

## Juniperus horizontalis / Schizachyrium scoparium Dwarf-shrubland

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 dwarf shrubland (IV.A.1.N.b)  
ALLIANCE JUNIPERUS HORIZONTALIS DWARF-SHRUBLAND ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 1

USFWS WETLAND SYSTEM Terrestrial

### RANGE

#### **Theodore Roosevelt National Park**

This dwarf-shrubland is found on somewhat steep (26-49%) north facing scoria slopes. This alliance typically occurs as relatively small patches, usually barely making the minimum-mapping unit. In most cases, the alliance extends across the slopes and shoulders of several adjacent ridges.

#### **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.

### ENVIRONMENTAL DESCRIPTION

#### **Theodore Roosevelt National Park**

Slope, aspect, and soil appear to play a major role influencing the distribution of this shrubland. The community is best developed on steep, north facing slopes with considerable amounts of gravel and scoria near the surface. The slopes appear to be fairly well stabilized because of the relatively continuous mat of cover provided by horizontal juniper.

#### **Globally**

Stands occur on moderate to steep slopes, usually on upper slopes (Hansen et al. 1984, USFS 1992). Typically, in the northern plains, stands occur on north and, rarely, west-facing slopes (Johnston 1987), but in Manitoba it is thought to occur on dry south-facing slopes (Greenall 1995). Parent materials are sandstone, siltstone, claystone, and sandy glacial till (USFS 1992). Soil textures include shallow silty loam, sandy loam, or clay loam soil. Hirsch (1985) reported significant amounts of gravel and scoria near the surface.

### MOST ABUNDANT SPECIES

#### **Theodore Roosevelt National Park**

<u>Stratum</u>	<u>Species</u>
Tree Canopy	<i>Juniperus scopulorum</i> , <i>Fraxinus pennsylvanica</i>
Short Shrub	<i>Prunus virginiana</i> , <i>Pentaphylloides floribunda</i> , <i>Rhus trilobata</i>
Dwarf Shrub	<i>Juniperus horizontalis</i>
Herbaceous	<i>Schizachyrium scoparium</i> , <i>Calamovilfa longifolia</i>

#### **Globally**

### CHARACTERISTIC SPECIES

#### **Theodore Roosevelt National Park**

*Juniperus horizontalis*, *Schizachyrium scoparium*

### VEGETATION DESCRIPTION

#### **Theodore Roosevelt National Park**

These are dwarf shrublands (plants < 30 cm in height) dominated by *Juniperus horizontalis*, which typically forms a continuous mat of vegetation. A wide variety of shrubs are common constituents. The sites may also contain a few, short (< 3 m) *Fraxinus pennsylvanica* and *Juniperus scopulorum* trees. *Schizachyrium scoparium* and *Calamovilfa longifolia* is typically found in very close association with *Juniperus horizontalis* on these sites. This alliance is often characterized by exceptionally high species richness, probably the highest in the project area.

**USGS-NPS Vegetation Mapping Program**  
**Theodore Roosevelt National Park**

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**Globally**

This community is dominated by short shrubs and graminoids. Vegetation cover is moderate to high. The USFS (1992) found that in 11 stands in western North Dakota the average cover of shrubs was 44 percent, graminoids covered 32 percent, and forbs 2 percent. The dominant species is usually *Juniperus horizontalis*, a mat-forming shrub. Other low shrubs include *Artemisia frigida*, *Pentaphylloides floribunda*, *Symphoricarpos 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*, *Carex inops ssp. heliophila*, *Carex duriuscula* (= *Carex 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*. Bare ground may occupy 25-45 percent of the surface (Hirsch 1985).

CONSERVATION RANK G4.

DATABASE CODE CEGL001394

SIMILAR ASSOCIATIONS

COMMENTS

REFERENCES