

## Symphoricarpos occidentalis Shrubland (Provisional)

COMMON NAME	Western Snowberry Shrubland
SYNONYM	Western Snowberry Shrubland
PHYSIOGNOMIC CLASS	Shrubland (III)
PHYSIOGNOMIC SUBCLASS	Deciduous shrubland (III.B)
PHYSIOGNOMIC GROUP	Cold-deciduous shrubland (III.B.2)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (III.B.2.N)
FORMATION	Temporarily flooded cold-deciduous shrubland (III.B.2.N.d)
ALLIANCE	SYMPHORICARPOS OCCIDENTALIS TEMPORARILY FLOODED SHRUBLAND ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 1

USFWS WETLAND SYSTEM Terrestrial

### RANGE

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

Western snowberry, wolfberry, or buckbrush, shrublands are found throughout the project area on a wide variety of topographic situations. The vast majority of the stands are relatively small, often occurring below the minimum mapping unit.

#### **Globally**

This community is widespread in western Montana and North Dakota. It is also present in South Dakota, Nebraska, Wyoming, and Saskatchewan.

### ENVIRONMENTAL DESCRIPTION

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

These shrublands are common throughout the area in swales, draws, and small depressions. These sites generally receive supplemental moisture in the form of runoff. Western snowberry stands occur in close association, and often intermixed with, a wide variety of vegetation types.

#### **Globally**

This community is found in mesic swales, depressions, ravines and floodplains. Some examples of this community experience intermittent and brief flooding. The soils are fertile and well drained to imperfectly drained silts and loams. The upper soil horizon is usually deep, although a thin layer of sand may be present if the site has been recently flooded (Jones 1995).

### MOST ABUNDANT SPECIES

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

<u>Stratum</u>	<u>Species</u>
Tree Canopy	<i>Fraxinus pennsylvanica</i>
Short Shrub	<i>Symphoricarpos occidentalis</i> <i>Prunus virginiana</i>
Herbaceous	<i>Pascopyrum smithii</i> , <i>Poa pratensis</i> , <i>Nassella viridula</i>

#### **Globally**

<u>Stratum</u>	<u>Species</u>
Short Shrub	<i>Symphoricarpos occidentalis</i>

### CHARACTERISTIC SPECIES

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

*Symphoricarpos occidentalis*, *Pascopyrum smithii*, *Nassella viridula*

#### **Globally**

*Symphoricarpos occidentalis*

### VEGETATION DESCRIPTION

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

*Symphoricarpos occidentalis* is the dominant species usually forming dense patches that are frequently intermixed with other vegetation types such as the *Artemisia cana* – *Pascopyrum smithii* within the sagebrush flats area and the *Fraxinus pennsylvanica* (*Ulmus americana*). Woodland Alliance that occur in upland draws. The *Symphoricarpos occidentalis* alliance also occurs, at or below minimum mapping unit size, in shallow depressions within the *Pascopyrum smithii* – *Nassella viridula* Herbaceous Vegetation. Although a wide variety of species can be found associated within this alliance, *S. occidentalis* usually occurs in such dense patches

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

---

that abundance of most species is quite low. The most common associates include *Poa pratensis*, *Pascopyrum smithii*, and *Nassella viridula*.

Throughout its range this community is dominated by shrubs approximately 1 m tall. Shrub cover is typically greater than 50%, and in places it can approach 100%. These shrubs form dense clumps that exclude most other species. *Symphoricarpos occidentalis* is the most common shrub, but *Rhus aromatica* (or *Rhus trilobata*) and *Prunus virginiana* can be locally abundant and can grow to 2-3 meters in places. Herbaceous species and smaller shrubs are most abundant at the edge of this community and in gaps between the clumps of taller shrubs where the shading is less complete. *Rosa woodsii* is a typical smaller shrub. Common graminoids include *Pascopyrum smithii* and *Poa pratensis*. *Achillea millefolium*, *Artemisia ludoviciana*, *Galium boreale*, and *Solidago* spp. are common forbs of this community. Woody vines sometimes occur, incl. *Parthenocissus itacea*.

**CONSERVATION RANK** G4G5. This type is common throughout the northern Great Plains. Historically, it may never have been very extensive. It has been observed to grow out from forest or woodland edges and shade out the grasses. It is tolerant of both grazing and fire (Hansen and Hoffman 1988), and is under no threat from human activities. In some cases, heavily grazed pastures may favor this type. Many examples are somewhat weedy; thus the type is not demonstrably secure.

