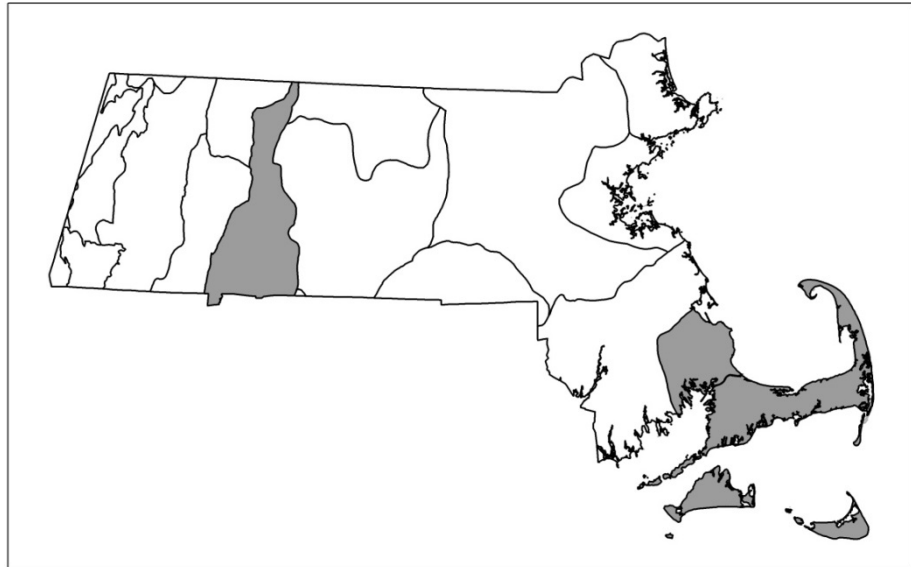




Pitch Pine – Oak Forest/Woodland

Community Code: CT1A200000

State Rank: S4



Concept: Dry oak/pine forests and woodlands of moraines, till, outwash, southerly exposures, and rocky slopes. Matrix forest of southeastern Massachusetts. The proportions of different species are variable, and range from predominantly pine with scattered oaks to predominantly oak with scattered pines. The structure ranges from open canopy with a thick understory, to closed canopy with scattered clumps of shrubs.

Environmental Setting: Pitch Pine - Oak Forests/Woodlands occur on dry, low-nutrient, acidic soils of southerly exposures, moraines, rocky slopes, and sandplains with only sporadic disturbances, inland away from regular oceanic influences. In southeastern Massachusetts, Pitch Pine - Oak Forests/Woodlands often form a matrix community surrounding and mixed with smaller patch Pitch Pine - Scrub Oak communities, coastal plain ponds, and Sandplain Grasslands and Heathlands. Near the ocean, Pitch Pine - Oak Forests/Woodlands grade into Coastal Forests/Woodlands. The forest structure ranges from open canopy with a dense understory to closed canopy with scattered clumps of shrubs. Without fire or other disturbances that favor pitch pines and oaks, the community succeeds to less fire-tolerant species. The time since disturbance is also a factor in the proportion of pitch pine to oaks, and which oak species are present and abundant.

Vegetation Description: Pitch Pine - Oak Forests/Woodlands have a canopy of pitch pine (*Pinus rigida*) and tree oaks (black (*Quercus velutina*), scarlet (*Q. coccinea*), chestnut (*Q. montana*), and white (*Q. alba*)). The proportions of canopy species differ among sites, ranging from predominantly pine with scattered oaks to predominantly oak with scattered pines (>25% cover). White pine (*Pinus strobus*) and red maple (*Acer rubrum*) are occasional in the canopy, increasing with time since the last fire or other



disturbance. Scattered patches of scrub oak (*Quercus ilicifolia*) and dwarf chinquapin oak (*Q. prinoides*) can be dense. Blueberries (*Vaccinium angustifolium* and *V. pallidum*), black huckleberry (*Gaylussacia baccata*), and other ericaceous shrubs form an often continuous low shrub layer. Catbrier and other briers (*Smilax rotundifolia* and *Smilax* spp.) often make dense barriers around low, damp openings. The herb layer is generally sparse, with bracken fern (*Pteridium aquilinum*), wild sarsaparilla (*Aralia nudicaulis*), wintergreen (*Gaultheria procumbens*), Pennsylvania sedge (*Carex pensylvanica*), and, less commonly, pink lady's-slipper (*Cypripedium acaule*).

Differentiating Occurrences: Pitch Pine - Oak Forest/Woodland is part of a continuum of dry, acidic communities dominated by a variety of tree oak and pine species. Related communities often mix on the ground, with successional stages present that are strongly influenced by historic and recent disturbances, with topography, soils, and local climate controlling the broader vegetation types. Pitch Pine - Oak Forest/Woodland has >25% pitch pine in the canopy, growing with tree oaks, producing a canopy of >40% cover. Pitch Pine - Scrub Oak Communities have ~<25% cover of trees and lack tree oaks. Neither White Pine - Oak Forest nor Successional White Pine Forest have >25% cover of pitch pine. Maritime Pitch Pine Woodlands on Dunes are on dunes. They are dominated by pitch pine and usually lack abundant tree oaks. Maritime Forests/Woodlands are very near the ocean, receive regular salt spray, and have stunted canopies of mixed tree species. Coastal Forest/Woodlands generally have a more diverse tree layer than Pitch Pine - Oak Forests, although it may include some pitch pine and many oaks with other trees.

Associated Fauna: Pitch Pine - Oak Forest/Woodland provides habitat for many common and listed moths dependent on the oaks, pine, and heath shrubs. Box turtles (*Terrapene carolina*) use these forests as well as others in the southeastern part of the state. The bird fauna is similar that of oak woodlands; Rufous-sided Towhee (*Pipilo erythrophthalmus*), Pine Warbler (*Dendroica pinus*), and Ruffed Grouse (*Bonasa umbellus*) are common. Most common species of mammals of Massachusetts have populations that make Pitch Pine – Oak Forests part of their habitat but none are particularly characteristic.

Public Access: Myles Standish State Forest, Plymouth; Hyannis Ponds WMA, Barnstable; Francis Crane WMA, Falmouth; Montague Plains WMA, Montague; Mt. Everett State Reservation, Mt. Washington.

Threats: Many acres have been lost resulting in fragmentation of occurrences. Fire exclusion is changing the character of the community, allowing less fire-tolerant species to establish, which sometimes results in more severe fires when they do occur.

Management Needs: Reintroduction of fire with prescribed fire in manageable conservation areas.

USNVC/NatureServe: A0524, *Pinus rigida* Woodland Alliance, *Pinus rigida/Vaccinium* spp. - *Gaylussacia baccata* Woodland, [CEGL005046]; *Pinus rigida/Quercus ilicifolia/Lespedeza capitata* Woodland [CEGL006025]; *Pinus rigida/Carex pensylvanica* Woodland



[CEGL006385]. A4209 *Quercus velutina* - *Quercus falcata* - *Pinus rigida* Coastal Plain Forest Alliance-- *Pinus rigida* - *Quercus (velutina, prinus)* Forest [CEGL006290].