

Brackish Marsh

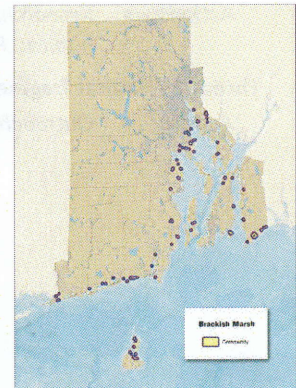
GCN HABITATS



I. Stuckey

Description

Brackish marshes are estuarine wetland communities that occur along the upper edges of tidal rivers, in tidally-fed salt ponds, and in small ponds near the shore that are not tidally connected to the open ocean but that do receive salt spray and storm overwash. Vegetation of these open wetlands is a combination of emergent plants including narrow-leaved cattail, fresh cordgrass, marsh fleabane, rose mallow, bulrushes, and spike-rushes. In rare situations along the upper portions of tidal streams and rivers a unique freshwater emergent marsh may develop in areas where the water level still fluctuates according to daily tidal influence. Wild rice is a characteristic plant of this so-called freshwater tidal marsh. Brackish marshes exhibit a higher diversity of emergent plants than tidal marshes and as such are valuable habitats for nesting birds including rails, bitterns, and waterfowl.



Condition

Primarily occurring as transitional habitats between more saline tidal marshes and freshwater wetlands, the extent of brackish marshes in Rhode Island is limited. Current estimates suggest there are less than 300 acres of these habitats scattered throughout the coastal zone. This figure is much reduced from the pre-settlement period before dams were constructed at the mouths of most rivers in the state which restricted tidal flow. Old Mill Creek in Warwick is the only remaining tidal waterway in Rhode Island exhibiting the natural progression of tidal wetlands from saline to fresh marsh. Brackish marshes dominated by cattails are also present in several ponds along the south shore of Washington County and within the Narrow River system. Although protected by regulation, brackish marshes are highly threatened by the predicted rise in sea level, and combined with their minimal occurrence in the state the condition of these habitats is considered to be poor.

Threats and Actions by Community Type

Estuarine (Intertidal)

Brackish Marsh - EST001

Condition: poor; small and localized. Importance to Biodiversity: 3. Degree of Threat: 3; sea-level rise (becoming saline),.

Threat 1 - Habitat shifting and alteration; Habitat considered the most vulnerable to impacts of sea level rise - increased salinity, storm damage, and limited migration opportunities.

- Actions:*
- *Site/area protection; Identify and protect areas for habitat migration. Rank: 2.5*
 - *Habitat and natural process restoration; insure natural processes continue in event of sea level rise. Rank: 2*
 - *Policies and regulations; strengthen existing regulations to protect potential sites for habitat migration. Rank: 3*
 - *Education and awareness; Outreach events to educate public about potential loss of biological resources from sea level rise and other climate change issues Rank: 2.5*

Threat 2 - Invasive non-native/alien species; Phragmites, japanese knotweed, tall pepper weed, others

- Actions:*
- *Invasive/problematic species control; control spread of Phragmites using appropriate methods, control other invasives as needed. Rank: 2.5*

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Threat 3 - Household sewage and urban waste water; high, but improving with cesspool phase out and wastewater treatment improvements

- Actions:*
- *Site/area protection; Identify and protect sites, especially upland buffers. Rank: 2.5*
 - *Resource and habitat protection; maintain buffers Rank: 2.5*
 - *Policies and regulations; strengthen existing regulations to protect wider upland buffers. Rank: 2.5*

Threat 4 - Industrial and military effluents

- Actions:*
- *Site/area protection; Identify and protect sites, especially upland buffers Rank: 2*
 - *Resource and habitat protection; maintain adequate upland buffers. Rank: 2.5*
 - *Policies and regulations; strengthen existing regulations to protect wider buffers. Rank: 2.5*

Threat 5 - Other ecosystem modifications; invasives control by chemical means can impact these systems

- Actions:*
- *Site/area management; control invasive species using mechanical methods. Rank: 2*
 - *Policies and regulations; prohibit use of chemical controls in these wetland habitats. Rank: 2*

Threat 6 - Lack of information from research to address habitat and taxonomic issues

- Actions:*
- *Research, survey, inventory, monitor populations; Evaluate use of migratory stopover/winter habitat Rank: 3*

Threat 7 - Habitat fragmentation and degradation from human disturbance

- Actions:*
- *Outreach; Control public access at priority sites Rank: 3*