

Open Oak Forest/Woodland

State Rank: S3 - Vulnerable



Down into Open Oak Woodland from adjacent open summit. Photo: Patricia Swain, NHESP.

Description: Open Oak Forests/Woodlands are short (~10m (~30 ft.) to 20m (~60 ft.) tall) oak/heath communities with interrupted or park-like tree canopies (commonly ~37% to ~60% cover). These savanna-like areas are on slopes or near the summit of mountains with rock outcrops. The open oak area may include small areas of rocky summit or rock outcrop, which if larger (>5000 sq. ft.) would be identified as separate community occurrences. Although often associated with Rocky Summit/Rock Outcrop Communities, Open Oak woodlands seem to need gradual rather than steep slopes below the summits. Soils are very shallow to bedrock. Surrounding landscape is forested. Fire may be important to maintaining the community: some sites have abundant charcoal, charred wood, and charring on the bases of multiple stemmed oaks.

Open Oak Forests/Woodlands are savanna or park-like communities often on hill slopes with short trees scattered over a grassy or low shrub understory around small rock outcrops. They often occur between a rocky summit and the surrounding taller forest.

Characteristic Species: The short, interrupted canopies of Open Oak Forests/Woodlands are dominated by red oak with white oak and red maple. Hop-hornbeam and striped maple produce a sparse (<25% cover) subcanopy (<5m, (<~18 ft.)). A slightly shorter tall shrub layer of ~30% cover is dominated by striped maple, red and white oaks, and maple-leaf viburnum. A denser low shrub layer has patches of huckleberry, chokeberry, mountain laurel, and early sweet lowbush blueberry with scattered other species. The herbaceous layer is continuous, except on the rock outcrops, with patches of different dominants. Late lowbush blueberry



Red oak acorn with typically flat, shallow cap. Photo: Paul Wray, Iowa State Univ, Bugwood.org.

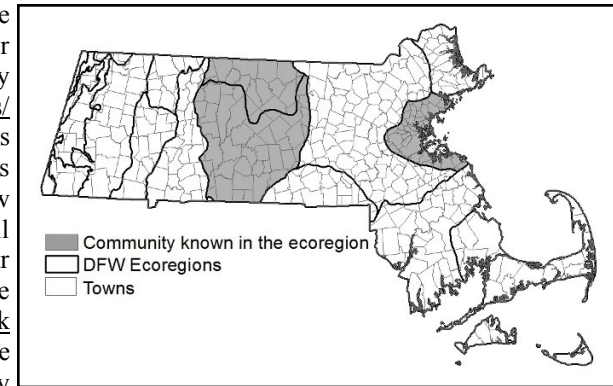
dominates (approx. 67% in patches) and seedlings of forest trees (oaks, maple, hemlock) with grasses and sedges, forbs, ferns and mosses make up the rest of the layer. Common hairgrass is typical, with pale corydalis, early goldenrod, spreading ricegrass, fringed bindweed, running shadbush, downy goldenrod, and wild columbine.

Differentiating from Related Communities: Open Oak Forests/Woodlands are part of a continuum of dry, acidic communities that contain a variety of tree oak and pine species. Many types of oak communities grade into one another in time and space and are difficult to differentiate both in a classification and

on the ground. They all have tree oaks and a low shrub layer dominated by blueberry family plants. Open Oak Forests/Woodlands occur on hill slopes with short red and white oak trees scattered over a grassy or low shrub understory around small rock outcrops. They often occur between a rocky summit and the surrounding taller forest. Black Oak - Scarlet Oak Woodlands are also woodlands, but not usually associated with rocky outcrops. Abundant scarlet oak with black oak is the key indicator of the type. Mixed Oak Forests/Woodlands have more oak species than Open Oak Woodlands (black, scarlet, and white plus red oak (*Q. rubra*) and chestnut oak (*Q. montana*)), and black birch (*Betula lenta*). Coastal Forests/Woodlands are within a few miles of the coast at <~60 ft. elevation and receive storm winds and spray. The diverse canopy includes oaks and often has American holly, sassafras, and black gum. Oak - Hemlock - White Pine Forests (OHWPf) are the most broadly defined in the continuum of oak dominated forests; specific types are split out from this matrix type. OHWPf is dominated by a mix of tree oaks with scattered white pine and hemlock, either of which may be in local dense patches.

Habitat for Associated Fauna:

Open Oak Forests/Woodlands are small patch communities of transition areas that would constitute only parts of the habitats of most animals found in them. Acorns are important food for white-tailed deer, black bear, grey squirrels, other small rodents, and turkeys and other birds. The



understory of blueberries and huckleberries is used by many of these animals. Song birds would include many typical of oak forests. Small mammals would be those of dry habitats such as white footed mouse and short-tailed shrew. Snakes would include those of dry areas, such as black racer, ringneck, and redbelly snake. No turtles, frogs or toads would be expected.

Examples with Public Access:

Little Watatic Mt., Ashburnham; Wright's Pond, Middlesex Fells, Medford.



Open Oak Woodland with red oaks. Photo: Patricia Swain, NHESP.

