

VEGETATION DESCRIPTIONS FOR SCOTTS BLUFF NATIONAL MONUMENT

Juniperus scopulorum / Oryzopsis micrantha Woodland

COMMON NAME	Rocky Mountain juniper/Little-seeded ricegrass Woodland
SYNONYM	Juniper Woodland
TNC SYSTEM	Terrestrial
PHYSIOGNOMIC CLASS	Woodland
PHYSIOGNOMIC SUBCLASS	Evergreen woodland
PHYSIOGNOMIC GROUP	Temperate or subpolar needle-leaved evergreen woodland
FORMATION	Rounded-crowned temperate or subpolar needle-leaved evergreen woodland
ALLIANCE	<i>Juniperus scopulorum</i> Woodland Alliance

CLASSIFICATION CONFIDENCE LEVEL 2

RANGE

This community is found in southeast Montana, southwest North Dakota, western South Dakota, and extreme western Nebraska.

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This community is predominantly found on north-facing slopes of escarpments. In the southwestern part of the Monument, it can be found in steep-sided ravines.

ENVIRONMENTAL DESCRIPTION

Throughout its range, *Juniperus scopulorum/Oryzopsis micrantha* Woodland occurs on steep (35-70%) north facing slopes. A few sites on more gradual south-facing slopes have been reported in North Dakota (Johnston 1987). The soils are poorly developed, shallow, loamy sands, sandy loams, and clay loams, sometimes with high gravel content.

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This community occupies narrow draws on steep (15-45%) upper- and mid-slopes of escarpments. On the southwestern part of the Monument, this community can be found in steep-sided ravines cutting through grassy uplands. Sites are often quite eroded and soils are poorly developed loose, loamy sands.

USFWS WETLAND SYSTEM Not applicable

USGS-NPS Vegetation Mapping Program
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MOST ABUNDANT SPECIES

Globally

<u>Strata</u>	<u>Species</u>
Tree canopy	<i>Juniperus scopulorum</i>
Short shrub	<i>Rhus aromatica</i> , <i>Rosa woodsii</i>
Herbaceous	<i>Bouteloua gracilis</i> , <i>Oryzopsis micrantha</i>
Non-vascular	Information not available

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<u>Strata</u>	<u>Species</u>
Tree canopy	<i>Juniperus scopulorum</i> , <i>Juniperus virginiana</i>
Short shrub	<i>Oryzopsis micrantha</i> , <i>Chenopodium fremontii</i>
Herbaceous	<i>Parietaria pensylvanica</i>

DIAGNOSTIC SPECIES

Globally

Juniperus scopulorum, *Oryzopsis micrantha*

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Chenopodium fremontii, *Juniperus scopulorum*, *Oryzopsis micrantha*

VEGETATION DESCRIPTION

Globally

This woodland community is dominated by small *Juniperus scopulorum* trees. Most of these trees are 10-20 cm dbh and 4-6 meters tall. Some trees are 30-40 cm dbh. The basal area has been reported at 22-41 m²/ha (Hansen et al. 1984, Hansen and Hoffman 1987). The canopy of *Juniperus scopulorum* is moderate to dense. Where it is dense the shrub and herbaceous strata are poorly developed. Where the canopy is less full, shrubs and herbaceous species are more abundant. On 7 stands in southwest North Dakota mosses and lichens covered 72% of the ground surface, shrubs covered 17.4%; graminoids - 69.1%; forbs - 9.4% (Hansen et al. 1984). Three stands in southeastern Montana had less coverage by each strata (Hansen and Hoffman 1987). Among the shrubs that may be found in this community are *Rhus aromatica*, *Juniperus communis*, *J. horizontalis*, *Rosa woodsii*, and *Prunus virginiana*. Typical herbaceous species are *Campanula rotundifolia*, *Galium boreale*, *Oryzopsis micrantha*, and *Maianthemum stellatum*. *Fraxinus pennsylvanica* saplings are sometimes found in depressions where soil and moisture accumulate.

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This community is densely wooded with interlocking canopies of *Juniperus scopulorum*. Scattered individuals of *Pinus ponderosa* are sometimes found on the periphery. A sparse short shrub layer of *Cercocarpus montanus*, *Rhus aromatica* and *Ribes aureum* var. *villosum* is usually present. The herbaceous layer is also sparse. There is little species diversity due to the poor soils and dense shade. *Oryzopsis micrantha*, *Chenopodium fremontii*, and *Parietaria pensylvanica* are common under the canopy of junipers. The exotics *Bromus* spp. are common in open areas with loose soil. On the southwestern part of the Monument, *Juniperus virginiana* may be common to dominant in some of the ravines.

OTHER NOTEWORTHY SPECIES Information not available.

CONSERVATION RANK G3

USGS-NPS Vegetation Mapping Program
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RANK JUSTIFICATION Information not available.

COMMENTS

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This community intergrades with *Pinus ponderosa/Juniperus scopulorum* Woodland in places. Much of the *Juniperus virginiana* found in the southwestern part of the Monument may have been planted.

REFERENCES

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