Chestnut Oak Forest/Woodland

State Rank: S4 - Secure

Rocky Chestnut Oak Forest/Woodlands with sassafras. Photo: Patricia Swain, NHESP.

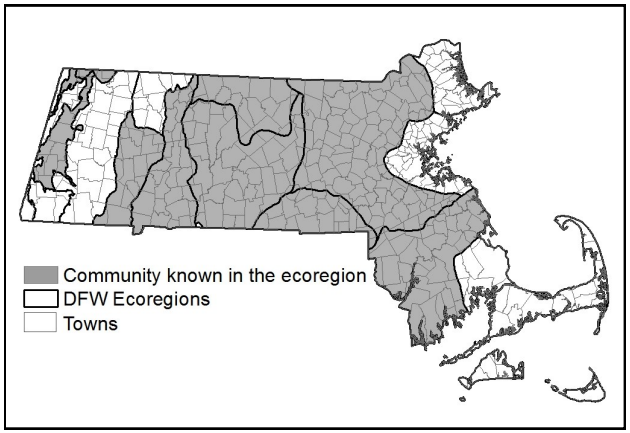
Chestnut Oak Forest/Woodland is dominated by chestnut oak with other oaks over an often dense shrub understory. This community typically occupies dry upland sites with thin soil over acidic bedrock on ridges and upper slopes.

Description: Chestnut Oak Forests/ Woodlands occur as long narrow bands along dry ridges and upper slopes with thin soil over acidic bedrock. They may extend down steep, convex, rocky, often west or south facing slopes where soil is shallow and dry. The canopy is closed to partially open (>25% cover). The deep oak leaf litter has slow decomposition. Often many trees have multiple fire scars and charred bases, fire appears to play a role in maintaining the community occurrences. Chestnut Oak Forests/ Woodlands often occur with closed oak or pine - oak forest down slope and more open communities above.

Characteristic Species: The canopy of Chestnut Oak Forests/Woodlands is dominated, often completely, by chestnut oak. Less abundant associates include black, red, and/or white, and less commonly, scarlet oak, with red maple, and white or pitch pines. The subcanopy layer is sparse and consists of canopy species and black birch. Tall shrubs are lacking or may have scattered tree saplings, mountain laurel, striped maple, American chestnut, and witch hazel. Short shrubs are dense in patches dominated by black huckleberry and lowbush-blueberries with scattered sheep laurel. The herbaceous layer is sparse and dominated by wintergreen with occasional false foxgloves, sedges (particularly Pennsylvania sedge), and bracken fern.

Chestnut Oak, features: Leaf (L). Photo: Chris Evans, University of Illinois, Bugwood.org. Bark (R). Photo: Vern Wilkins, Indiana University, Bugwood.org.

Differentiating from Related Communities: Although distinctive because of the dominance of chestnut oak and its usual upper slope and ridgetop position, Chestnut Oak Forest/Woodland is part of a continuum of dry, acidic communities that contain a variety of tree oak and pine species. Mixed Oak Forests/ Woodlands have more oak species (black, scarlet, white, red, and chestnut oak) than most other types of oak forests, and birches and lack abundant pines or hemlock. Chestnut Oak is not dominant. Oak - Hemlock - White Pine Forests are dominated by a mix of tree oaks with scattered white pine and hemlock, either of which may be in local dense patches. Abundant scarlet oak with black oak is the key indicator of Black Oak - Scarlet Oak Woodlands. 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. 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. White Pine - Oak Forests and Pitch Pine - Oak Forests/Woodlands have >25% cover of pines overall (not just local patches) and a mix of oak species where black oak is particularly important.



Habitat for Associated Fauna: Mature upland forest types provide valuable structural attributes such as tree cavity den sites (used by a variety of bird and mammal species) and large woody material (used by various amphibian, reptile, and invertebrate species). Because chestnut oak acorns are particularly sought after by wildlife, Chestnut Oak Forests/Woodlands provide seasonally preferred foraging habitat for large and small mammals and birds including turkeys. The understory of blueberries and huckleberries is used by many of these same species. Song birds, moths, butterflies, and other insects of the oak forest continuum occur in Chestnut Oak Forests.

Examples with Public Access: Copicut WMA, Fall River; Leadmine Mtn. Conservation Area, Sturbridge; Tekoa Mtn. WMA, Russell.

Chestnut Oak Forest/Woodland recovering from fire. Photo: Patricia Swain, NHESP.

From: *Classification of Natural Communities of Massachusetts* http://www.mass.gov/nhesp/
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Updated: 2016
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