



Chestnut Oak Forest/Woodland

Community Code: CT1A3A0000

State Rank: S4



Concept: Oak forest of dry ridgetops and upper slopes, dominated by chestnut oak with an often dense understory of scrub oak, heaths, or mountain laurel.

Environmental Setting: 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). There tends to be deep oak leaf litter with 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 in a mosaic with closed oak or pine - oak forests down slope and more open communities above.

Vegetation Description: The canopy of Chestnut Oak Forests/Woodlands is dominated, often completely, by chestnut oak (*Quercus montana*). Less abundant associates include other oaks (black (*Q. velutina*), red (*Q. rubra*), and/or white (*Q. alba*), and less commonly, scarlet (*Q. coccinea*)), with red maple (*Acer rubrum*), and white or pitch pines (*Pinus strobus*, *P. rigida*). The subcanopy layer is sparse and consists of canopy species, black birch (*Betula lenta*), and sassafras (*Sassafras albidum*). Tall shrubs are lacking or the shrub layer may have scattered tree saplings, mountain laurel (*Kalmia latifolia*), striped maple (*Acer pensylvanicum*), American chestnut (*Castanea dentata*), and witch hazel (*Hamamelis virginiana*). Short shrubs are dense in patches dominated by black huckleberry (*Gaylussacia baccata*) and lowbush blueberries (*Vaccinium angustifolium* and *V. pallidum*), with scattered sheep laurel (*K. angustifolia*). The herbaceous layer is sparse and dominated by wintergreen (*Gaultheria procumbens*), with occasional false foxgloves (*Aureolaria flava*, A.



pedicularia, and *A. virginica*), sedges (particularly *Carex pensylvanica*), and bracken fern (*Pteridium aquilinum*).

Differentiating Occurrences: 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 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 have >25% cover of pines overall (not just local patches) and a mix of oak species where black oak is particularly important.

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.

Public Access: Copicut WMA, Fall River; Leadmine Mtn. Conservation Area, Sturbridge; Tekoa Mountain WMA, Russell/Montgomery.

Threats:

Management Needs:

USNVC/NatureServe: A0248 *Quercus prinus* - *Quercus coccinea* Forest Alliance -- *Quercus prinus* - *Quercus (rubra, velutina)/Gaylussacia baccata* forest [CEGL006282].