

# Pitch Pine - Oak Forest/Woodland

State Rank: S4 - Secure



Pitch Pine - Oak Forest with lowbush blueberry understory. Photo: Patricia Swain, NHESP.

**Description:** Pitch Pine - Oak Forests/Woodlands (PPOF) 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, PPOF 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, PPOF 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 oaks are present and abundant.

Pitch Pine - Oak Forest is widespread in southeastern Massachusetts and scattered elsewhere. The canopy ranges from mostly pine with scattered oaks to predominantly oak with scattered pines.

**Characteristic Species:** Pitch Pine - Oak Forests/Woodlands have a canopy of pitch pine and tree oaks (black, scarlet, chestnut, and white). The proportions of canopy species differ among sites, ranging from predominantly pine with scattered oaks to predominantly oak with scattered pines (but, >25% cover). White pine and red maple are occasional in the canopy, increasing with time since the last fire or other disturbance. Scattered patches of scrub oak and dwarf chinquapin oak can be dense. Lowbush blueberries, black huckleberry, and sheep laurel form an often continuous low shrub layer. The herb layer is generally sparse, with bracken fern, wild sarsaparilla, wintergreen, Pennsylvania sedge, and, less commonly, pink lady's slipper.



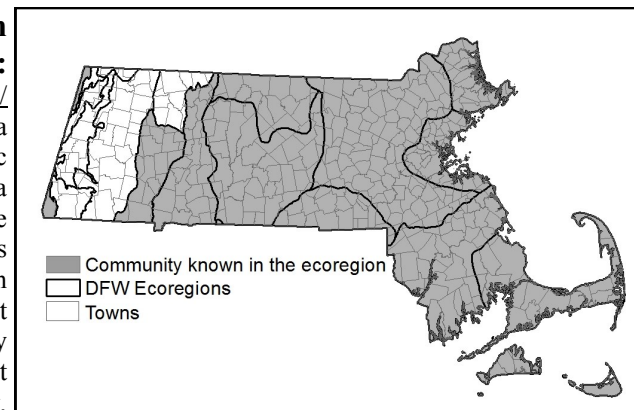
Pitch pine cones with 3 needles per fascicle. Photo: Kim Justham, NHESP.

## Differentiating from Related Communities:

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. PPOF 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 but usually lack abundant tree oaks. Coastal Forest/Woodlands generally have a more diverse tree layer than PPOF, although it may include some pitch pine and many oaks with other trees.

## Habitat for 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 use these forests as well as others in the southeastern part of the state. The bird fauna is similar that of oak woodlands. Most common species of mammals of Massachusetts have populations that make PPOF part of their habitat but none are particularly characteristic.



## Examples with Public Access:

Myles Standish SF, Plymouth; Hyannis Ponds WMA, Barnstable; Francis Crane WMA, Falmouth; Montague Plains WMA, Montague; Pine Cobble, Williamstown; Mt. Everett SR, Mt. Washington.



Dense huckleberry understory in Pitch Pine - Oak Forest. Photo: Patricia Swain, NHESP.

