

## Northern Bur Oak Mesic Forest

**Site Characteristics** This community is found in the central and northern tallgrass prairie region of the Midwestern United States and adjacent Canada. It typically occurs on gentle to steep slopes of draws and bluffs, historically where firebreaks occurred. The soils of this community tend to be deep, loamy, and moderately well-drained to well-drained. Soils in the northern part of the range include well-drained sandy loams to loams formed in glacial till, and in the southern part include silty to sand loams formed primarily in loess and glacial till. In the drier parts of its range, this community is predominantly found on north-facing slopes or along watercourses where the microclimate is more mesic.

**Vegetation Characteristics:** The upper canopy of this community is typically 5-25 m tall. There is often a subcanopy (2-10 m tall) of smaller trees. The tree layer is a closed canopy (60-100%) dominated by *Bur Oak* with a mixture of shade-tolerant trees, such as *Hackberry*, *Green Ash*, *American Elm*, and *Slippery Elm*, and further north by *Bigtooth Aspen* or *Quaking Aspen*. Occasionally *Basswood* or *Northern Red Oak* are present. The shrub layer is often prominent, measuring 0.5-2 m tall, and dominated by *Northwestern Serviceberry* in the north and *Rough-leaved Dogwood* in the south. Other species shared across the range include *Choke Cherry*, *Wild Gooseberry*, *Black Raspberry*, *Wolfberry*, *Coralberry*, and *Prickly Ash*. Vines include *Bittersweet*, *Virginia Creeper*, and *Poison Ivy*. The herbaceous layer can be quite sparse with a mix of perennial graminoids and forbs. Common herbaceous species include *Wild Sarsaparilla*, *Assiniboia Sedge*, *Common Wood Sedge*, *Slender Wild Rye*, *Northern Bedstraw*, *White Avena*, *Starry False Solomon's Seal*, *Anise Root*, *Solomon's Seal*, and *Hairy Blue Violet*.

**Range:**

**Conservation Status:** G4 Apparently Secure

**Management Considerations:** The effects of fire suppression on the structure and function of these communities over the last century is not known. With more frequent ground fires it is possible that some of these forest stands might resemble woodlands or savannas. These prairie forests were important fuelwood and building resources for settlers (Girard et al. 1987). *Kentucky Bluegrass* is considered an exotic and can dominate the ground layer across the range of this community.

### 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.

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NORTHERN BUR OAK MESIC FOREST						
SCIENTIFIC NAME	COMMON NAME	STRATA	FUNCTIONAL GROUP	IA CofC	SEEDS/LB	STATE STATUS
Amelanchier alnifolia	Northwestern serviceberry	Shrub Layer, Dominant	SHRUB	10	60051	SC
Aralia nudicaulis	Wild sarsaparilla	Herbaceous Layer	SUB-SHRUB	8	99000	
Betula papyrifera	Paper birch, canoe birch	Canopy, Associate	TREE	6	1380800	
Carex assiniboinensis	Assiniboia sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	10		
Carex blanda	Common wood sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	2		
Carex spp.	True Sedges	Herbaceous Layer	SEDGE, COOL SEASON			
Caulophyllum thalictroides	Blue cohosh	Herbaceous Layer	P-FORB	9	1120	
Celastrus scandens	Bittersweet	Vine Component	W-VINE	1	28800	
Celtis occidentalis	Hackberry	Canopy, Associate	TREE	2	96000	
Cornus drummondii	Rough-leaved dogwood	Shrub Layer, Dominant	SHRUB	6	15700	
Corylus americana	Hazelnut	Shrub Layer	SHRUB	3	480	
Corylus cornuta	Beaked hazel	Shrub Layer	SHRUB	10	549	
Elymus villosus	Slender wild rye	Herbaceous Layer	P-GRASS, COOL SEASON	5	88000	
Elymus virginicus	Virginia wild rye	Herbaceous Layer	P-GRASS, COOL SEASON	3	67200	
Fraxinus pennsylvanica lanceolata*	Green ash	Canopy, Associate	TREE	1	14320	
Galium boreale	Northern bedstraw	Herbaceous Layer	P-FORB	7	1120000	
Geum canadense	White avens	Herbaceous Layer	P-FORB	2	400000	
Juglans nigra	Black walnut	Canopy, Associate	TREE	4	40	
Juniperus virginiana	Red cedar	Sub-canopy	TREE	1	43600	
Maianthemum Stellatum	Starry false Solomon's seal	Herbaceous Layer	P-FORB	5		
Osmorhiza longistylis	Anise root	Herbaceous Layer	P-FORB	5		
Parthenocissus quinquefolia	Virginia creeper	Vine Component	W-VINE	2	112000	
Polygonatum biflorum	Solomon's seal	Herbaceous Layer	P-FORB	4	12800	
Populus tremuloides	Quaking aspen	Canopy, Associate	TREE	2	3600000	
Prunus virginiana	Choke cherry	Shrub Layer	SHRUB	2	4971	
Quercus macrocarpa	Bur oak	Canopy, Dominant	TREE	4	64	
Quercus rubra	Northern red oak	Canopy, Associate	TREE	6	125	

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Ribes missouriense	Wild gooseberry	Shrub Layer	SHRUB	3	163163	
Ribes spp.	Currant	Shrub Layer	SHRUB			
Rosa spp.	Wildrose	Herbaceous Layer	SUB-SHRUB			
Rubus occidentalis	Black raspberry	Shrub Layer	SUB-SHRUB	1	335000	
Symphoricarpos occidentalis	Wolfberry, buckbrush	Shrub Layer	SHRUB	0	75033	
Symphoricarpos orbiculatus	Coralberry, buckbrush	Shrub Layer	SHRUB	0	89600	
Tilia americana	Basswood, American linden	Canopy, Associate	TREE	5	4765	
Toxicodendron radicans	Poison ivy	Vine Component	W-VINE	0	30442	
Ulmus americana	American elm	Canopy, Associate	TREE	2	68000	
Ulmus rubra	Red elm, slippery elm	Canopy, Associate	TREE	2	41000	
Viola sororia	Hairy blue violet	Herbaceous Layer	P-FORB	1		
Viola spp.	Violet	Herbaceous Layer	P-FORB			
Zanthoxylum americanum	Prickly ash	Shrub Layer	SHRUB	3	31720	

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