

Quercus (prinus, velutina) / Gaylussacia baccata Forest (CEGL006282)

COMMON NAME	Chestnut oak - black oak / huckleberry forest
SYNONYM	Chestnut oak forest
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>Quercus prinus</i> - (<i>Quercus coccinea</i> , <i>Q. velutina</i>) Forest Alliance

CLASSIFICATION CONFIDENCE LEVEL 2

RANGE

This association occurs across all or most of New England south to New York, New Jersey, Delaware, Pennsylvania, and the District of Columbia and is likely to be present in Virginia and Maryland as well. Further analysis is necessary to determine if occurrences containing a notable component of *Nyssa sylvatica* (Delaware, Pennsylvania, and District of Columbia, and probably Maryland) are distinct enough to be defined as a separate association within this alliance.

ENVIRONMENTAL DESCRIPTION

This forest association occurs on ridgetops, convex upper slopes, and south-facing slopes. Soils are rocky, well-drained acidic, sandy-loams with a poorly developed organic layer. Bedrock may be close to or at the surface. Surface runoff and erosion is common; Anderson et al. (1977) noted this as a management concern at the park.

USFWS WETLAND SYSTEM Not applicable.

MOST ABUNDANT SPECIES

*Globally*Strata

Canopy

Sub-canopy

Shrub layer

Species*Quercus prinus*, *Q. velutina*, *Q. coccinea**Acer rubrum*, *Carya* spp., *Sassafras albidum**Gaylussacia baccata*, *Vaccinium pallidum*, *Kalmia latifolia*

USGS-NPS Vegetation Mapping Program

Rock Creek Park

Rock Creek Park

Strata

Species

Canopy	<i>Quercus prinus</i> , <i>Nyssa sylvatica</i>
Sub-canopy	<i>Amelanchier arborea</i> , <i>Sassafras albidum</i>
Shrub layer	<i>Vaccinium pallidum</i> , <i>Gaylussacia baccata</i> ,
Herbaceous	(sparse)

DIAGNOSTIC SPECIES

Quercus prinus, *Vaccinium pallidum*, *Gaylussacia baccata*

VEGETATION DESCRIPTION

Rangewide, this is a dry oak / heath forest dominated by chestnut oak (*Quercus prinus*) or co-dominated by chestnut oak, black oak (*Q. velutina*) and scarlet oak (*Q. coccinea*). Other associates include red maple (*Acer rubrum*), serviceberry (*Amelanchier arborea*), pignut (*Carya glabra*), black gum (*Nyssa sylvatica*), sassafras (*Sassafras albidum*), black locust (*Robinia pseudoacacia*), pine (*Pinus* spp.) and other oaks (*Quercus* spp.). Ericaceous shrubs such as mountain laurel (*Kalmia latifolia*), black huckleberry (*Gaylussacia baccata*) and blueberry (*Vaccinium pallidum*, *V. stamineum*) are characteristic. The sparse herb layer may include wintergreen (*Gaultheria procumbens*), Indian pipes (*Monotropa uniflora*), poverty grass (*Danthonia spicata*) and other species.

In Rock Creek Park this forest association is characterized by a dominance of chestnut oak (*Quercus prinus*) and black gum (*Nyssa sylvatica*) and an absence or sparse cover of white oak (*Quercus alba*). Red oak (*Quercus rubra*) and/or black oak (*Quercus velutina*) and red maple (*Acer rubrum*) are often present but sparse. Sassafras (*Sassafras albidum*) and serviceberry (*Amelanchier arborea*) are typical in the sub-canopy or tall shrub layer and vines such as greenbrier (*Smilax glauca* and *S. rotundifolia*) and grape (*Vitis* spp.) are common. Characteristic shrubs include heaths such as blueberry (*Vaccinium pallidum*), huckleberry (*Gaylussacia baccata*), mountain laurel (*Kalmia latifolia*) and azalea (*Rhododendron periclymenoides*). The herbaceous layer tends to be sparse or absent.

NOTEWORTHY SPECIES

CONSERVATION RANK G3G5

RANK JUSTIFICATION

Further data are needed to define the range and extent of this association range and the corresponding rank.

COMMENTS

The chestnut oak forests (Anderson et al. 1977) previously described from Rock Creek Park are included in the *Quercus (pinus, velutina) / Gaylussacia baccata* Forest association. The oak-hilltop forest (Breden 1989, New Jersey); the xeric central hardwood (broadleaf) forest (Smith 1983, Pennsylvania), in part; the chestnut-oak forest (Reschke 1990, New York), in part; and the oak-mountain laurel forest (Greller 1977, New York) are contained within 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.

Breden, T. F. 1989. A preliminary natural community classification for New Jersey. in E.F. Karlin (ed). New Jersey's Rare and Endangered Plants and Animals. Institute for Environmental Studies, Ramapo College, Mahwah, NJ. 280 p.

Greller, A.M. 1977. A classification of mature forests on Long Island, New York. Bull. Torr. Bot. Club 104: 376-382.

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.

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

2, 8, 14, 48, 49