**DATABASE CODE** CEGL001131

**SIMILAR ASSOCIATIONS**

Fraxinus pennsylvanica - Ulmus americana / Prunus virginiana Woodland (Related in terms of habitat; floristically distinct.)

**COMMENTS**

The *Symphoricarpos occidentalis* shrubland type occurs as thickets throughout its range. These thickets are surrounded by grasslands or occasionally by tall shrublands (e.g., *Prunus virginiana*). *Symphoricarpos occidentalis* Shrublands often have a significant component of exotic species, especially where grazing has been heavy. *Bromus inermis*, *Cirsium arvense*, and *Poa pratensis* are among the most abundant of these exotics. *Symphoricarpos occidentalis* seems to thrive in disturbed areas (Hansen and Hoffman 1988), especially those subject to disturbance by fire and cattle grazing.

**REFERENCES**

- Christy, S. 1973. An analysis of the woody vegetation on the South Platte River flood plain in northeastern Colorado. Unpublished thesis, University of Northern Colorado, Greeley. 82 pp.
- Clark, S.V. 1977. The vegetation of Rocky Flats, Colorado. Unpublished thesis, University of Colorado, Boulder.
- Clark, S.V., P.J. Webber, V. Komarkova, and W.A. Weber. 1980. Map of mixed prairie grassland vegetation-Rocky Flats, Colorado. University of Colorado, Institute of Arctic and Alpine Research Occasional Paper 35. 66 pp.
- Hansen, P. L., G. R. Hoffman, and A. J. Bjugstad. 1984. The vegetation of Theodore Roosevelt National Park, North Dakota: A habitat type classification. U. S. Dep. Agric., For. Serv., Rocky Mt. For. and Range Exp. Sta., Gen. Tech. Rep. RM-113. Fort Collins, Colo. 35 p.
- Hansen, P., K. Boggs, R. Pfister. 1991. Classification and management of riparian and wetland sites in Montana. Unpublished draft version prepared for Montana Riparian Association, Montana Forest and Conservation Experiment Station, School of Forestry, University of Montana, Missoula, MT. 478 pp.
- Hansen, P.L. and G.R. Hoffman. 1988. The vegetation of the Grand River/Cedar River, Sioux, and Ashland Districts of the Custer National Forest: a habitat type classification. USDA Forest Service General Technical Report RM-157, Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.
- Johnston, B.C. 1987. Plant associations of region two: potential plant communities of Wyoming, South Dakota, Nebraska, Colorado, and Kansas. Edition 4. USDA Forest Service, Rocky Mountain Region. R2-Ecol-87-2. 429 pp.
- Jones, G. 1992. Wyoming plant community classification (Draft). Wyoming Natural Diversity Database, Laramie, WY. 183 pp.
- Jones, G. P., and G. M. Walford. 1995. Major riparian vegetation types of eastern Wyoming. A Report Submitted to the Wyoming Department of Environmental Quality, Water Quality Division. Grant 9-01136. 244 pp.
- Kittel, G., R. Rondeau, N. Lederer and D. Randolph. 1994. A classification of the riparian vegetation of the White and Colorado River basins, Colorado. Final report submitted to Colorado Department of Natural Resources and the Environmental Protection Agency. Colorado Natural Heritage Program, Boulder, Colorado. 166 pp.
- McAdams, A.G., D.A. Stutzman, and D. Faber-Langendoen. 1998. Black Hills Community Inventory, unpublished data. The Nature Conservancy, Midwest Regional Office, Minneapolis, MN.
- Meyer, M. I. 1985. Classification of native vegetation at the Woodworth Station, North Dakota. Prairie Nat. 17(3):167-175.
- Osborn, R., G. Kittel, and M. Reid. 1998. Colorado Riparian Plant Associations and Western States Vegetation Classification. CDROM. U.S. Geological Survey, Mid-Continent Ecology Research Center, Fort Collins, CO.
- Steinauer, G. and S. Rolfsmeier. 1997. Terrestrial natural communities of Nebraska. Draft - October 28, 1997. Nebraska Game and Parks Commission, Lincoln, NE. 117 p.