

Pitch Pine - Scrub Oak Community

State Rank: S2 – Imperiled



Trail through frost pocket in Pitch Pine - Scrub Oak Community. Photo: P. Swain, NHESP.

Description: Pitch Pine – Scrub Oak Communities (PPSO) are dominated by dense shrubs with scattered to patchily dense trees and scattered openings. They occur on droughty, acidic, low nutrient soils -- usually deep, coarse, well-drained sands derived from glacial outwash, primarily in the coastal plain and the Connecticut River Valley. PPSO Communities are fire maintained and fire-dependent; most species in the community recover well from fire. The PPSO 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.

Characteristic Species: Pitch Pine – Scrub Oak Communities are not floristically very diverse; the combination of few species plus the physical structure of the vegetation is characteristic of the natural community. Scattered to occasionally dense pitch pine trees form an open canopy (from about 10% to about

Pitch Pine - Scrub Oak Communities are globally rare, fire-dependent shrub-dominated communities with scattered trees and occasional openings, occurring on dry, poor, usually sandy, soils. They provide habitat for many rare species.

25%, although there can be denser patches) over an often continuous understory of scrub oak and dwarf chinquapin oak 2-4 m (7-15 ft.) tall with shorter huckleberry about 1 m (3 ft.) tall in a mosaic with lowbush blueberries, bearberry, and large patches of lichens, intermixed with sedges or little blue stem between taller shrubs. Other species regularly occurring in low numbers include golden heather, cow wheat, and mayflower. Inland occurrences of PPSO Communities have successional areas with trembling aspen, gray birch, black cherry, and pin cherry.

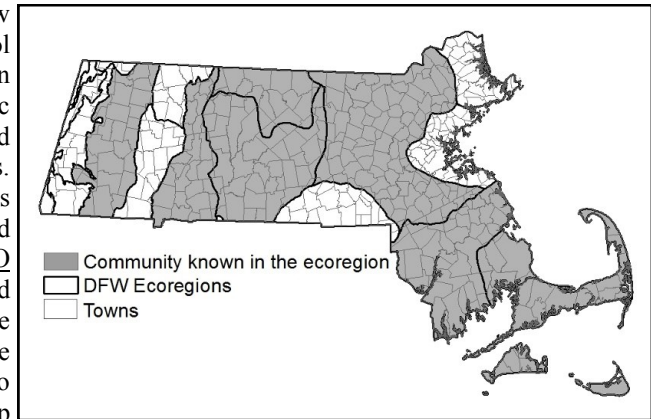


Buck moth (male), a scrub oak feeder. Photo: Michael W. Nelson, NHESP.

Differentiating from Related Communities: Pitch Pine - Scrub Oak Communities are in a disturbance maintained continuum of community types from treeless through closed canopy

forests. The sandy low nutrient soils control vegetation that is then modified by topographic setting and recent and historical disturbances. Successional stages interdigitate on the ground and share species. PPSO Communities have scattered pitch pine trees and dense scrub oak, lack tree oaks, are on sand or gravel, and tend to be large acreage. Ridgetop PPSO Communities have similar structure and species, but are on bedrock. Scrub Oak Shrublands have few (<10% cover) trees. Sandplain Heathlands and the inland variant have few trees (<10% canopy) and have large areas dominated by continuous cover (>50%) of low shrubs. Tree oaks contribute to the >25% canopy of Pitch Pine - Oak Forests/Woodlands. Maritime Pitch Pine Woodlands on Dunes are on sand dunes.

Habitat for Associated Fauna: Many species of moths and butterflies are restricted to Pitch Pine - Scrub Oak Communities. The bird fauna is like that of oak woodlands: Rufous-sided Towhee, Pine Warbler, and Ruffed Grouse are common. Prairie Warblers had their densest populations in the state at one PPSO site. Whip-poor-will and Common Nighthawk are now increasingly restricted to sandy openings of PPSO Communities which are also used by American Woodcock. The dense shrubs of PPSO Communities provide habitat for New England cottontail. Mice and voles use the shrubs for cover and feed.



Examples with Public Access: Myles Standish SF area, Plymouth; Mashpee Pine Barrens WMA, Mashpee; Manuel F. Correllus State Forest, West Tisbury; Montague WMA, Montague.



Spring view across scrub oak into a frost pocket. Photo: Patricia Swain, NHESP.

