

## Natural Heritage & Endangered Species Program

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Massachusetts Division of Fisheries & Wildlife

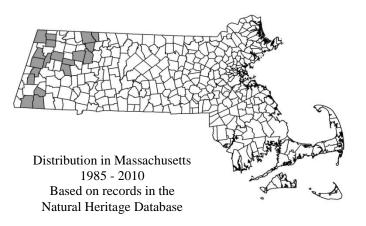
## Dwarf Scouring Rush Equisetum scirpoides

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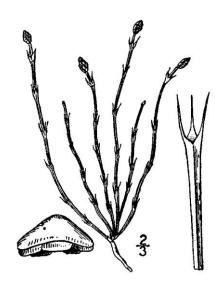
State Status: **Special Concern**Federal Status: **None** 

**DESCRIPTION:** This member of the Horsetail family is 4-8 inches (10-20 cm.) tall, evergreen and appears as a dark green tuft of wiry stems. Dwarf Scouring Rush has slender stems which may curve upward or lie flat along the ground and widely branching rhizomes. The stem has 3 to 4 broad and deeply concave ridges. Triangular sheaths surrounding the stems are less than an inch (3-4 mm.) long and have 3 or 4 teeth. Small (3-5mm), dark cones develop in late summer.

Rush is found on moist banks and seepy wooded slopes and hillsides with springs and streams: they are often in ecotones between upland and wetland sites. Dwarf Scouring Rush is known to grow in subacidic and acid glacially derived soil. Associated species often include tree elements of the Northern Hardwoods forest including Red Maple (*Acer rubrum*), Sugar Maple (*A. saccharum*), White Ash (*Fraxinus americana*), Eastern Hemlock (*Tsuga canadensis*), and Yellow Birch (*Betula alleghaniensis*). The hemlock provides shade and a cool







Dwarf Scouring Rush: The photo on top shows a typical mass of plant stems.

Photo: Jennifer Garrett, NHESP.

Illustration: USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. An illustrated flora of the northern United States, Canada and the British Possessions. 3 vols. Charles Scribner's Sons, New York. Vol. 1: 42.

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

## **Massachusetts Division of Fisheries & Wildlife**

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Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.

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habitat. Shrubs may include Striped Maple (*Acer pensylvanica*), Spicebush (*Lindera benzoin*), and Low Raspberry (*Rubus pubescens*). The herbaceous layer may be sparse. However, a variety of species, including repeated occurrences of non-natives, have been reported in the area of Dwarf Scouring Rush populations: including Cinnamon Fern (*Osmunda cinnamomea*), Small Enchanter's Nightshade (*Circaea alpina*), Colt'sfoot (*Tussilago farfara*), tree seedlings, other horsetails, and liverworts and mosses.

**POPULATION STATUS:** Dwarf Scouring Rush is listed under the Massachusetts Endangered Species Act as a Species of Special Concern. All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors.

Twenty-three current (1985-2010) occurrences have been reported and fourteen historical occurrences recorded.

One reason for its rarity in Massachusetts is because it is near the southern edge of its range. It is considered rare in most of the states on the southern edge of its distribution. Globally, NatureServe ranks Dwarf Scouring Rush as G5, Secure.

**RANGE:** Dwarf Scouring Rush has a circumboreal distribution. In North America, it extends across Canada and south into Connecticut, west through Illinois, Iowa, South Dakota, and Wyoming and then into Washington.

MANAGEMENT AND THREATS: Most of the occurrences of Dwarf Scouring Rush have invasive species near the population. Competition from nonnative invasive species can be a threat through shading and loss of space for the native species. Monitoring and removal of competing vegetation should be considered as a management strategy where appropriate. An additional likely problem in many populations is that the hemlock overstory may be damaged and thinned by Wooly Adelgids, another invasive species that infects and kills hemlock trees. All active management of rare plant populations (including invasive species removal) is subject to review under the Massachusetts Endangered Species Act, and should be planned in close consultation with the Massachusetts Natural Heritage & Endangered Species Program.

Several of the populations of Dwarf Scouring Rush are near roads: widening of roads and creation, formal and informal, of pull-off sites should be reviewed with regard to the effects on the Dwarf Scouring Rush.

## **REFERENCES:**

NatureServe. 2010. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer. (Accessed: December 10, 2010).

USDA, NRCS. 2010. The PLANTS Database (<a href="http://plants.usda.gov">http://plants.usda.gov</a>, 10 December 2010). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.