

Pascopyrum smithii Herbaceous Vegetation [Provisional]

COMMON NAME	Western Wheatgrass Herbaceous Vegetation [Provisional]
SYNONYM	Western Wheatgrass Mixedgrass Prairie
PHYSIOGNOMIC CLASS	Herbaceous vegetation (V)
PHYSIOGNOMIC SUBCLASS	Perennial graminoid vegetation (V.A)
PHYSIOGNOMIC GROUP	Temperate or subpolar grassland (V.A.5)
PHYSIOGNOMIC SUBGROUP	Natural/semi-natural (V.A.5.N)
FORMATION	Medium-tall sod temperate or subpolar grassland (includes sod or mixed sod-bunch graminoids) (V.A.5.N.c.)
ALLIANCE	<i>Pascopyrum smithii</i> Herbaceous Alliance
CLASSIFICATION CONFIDENCE LEVEL	3
USFWS WETLAND SYSTEM	Upland

RANGE

Globally

This community is found in Montana, Wyoming, Colorado, Idaho, Utah, Nebraska, Saskatchewan, and possibly North Dakota.

Agate Fossil Beds National Monument

This community occurs on higher terraces throughout the length of the Monument.

ENVIRONMENTAL DESCRIPTION

Globally

This community occurs on flat to gently sloping topography. Soils are clay, clay loam, and silt loam. It is sometimes found on alluvial fans of small streams. The soils are deep (40-100 cm) and well developed (Godfred 1994).

Agate Fossil Beds National Monument

This community occurs on fairly level ground on high terraces on either side of the river. Soils are fine sands and loamy fine sands.

MOST ABUNDANT SPECIES

Globally

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Pascopyrum smithii</i> ,

Agate Fossil Beds National Monument

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Artemisia frigida</i> , <i>Cirsium flodmanii</i> , <i>Equisetum laevigatum</i> , <i>Pascopyrum smithii</i> , <i>Poa pratensis</i>

DIAGNOSTIC SPECIES

Globally

Pascopyrum smithii

Agate Fossil Beds National Monument

Cirsium flodmanii, *Equisetum laevigatum*, *Pascopyrum smithii*

VEGETATION DESCRIPTION

Globally

This is a midgrass community. Shrubs are rare. The dominant species grow to approximately 1 meter. *Pascopyrum smithii* is the only constant dominant species and may have 50% cover. Other species such as *Koeleria macrantha* and *Poa* spp. may be locally abundant.

Many other species common in midgrass prairies are also found in this community. These include *Artemisia ludoviciana*, *Bouteloua gracilis*, *Nassella viridula*, and *Stipa comata* (Aldous 1924)

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This community is dominated by a relatively dense layer of graminoids ca 1 m tall. The dominant graminoids are *Pascopyrum smithii* and *Poa pratensis*, though sometimes species from bordering *Calamovilfa longifolia* - *Andropogon gerardii* Herbaceous Vegetation (*Calamovilfa longifolia*, *Stipa comata*) and *Juncus balticus* Herbaceous Vegetation (*Juncus balticus*, *Panicum virgatum*) are well-represented. *Equisetum laevigatum*, the only pteridophyte present on the Monument, is often abundant. *Cirsium flodmanii* is the most conspicuous forb and is mostly restricted to this community on the Monument. Other forb species include exotic annual weeds and species typical of surrounding communities. Species diversity is moderate.

OTHER NOTEWORTHY SPECIES Information not available.

CONSERVATION RANK G3G5Q

RANK JUSTIFICATION

DATABASE CODE C EGL001577

COMMENTS

Globally

This community is similar to several others that are dominated or co-dominated by *Pascopyrum smithii*. Further work needs to be done to refine the differences in composition and environmental characteristics.

Agate Fossil Beds National Monument

In grazed areas, this community is usually very heavily impacted by cattle. In these sites, the forb component increases greatly. Grazed *Pascopyrum smithii* Herbaceous Vegetation surrounding the Monument often has high densities of *Artemisia frigida*, *Cirsium flodmanii*, and *Senecio riddellii*.

REFERENCES

Aldous, A. E. 1924. Types of vegetation in the semiarid portion of the United States and their economic significance. *Journal of Agricultural Research* 28(2):99-123.

Godfreed, C. 1994. The vegetation of the Little Missouri Badlands of North Dakota. Pp. 17-24 In C. H. Schmidt (ed.) *Proceedings of the Leafy Spurge Strategic Planning Workshop*, Dickinson, ND.