Red Maple - Black Gum Swamp

State Rank: S2 - Imperiled

Dense shrubs grow around the black gum trees. Photo: Patricia Swain, NHESP.

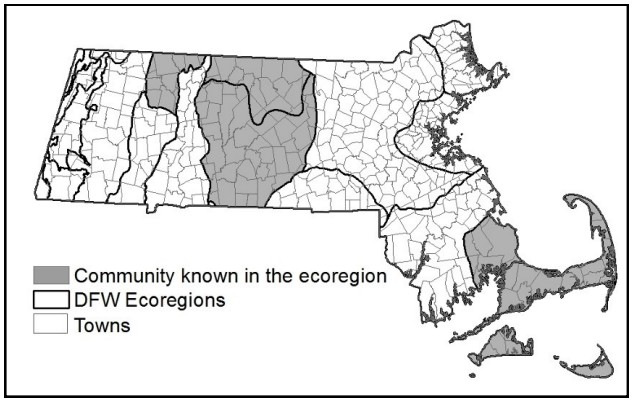
Red Maple - Black Gum Swamps are forested hummocky wetlands that occur in poorly-drained basins. Black gum is an abundant canopy tree, with red maple, growing primarily on hummocks which results in a relatively open canopy.

Description: Red Maple - Black Gum Swamps (black gum swamps) are small patch deciduous swamp forests characterized by abundant black gum in the canopy. Some black gum swamps contain large, very old (300 to >500 years) black gum trees, left behind during tree harvests due to lack of interest in the wood by settlers and subsequent loggers. Black gum swamps in Massachusetts have relatively small watersheds and limited drainage with a small intermittent outlet channel, but usually have no defined inlet and are typically isolated from perennial streams. Most reported occurrences are in depressions at about 1000 ft. elevation, perched on hillside benches or concavities in glacial till soils. The acidic, nutrient poor peat or muck hummocks and hollows are generally saturated and/or seasonally flooded.

Characteristic Species: Red Maple - Black Gum Swamps have pronounced hummock-hollow topography, with woody vegetation confined to the hummocks. The canopy is often in the 25-50% cover range. Black gum is abundant in the canopy, often codominant with red maple. Eastern hemlock may be abundant. Associates with lower abundance include yellow birch, white pine, red spruce, and black ash. The shrub layer is often well-developed but is variable in cover; typical species include highbush blueberry, common and smooth winterberry, common mountain-holly, mountain-laurel, and wild raisin. Cinnamon fern is usually the most abundant herbaceous species present, growing primarily on the mossy hummocks. Other species include royal, marsh, and Massachusetts ferns, beggar-ticks, northern water-horehound, swamp-dewberry, and marsh St. John's-wort. Wet hollows are typically lined with sedges including silvery bog-sedge, bladder-sedge, tussock-sedge, and three-seeded bog sedge.

Black gum leaves. Photo: Chris Evans, Illinois Wildlife Action Plan, Bugwood.org.

Differentiating from Related Communities: Red Maple - Black Gum Swamps are generally in small topographically constrained basins surrounded by upland forests. Besides being dominant or codominant in defined Red Maple – Black Gum Swamps, black gum trees occur in a variety of other settings, including seepage swamps and along fringes of ponds or shorelines. Black gum needs to be dominant or codominant in large areas of the swamp for the occurrence to be a black gum swamp. Red Maple Swamps may have black gum in low proportions in the canopy, but not as a dominant or codominant. Most Red Maple Swamps have a more diverse herbaceous layer and many are in larger basins. However the species overlap can be great and it is the presence of many black gum in the canopy that provides the distinctive difference of black gum swamps. Another community that contains black gum is the Black Gum - Pin Oak - Swamp White Oak Perched Swamp known only from the Connecticut River Valley in areas underlain by clays in lakebed sediments of glacial Lake Hitchcock. The presence of pin oak and swamp white oak in the canopy, in addition to the topographic setting distinguish the type. This "perched" swamp is found at low elevations and often nested within larger wetland systems. Other related communities include Red Maple - Black Ash Swamps and Rich Conifer Swamps. These wetland communities share many species with black gum swamps, but black gum is only a minor component.



Habitat for Associated Fauna: Black gum 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: Oakham WMA, Oakham; Satan's Kingdom WMA, Northfield; Beebe Woods, Falmouth.

Black gum spouts around the base of a black gum tree. Photo: Patricia Swain, NHESP.

From: *Classification of Natural Communities of Massachusetts* http://www.mass.gov/nhesp/ Updated: 2016
Natural Heritage & Endangered Species Program, Division of Fisheries & Wildlife, 1 Rabbit Hill Rd., Westborough, MA 01581 (508) 389-6360