also be one or two species of Carex with the bulrushes. The bulrushes grow tall and thick and effectively shade the entire soil surface. The two species of bulrushes and Carex may occur as a mixture or there may be almost pure stands of either bulrush species.

Table 4. Annual production by plant type

Plant Type	Low (Kg/Hectare)	Representative Value (Kg/Hectare)	High (Kg/Hectare)
Grass/Grasslike	6725	8126	9527
Total	**6725**	**8126**	**9527**

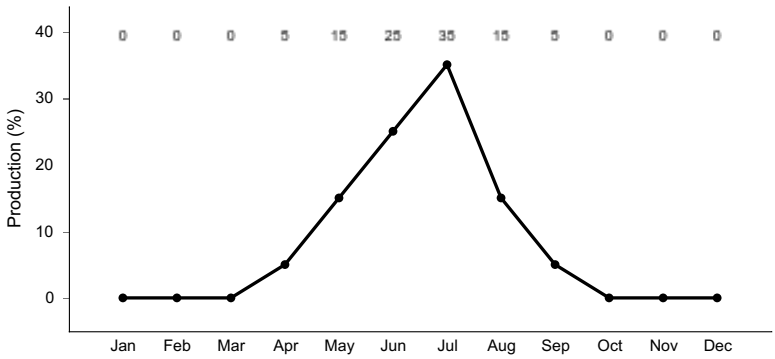

Figure 5. Plant community growth curve (percent production by month). OR1911, B6 Marsh RPC. (SCVA-SCAC-CAVE6) B6 Marsh RPC.

State 2
State B: CAVE6-SCVA-CAAT3

Community 2.1
State B: CAVE6-SCVA-CAAT3

This state has a plant community that has been influenced by the reduction of water (water table and duration of ponding) to the HCPC site. The site is dominated with Carex species at the expense of the bulrushes. Cattails may increase on the site in the deeper ponded areas.

Table 5. Annual production by plant type

Plant Type	Low (Kg/Hectare)	Representative Value (Kg/Hectare)	High (Kg/Hectare)
Grass/Grasslike	10088	11208	12329
Forb	560	673	785
Total	**10648**	**11881**	**13114**

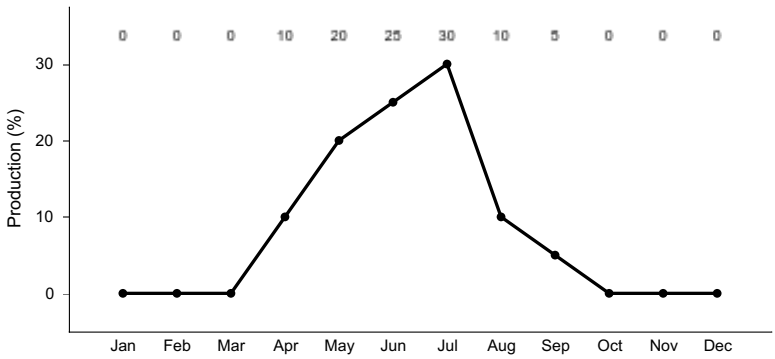

Figure 7. Plant community growth curve (percent production by month). OR1912, B6 Wet Marsh B. Disturbance/Dry (CAVE6-SCVA-CAAT3).

Additional community tables

Table 6. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Kg/Hectare)	Foliar Cover (%)
Grass/Grasslike					
1				5604–8967	
	softstem bulrush	SCTA2	*Schoenoplectus tabernaemontani*	4483–6725	–
	hardstem bulrush	SCAC3	*Schoenoplectus acutus*	1121–2242	–
2				953–1345	
	blister sedge	CAVE6	*Carex vesicaria*	841–1121	–
	slenderbeak sedge	CAAT3	*Carex athrostachya*	112–224	–

Table 7. Community 2.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Kg/Hectare)	Foliar Cover (%)
Grass/Grasslike					
1				5884–8855	
	blister sedge	CAVE6	*Carex vesicaria*	5604–8406	–
	slenderbeak sedge	CAAT3	*Carex athrostachya*	280–448	–
2				2242–3923	
	softstem bulrush	SCTA2	*Schoenoplectus tabernaemontani*	1681–2802	–
	hardstem bulrush	SCAC3	*Schoenoplectus acutus*	560–1121	–
Forb					
3				560–785	
	broadleaf cattail	TYLA	*Typha latifolia*	560–785	–

Animal community

The site is infrequently used by grazing animals. The sites usually have standing water well into the growing season and the limited diversity of this site does not provide forages important to large animals, rodents, or other mammals. Cover and shade from the tall Bulrushes may be important in the hottest parts of the year. Animals occasionally traverse the area to access other sites or for local migration. Several species of birds use the area during the growing season.

Contributors

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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:

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

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

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

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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:**

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17. **Perennial plant reproductive capability:**
