13110

North-Central Interior Dry Oak Forest and Woodland

BpS Model/Description Version: Aug. 2020

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Vegetation Type

Forest and Woodland

Map Zones

50

Geographic Range

This system spans from the eastern edge of the Great Plains, south to the Ozarks and eastward to western Ohio and Kentucky. The northern boundary of this vegetation occurs in LANDFIRE map zone (MZ)50.

Biophysical Site Description

This system occurs most commonly on interlobates where outwash, ice-contact and end moraine landforms are situated between former glacial lobes. Other landforms suitable for development of the dry oak forest are sandy lake plain and dunes. Common to all these landforms is somewhat excessively drained, acidic soil characterized by sand and loamy sand. Dry landscape settings, such as on western and southern aspects and upper slopes and ridge tops are conducive to the development of this system.

Vegetation Description

Oaks dominated the presettlement vegetation, especially white oak (*Quercus alba*), black oak (*Quercus velutina*), and bur oak (*Quercus macrocarpa*) (Bolliger et al. 2004). This system is distinguished from North-Central Interior Dry-Mesic Oak Forest and Woodland (1310) by stronger dominance of black oak and northern pin oak, and a general lack of red oak except in later seral stages. In Wisconsin, associates include black cherry (*Prunus serotina*), shagbark hickory (*Carya ovata*), and black walnut (*Juglans nigra*). Small trees associates include hop-hornbeam (*Ostrya virginiana*) and boxelder (*Acer negundo*). Common low woody shrubs include hazelnut (*Corylus americana*), brambles (*Rubus* spp.), black currant (*Ribes cynosbati*), and native roses (*Rosa* spp.). Graminoid species such as *Carex pensylvanica, Danthonia spicata*, and *Andropogon gerardii* are also common. In the most acidic lake plain physiographic systems, ericaceous shrubs such as wintergreen (*Gualtheria procumbens*), lowbush blueberry (*Vaccinium angustifolium*), huckleberry (*Gaylussacia baccata*) become common. Bracken fern (*Pteridium aquilinum*) can be dominant in the most nutrient poor outwash and lake plain landscapes.

BpS Dominant and Indicator Species (in zone 50)

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| --- | --- | --- |
| **Symbol** | **Scientific Name** | **Common Name** |
| QUAL | *Quercus alba* | White oak |
| QUVE | *Quercus velutina* | Black oak |
| QUEL | *Quercus ellipsoidalis* | Northern pin oak |
| PRSE2 | *Prunus serotina* | Black cherry |
| QUMA2 | *Quercus macrocarpa* | Bur oak |

Species names are from the NRCS PLANTS database. Check species codes at http://plants.usda.gov.

Class A 4 Early Development 1 - All Structures

Indicator Species

|  |  |  |  |
| --- | --- | --- | --- |
| **Symbol** | **Scientific Name** | **Common Name** | **Canopy Position** |
| ANGE | Andropogon gerardii | Big bluestem | Upper |
| SCHIZ4 | Schizachyrium | Little bluestem | Upper |
| SONU2 | Sorghastrum nutans | Indiangrass | Upper |

Description

PRAIRIE. Class A is grassland prairie maintained by frequent fire (mean fire return interval = 5yrs). Native Americans burned these areas frequently to maintain habitat for ungulates (hunting) and native plant gathering. If fire is absent for a few years (4yrs+), tree seedlings or sprouts from "grubs" (sprouts from ancient root systems) would be released, moving the community to savanna conditions. Heavy grazing, though unlikely to have large-scale impact, would have kept certain patches from progressing to a woody shrub vegetation stage and would have helped maintained these grasslands.

*Maximum Tree Size Class*  
None

Class B 26 Mid Development 1 - Open

Indicator Species

|  |  |  |  |
| --- | --- | --- | --- |
| **Symbol** | **Scientific Name** | **Common Name** | **Canopy Position** |
| QUAL | Quercus alba | White oak | Upper |
| QUVE | Quercus velutina | Black oak | Upper |
| ANGE | Andropogon gerardii | Big bluestem | Lower |
| SCHIZ4 | Schizachyrium | Little bluestem | Lower |

Description

SAVANNA. This is an open system with a scattering of trees. Might also include scrub oak (Curtis 1959).

(Curtis 1959 defined savanna as <50% canopy cover)

*Maximum Tree Size Class*  
Large 21-33"DBH