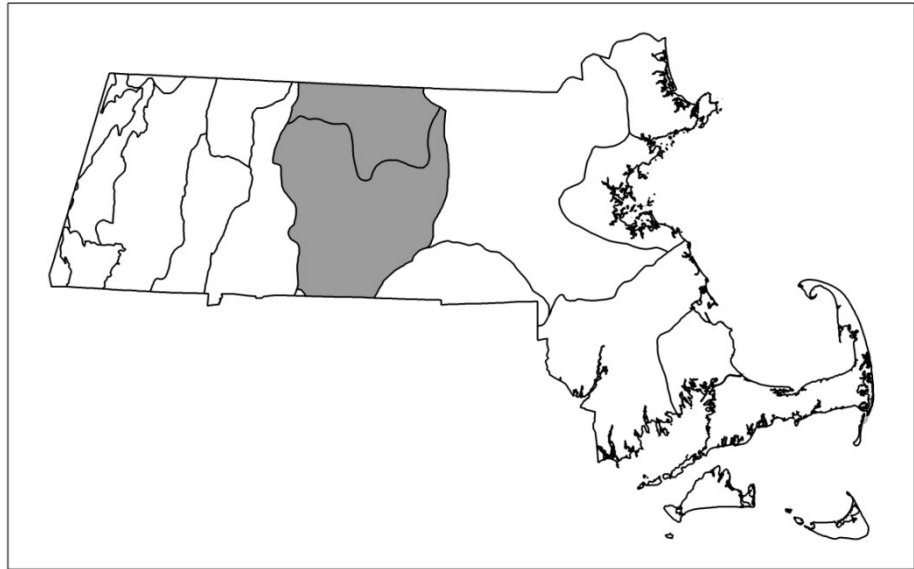




White Pine – Oak Forest

Community Code: CT1A100000

State Rank: S5



Concept: A forest of mixed dominance with oaks and white pine in the canopy.

Environmental Setting: White Pine - Oak Forest is a widespread successional community that occurs below 915m (3000 ft.) on slopes or flat to gently rolling moraines, till, or outwash plains. Sites are dry (but not very dry) to moist (mesic). The forest canopy is closed with mixed dominance of pines and deciduous trees in the canopy, often with a super-canopy of white pine. Indicators of past land use such as stone walls, old wood roads, and stumps may appear throughout.

Vegetation Description: White pine (25-75% cover, *Pinus strobus*) and oak species (25-75% cover, *Quercus rubra*, *Q. velutina*, *Q. alba*, *Q. coccinea*, and *Q. montana*) dominate the canopy layer in a variety of proportions. Pitch pine (*Pinus rigida*), red maple (*Acer rubrum*), white birch (*Betula papyrifera*), black birch (*B. lenta*), hickories (*Carya* spp.), American beech (*Fagus grandifolia*), and sassafras (*Sassafras albidum*) occur regularly but generally in low numbers. Chestnut (*Castanea dentata*) is frequently present as a shrubby tree. The shrub layer is variable in abundance and species. A prominent heath shrub layer, with lowbush blueberries (*Vaccinium angustifolium* and *V. pallidum*), black huckleberry (*Gaylussacia baccata*), mountain laurel (*Kalmia latifolia*), and/or sheep laurel (*K. angustifolia*), may be present. Other shrubs include maple-leaved viburnum (*Viburnum acerifolium*) and witch-hazel (*Hamamelis virginiana*). Typical species of the sparse herb layer include bracken fern (*Pteridium aquilinum*), wild sarsaparilla (*Aralia nudicaulis*), Canada mayflower (*Maianthemum canadense*), partridgeberry (*Mitchella repens*), pink lady's-slipper (*Cypripedium acaule*), cow-wheat (*Melampyrum lineare*), and whorled loosestrife (*Lysimachia quadrifolia*). Evergreen patches of club mosses such as ground-pine



(*Dendrolycopodium obscurum*), southern ground-cedar (*Diphasiastrum digitatum*), and staghorn clubmoss (*Lycopodium clavatum*) are particularly apparent in the winter.

Differentiating Occurrences: White Pine - Oak Forests have >25% cover of white pine overall (not just local patches). They are often in a successional sequence from Successional White Pine Forests: the key difference is the >25% of oaks in the White Pine - Oak Forest canopy. In southern or very dry areas, White Pine - Oak Forest may grade into Pitch Pine - Oak Forests which have >25% cover of pitch pine and <25% canopy of white pine. Related forest types in the oak continuum have <25% white pine. Coastal Forests/Woodlands are within a few miles of the coast at <~60 ft. elevation and receive storm winds and spray. The diverse canopies include oaks and often American holly, sassafras, and black gum; white pine may be present. In the northern areas, White Pine - Oak Forest may grade into Northern Hardwood - Hemlock- White Pine Forests that are dominated by sugar maple and white ash with <25% canopy cover of white pine. In these northern hardwood forests, the only oak is red oak.

Associated Fauna: There are no species known to be restricted to the White Pine - Oak Forests; most animals in the forest are widespread generalists. Small mammals include white-footed mice (*Peromyscus leucopus*), gray squirrels (*Sciurus carolinensis*), short-tailed shrews (*Blarina brevicauda*), and chipmunks (*Tamias striatus*). Birds that nest in White Pine - Oak Forests include Eastern Wood-Pewee (*Contopus virens*), Red-eyed Vireo (*Vireo olivaceus*), Brown Creeper (*Certhia americana*), Hermit Thrush (*Catharus guttatus*), and Red-tailed Hawks (*Buteo lineatus*). If a community occurrence contains vernal pools, red-spotted newts (*Notophthalmus v. viridescens*) and spotted salamanders (*Ambystoma maculatum*) will live in the humus of the forest floor for most of their adult lives. All of the upland forest types provide valuable structural attributes, such as tree cavity den sites (which are utilized by a variety of bird and mammal species) and large woody material (which is utilized by various amphibian, reptile, and invertebrate species). Oak acorn production, an important source of wildlife food, is substantially greater in oak forest types than in northern forest types. Oaks and acorns play a fundamental role in the organization and dynamics of wildlife communities.

Public Access: Myles Standish State Forest, Plymouth; Freetown-Fall River State Forest, Freetown; Quabbin Reservation, Belchertown; Wachusett Meadow Wildlife Sanctuary (Massachusetts Audubon Sanctuary), Princeton.

Threats: Invasives can occur.

Management Needs: As a widespread successional forest occurring on previously disturbed land, generally sites do not need to be maintained. Some sites do have invasive species, such as barberry, that should be controlled if threatening more natural habitats or uncommon species.



USNVC/NatureServe:

A2080 *Pinus strobus* - *Quercus prinus* Appalachian Forest Alliance - *Quercus (rubra, velutina, alba)* - *Betula lenta* - (*Pinus strobus*) Forest [CEGL006454]; A4209 *Quercus velutina* - *Quercus falcata* - *Pinus rigida* Coastal Plain Forest Alliance in part *Pinus strobus* - *Quercus alba/Ilex glabra* Forest [CEGL006382]; A4128 *Pinus strobus* - *Quercus alba* Allegheny Forest and Woodland Alliance - *Pinus strobus* - *Quercus (rubra, velutina)* - *Fagus grandifolia* Forest [CEGL006293].