

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	<i>Eleocharis palustris</i> Seasonally Flooded Herbaceous Alliance

CLASSIFICATION CONFIDENCE LEVEL 1

USFWS WETLAND SYSTEM Palustrine

RANGE

Globally

This widespread association is found in Colorado, Idaho, western South Dakota, Montana, Wyoming, Washington, Oregon, Utah, and Saskatchewan. It may also be in California and Nevada.

Wind Cave National Park

Pale spikerush vegetation is uncommon at Wind Cave NP. Only two stands in depressions were found. A small stand is located near the Highland Creek trailhead. A large stands was found and sampled on Bison Flats. Small patches occur elsewhere in the park, for example along streams.

ENVIRONMENTAL DESCRIPTION

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 Rolfsmeier 1997).

Wind Cave National Park

Pale spikerush vegetation is best developed in depressions on broad level sites (e.g. Bison Flats) that hold water for at least part of the growing season. Small patches occur elsewhere, for example along streams.

MOST ABUNDANT SPECIES

Globally

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Eleocharis palustris</i>

Wind Cave National Park

<u>Stratum</u>	<u>Species</u>
Herbaceous	<i>Eleocharis palustris</i>

CHARACTERISTIC SPECIES

Globally

Eleocharis palustris

Wind Cave National Park

Eleocharis palustris

VEGETATION DESCRIPTION

Globally

In northwest 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 Rolfsmeier 1997). At Wind Cave NP in South Dakota, pale spikerush vegetation is composed of nearly homogeneous stands of pale spikerush

USGS-NPS Vegetation Mapping Program
Wind Cave National Park

(*Eleocharis palustris*). Other emergents, such as water smartweed (*Polygonum amphibium*), hairy water-fern (*Marsilia vestita*) and ovate spikerush (*Eleocharis ovata*) are occasionally found. Herbaceous cover is greater than 75% except in areas of deeper open water where floating and submerged aquatic plants occur, including roundleaf water-hyssop (*Bacopa rotundifolia*) and blue mud-plantain (*Heteranthera limosa*) (H. Marriott personal communication 1999).

Wind Cave National Park

Pale spikerush vegetation is composed of nearly homogeneous stands of pale spikerush (*Eleocharis palustris*). Other emergents, such as water smartweed (*Polygonum amphibium*), hairy water-fern (*Marsilia vestita*) and ovate spikerush (*Eleocharis ovata*) are occasionally found. Herbaceous cover is greater than 75% except in areas of deeper open water where floating and submerged aquatic plants occur, including roundleaf water-hyssop (*Bacopa rotundifolia*) and blue mud-plantain (*Heteranthera limosa*).

OTHER NOTEWORTHY SPECIES

CONSERVATION RANK G5

DATABASE CODE C EGL001833

MAP UNITS

The pale spikerush community is one type included in map unit 14, emergent wetland herbaceous complex, on the Wind Cave vegetation map. It is not mapped separately.

COMMENTS

Wind Cave National Park

Pale spikerush vegetation is uncommon at Wind Cave NP. Only two stands in depressions were found, and only one was large enough to sample. Small patches occur along streams also. Small patches of pale spikerush can be found also in stands classified as prairie cordgrass - sedge herbaceous vegetation, and western Great Plains streamside vegetation.

Pale spikerush stand size is dependent on the season's moisture. Pale spikerush stands dry out later in the growing season during most years.

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