

## Black Oak – White Oak – Hickory Forest

**Site Characteristics:** Stands occur on dry to dry-mesic mid- to upper slopes and terraces where soils are more sandy and/or rocky. Bedrock is sandstone, siltstone, chert, or shale, and northward is covered by thin loess or glacial till. This community tends to occur on sandy loam soils and middle slope positions in the central United States and on upland sandy-sandy loam soils in the north. This community is often found on ridge crests or upper slopes that are well-drained to excessively drained. Soils are often sandy loam, thin and rocky, with outcroppings of exposed bedrock. Bedrock is sandstone, siltstone, chert, or shale, or northward covered by thin loess or glacial till.

**Vegetation Characteristics:** Trees in this community often have moderate to short trunks and spreading crowns, and the canopy can vary from open to closed (50-100%). Black oak, white oak, pignut hickory, and shagbark hickory are typical tree dominants. Vine/liana layer is 2-20 m tall.

Stratum	Growth Form	Height of Stratum (m)	Cover Class %	Min Cover %	Max Cover %
Tree canopy	Other/unknown	20 - 35 m		60	100
Tree subcanopy	Other/unknown	10 - 15 m		25	60
Shrub/sapling (tall & short)	Vine/Liana	15 - 20 m	5-15%		
Tall shrub/sapling	Other shrub	2 - 5 m	5-15%		
Herb (field)	Other herbaceous	<0.5 m		10	25

**Range:**

**Conservation Status:** G4 - Apparently Secure

**Management Considerations:** It is possible that unglaciated stands may differ sufficiently from glaciated stands. A somewhat open canopy also contributes to recruitment and persistence of black oak which is the identifying species of this forest element. Natural disturbance occurs as a result of drought, wind, lightning, and occasional fire. Although this forest is considered climax under dry-mesic to dry conditions, it often occurs as subclimax where logging creates an unnaturally sparse overstory in adjacent similar oak - hickory communities. This community may have been more common during the presettlement period (prior to 1800) when fires and other disturbances were more common.

### Iowa NRCS Plant Community Description

This community description is a compilation of the Community Association and it's over-riding Community Alliance descriptions as provided by NatureServe ([www.natureserve.org/explorer](http://www.natureserve.org/explorer)). Where necessary, community descriptions were adapted as recommended by Iowa plant community experts.

12/17/2015

Occasional drought stress, wind, and lightning damage are evident. Historically, fire may have periodically affected this community, increasing its range into more moist sites. Erosion also converts mesic forest soils to dry-mesic, thereby creating conditions which favor the occurrence of this community.

FOREST, BLACK OAK - WHITE OAK - HICKORY						
SCIENTIFIC NAME	COMMON NAME	STRATA	FUNCTIONAL GROUP	IA CofC	SEEDS/LB	STATE STATUS
<i>Acer rubrum</i>	Red maple	Canopy, Associate	TREE	*	22,720.00	
<i>Acer saccharum</i>	Sugar maple	Sub-canopy	TREE	5	6,080.00	
<i>Agrimonia gryposepala</i>	Tall agrimony	Herbaceous Layer	P-FORB	3	250,000.00	
<i>Amphicarpaea bracteata</i>	Hog peanut	Vine Component	H-VINE, LEGUME	4	12,960.00	
<i>Antennaria plantaginifolia</i>	Ladies'-tobacco	Herbaceous Layer	P-FORB	2	4,400,000.00	
<i>Botrychium virginianum</i>	Rattlesnake fern	Herbaceous Layer	FERN	6		
<i>Carex blanda</i>	Common wood sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	2		
<i>Carex pensylvanica</i>	Pennsylvania oak sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	6	480,000.00	
<i>Carya alba</i>	Mockernut hickory	Canopy, Associate	TREE	7	90.00	
<i>Carya ovata</i>	Shagbark hickory	Canopy, Dominant	TREE	5	96.00	
<i>Conopholis americana</i>	Cancer-root, squaw-root	Herbaceous Layer	P-FORB, HEMIPARASITE	10		SC
<i>Cornus drummondii</i>	Rough-leaved dogwood	Shrub Layer	SHRUB	6	15,700.00	
<i>Cornus foemina</i>	Gray dogwood	Shrub Layer	SHRUB	1	17,718.00	
<i>Corylus americana</i>	Hazelnut	Shrub Layer	SHRUB	3	480.00	
<i>Danthonia spicata</i>	Poverty oat grass	Herbaceous Layer	P-GRASS, COOL SEASON	5	400,000.00	
<i>Desmodium glutinosum</i>	Pointed tick-trefoil	Herbaceous Layer	P-FORB, LEGUME	5	13,440.00	
<i>Desmodium nudiflorum</i>	Bare-stemmed tick-trefoil	Herbaceous Layer	P-FORB, LEGUME	8		
<i>Dioscorea villosa</i>	Wild yam	Vine Component	H-VINE	5	44,800.00	
<i>Galium circaeazans</i>	Wild licorice	Herbaceous Layer	P-FORB	6	71,432.00	
<i>Gallium spp.</i>	Bedstraw	Herbaceous Layer	P-FORB			
<i>Geranium maculatum</i>	Wild geranium	Herbaceous Layer	P-FORB	6	80,000.00	
<i>Hamamelis virginiana</i>	Witch hazel	Shrub Layer	SHRUB	10	10,992.00	
<i>Maianthemum racemosum</i>	False Solomon's seal	Herbaceous Layer	P-FORB	4	6,400.00	

