

USGS-NPS Vegetation Mapping Program

Isle Royale National Park

Equisetum fluviatile - (Eleocharis smallii) Herbaceous Vegetation

COMMON NAME Water Horsetail - (Marsh Spikerush) Herbaceous Vegetation
SYNONYM Water Horsetail-Spikerush Marsh
PHYSIOGNOMIC CLASS Herbaceous Vegetation (V)
PHYSIOGNOMIC SUBCLASS Perennial forb vegetation (V.B)
PHYSIOGNOMIC GROUP Temperate or subpolar perennial forb vegetation (V.B.2)
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (V.B.2.N)
FORMATION Semipermanently flooded temperate perennial forb vegetation (V.B.2.N.e)
ALLIANCE EQUISETUM FLUVIATILE SEMIPERMANENTLY FLOODED
HERBACEOUS ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM PALUSTRINE

RANGE

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This community is uncommon and widely scattered in interior lakes.

Globally

This associations is found in Minnesota, Michigan, Manitoba, and Ontario.

ENVIRONMENTAL DESCRIPTION

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This community occupies a very narrow fringe zone of interior lakes, at elevations ranging from 625 to 700 feet, on flat to gentle slopes of the lake bed. Soils are permanently flooded mucks or sands.

Globally

Stands occur in wave-washed shores, sandbars, and stream channels. Substrate is mineral soil (often sand), sometimes held together by root mats. The water regime is permanently flooded to intermittently exposed, and water depth is generally less than 1 m (Harris *et al.* 1996).

MOST ABUNDANT SPECIES

Isle Royale National Park

<u>Stratum</u>	<u>Species</u>
Fern	<i>Equisetum fluviatile</i>
Graminoid	<i>Eleocharis smallii</i> , <i>Sparganium fluctuans</i>

Globally

<u>Stratum</u>	<u>Species</u>
Fern	<i>Equisetum fluviatile</i>
Graminoid	<i>Eleocharis smallii</i>

CHARACTERISTIC SPECIES

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Eleocharis smallii, *Equisetum fluviatile*, *Sparganium fluctuans*

Globally

Eleocharis smallii, *Equisetum fluviatile*, *Sparganium fluctuans*

VEGETATION DESCRIPTION

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This emergent marsh community is a sparsely vegetated (<25% cover) wetland dominated by graminoid plants. *Eleocharis smallii* (average 9% cover) and *Equisetum fluviatile* (average 4% cover) are the most abundant emergent aquatic plants; *Sparganium fluctuans* is a common floating-leaved aquatic plant (average < 2% cover), and algae are the most common submerged aquatic plants.

Globally

Emergent cover is typically greater than 25%, and floating-leaved and submergent cover is low. Emergent graminoids < 1 m dominate the stands, including *Equisetum fluviatile* and/or *Eleocharis smallii*. Associated species of low constancy include *Glyceria borealis*, *Isoetes echinospora*, *Potamogeton gramineus*, and *Utricularia vulgaris* (Harris *et al.* 1996). In northern

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Minnesota, stands most commonly have a mix of *Equisetum fluviatile* and *Acorus calamus*. *Acorus calamus* may also mix with *Sagittaria rigida* and, less commonly, *Sparganium chlorocarpum*. Other herbs that may be present but are not dominant include *Cicuta bulbifera*, *Polygonum lapathifolium*, *Sium Suave*, and *Sparganium fluctuans*. Aquatic species may also be present at low density and include *Potamogeton* spp., *Utricularia intermedia*, and *Najas flexilis* (M. Smith personal communication 1999).

OTHER NOTEWORTHY SPECIES

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Information not available.

CONSERVATION RANK G4.

DATABASE CODE CEG005258

MAP UNITS 47

COMMENTS

REFERENCES

Harris, A. G., S. C. McMurray, P. W. C. Uhlig, J. K. Jeglum, R. F. Foster, and G. D. Racey. 1996. Field guide to the wetland ecosystem classification for northwestern Ontario. Ont. Minist. Nat. Resour., Northwest Sci. Tech. Field Guide FG-01. Thunder Bay, Ont. 74 p.