

Bromus inermis - (Pascopyrum smithii) Semi-natural Herbaceous Vegetation

COMMON NAME Smooth Brome - (Western Wheatgrass) Semi-natural Herbaceous Vegetation
SYNONYM Smooth Brome Semi-natural Grassland
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 bunch temperate or subpolar grassland (V.A.5.N.d)
ALLIANCE BROMUS INERMIS SEMI-NATURAL HERBACEOUS ALLIANCE
CLASSIFICATION CONFIDENCE LEVEL 3
USFWS WETLAND SYSTEM Terrestrial

RANGE

Badlands National Park

Introduced, exotic grasslands occur throughout the Park and are associated with disturbances such as roadsides, abandoned farm fields, and areas that were interseeded with exotic grasses to "improve" the range for grazing. Areas especially noted are adjacent to the Park access road and facilities, abandoned agricultural fields along the northern boundary, abandoned agricultural fields on Sheep Mountain Table, and interseeded grasslands on Cuny and Stronghold Tables.

Globally

This type occurs widely throughout the northern Great Plains, and perhaps more widely in the Midwest, depending on how the type is defined.

ENVIRONMENTAL DESCRIPTION

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Introduced grasslands are on relatively level sites accessible to farming equipment. Typically the soils are silt and/or clay loams, which historically supported western wheatgrass (*Pascopyrum smithii*) alliance grasslands.

Globally

This type can occur in a wide variety of human-disturbed habitats, including highway rights-of-way, jeep trails, etc. It is also widely planted for cover, pasture, and hay, and has escaped into a variety of habitats.

MOST ABUNDANT SPECIES

Badlands National Park

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Bromus inermis</i>

Globally

<u>Stratum</u>	<u>Species</u>
Graminoid	<i>Bromus inermis</i>

CHARACTERISTIC SPECIES

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Bromus inermis, Pascopyrum smithii, Bromus japonicus, Psoralidium tenuiflorum

Globally

Bromus inermis, Pascopyrum smithii

OTHER NOTABLE SPECIES

VEGETATION DESCRIPTION

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Stands of introduced grasses typically have moderate herbaceous cover, ranging from 40-90%, and very dense litter over the ground surface. Along roadsides, smooth brome (*Bromus inermis*) is strongly dominant, with alfalfa (*Medicago sativa*) and yellow sweetclover (*Melilotus officianalis*) included in the plantings along State Highways. Many species of forbs and occasional shrubs are also found in the type.

Globally

The vegetation is dominated by medium-tall (0.5 - 1 m) graminoids. The dominant grass is *Bromus inermis*, a naturalized species from Europe and Asia. Other weedy species may occur as well, but native species are generally less than 10% cover. Native species may include mixed-grass prairie grasses, such as *Pascopyrum smithii* and *Stipa comata*, as well as others.

CONSERVATION RANK GW. This is a naturalized type from Europe and Asia, widely planted for cover, pasture, and hay, and has escaped into a variety of habitats.

DATABASE CODE CEG005264

USGS-NPS Vegetation Mapping Program
Badlands National Park

MAP UNITS Smooth brome grasslands are mapped as part of the Introduced Grassland unit, Map Class 17 on the Badlands NP vegetation map.

SIMILAR ASSOCIATIONS

COMMENTS

Badlands National Park

Several brome grassland sites were visited, and the type was well-surveyed into its components during preparation of the vegetation map. Some smaller areas of annual, exotic vegetation were also encountered during field data collection in support of vegetation map production. These patches of vegetation typically grew around livestock watering areas, such as windmills, and generally were placed under land use Map Class 55, Other Agricultural Land.

The introduced grassland group occupies previously disturbed sites, including roadsides, abandoned agricultural fields, and interseeded rangeland. Stands of brome grass tend to be monotypic. They tend to have dense litter layers which impede other species establishment and also serves to store moisture following precipitation events. One introduced grassland site was observed where prairie dogs had invaded, and through grazing and burrow construction activities were instrumental in reclaiming some of the introduced grassland back to western wheatgrass and blue grama grasslands. Present management of exotic grasses consists of limited mowing and light grazing by bison in the North Unit and heavy grazing by livestock in the South Unit.

Globally

This type could be defined very broadly to include almost any *Bromus inermis* dominated stand, in which case the variability of the minor species associated with the type may be very high.

REFERENCES