

## Populus deltoides / Symphoricarpos occidentalis Woodland

COMMON NAME	Eastern Cottonwood / Western Snowberry Woodland
SYNONYM	Cottonwood/Wolfberry - Western Rose Floodplain
PHYSIOGNOMIC CLASS	Woodland (II)
PHYSIOGNOMIC SUBCLASS	Deciduous woodland (II.B)
PHYSIOGNOMIC GROUP	Cold-deciduous woodland (II.B.2)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (II.B.2.N)
FORMATION	Temporarily flooded cold-deciduous woodland (II.B.2.N.b)
ALLIANCE	<i>Populus deltoides</i> Temporarily Flooded Woodland Alliance

CLASSIFICATION CONFIDENCE LEVEL 1

USFWS WETLAND SYSTEM Upland

### RANGE

#### **Globally**

This community occurs in three northern Great Plains ecoregional sections, where it is found in Colorado, Wyoming, North Dakota, and possibly South Dakota.

#### **Wind Cave National Park**

Mappable stands of plains cottonwood/western snowberry vegetation occur in drainages east of the Park. These areas are under private ownership, and were not accessible for survey.

### ENVIRONMENTAL DESCRIPTION

#### **Globally**

This community is found on medium to coarse textured alluvial soils on the floodplains of major rivers. The floodplains are both seasonally inundated and subirrigated (Thilenius et al. 1995). The meandering erosional and depositional pattern of rivers maintains and influences this community along rivers (Hanson 1990). It is rarely found at higher elevations in the mountains of eastern Wyoming and western South Dakota (Johnston 1987).

#### **Wind Cave National Park**

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### MOST ABUNDANT SPECIES

#### **Globally**

<u>Stratum</u>	<u>Species</u>
Tree canopy	<i>Populus deltoides</i>
Short shrub	<i>Symphoricarpos occidentalis</i>
Forb	<i>Maianthemum stellatum</i> , <i>Melilotus officinalis</i>
Graminoid	<i>Poa secunda</i>

#### **Wind Cave National Park**

<u>Stratum</u>	<u>Species</u>
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Information not available.

### CHARACTERISTIC SPECIES

#### **Globally**

*Populus deltoides*, *Symphoricarpos occidentalis*

#### **Wind Cave National Park**

Information not available.

### VEGETATION DESCRIPTION

#### **Globally**

This community is typically dominated by a single deciduous tree species, *Populus deltoides*. In some stands other species, such as *Acer negundo* and *Fraxinus pennsylvanica*, may contribute to the canopy. The tallest trees exceed 15 meters. *Populus deltoides* is a

pioneer species that requires moist, sparsely vegetated alluvium to become established from seed, therefore stands of this community are seral. The shrub layer is typically 0.5-1 m tall. It is dominated by *Symphoricarpos occidentalis* and commonly includes *Juniperus scopulorum* and *Rosa* spp. In Wyoming, *Chrysothamnus nauseosus* is present and increases with heavy grazing (Thilenius et al. 1995). The herbaceous layer usually includes *Pascopyrum smithii* and *Elymus trachycaulus*. Weedy species such as *Cirsium arvense*, *Melilotus officinalis*, *Taraxacum officinale*, and *Poa secunda* are very common, especially in the presence of grazing (Jones and Walford 1995, Thilenius et al. 1995). *Maianthemum stellatum* is abundant only where grazing is absent.

#### **Wind Cave National Park**

Mappable stands of plains cottonwood/western snowberry vegetation occur in drainages east of the Park. These areas are under private ownership, and were not accessible for survey. A very small stand is found in a draw between NPS Rds. 5 and 6 in the northeast part of the Park. Isolated cottonwoods occur elsewhere in drainage bottoms in the Park.

#### OTHER NOTEWORTHY SPECIES

**CONSERVATION RANK** G2G3. The total number of occurrences is unknown. Thirteen have been documented in North Dakota, where the community is ranked S1S2?. Although no other occurrences have been documented, the community is also reported from Wyoming (S2), Colorado (S2) and may occur in South Dakota (SP). It is found in three northern Great Plains ecoregional sections. The community occurs on medium to coarse textured soils on the floodplains of major rivers.

**DATABASE CODE** CEGL000660

#### MAP UNITS

The plains cottonwood/western snowberry community corresponds to map unit 40, plains cottonwood/western snowberry forest, on the Wind Cave vegetation map.

#### COMMENTS

#### REFERENCES

Hansen, P., K. Boggs, R. Pfister, and J. Joy. 1990. Classification and management of riparian and wetland sites in central and eastern Montana. Unpublished draft prepared for Montana Riparian Association, Montana Forest and Conservation Experiment Station, School of Forestry, University of Montana, Missoula, MT. 279 pp.

Johnson, P., K. Boggs, R. Pfister, and J. Joy. 1990. Classification and management of riparian and wetland sites in central and eastern Montana. Draft version 2. Montana Riparian Association, Montana Forest and Conservation Experiment Station, School of Forestry, University of Montana, Missoula, MT.

Johnston, B.C. 1987. Plant associations of region two: potential plant communities of Wyoming, South Dakota, Nebraska, Colorado, and Kansas. R2-ECOL-87-2. USDA Forest Service, Rocky Mountain Region, Lakewood, CO. 429 p.

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., E. VanWie, and M. Damm. 1997. *Populus deltoides* ssp. *monilifera*/*Symphoricarpos occidentalis* - Community Characterization Abstract-Sub National Basic, draft March 12, 1997. Colorado Natural Heritage Program, Fort Collins, CO.

Thilenius, J.F., G.R. Brown, and A.L. Medina. 1995. Vegetation on semi-arid rangelands, Cheyenne River Basin, Wyoming. General Technical Report RM-GTR-263. USDA Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO. 60 pp.

Thilenius, J.F. and D.R. Smith. 1985. Vegetation and soils of an alpine range in the Absaroka Mountains, Wyoming. USDA Forest Service General Technical Report RM-121. Rocky Mountain Forest and Range Experiment Station, Ft. Collins, CO. 18 pp.