

# Fresh/Brackish Tidal Swamp

State Rank: S1 - Critically Imperiled

Expanded Diagram of Tidal Freshwater Wetlands:  
Showing channel and shore vegetation and transition from marsh to forest.

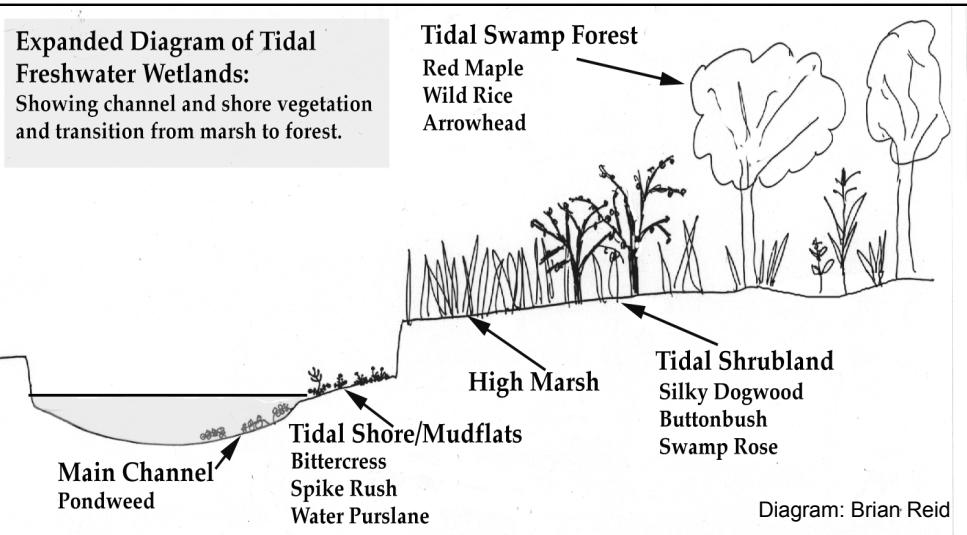


Diagram: Brian Reid

**Description:** Fresh/Brackish Tidal Swamps occur along free-flowing coastal rivers and are influenced daily by the incoming tides. Although they are flooded by the tides, they are located upstream of the salt front, with the river essentially becoming backed up as it meets resistance from high tides. Tidal swamps occur upslope of freshwater or brackish tidal marshes, within the upper limits of tidal influence, to more typical non-tidal forested wetlands. A variation of this

community occurs along smaller streams at the upper limit of tidal influence. Tidal amplitude may range from 0 to 40 cm (~16 in) or higher; the habitat is flooded (usually twice) daily with fresh to brackish water. While no occurrences have been identified in Massachusetts, brackish swamps would occur closer than purely freshwater tidal swamps to the ocean along tidal rivers, upslope of brackish tidal marshes.

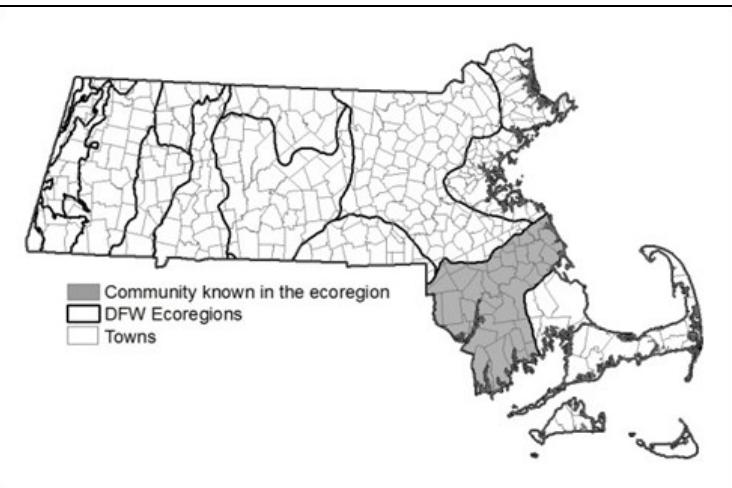
**Characteristic Species:** Fresh/Brackish Tidal Swamps are characterized by low stature trees, a dense shrub understory and an unusually rich herbaceous layer. Red maple, swamp white oak, Atlantic white cedar, and occasionally green ash and/or American elm occur on elevated hummocks, and form an open forest canopy. The shrub

Fresh/Brackish Tidal Swamps occur along free-flowing coastal rivers at the upper limit of tidal influence and are flooded by daily tides. These low-statured forested wetlands often have a dense shrub understory.

layer is often very dense, and typically includes northern arrow-wood, winterberry holly, swamp rose and silky dogwood. Common greenbrier, poison ivy, and grapes weave through the shrub layer. Large mucky hollows flooded by daily tides support a diverse assemblage of herbaceous and graminoid plants.

Most of these are typical of the nearby Freshwater Tidal Marsh including sensitive fern, blue joint grass, arrow arum, wild rice, smart-weeds, and tearthumbs. Plants typical of tidal mudflats such as water purslane and bittercress also occur in the rich mucky hollows between trees.

**Differentiating from Related Communities:** The key difference from other types of forested wetlands, particularly Red Maple Swamp, Alluvial Red Maple Swamp, and Alluvial Atlantic White Cedar Swamp, is that Tidal Swamps are restricted to the area of freshwater tidal action on coastal rivers, above the zone of regular salt water incursion. Being associated with freshwater and brackish tidal marshes, the presence of species from those communities in the openings between



trees would be indicative of freshwater tidal conditions, however the best indicators, Estuary beggar-ticks and Eaton's beggar-ticks, are very uncommon.

**Habitat for Associated Fauna:** The size of the swamp and structure produced by the forest and shrubs present are more important to most animals that would use a tidal swamp, than are the slight daily fluctuations in water levels from the tides. Freshwater Tidal Swamps and Shrublands provide habitat for nesting Gray Catbird, Common Yellow-throat, Swamp Sparrow, Wood Duck, Marsh Wren, and Veery. The habitat is used by Great Blue Heron, Green Heron, and raptors like Red Tailed Hawks.

**Examples with Public Access:** Willow Brook Farm Preserve (Wildlands Trust), Pembroke.



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

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