

***Platanus occidentalis* - *Fraxinus pennsylvanica* Forest (CEGL006036)**

COMMON NAME	Sycamore - Green ash Forest
SYNONYM	Floodplain Forest
TNC SYSTEM	Terrestrial
PHYSIOGNOMIC CLASS	I. Forest
PHYSIOGNOMIC SUBCLASS	IB. Deciduous forest
PHYSIOGNOMIC GROUP	IB2. Cold-deciduous forest
FORMATION	IB2Nd. Temporarily flooded cold-deciduous forest
ALLIANCE	<i>Platanus occidentalis</i> - (<i>Fraxinus pennsylvanica</i> , <i>Celtis laevigata</i> , <i>Acer saccharinum</i>) Temporarily Flooded Forest Alliance

CLASSIFICATION CONFIDENCE LEVEL 1

RANGE

This association ranges from Rhode Island to Connecticut, New York, Delaware, Pennsylvania, and Maryland.

ENVIRONMENTAL DESCRIPTION

This association occurs along stream banks, low terraces and other low-lying areas subject to temporary or irregular flooding. Soils range from gravel and coarse sand along the edges of the major streams to deep silt loams on the broader floodplains and upper banks of the stream. At Rock Creek Park, this association occurs primarily on areas mapped as Codorus silt loam, a moderately well-drained to somewhat poorly-drained soil of Piedmont floodplains (Smith 1976). Smaller deposits of sand and gravel are contained within this type. The floodplain areas in the park tend to be small in area; Smith (1976) noted that most map units of the Codorus silt loams in the Washington D.C. area averaged about 30 – 40 acres. The soils tend to be strongly acidic and are characterized by a dark silt loam layer (about 8 inches) underlain by a deeper, yellow-brown soil layer. Woody debris typically covers 15 percent of the ground surface, leaf litter layer may be thin to absent.

USFWS WETLAND SYSTEM Palustrine System

MOST ABUNDANT SPECIES

*Globally*Strata

Canopy

Species*Platanus occidentalis*, *Fraxinus pennsylvanica*

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Rock Creek Park

Sub-canopy	<i>Acer negundo</i>
Shrub layer	<i>Lindera benzoin</i>
Herbaceous	

Rock Creek Park

<u>Strata</u>	<u>Species</u>
Canopy	<i>Platanus occidentalis</i> ,
Sub-canopy	<i>Acer negundo</i>
Shrub layer	<i>Lindera benzoin</i>
Herbaceous	<i>Alliaria officianalis</i> , <i>Impatiens capensis</i>

DIAGNOSTIC SPECIES (at Rock Creek Park)

Platanus occidentalis, *Acer negundo*, *Impatiens capensis*, *Polygonum hydropiperoides*

VEGETATION DESCRIPTION

This association is classified as a forest type but canopy cover ranges from 50 to 90 percent cover. It appears exclusively on floodplains and adjacent areas. The canopy is typically dominated by sycamore (*Platanus occidentalis*) and green ash (*Fraxinus pennsylvanica*) although box elder (*Acer negundo*), American elm (*Ulmus americana*), black walnut (*Juglans nigra*), sweet gum (*Liquidambar styraciflua*) and other species may be common associates or co-dominants with the sycamore.

At Rock Creek Park this association is characterized by sycamore (*Platanus occidentalis*) in the canopy and box elder (*Acer negundo*) in the canopy and/or sub-canopy. Red maple (*Acer rubrum*) and tulip poplar (*Liriodendron tulipifera*) are often co-dominant with the sycamore. Green ash (*Fraxinus pennsylvanica*), white ash (*F. americana*), and hickory (*Carya tomentosa*, *Carya glabra*) are frequent associates. Bladdernut (*Staphylea trifolia*) and river birch (*Betula nigra*) are occasional associates within the park. The shrub layer may be dominated by spicebush (*Lindera benzoin*) with black haw (*Viburnum prunifolium*) occurring less frequently. Characteristic herbaceous species include jewelweed (*Impatiens capensis*), mild water-pepper (*Polygonum hydropiperoides*), jack-in-the-pulpit (*Arisaema atrorubens*), enchanter's nightshade (*Circea quadrisulcata*), skunk cabbage (*Symplocarpus foetidus*), poison ivy (*Toxicodendron radicans*) and others. Jorling (1969) also describes wood nettle (*Laportea canadensis*) as a prominent herb in the floodplains. Weedy non-native species such as garlic mustard (*Alliaria officianalis*), lesser celandine (*Ranunculus ficaria*), English ivy (*Hedera helix*), stilt grass (*Microstegium vimineum*), multiflora rose (*Rosa multiflora*), and Japanese honeysuckle (*Lonicera japonica*) may be frequent.

NOTEWORTHY SPECIES

CONSERVATION RANK G?

RANK JUSTIFICATION

Rank has not been determined but total acreage (rangewide) is limited. Good quality examples are uncommon. Threats include development and filling, alteration in flooding

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Rock Creek Park

regimes, excessive beaver activity and encroachment by aggressive non-native plant species. Further data are needed to define the rank.

COMMENTS

The floodplain forest habitat described by Jorling (1969, Rock Creek Park) is synonymous with this association. The “high phase” and “low phase” floodplain types described by Anderson et al. (1977, Rock Creek Park) and the *Platanus occidentalis-Acer negundo/Lindera benzoin* floodplain forest (Clancy 1996, Delaware) are included in this association. Portions of the river swamps of Maryland’s western shore area (Shreve et al. 1910) and the floodplain forests of New York (Reschke 1990) and Pennsylvania (Smith 1991), in part, are included in this association.

REFERENCES

Anderson, R. R., D. M. McFaden, R. J. Kramer, J.C. Dee, and G. C. Jones. 1977. Rock Creek Park and Rock Creek and Potomac Parkway: vegetation community structure and automated classification of vegetation communities. Unpublished report. Department of Biology, The American University, Washington, D.C. National Park Service Contract number CX6000-3-1452.

Clancy, K. 1996. Natural communities of Delaware (draft). Delaware Natural Heritage Inventory, Div. of Parks and Recreation, Dover, DE.

Jorling, T. C. 1969. An analysis of the vegetation of Rock Creek Park, Washington, D.C. M.S. Thesis, Washington State University, WA.

Reschke, C. 1990. Ecological communities of New York State. New York Natural Heritage Program. New York State Dept. of Environmental Conservation. Latham, NY. 96 p.

Shreve, F., M. A. Chrysler, F. H. Blodgett, F. W. Besley. 1910. The Plant Life of Maryland. Maryland Weather Service. Special Publication, Vol. III. Johns Hopkins Press, Baltimore, MD.

Smith, H. 1976. Soil survey of District of Columbia. U.S. Dept of Agriculture, Soil Conservation Service in cooperation with the National Park Service. Washington, D.C.

Smith, T. L. 1983. Natural ecological communities of Pennsylvania (draft). Pennsylvania Natural Diversity Inventory-East, Pennsylvania Science Office of The Nature Conservancy, Middletown, PA. Revised 1991.

PLOTS

1, 6, 7, 12, 25, 26?, 54, 55, 59, 60, 65, 67, 72, 73