

# Red Maple - Black Ash - Tamarack Calcareous Seepage Swamp State Rank: S2 - Imperiled



Red Maple - Black Ash - Tamarack Calcareous Seepage Swamp with opening. Photo: Bruce A. Sorrie, NHESP.

**Description:** Red Maple - Black Ash - Tamarack Calcareous Seepage Swamps are wetland forests characterized by fairly short and sparse deciduous and coniferous trees and a diverse mix of shrub and herbaceous species. The canopy may be open or somewhat closed, producing variations in light availability within occurrences. Having trees as well as many calcium loving species is distinctive. Otherwise, they grade into other types of wetlands and calcareous communities. These swamps generally occur in basins, but may have streams flowing through or adjacent to them. There are relatively high pH levels and high availability of calcium from surrounding limestone bedrock and soils. Soils usually have up to 12 inches of mucky organic material over mineral layers. Generally the surface has a

Red Maple - Black Ash - Tamarack Calcareous Seepage Swamps are fairly open mixed deciduous-coniferous swamps occurring in areas with calcium-rich groundwater seepage that supports many rare calcium-loving plant species.

hummocky topography from tree tip-up mounds and mosses growing on shrubs.

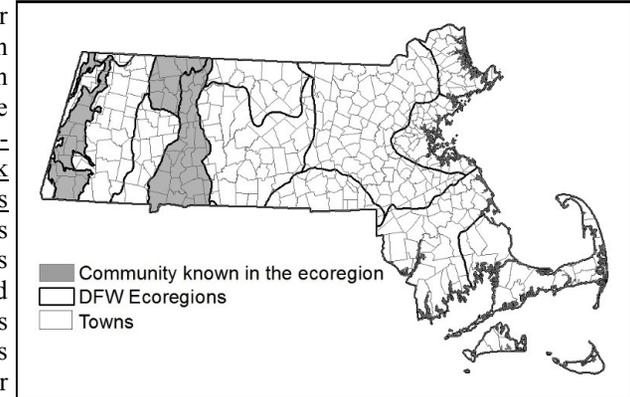
**Characteristic Species:** A variable mixture of deciduous and coniferous trees forms the sparse canopy, but black ash, tamarack, and red maple are most common. Associated tree species include yellow birch, American elm, white pine, and eastern hemlock. At elevations above ~1000 ft., red spruce and balsam fir can also occur. Ironwood is characteristic of the subcanopy. The shrub layer can be dense and diverse with poison sumac, speckled alder, gray dogwood, spicebush, meadowsweet, and highbush blueberry. Shrubby cinquefoil often occurs in open areas. The herbaceous layer is diverse with many calciphilic (calcium-loving) species growing with common wetland plants such as skunk cabbage, sensitive fern, royal fern, naked mitrewort, and many sedges. Invasive species, particularly in disturbed areas, include bush honeysuckles, buckthorns, purple loosestrife, and common reed.



Shrubby cinquefoil: a characteristic species of calcareous wetlands. Photo: Bryan A. Connolly, NHESP.

**Differentiating from Related Communities:** All calcareous wetlands include shrubby cinquefoil. Most also have other calciphiles such as grass-of-Parnassus, Kalm's lobelia, alder-leaf buckthorn, hemlock parsley, autumn and hoary willows, rough-leaved goldenrod,

golden ragwort, and slender cotton-grass. Within a given site, calcareous fen communities grade from one type to another. Red Maple - Black Ash - Tamarack Calcareous Seepage Swamps are dominated by sparse trees and tall shrubs. Small openings share many of the species and conditions of Calcareous Sloping Fens or Calcareous Seepage Marshes, either or both of which may occur in mosaics in the same wetland. Calcareous Seepage Marshes lack the tree cover of the calcareous seepage swamps. They share species with both Shallow and Deep Emergent Marshes, but contain more calciphiles. Calcareous Sloping Fens may have shrubs and short trees in scattered patches. A diverse herbaceous layer dominates the vegetation. They are on shallow to moderate slopes and peat is mostly restricted to sedge hummocks. Calcareous Basin Fens are in basins with deep (>2.0 meters (6.5 ft.)) peat. Dominated by sedges with a sparse shrub layer; they generally contain a more developed moss layer than the other calcareous fens. Red Maple - Black Ash - Bur Oak Swamps and Red Maple - Black Ash Swamps have more closed canopies and do not have the strong calciphiles found in the calcareous seepage swamps. Stands of bur oak or bur oak/swamp white oak hybrids are more likely in Red Maple - Black Ash - Bur Oak Swamps than in calcareous seepage swamps. Rich Conifer Swamps are high elevation (>1000 ft.) forested wetlands that often include some calciphiles and other species found in



calcareous seepage swamps but contain significant amounts of red spruce and/or balsam fir with the shrub Canadian yew.

**Habitat for Associated Fauna:** Red Maple - Black Ash - Tamarack Calcareous Seepage Swamps contribute variation within the habitats of large, mobile animals.

**Examples with Public Access:** Due to the sensitivity of calcareous wetlands to damage from visitation, most land owners prefer not to publicize the locations.



Shrubby calcareous opening in Red Maple - Black Ash - Tamarack Seepage Swamp. Photo: Patricia Swain, NHESP.

