Alluvial Red Maple Swamp

State Rank: S3 - Vulnerable

Alluvial Red Maple Swamp with ferns and variable understory. Photo: Michael Batcher.

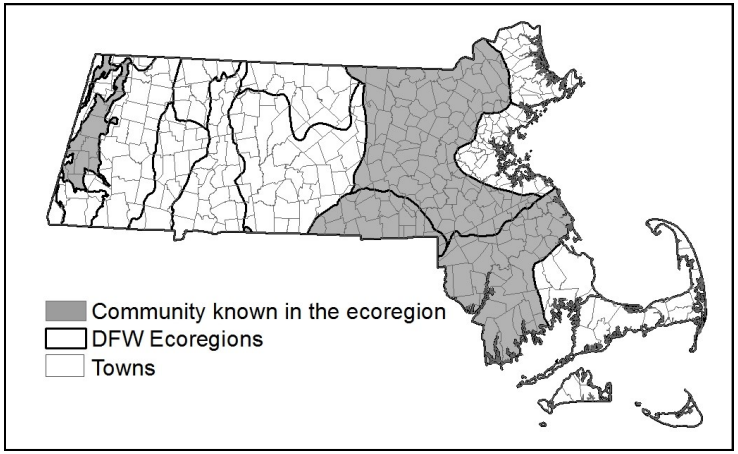
Alluvial Red Maple Swamps are a type of red maple swamp that occur in low areas along rivers and streams. Regular flooding enriches the soil with nutrients, resulting in an unusual set of associated trees and plants.

Description: Alluvial Red Maple Swamps occur along main stem sections of low gradient rivers and streams that flood periodically, primarily in the eastern part of the state. They experience overbank flooding, but they are more poorly drained than true floodplain forests. Soils are typically silt loams with pronounced soil mottling and a surface organic layer. Alluvial Red Maple Swamps may occur as parts of wetland mosaics with other types of floodplain forests, shrub swamps, and other wetland communities. Groundwater from uplands and surrounding wetlands may maintain soil moisture over the growing season.

Characteristic Species: The overstory of Alluvial Red Maple Swamps is a mixture of red maple and, usually, silver maple along riverbanks, with lesser amounts of American Elm, sugar maple, green ash, shagbark hickory, and/or swamp white oak. Red oak, white pine, and black cherry occur in elevated sections. A subcanopy includes the canopy dominants along with hornbeam. Unlike true floodplain forests, Alluvial Red Maple Swamps have well-developed shrub layers with northern arrow-wood, American hazelnut, silky dogwood, buttonbush, meadowsweet, and the non-native plant glossy alder-buckthorn. Vines include poison ivy. In the coastal plain, shrubs may include mountain laurel, winterberry, and sweet pepper-bush. The herbaceous layer is often dominated by sensitive fern and false nettle mixed with a rich assemblage of herbaceous species that commonly includes cinnamon fern, royal fern, golden rods, jewelweeds, beggar-ticks, bugleweeds, awned sedge, and grasses including rice cutgrass, bluejoint grass, and woodreed.

Red Maple leaves. Photo: T. Davis Sydnor, The Ohio State University, Bugwood.org

Differentiating from Related Communities: Alluvial Red Maple Swamps, along low-gradient rivers, flood annually and are slow to drain. Silver maple is often a codominant with red maple. The periodic river flooding is a key process in the Alluvial Red Maple Swamps that affects species composition and differentiates it from closely related community types. Alluvial Hardwood Flats are along small streams that have multiple short flooding events throughout the year after storms. Black cherry and white pine are usually abundant in the canopy with red maple, but not silver maple. High-terrace Floodplain Forests do not flood annually. They have a mix of floodplain trees and mesic, deciduous hardwoods. The diverse herbaceous layer includes floodplain species and others more typical of rich forests. Red Maple Swamps are in basins or hillside seeps along small drainage ways. They are less diverse than Alluvial Red Maple Swamps in all layers.



Habitat for Associated Fauna: Alluvial Red Maple Swamps contribute variation to the habitats of wide-ranging wildlife species. These swamps, especially at the upland fringe or in old meander scars and oxbows, can function as vernal pool habitat if water remains standing for 2-3 months and they lack fish; these areas provide important amphibian breeding habitat. Riverine Odonates use Alluvial Red Maple Swamps adjacent to rivers for shelter.

Examples with Public Access: Taunton River WMA and Black Brook WMA, Middleborough; West Hill Dam property (USACE), Northbridge; George L. Darey Housatonic Valley WMA, Lenox.

Alluvial Red Maple Swamp trees with multiple stems typically found on floodplains. Photo: Michael Batcher.

From: *Classification of Natural Communities of Massachusetts* http://www.mass.gov/nhesp/ Updated: 2016
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