

## Pinus ponderosa / Schizachyrium scoparium Wooded Herbaceous Vegetation

COMMON NAME	Ponderosa Pine / Little Bluestem Wooded Herbaceous Vegetation
SYNONYM	Ponderosa Pine / Little Bluestem Savanna
PHYSIOGNOMIC CLASS	Herbaceous vegetation (V)
PHYSIOGNOMIC SUBCLASS	Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP	Temperate or subpolar grassland with a sparse tree layer (V.A.6)
PHYSIOGNOMIC SUBGROUP	Natural/semi-natural (V.A.6.N)
FORMATION	Medium-tall temperate or subpolar grassland with a sparse needle-leaved evergreen or mixed tree layer (V.A.6.N.f.)
ALLIANCE	<i>Pinus ponderosa</i> Wooded Medium-tall Herbaceous Alliance
CLASSIFICATION CONFIDENCE LEVEL	2
USFWS WETLAND SYSTEM	Upland

### RANGE

*Globally*

This community is found in western South Dakota, western Nebraska, and eastern Wyoming.

### *Fort Laramie National Historic Site*

This community occurs on upland sites on Bureau of Land Management lands northwest and south of the NHS. It is best developed on the northerly escarpment above the canal northwest of the NHS.

### ENVIRONMENTAL DESCRIPTION

#### *Globally*

This community is found on loamy, sandy, or rocky soil. It is usually found on gentle to moderate slopes at low elevations in the Black Hills of South Dakota (Hayward 1928).

### *Fort Laramie National Historic Site*

This community was observed on sandy silty soils derived from whitish, soft sandstone, on levels sites and slopes to 30 degrees. It occurs on all aspects except south, but is best developed on northerly exposures (northwest through northeast). Sandstone outcrops are common. The larger are mapped as the Rock Outcrop type.

### MOST ABUNDANT SPECIES

#### *Globally*

<u>Statum</u>	<u>Species</u>
Tree canopy	<i>Pinus ponderosa</i> , <i>Juniperus scopulorum</i>
Shrub	<i>Juniperus scopulorum</i>
Herbaceous	<i>Schizachyrium scoparium</i> , <i>Stipa comata</i> , <i>Carex filifolia</i> , <i>Bouteloua gracilis</i> , <i>Bouteloua curtipendula</i>

### *Fort Laramie National Historic Site*

<u>Statum</u>	<u>Species</u>
Tree canopy	<i>Pinus ponderosa</i>
Subcanopy	<i>Juniperus scopulorum</i>
Short shrub	<i>Rhus trilobata</i>
Herbaceous	<i>Schizachyrium scoparium</i> , <i>Bouteloua gracilis</i> , <i>Carex filifolia</i> , <i>Pseudoroegneria spicata</i>

**USGS-NPS Vegetation Mapping Program**  
**Fort Laramie National Historic Site**

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DIAGNOSTIC SPECIES

*Globally*

*Pinus ponderosa*, *Schizachyrium scoparium*

*Fort Laramie National Historic Site*

*Pinus ponderosa*, *Schizachyrium scoparium*

VEGETATION DESCRIPTION

*Globally*

This community has scattered mature trees with a fairly continuous graminoid understory. *Pinus ponderosa* is the most abundant tree species, sometimes with *Juniperus scopulorum* present as small trees or tall shrubs (Steinauer 1989). The most abundant graminoids in the understory are *Schizachyrium scoparium*, *Stipa comata*, *Carex filifolia*, *Bouteloua gracilis*, and *B. curtipendula*. *Calamovilfa longifolia* and *Koeleria macrantha* may be found on sandy soils in the eastern part of this community's range. Forbs that may be present include *Gaura coccinea*, *Psoraleidum lanceolatum*, and *Asclepias pumila*. In addition to the herbaceous species, shrubs such as *Symphoricarpos occidentalis*, *Rhus trilobata*, and *Cercocarpus montanus* are sometimes found in this community.

*Fort Laramie National Historic Site*

This community consists of sparse canopy dominated by *Pinus ponderosa*. Distribution is quite patchy, but probably averages greater than 10%. Trees are short, typically less than 10 m in height. Scattered individuals of *Juniperus scopulorum* commonly are found at these sites. The shrub stratum also is sparse, but *Rhus trilobata* occurs fairly consistently. Herbaceous dominants vary, with *Schizachyrium scoparium* being the most common. However, *Bouteloua gracilis*, *Carex filifolia*, and/or *Pseudoroegneria spicata* can be locally abundant. Herbaceous cover usually is less than 25%, but can be greater, especially under canopy openings.

OTHER NOTEWORTHY SPECIES Information not available.

CONSERVATION RANK G2G3

RANK JUSTIFICATION

DATABASE CODE C EGL002019

COMMENTS

*Globally*

Periodic fires are probably important in maintaining the open grassland understory of this type.

*Fort Laramie National Historic Site*

Sandstone outcrops are common in this community. The larger are mapped separately as Sandstone Rock Outcrop Sparse Vegetation.

REFERENCES

Hayward, H. H. 1928. Studies of plants in the Black Hills of South Dakota. *Botanical Gazette* 85(4):353-412.

Steinauer, G. 1989. Characterization of the natural communities of Nebraska. Pp. 103-141, in, M. Clausen, M. Fritz, and G. Steinauer. *The Nebraska Natural Heritage Program, Two Year Progress Report, Appendix D*. Lincoln, NE.