

Liriodendron tulipifera Forest [Provisional]

COMMON NAME	Tulip poplar forest
SYNONYM	
TNC SYSTEM	Terrestrial
PHYSIOGNOMIC CLASS	I. Forest
PHYSIOGNOMIC SUBCLASS	IB. Deciduous forest
PHYSIOGNOMIC GROUP	IB2. Cold-deciduous forest
FORMATION	IB2Na. Lowland or submontane cold-deciduous forest
ALLIANCE	<i>Liriodendron tulipifera</i> Forest Alliance

CLASSIFICATION CONFIDENCE LEVEL 2

RANGE

Widespread. Most common in the central and southern Appalachians but also occurs on the Coastal Plain and in the Piedmont. Occurs in Alabama, Georgia, Tennessee, Kentucky, North Carolina, South Carolina, Virginia, and probably other locations as well.

ENVIRONMENTAL DESCRIPTION

Rangewide this association occurs along streams and on upland mountain benches. At Rock Creek Park, the association occurs on mesic, mid-slope to low-slope sites that were cleared and/or cultivated. Sample plots representing this association occur primarily on areas mapped as Manor loam (Smith 1976), soils that are deep, well-drained and underlain by acidic rock. There may be other locations for this association that were not sampled which occur on different soil types.

USFWS WETLAND SYSTEM Not applicable.

MOST ABUNDANT SPECIES

Globally

Strata

Canopy

Sub-canopy

Shrub layer

Herbaceous

Species

Liriodendron tulipifera, *Acer rubrum*, *Robinia pseudoacacia*

Acer negundo

USGS-NPS Vegetation Mapping Program

Rock Creek Park

Rock Creek Park

<u>Strata</u>	<u>Species</u>
Canopy	<i>Liriodendron tulipifera</i>
Sub-canopy	<i>Acer negundo</i>
Shrub layer	<i>Lindera benzoin</i> , <i>Rubus allegheniensis</i> , <i>Rosa multiflora</i> , <i>Ampelopsis brevipedunculata</i>
Herbaceous	<i>Ranunculus ficaria</i>

DIAGNOSTIC SPECIES

Liriodendron tulipifera

VEGETATION DESCRIPTION

This is a provisional association characterized by a dominance of tulip poplar (*Liriodendron tulipifera*). Rangewide, associates include red maple (*Acer rubrum*), locust (*Robinia pseudoacacia*), boxelder (*Acer negundo*), sugar maple (*Acer saccharum*) and black birch (*Betula lenta*). Sweetgum (*Liquidambar styraciflua*) is common in Coastal Plain and Piedmont locations. Red oak (*Quercus rubra*), hickories (*Carya* spp.) and pine (*Pinus strobus*, *P. virginiana*) are typical associates in the Central Appalachians. Vines can be abundant including grape (*Vitis* spp.), greenbriar (*Smilax* spp.), and Virginia creeper (*Parthenocissus quinquefolia*).

In Rock Creek Park, this association is dominated by tulip poplar (*Liriodendron tulipifera*) with no co-dominants in the canopy. It is essentially a tulip poplar monoculture, with tulip poplar and/or box elder (*Acer negundo*) in the sub-canopy. Spicebush (*Lindera benzoin*) and blackberry (*Rubus allegheniensis*) are present in the shrub layer. These sites tend to be weedy and non-native species such as multiflora rose (*Rosa multiflora*) and porcelain berry (*Ampelopsis brevipedunculata*) and lesser celandine (*Ranunculus ficaria*) may be prevalent. Only sites that were exclusively dominated by tulip poplar were assigned to this association. Sites that were dominated by tulip poplar but that contained at least 25% other hardwoods in the canopy or sub-canopy were considered to be early successional examples of the *Fagus grandifolia* - *Quercus alba* / *Podophyllum peltatum* Forest Association or the *Platanus occidentalis* - *Fraxinus pennsylvanica* Forest Association.

NOTEWORTHY SPECIES

CONSERVATION RANK GW (not of conservation interest)

RANK JUSTIFICATION

Successional forest following cropping or clearcut logging or other severe disturbance (including fire).

COMMENTS

Portions of the tulip tree association described by Anderson et al.(1977) 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.

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.

PLOTS

3, 38, 62