

Black Oak - Scarlet Oak Woodland

State Rank: S3S4 - Vulnerable



Black Oak in woodland with wintergreen showing below huckleberry layer without leaves. Photo: Patricia Swain, NHESP.

Description: Black Oak - Scarlet Oak Woodland (BOSOW) is an open, short (<20m (~60 ft.)) oak/heath community maintained by regular light fire or other disturbance. The woodland occurs on dry sites, often sandy, gravelly, or rocky slopes. Without fire, a deep accumulation of oak leaf litter impedes germination of seeds that need mineral soil, restricting such species to small patches of disturbance. Except on the driest sites, without regular fire, the woodland community succeeds to more diverse, denser and taller Oak - Hemlock - White Pine Forest or one its variants.

Characteristic Species: In BOSOW, black oak is the dominant canopy species with a high proportion of scarlet oak. White oak and red maple are common

Black Oak - Scarlet Oak Woodland is a fairly open oak/heath community maintained by regular fire. Often occurring on dry slopes, this community grades into Mixed Oak and Pine - Oak Forests. The subcanopy is sparse, and the shrub layer dense.

associates. A sparse subcanopy may have species of recent disturbance such as grey birch, black cherry, and sassafras, as well as species less tolerant of fire such as flowering dogwood or shadbush. Lowbush blueberries, huckleberry, and scrub oak form a low shrub layer, with scattered sheep laurel, maple-leaved viburnum, and American hazelnut. A sparse herbaceous layer includes scattered patches of Pennsylvania sedge, bracken fern, and pink lady's slipper. Wintergreen may be dense in areas with little past soil disturbance.

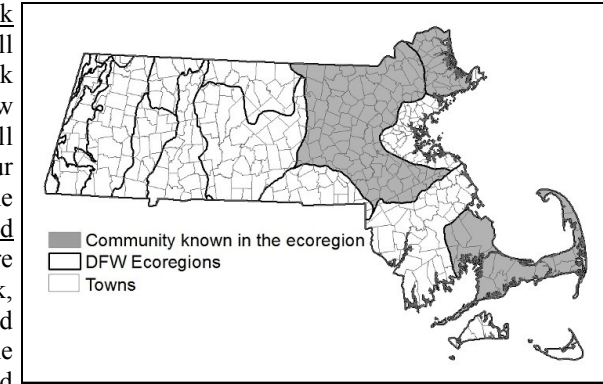


Scarlet oak leaves and acorn. Photo: Franklin Bonner, USFS (ret.), Bugwood.org.

Differentiating from Related Communities: BOSOW are part of a continuum of dry, acidic communities that contain a variety of tree oak and pine species. Many of the types of oak communities grade into one another in time and space and are difficult to differentiate both in a classification and on the ground. They all have tree oaks and a low shrub layer dominated by plants of the blueberry family. BOSOW are overtly woodlands: most canopy trees are relatively short (<20m (~60 ft.)) and the canopy is generally interrupted (<~60% cover) rather than continuous. Abundant scarlet oak with black oak is the key

indicator of the type. Open Oak Forests/Woodlands occur on hill slopes with short red and white oak trees scattered over a grassy or low shrub understory around small rock outcrops. They often occur between a rocky summit and the surrounding taller forest. Mixed Oak Forests/Woodlands have more oak species than BOSOW (black, scarlet, and white plus red oak and chestnut oak), and black birch. The type is broadly defined and BOSOW could be considered as a defined subtype. Coastal Forests/Woodlands are within a few miles of the coast at <~60 ft. elevation and receive storm winds and spray. The diverse canopy includes oaks and often has American holly, sassafras, and black gum. Oak - Hemlock - White Pine Forests (OHWPF) are the most broadly defined in the continuum of oak dominated forests; specific types are split out from this matrix type. OHWPF is dominated by a mix of tree oaks with scattered white pine and hemlock, either of which may be in local dense patches. White Pine - Oak Forests have >25% cover of white pine overall (not just local patches). Pitch Pine - Oak Forests/Woodlands have >25% cover of pitch pine overall (not just local patches).

Habitat for Associated Fauna: Black Oak - Scarlet Oak Woodlands would be part of the habitat of wide ranging or large animals. Acorns are important food for white-tailed deer, black bear, grey squirrels, other small rodents, and Wild Turkeys and other birds. The understory of blueberries and huckleberries is used by many of these same species. Passerine birds would be



those of all oak forests. Orange swallow moth may be present when either smooth or fern-leaf false fox glove, its larval food plants, is present in sufficient abundance.

Examples with Public Access: Salisbury Marsh WMA, Salisbury; Clinton Bluff WMA, Clinton; Green Hill Park, Worcester; Cape Cod NS, Truro.



Scarlet oak in an often burned woodland. Photo: Patricia Swain, NHESP.