#### Iowa NRCS Plant Community Description

This community description is a compilation of the Community Association and it's over-riding Community Alliance descriptions as provided by NatureServe ([www.natureserve.org/explorer](http://www.natureserve.org/explorer)). Where necessary, community descriptions were adapted as recommended by Iowa plant community experts.

12/17/2015

FOREST, BLACK OAK - WHITE OAK - HICKORY						
SCIENTIFIC NAME	COMMON NAME	STRATA	FUNCTIONAL GROUP	IA CofC	SEEDS/LB	STATE STATUS
<i>Maianthemum Stellatum</i>	Starry false Solomon's seal	Herbaceous Layer	P-FORB	5		
<i>Ostrya virginiana</i>	Ironwood, hop hornbeam	Sub-canopy	TREE	5	30,000.00	
<i>Parthenocissus quinquefolia</i>	Virginia creeper	Vine Component	W-VINE	2	112,000.00	
<i>Polygonatum biflorum</i>	Solomon's seal	Herbaceous Layer	P-FORB	4	12,800.00	
<i>Polystichum acrostichoides</i>	Christmas fern	Herbaceous Layer	FERN	8		
<i>Prunus serotina</i>	Wild black cherry	Canopy, Associate	TREE	3	4,800.00	
<i>Quercus alba</i>	White oak	Canopy, Dominant	TREE	6	128.00	
<i>Quercus ellipsoidalis</i>	Hill's oak, Northern pin oak	Canopy, Associate	TREE	4	245.00	
<i>Quercus macrocarpa</i>	Bur oak	Canopy, Associate	TREE	4	64.00	
<i>Quercus muehlenbergii</i>	Chinquapin oak	Canopy, Associate	TREE	7	400.00	
<i>Quercus rubra</i>	Northern red oak	Canopy, Associate	TREE	6	125.00	
<i>Quercus stellata</i>	Post oak	Canopy, Associate	TREE	4	380.00	
<i>Quercus velutina</i>	Black oak	Canopy, Dominant	TREE	4	245.00	
<i>SASSAFRAS ALBIDUM</i>	Sassafras	Shrub Layer	TREE	*	5,000.00	SC
<i>Toxicodendron radicans</i>	Poison ivy	Vine Component	W-VINE	0	30,442.00	
<i>Vaccinium spp.</i>	Blueberry	Shrub Layer	SUB-SHRUB			
<i>Vitis spp.</i>	Wild Grape	Vine Component	W-VINE			
<i>Vitis vulpina</i>	Frost grape	Vine Component	W-VINE	6	14,400.00	SC

#### Iowa NRCS Plant Community Description

This community description is a compilation of the Community Association and it's over-riding Community Alliance descriptions as provided by NatureServe ([www.natureserve.org/explorer](http://www.natureserve.org/explorer)). Where necessary, community descriptions were adapted as recommended by Iowa plant community experts.

12/17/2015