

# Red Maple - Black Ash - Bur Oak Swamp

State Rank: S2 - Imperiled



Red Maple - Black Ash - Bur Oak Swamp in early spring shows abundant skunk cabbage with standing water. Photo: Patricia Swain, NHESP.

**Description:** Red Maple - Black Ash - Bur Oak Swamps are forested wetland communities on flat but hummocky terrain characterized by a generally closed (but varying from continuous to scattered) canopy at 60 ft. or higher. The hummock-hollow topography supports herbaceous emergents in the hollows and shrubs and trees on the hummocks. The community occurs in western Massachusetts where somewhat nutrient enriched circumneutral, but not calcareous, groundwater overlaps with the eastern edge of the range of bur oak. Soils are a mucky mix of mineral and organic, silt and sandy loams, with pH generally 5.1 to 7.3. The sediments are saturated throughout the year; in the spring hollows are filled with water but by late summer many have dried to bare surfaces or leaf litter, supporting plants tolerant of the changing moisture regime.

**Characteristic Species:** The canopy is a variable mixture of deciduous and occasionally coniferous trees with red maple, black ash, and bur oak most

Red Maple - Black Ash - Bur Oak Swamps are mostly deciduous forests of circumneutral (somewhat calcium enriched) wetlands. Trees growing on hummocks form an almost continuous canopy over variable shrub and diverse dense herbaceous layers.

common. Swamp white and white oaks are present and hybridize with bur oak. Other typical trees include green ash, slippery and American elms, sugar maple, and yellow birch; when present, eastern hemlock, tamarack, and white pine are usually scattered. The subcanopy has similar composition, often dominated by the black ash. The shrub layer is generally patchy with highbush blueberry, winterberry, hornbeam, and black ash, with witch-hazel and spicebush near the edges. The herbaceous layer is moderately diverse although dominated by tussock sedge and skunk cabbage. Other typical herbaceous layer species are common horsetail, awned sedge, sensitive fern, cinnamon fern, royal fern, foamflower, goldthread, marsh marigold, and northern blue flag. Invasive species established in areas of past disturbances include the aggressive exotics Japanese barberry, glossy alder-buckthorn, and phragmites.



Bur oak leaves showing the identifying "waist", deep sinuses, about the middle of the leaf. Photo: Patricia Swain, NHESP.

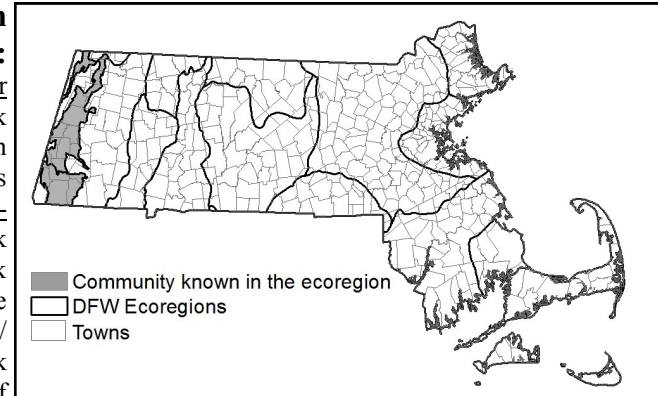
## Differentiating from Related Communities:

Red Maple - Black Ash - Bur Oak Swamps (bur oak swamps) are similar in structure and species composition to Red Maple-Black Ash Swamps (black ash swamps), but bur oak swamps occur in Berkshire County near marble/limestone bedrock and black ash swamps occur east of

Berkshire County. Both are forested wetlands with fairly closed canopies; but only the bur oak swamps have bur oak or bur oak/swamp white oak hybrids. A detailed study would be needed to determine other differences or similarities between the two community types. Bur oak swamps are often geographically close to Red Maple - Black Ash - Tamarack Calcareous Seepage Swamps (calcareous seepage swamps), however, bur oak swamps are more forest-like with taller trees and more closed canopies, with stands of bur oak or bur oak/swamp white oak hybrids more likely than in calcareous seepage swamps. The clearest differentiation may be that even in openings, bur oak swamps do not have the strong calciphiles found in calcareous seepage swamps. (Calciphiles include shrubby cinqfoil, grass-of-Parnassus, Kalm's lobelia, alder-leaf buckthorn, hemlock parsley, autumn and hoary willows, and slender cotton-grass.)

## Habitat for Associated Fauna:

Bur oak swamps add variation to the habitats of large, mobile animals. Fishless hollows that retain standing water through



the spring function as vernal pools and provide important amphibian breeding habitat.

## Examples with Public Access:

George L. Darey WMA, Lenox.



Later in the year drier conditions - sedges and grasses replace the skunk cabbage. Photo: Patricia Swain, NHESP.



From: *Classification of Natural Communities of Massachusetts* <http://www.mass.gov/nhesp/>

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