

# Scrub Oak Shrubland

State Rank: S2 - Imperiled



Scrub Oak Shrubland in frost pocket on sand. Photo: Patricia Swain, NHESP.

**Description:** Scrub Oak Shrublands are dense shrublands dominated by shrub oaks forming almost impenetrable thickets ranging from 2-3 feet (~1m) to greater than 6 feet (2m) in height. They occur on sandplains, usually in depressions where localized frosts keep out competing trees, and on ridge tops. Disturbances in both environments maintain mosaics in space and time of grassland and heathland openings, shrublands, Pitch Pine - Scrub Oak Communities, and Pitch Pine - Oak Forest/Woodland. Scrub Oak Shrublands are dry with few available nutrients since sand and shallow soils on bedrock hold neither water nor nutrients. Besides frosts that damage competing tree species, fires that eliminate or significantly reduce trees establish and maintain Scrub Oak Shrublands. Because the component shrub species both foster and are adapted to fire,

Scrub Oak Shrublands, found within pitch pine - scrub oak areas, are dominated by dense shrub oaks. They occur on rock outcrops or in depressions where localized frosts keep out competing trees.

Scrub Oak Shrublands are considered to be fire dependent communities - shrub oaks and heath species resprout readily after fires. Scrub Oak communities seldom occur on previously plowed land: even a hundred years after agricultural abandonment vegetatively reproducing plants are under-represented on previously plowed lands.



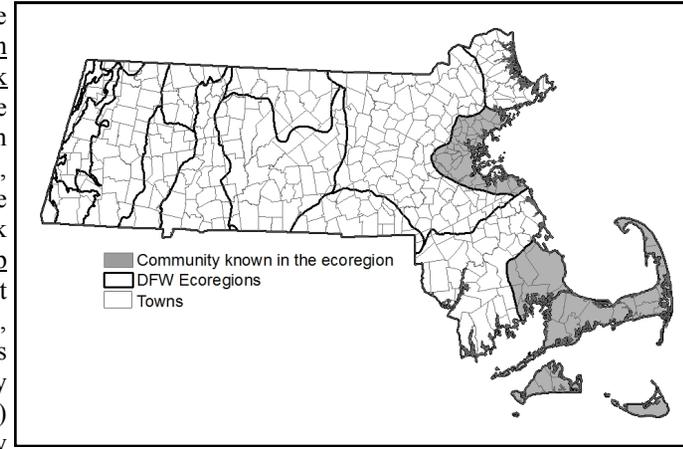
Dwarf Chinquapin Oak (L) - Scrub Oak (R). Photos: P. Swain and P. Somers, NHESP.

**Characteristic Species:** Scrub Oak Shrublands are dominated by shrub oaks, scrub oak (also called bear oak) and dwarf chinquapin oak, that together have at least 40% cover. Sparse (<10% cover) tree species may include pitch pine, red or black oak, gray birch, and quaking aspen. Other characteristic plants include black huckleberry, low bush and early sweet blueberries, black chokeberry, sheep laurel, and sweet fern, along with Pennsylvania sedge, little bluestem, poverty grass, cow wheat, bracken fern, bearberry, and patches of lichens.

**Differentiating from Related Communities:** Scrub Oak Shrublands are dominated by dense shrub oaks and lack pitch pine, on sand and on bedrock. Pitch Pine - Scrub Oak Communities have up to ~25% cover by pitch pine trees, are on sand or gravel, tend to be large, and

have most of the same species. Ridgetop Pitch Pine - Scrub Oak Communities have scattered stunted pitch pine and dense scrub oak, and usually little bare rock. They are on bedrock ridgetops. Ridgetop Heathlands lack abundant scrub oak and pitch pine, have large areas dominated by fairly continuous cover (>50%) of low shrubs, usually lowbush blueberry, and have little exposed bedrock. Rocky Summit/Rock Outcrop Communities are dominated by bare or lichen covered rock. Identifying community types on rock outcrops is complicated by mixing of types in mosaics and overlap of constituent species. Very small occurrences of any community types should be considered to be parts of the prevailing community.

**Habitat for Associated Fauna:** Scrub Oak Shrublands provide shrub habitat similar to that of the often surrounding Pitch Pine - Scrub Oak Community. Species in Scrub Oak Shrublands include rare and more common moths that are dependent on oaks and members of the blueberry family. Scrub Oak Shrublands in southeastern Massachusetts are increasingly being managed for New England cottontail; this benefits other species that use the protection dense shrubs offer for nesting and resting, including Prairie Warbler, which is



declining throughout its range due to habitat loss. Common Yellow-throat nests in dense tangled vegetation of some scrub oak areas. Large mammals tend to avoid the dense shrub thickets.

**Examples with Public Access:** Middlesex Fells, Medford; Myles Standish SF, Plymouth; Lovell's Lane Conservation Area, Mashpee; Manuel F. Correllus SF, West Tisbury.



Scrub Oak Shrubland in the winter. Photo: Patricia Swain, NHESP.

