

# Brackish Tidal Marsh

*State Rank S3*

## Community Description

Brackish tidal marshes contain both freshwater and brackish water species, often in bands corresponding to tidal exposure. Tall rushes and bulrushes often predominate over extensive mid-elevation flats. At the lower elevations, rosette-forming herbs, such as lilaepsis and tidal arrowhead, may be common on the mudflats. Near the high tide line, there may be a fairly narrow zone of muddy gravel or rock shore sparsely vegetated with low herbs, including some rare species such as Long's bitter-cress or water-pimpernel. Sweetgale and poison ivy are often present at the upper fringes of the marsh, at or above the tidal reach.

## Soil and Site Characteristics

These marshes occupy intertidal reaches in larger tidal estuaries where freshwater and saltwater mix. Salinity ranges from 2-18 ppt, with gradients reflected in the species composition of particular sites. The substrate is usually mud rather than peat.

## Diagnostics

These marshes occur in a brackish tidal setting. The vegetation is a mix of tall graminoids and rosette-forming forbs. Freshwater cordgrass, common arrow-grass, or wire-rush are present; obligate

freshwater species, such as pickerelweed and common arrowhead, are absent.



Northern Blue Flag

## Similar Types

Freshwater Tidal Marshes are most similar and can grade into this type as one moves downriver; they usually feature wild rice and/or softstem bulrush as dominants, and contain species such as pickerelweed and common arrowhead that do not tolerate brackish water. Some marshes are intermediate in character between the two types. Mixed Graminoid-Forb Saltmarshes and Spartina Saltmarshes develop a peat substrate and are dominated by obligate saltwater species such as saltmarsh cordgrasses, sea lavender, black-grass, or alkali bulrush.

## Conservation, Wildlife, and Management Considerations

Tidal marshes provide valuable wildlife habitat and have received considerable



Brackish Tidal Marsh

conservation attention. Many occur on or adjacent to public lands or private conservation lands. With development of the uplands that border these marshes, maintenance of appropriate wetland buffers can help reduce degradation that could result from adjacent land uses. The prospect of sea level rise may also put these systems at greater risk.

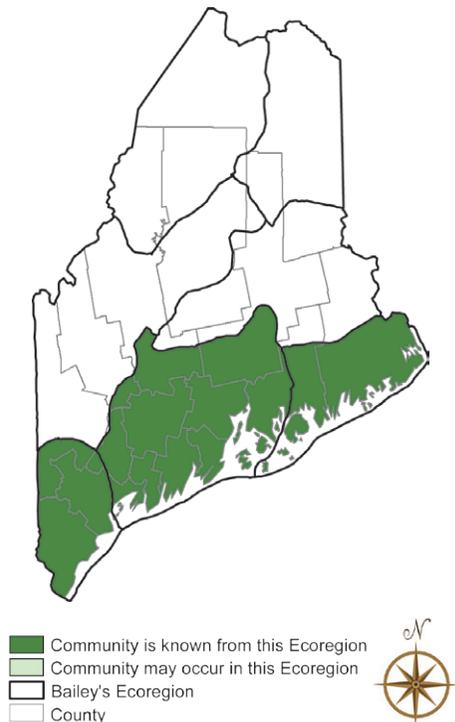
Brackish marshes provide important nesting habitat for Nelson's sharp-tailed sparrow, seaside sparrow, and the rare saltmarsh sharp-tailed sparrow. These wetlands also provide foraging habitat for a large number of wading birds. The New England siltsnail inhabits coastal marshes and small tidal rivers where the water ranges from fresh to upper brackish. The spartina borer moth, whose historic range was along the immediate coast throughout New England, likely inhabited tidal marshes with sizeable populations of freshwater cordgrass, its larval host plant.

## Distribution

Coastwide, extending in both directions from Maine (Laurentian Mixed Forest and Eastern Broadleaf Forest Provinces).

Landscape Pattern: Large Patch

## Location Map



## Characteristic Plants

These plants are frequently found in this community type. Those with an asterisk are often diagnostic of this community.

### Sapling/shrub

Poison-ivy\*  
Sweetgale\*

### Herb

Chaffy sedge\*  
Chair-maker's rush\*  
Common arrow-grass  
Freshwater cordgrass\*  
Narrow-leaved cattail  
Northern blue flag  
Smooth cordgrass  
Softstem bulrush  
Wire rush\*

## Associated Rare Plants

Lilaeopsis  
Parker's pipewort  
Pygmyweed  
Stiff arrowhead  
Water-pimpernel

## Associated Rare Animals

American oystercatcher  
Black-crowned night-heron  
Least bittern  
Saltmarsh sharp-tailed sparrow  
Short-eared owl

## Examples on Conservation Lands You Can Visit

- Acadia National Park - Hancock Co.
- Hall Bay, Flying Point Preserve - Sagadahoc Co.
- Mendall Wildlife Management Area - Waldo Co.
- Morse Mountain Preserve - Sagadahoc Co.
- Rachel Carson National Wildlife Refuge - York Co.
- Scarborough Marsh Wildlife Management Area - Cumberland Co.