

Eleocharis palustris Herbaceous Vegetation

COMMON NAME Pale Spikerush Herbaceous Vegetation
SYNONYM Creeping Spikerush Wet Meadow
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 Seasonally flooded temperate or subpolar grassland (V.A.5.N.k)
ALLIANCE ELEOCHARIS PALUSTRIS SEASONALLY FLOODED HERBACEOUS ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 1

USFWS WETLAND SYSTEM Terrestrial

RANGE

Badlands National Park

Species of spikerush are common throughout the Park, but cover relatively small acreages associated with saturated/inundated soils. Saturated soils occur in depressions, drainages, along pond margins, and along water conveyance ditches.

Globally

This association is found in Montana, Utah, California, Nevada, Washington, Idaho, Oregon, Colorado, Wyoming, Nebraska, South Dakota, and Saskatchewan.

ENVIRONMENTAL DESCRIPTION

Badlands National Park

Spikerush vegetation is best developed in depressions on broad level sites that hold water for at least part of the growing season. Species of spikerush are present in nearly every wetland site on the Park and in its environs.

Globally

In northwest Nebraska, this community occurs in small depressions in intermittent stream beds that flood early in the season and dry out by summer. Soils are silty clay formed from weathered siltstone and shale (Steinauer and Rolfmeier 1997).

MOST ABUNDANT SPECIES

Badlands National Park

Stratum Species
Herbaceous *Eleocharis compressa*, *Eleocharis palustris*

Globally

Stratum Species
Information not available.

CHARACTERISTIC SPECIES

Badlands National Park

Eleocharis palustris, *Eleocharis compressa*, *Eleocharis acicularis*, *Hordeum jubatum*, *Sagittaria cuneata*

Globally

Information not available.

OTHER NOTABLE SPECIES

VEGETATION DESCRIPTION

Badlands National Park

Species of spikerush (*Eleocharis palustris*, *Eleocharis compressa*, and *Eleocharis acicularis*) are found in nearly pure stands where they occupy entire depressions or form a "zone" around other types of wetlands. Vegetative cover is usually very dense, between 50-75% at most sites. Shallow areas are more conducive to annual species, particularly *Eleocharis acicularis* and *Hordeum jubatum*. Deeper water typically contains some spikerush, but here the species give way to taller emergents, primarily *Typha* spp. and *Scirpus* spp.

Globally

In northwestern Nebraska, stands are dominated by submersed and emergent rooted vegetation under 1 m tall. *Eleocharis acicularis* and *Eleocharis palustris* commonly cover the bottoms of the pools and emerge above the water as the pools dry out. Ephemeral submersed aquatics, such as *Callitriche verna*, *Potamogeton diversifolius* and *Marsilea vestita*, may be present. As the pools dry out in mid-summer, ephemeral annual forbs, such as *Limosella aquatica* and *Plagiobothrys scouleri*, may appear. By late summer *Amaranthus californicus* and *Gnaphalium palustre* may dominate in the lowest parts of the depression (Steinauer and Rolfmeier 1997). At Wind Cave NP in South Dakota, vegetation is composed of nearly homogeneous stands of *Eleocharis palustris* (pale spikerush). Other emergents, such as *Polygonum amphibium* (water smartweed), *Marsilea vestita* (hairy water-

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fern), and *Eleocharis ovata* (ovate spikerush) are occasionally found. Herbaceous cover is greater than 75 percent except in areas of deeper open water where floating and submerged aquatic plants occur, including *Bacopa rotundifolia* (roundleaf water-hyssop) and *Heteranthera limosa* (blue mud-plantain) (H. Marriott pers. comm. 1999).

CONSERVATION RANK G5.

DATABASE CODE CEGL001833

MAP UNITS The spikerush community is one type included in Map Class 14 (Emergent Wetlands). A case could be made for two spikerush communities at Badlands, as both *Eleocharis compressa* and *Eleocharis palustris* form mono-dominant stands in the park.

SIMILAR ASSOCIATIONS

COMMENTS

Badlands National Park

The spikerush emergent wetland type is found throughout the Park, almost always in stands that are below the project minimum mapping unit. An effort was made to identify and interpret every wetland, no matter the size, including narrow drainages as a line coverage. Typical habitats are depressions on flats or in basins, which receive runoff following precipitation events. These sites are often visited by bison within the Park and by cattle outside the Park, presumably for the water and more vigorous vegetation growing there.

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