



## Lake Superior Coastal Marsh

Emergent marshes in estuaries near river mouths along the shore of Lake Superior. Influenced by cyclic wind-driven changes in lake level.

### Vegetation Structure & Composition

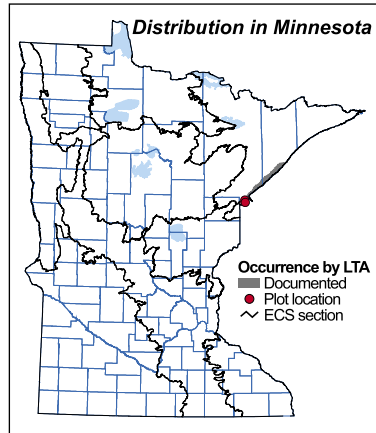
Description is based on summary of vascular plant data from 4 species lists and 2 plots (relevés).

- **Floating-leaved and submergent aquatic plant** cover is variable. Dominant species include yellow pond lily (*Nuphar variegata*), eelgrass (*Vallisneria americana*), common coontail (*Ceratophyllum demersum*), and Canadian elodea (*Elodea canadensis*). Other characteristic species include pondweeds (*Potamogeton* spp.), water stargrass (*Heteranthera dubia*), lesser duckweed (*Lemna minor*), and greater duckweed (*Spirodela polyrrhiza*).

- **Graminoid** composition is variable. Soft stem bulrush (*Scirpus validus*) is dominant in some areas.

- **Forb** composition is variable. Dominant species include broad-leaved arrowhead (*Sagittaria latifolia*), sessile-fruited arrowhead (*S. rigida*), giant bur-reed (*Sparganium eurycarpum*), floating bur-reed (*S. fluctuans*), cattails (*Typha* spp.).

- **Notes:** Vegetation consists of a variable mixture of species, typically with a dense layer of submerged plants under and between floating-leaved and emergent aquatic plants.



### Landscape Setting & Soils

MRu94 occurs in estuaries and embayments near river mouths along the shore of Lake Superior, in settings influenced by fluctuating water levels caused by lake seiches. MRu94 is present upstream in estuaries until water levels rise above that of Lake Superior and influence seiche-mediated fluctuations. In Minnesota, MRu94 is present mainly in the St. Louis River estuary, extending upstream to the Fond du Lac dam.

### Natural History

Seiches, which are wind-driven changes in local water levels in Lake Superior, have significant influence on the vegetation of MRu94. These changes in local water level, which occur regularly as water levels oscillate back and forth, normally range between 1-10in (3-25cm) and can reverse the flow of tributary rivers of Lake Superior and flush sediments and nutrients back upstream. Water levels in coastal marshes are also influenced by river flooding from runoff following snowmelt or heavy precipitation.

### Similar Native Plant Community Classes

#### ● MRn83 Northern Mixed Cattail Marsh

MRn83 is similar to MRu94, but occurs in inland settings rather than in estuaries or embayments influenced by Lake Superior seiches. MRn83 generally has lower species diversity than MRu94.

#### ● MRn93 Northern Bulrush-Spikerush Marsh

MRn93 can be similar to MRu94, although it occurs in inland settings rather than in estuaries or embayments influenced by Lake Superior seiches. MRn93 has lower species diversity than MRu94 and tends to have higher cover of cattails (*Typha* spp.).

### Native Plant Community Types in Class

#### ● MRu94a Estuary Marsh (Lake Superior)

MRu94a is the only community type recognized in this class.