

Juniperus horizontalis / Schizachyrium scoparium Dwarf-shrubland

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| COMMON NAME | Creeping Juniper / Little Bluestem Dwarf-shrubland |
| SYNONYM | Creeping Juniper / Little Bluestem Dwarf- shrubland |
| PHYSIOGNOMIC CLASS | Dwarf-shrubland (IV) |
| PHYSIOGNOMIC SUBCLASS | Evergreen dwarf-shrubland (IV.A) |
| PHYSIOGNOMIC GROUP | Needle-leaved or microphyllous evergreen dwarf-shrubland (IV.A.1) |
| PHYSIOGNOMIC SUBGROUP | Natural/Semi-natural (IV.A.1.N) |
| FORMATION | Creeping or matted needle-leaved or microphyllous evergreen dwarf-shrubland (IV.A.1.N.b) |
| ALLIANCE | <i>Juniperus horizontalis</i> Dwarf-Shrubland Alliance |
| CLASSIFICATION CONFIDENCE LEVEL | 1 |
| USFWS WETLAND SYSTEM | Upland |

RANGE

Globally

This community is found in South Dakota, North Dakota, southeast, central, and northeastern Montana, and southern Manitoba. Further details of its distribution within these states and province are not available.

Wind Cave National Park

Creeping juniper vegetation is rare at Wind Cave NP. It was found only in the Red Valley roughly east of the junction of NPS Rds. 5 and 6.

ENVIRONMENTAL DESCRIPTION

Globally

This association is found on silty loam, sandy loam, or clay loam soil and occurs on moderate to steep slopes, usually on upper slopes. In North Dakota, Montana, and South Dakota it is on north- and, rarely, west-facing slopes. In Manitoba it is thought to occur on dry south-facing slopes. Parent materials are sandstone, siltstone, claystone, and sandy glacial till.

Wind Cave National Park

Creeping juniper/little bluestem dwarf shrubland was found only in the Red Valley on sites underlain by the Spearfish Formation. Stands were found on mid to upper moderate to somewhat steep slopes with easterly aspects.

MOST ABUNDANT SPECIES

Globally

| <u>Stratum</u> | <u>Species</u> |
|----------------|---|
| Dwarf-shrub | <i>Juniperus horizontalis</i> |
| Herbaceous | <i>Carex filifolia</i> , <i>Carex inops</i> ssp. <i>heliophila</i> , <i>Koeleria macrantha</i> , <i>Schizachyrium scoparium</i> |

Wind Cave National Park

| <u>Stratum</u> | <u>Species</u> |
|----------------|---|
| Dwarf-shrub | <i>Juniperus horizontalis</i> |
| Herbaceous | <i>Andropogon gerardii</i> , <i>Schizachyrium scoparium</i> |

CHARACTERISTIC SPECIES

Globally

Juniperus horizontalis, *Schizachyrium scoparium*

Wind Cave National Park

Juniperus horizontalis, *Schizachyrium scoparium*

VEGETATION DESCRIPTION

Globally

This community is dominated by short shrubs and graminoids. Vegetation cover is moderate to high. The dominant species is usually *Juniperus horizontalis*, a mat forming shrub. Other low shrubs include *Artemisia frigida*, *Potentilla fruticosa*, *Symphoricarpos*

USGS-NPS Vegetation Mapping Program
Wind Cave National Park

occidentalis, and *Rosa arkansana*. *Rhus trilobata* and *Prunus virginiana* are taller shrubs that may be present. The most abundant graminoid is *Schizachyrium scoparium*. Other common graminoids include *Calamovilfa longifolia*, *Carex filifolia*, *C. inops* ssp. *heliophila*, *C. eleocharis*, *Koeleria macrantha*, and *Muhlenbergia cuspidata*. Some of the forbs that are associated with this community are *Anemone patens*, *Campanula rotundifolia*, *Comandra umbellata*, *Echinacea angustifolia*, *Dalea purpurea*, *Galium boreale*, *Senecio plattensis*, and *Linum perenne*.

Wind Cave National Park

Stands of creeping juniper/little bluestem are characterized by moderate shrub cover, in the 25-50% range, with creeping juniper strongly dominant. Sand cherry (*Prunus pumila*) and broom snakeweed (*Gutierrezia sarothrae*) are often present but sparse. Herbaceous cover was highly variable in the stands visited, ranging from 15 to 60%. Little bluestem (*Schizachyrium scoparium*) and big bluestem (*Andropogon gerardii*) contributed the greatest cover. On the less vegetated sites, a much greater diversity of forbs was found.

OTHER NOTEWORTHY SPECIES

CONSERVATION RANK G4

DATABASE CODE C EGL001394

MAP UNITS

The creeping juniper/little bluestem community corresponds to map unit 36, creeping juniper/little bluestem dwarf shrubland, on the Wind Cave vegetation map.

COMMENTS

Wind Cave National Park

The stands of creeping juniper found at Wind Cave NP are small, less than 0.5 ha in size and usually surrounded by little bluestem prairie. Creeping juniper vegetation is rare at Wind Cave NP, and so only a few stands were visited.

REFERENCES

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- Hirsch, K.J. 1985. Habitat type classification of grasslands and shrublands of southwestern North Dakota. Ph.D. Thesis. NDSU, Fargo, ND.
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- Montana Natural Heritage Program (MT NHP). 1988. Draft Guide to the natural vegetation of Montana. Montana Natural Heritage Program, Helena. 389 p.
- United States Forest Service. 1992. Draft habitat types of the Little Missouri National Grasslands. Medora and McKenzie Ranger Districts, Custer National Forest. Dickinson, ND.