Fraxinus pennsylvanica - (Ulmus americana) / Symphoricarpos occidentalis Forest

COMMON NAME	Green Ash - American Elm Woodland Floodplain
SYNONYM	
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	

CLASSFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM

RANGE

Theodore Roosevelt National Park

This woodland occurs sporadically in mesic oxbows, drainages, and depressions along the floodplain of the Little Missouri River, primarily in the North Unit of Theodore Roosevelt NP.

Globally

This type is found primarily in the northwestern Great Plains.

ENVIRONMENTAL DESCRIPTION

Theodore Roosevelt National Park

This community is found within the floodplain of the Little Missouri River immediately adjacent to, and often intermixed with, the *Artemisia cana* Temporarily Flooded Shrubland and the *Populus deltoides* Woodland. It appears that flooding of these communities is relatively common, especially in the spring.

Globally

Stands are found on nearly level floodplains and lower terraces of rivers and streams, generally away from the river on older, stabilized sites. The water table may be relatively deep on higher terraces, allowing drier species to establish (Girard et al. 1989). Soils are typically clays or silty clays.

MOST ABUNDANT SPECIES

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Stratum	Species
Tree Canopy	*Fraxinus pennsylvanica, Ulmus pumila*
Short Shrub	*Symphoricarpos occidentalis, Artemisia cana*
Herbaceous	*Poa pratensis, Bromus inermis*

Globally

CHARACTERISTIC SPECIES

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Fraxinus pennsylvanica, Ulmus pumila

Globally

VEGETATION DESCRIPTION

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Fraxinus pennsylvanica dominates the canopy with *Ulmus pumila* as a secondary species. Ash and elm trees are generally short statured. Typically, a few, large *Populus deltoides* trees may be present as emergents; however, they are generally absent from the lower canopy and shrub layers. *Juniperus scopulorum* is also present, but much less abundant than *Fraxinus pennsylvanica*. *Symphoricarpos occidentalis* is the most common short shrub species while *Poa pratensis* is the most abundant herbaceous species.

Globally

The tree layer is variable in structure, ranging from open (25-50%) to closed (50% or more) canopy. *Fraxinus pennsylvanica* is the leading dominant. In some parts of the range *Juniperus scopulorum* is present in the subcanopy, particularly where the canopy is still open. *Populus deltoides* may be present as an emergent. Emergent *Populus deltoides* may also occur under a canopy of *Fraxinus pennsylvanica*, reflecting a successional shift in some stands (Girard et al. 1989). *Fraxinus pennsylvanica* is common in the

subcanopy and sapling layer, and, in some stands, *Ulmus americana* may be an associate. *Acer negundo* may only be occasionally present in some parts of the range. The dominant shrub is *Symphoricarpos occidentalis*. Other shrub species may be present, including *Cornus sericea, Rosa woodsii*, and *Rhus aromatica*. A variety of herbs may be present, none at high cover values, including *Elymus canadensis, Maianthemum stellatum, Melilotus officinalis, Muhlenbergia racemosa, Parthenocissus vitacea, Poa pratensis, Thalictrum dasycarpum*, and *Toxicodendron rydbergii* (Hansen et al. 1984, Girard et al. 1989).

CONSERVATION RANK G?.

DATABASE CODE CEGL002088

SIMILAR ASSOCIATIONS

COMMENTS

This type is usually found away from the river on older, stabilized floodplains. Proceeding towards the river, other more pioneer successional forest stages may occur, including, in the Little Missouri River drainage, a *Populus deltoides/Fraxinus pennsylvanica* community type (CEGL000658), and a *Populus deltoides/Juniperus scopulorum* woodland community type (CEGL002152). The latter community colonizes the freshly deposited alluvial substrates on the meanders of the streams and rivers. As the stream continues to move away from these deposits, the stand may eventually succeed to the *Fraxinus pennsylvanica* type, a process that could take 100 years (Girard et al. 1989).

REFERENCES