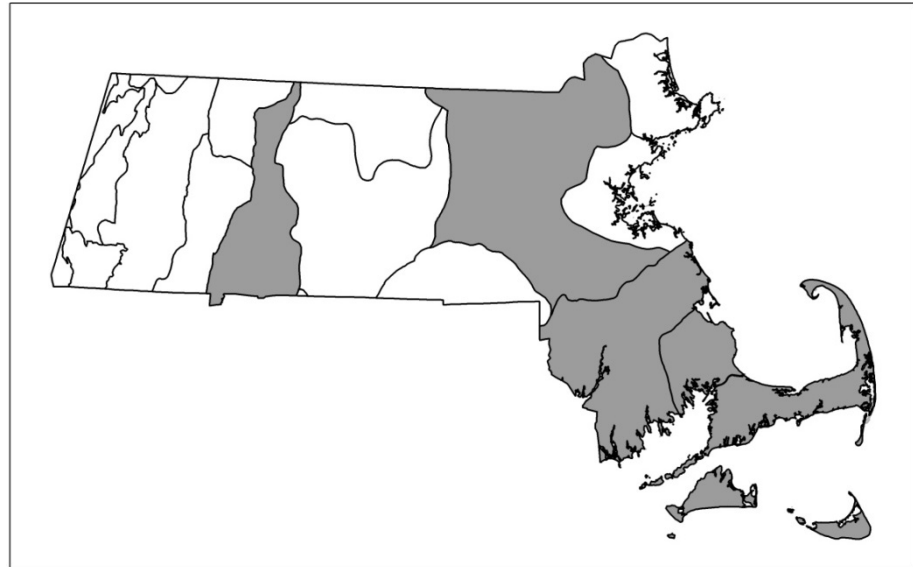




### Pitch Pine – Scrub Oak Community

**Community Code:** CT2B1F0000

**State Rank:** S2



**Concept:** Shrub-dominated communities with scattered to dense trees and scattered openings. Shrubs are usually very dense.

**Environmental Setting:** Pitch Pine - Scrub Oak Communities are dominated by dense shrubs with scattered to patchily dense trees and occasional openings. They occur on droughty, acidic, low-nutrient soils, usually deep, coarse, well-drained sands derived from glacial outwash, in the coastal plain, the Connecticut River Valley, and other scattered areas throughout the state. Pitch Pine - Scrub Oak Communities are fire-maintained and fire-dependent communities; most species in the community recover well from fire. Prescribed burns that remove accumulated dead needles and leaves on a regular basis help maintain the natural community and reduce the danger from wildfires. The community succeeds to Pitch Pine - Oak Forests/Woodlands without fire or other site disturbances. The openings grade into Sandplain Heathland and Grassland communities, which are separated out as distinct community occurrences when larger than about an acre. In pitted outwash plains or rolling moraines, some low bowls, or kettles, are frost pockets that have more heath and lichen and less oak and pine. Deeper kettles that intersect the water table may have a coastal plain pond or a small peatland.

**Vegetation Description:** Pitch Pine - Scrub Oak Communities are not very diverse floristically; the combination of few species plus the physical structure of the vegetation is characteristic of the natural community. Scattered (to patchily dense) pitch pine (*Pinus rigida*) trees form an open canopy (from about 10% to about 25%, although there can be denser patches). This canopy is over an often continuous understory of scrub oak (*Quercus ilicifolia*) and dwarf chinquapin oak (*Q. prinoides*) 2-4 meters



(7-15 feet) tall, with shorter huckleberry (*Gaylussacia baccata*) about a meter (3 feet) tall in a mosaic with lowbush blueberries (*Vaccinium angustifolium* and *V. pallidum*), bearberry (*Arctostaphylos uva-ursi*), and large patches of lichens, intermixed with sedges (primarily *Carex pensylvanica* with others) or little bluestem (*Schizachyrium scoparium*) in openings between the taller shrubs. Other species regularly occurring in low numbers include golden heather (*Hudsonia ericoides*), cow wheat (*Melampyrum lineare*), and mayflower (*Epigaea repens*). Inland occurrences of Pitch Pine - Scrub Oak Communities have successional areas with trembling aspen (*Populus tremuloides*), gray birch (*Betula populifolia*), black cherry (*Prunus serotina*), and pin (or fire) cherry (*Prunus pensylvanica*). Areas with tree oaks or more than 40% canopy cover by pitch or white pine trees are considered to be woodland or forest.

**Differentiating Occurrences:** The Pitch Pine - Scrub Oak Community grades into Pitch Pine - Oak Forest/Woodlands, which have >40% canopy and tree oaks that do not occur in the Pitch Pine - Scrub Oak Community. Scrub oak is much less abundant and less dense in the forest/woodland situation, which usually occur in less dry environments and have more soil development. Maritime Pitch Pine Woodlands on Dunes have little scrub oak and generally much sparser pines. Ridgetop Pitch Pine - Scrub Oak Communities are on bedrock outcrops, often ridges. In order to name and map Scrub Oak Shrublands, Sandplain Heathlands, and/or Sandplain Grasslands included in a Pitch Pine - Scrub Oak Community, those would need to occupy significant area or topographic differences where they are distinct (large frost pockets for example).

**Associated Fauna:** Many species of lepidopterans are restricted to the Pitch Pine - Scrub Oak Community and its openings. The bird fauna is generally that of oak woodlands; Rufous-sided Towhee (*Pipilo erythrophthalmus*), Pine Warbler (*Dendroica pinus*), and Ruffed Grouse (*Bonasa umbellus*) are common. At one Pitch Pine - Scrub Oak Community site, Prairie Warblers (*Setophaga discolor*) were very abundant, with their densest populations in the state. Whip-poor-will (*Caprimulgus vociferus*) and Common Nighthawk (*Chordeiles minor*) are now increasingly restricted to sandy openings of Pitch Pine - Scrub Oak Communities. American Woodcock (*Philohela minor*) also use the openings. Heath hens (*Tympanuchus cupido cupido*), a now extinct subspecies of prairie chicken, were adapted to scrub oak communities: they ate scrub oak acorns and berries in the openings, and used scrub oak for cover. Exclusion of fire followed by very large, hot fires in their habitat likely contributed to their extinction. The dense shrubs of Pitch Pine - Scrub Oak Communities in southeastern Massachusetts provide habitat for New England cottontail (*Sylvilagus transitionalis*). A variety of mice and voles use the scrub oak for cover and feed where they find acorns or berries. Larger mammals seem to prefer woodlands where they can move more easily.

**Public Access:** Myles Standish State Forest, Plymouth; Mashpee Pine Barrens WMA, Mashpee; Manuel F. Correllus State Forest, West Tisbury; Montague Plains WMA, Montague.

**Threats:** Development and fragmentation; succession from fire exclusion.



**Management Needs:**

Reintroduction of fire according to fire management plans. Many areas that have not burned for more than 20 years may need to have fuels mechanically reduced (logging or brushcutting) before prescribed fires are attempted.

**USNVC/NatureServe:**

Includes: *Pinus rigida* Woodlands Alliance -- *Pinus rigida/Quercus ilicifolia/Lespedeza capitata* Woodlands [CEGL006025] and *Pinus rigida* Woodlands Alliance -- *Pinus rigida/Quercus ilicifolia/Morella pensylvanica* Woodlands [CEGL006315].