Populus deltoides / Juniperus scopulorum Woodland

COMMON NAME	Eastern Cottonwood – Rocky Mountain Juniper Floodplain Woodland
SYNONYM	Cottonwood / Rocky Mountain Juniper Woodland
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	POPULUS DELTOIDES TEMPORARILY FLOODED WOODLAND ALLLIANCE

CLASSFICATION CONFIDENCE LEVEL

USFWS WETLAND SYSTEM

RANGE

Theodore Roosevelt National Park

This woodland community is found along the floodplain of the Little Missouri River throughout Theodore Roosevelt NP.

Globally

This community has been identified only in southwestern North Dakota. It is reported from one ecoregion section.

ENVIRONMENTAL DESCRIPTION

Theodore Roosevelt National Park

This alliance is found near the Little Missouri River on more recent alluvium. Soils are poorly developed are typically dominated by sand.

Globally

This woodland community is found on soils with an upper profile of silt loam (0-60 cm) and a lower profile of sandy loam (61-90 cm). These soils developed from alluvial deposits. The pH is circumneutral and there is a high water holding capacity. This community occurs on broad, flat floodplains (Girard et al. 1989).

MOST ABUNDANT SPECIES

Theodore Roosevelt National Park

Stratum	Species
Tree Canopy	*Populus deltoides, Juniperus scopulorum*
Short Shrub	*Symphoricarpos occidentalis, Prunus virginiana,*
Herbaceous	*Poa pratensis, Bromus inermis*

Globally

CHARACTERISTIC SPECIES

Theodore Roosevelt National Park

Populus deltoides, Juniperus scopulorum

Globally

VEGETATION DESCRIPTION

Theodore Roosevelt National Park

Mean foliar cover for trees found in this woodland is about 46%. *Juniperus scopulorum* is subdominant to *Populus deltoides*. *Juniperus scopulorum*, along with *Fraxinus pennsylvanica*, dominate the tree, tall shrub, and short shrub layers. On some sites, *Fraxinus pennsylvanica* assumes an almost equal status with *Juniperus scopulorum*. The understory is fairly sparse (19% mean foliar cover) and similar to the *Populus deltoides* Temporarily Flooded Woodland Alliance.

Globally

The dominant species in this community is mature *Populus deltoides*. It has three times the cover of the *Juniperus scopulorum*. Small amounts of *Fraxinus pennsylvanica* are often present as small trees and, more commonly, saplings. *Juniperus scopulorum* also occurs as saplings and seedlings but *Populus deltoides* reproduction is very limited. This community is a seral stage that develop into a *Fraxinus pennsylvanica*-dominated system. Hansen et al. (1984) attributed the abundance of *Juniperus scopulorum* to adequate light available to the understory layers of the community as a result of wide spacing of the old *Populus*. ^The prevalence of *Juniperus scopulorum* decreases in the lower layers of this community, while *Fraxinus pennsylvanica* increases. The shrub layer of this

community is composed chiefly of *Rosa woodsii, Symphoricarpos occidentalis*, and small *Juniperus scopulorum*. The herbaceous stratum typically contains *Toxicodendron rydbergii, Elymus canadensis, Melilotus officinalis*, and *Thalictrum dasycarpum*.

CONSERVATION RANK G1G2. There are probably fewer than 20 occurrences of this community rangewide. No occurrences are currently documented. This community is ranked S1S2? in North Dakota, and it is only known from southwestern North Dakota, in one ecoregion section. Many stands have been subject to extensive grazing, and weedy species may predominate.

DATABASE CODE CEGL002152

SIMILAR ASSOCIATIONS

COMMENTS
This type is found closest to the river on young, unstabilized floodplains, where it colonizes the freshly deposited alluvial substrates on the meanders of the streams and rivers. Proceeding away from the river, other later succcessional stages include, in the Little Missouri River drainage, a *Populus deltoides/Fraxinus pennsylvanica* community type (CEGL000658), and a *Fraxinus pennsylvanica - (Ulmus americana) / Symphoricarpos occidentalis* Forest (CEGL002088). As the stream continues to move away from the more recent deposits, the stand may eventually succeed to the Fraxinus pennsylvanica type, a process that could take 100 years (Girard *et a*l. 1989).

REFERENCES