



Natural Heritage & Endangered Species Program

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Massachusetts Division of Fisheries & Wildlife

Capillary Beak-sedge *Rhynchospora capillacea* Torr.

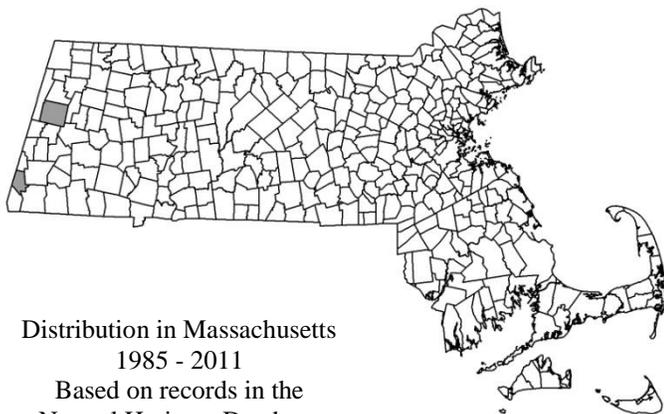
State Status: **Endangered**
Federal Status: **None**

DESCRIPTION: The Capillary Beak-sedge (*Rhynchospora capillacea*) is a small (6 to 20 inches tall or about 1.5 to 5.0 dm), perennial herb with threadlike stems and leaves. Although the Capillary Beak-sedge and the other beak-sedges do superficially resemble the group of plants called “rushes,” they do not belong to the Rush Family, and are actually members of the Sedge Family. The Capillary Beak-sedge is quite delicate in appearance, due to its thread-like leaves, and may easily be overlooked. In Massachusetts, it generally grows in small, very wet openings (such as along deer-paths, edges of wet depressions or channels, or seepy areas) in calcareous fens. Elsewhere in New England, it is also found growing on calcareous riverside seeps and on dripping, calcareous cliffs.

AIDS TO IDENTIFICATION: To positively identify the Capillary Beak-sedge and other beak-sedges (genus *Rhynchospora*), a technical manual should be consulted. It is best to examine the tiny fruits and flower bristles of the plant under magnification to distinguish the species



Holmgren, Noel H. 1998. *The Illustrated Companion to Gleason and Cronquist's Manual*. New York Botanical Garden.



Distribution in Massachusetts
1985 - 2011
Based on records in the
Natural Heritage Database

of beak-sedge. The beak-sedges in general possess clusters of very inconspicuous flowers. Rather than having petals, the individual flowers possess tiny “bristles.” Their fruit is an “achene,” which is hard and nut-like and does not split open to release its seeds.

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

Massachusetts Division of Fisheries & Wildlife

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Achenes in the beak-sedges are topped by a protuberance (called a “tubercle”), which varies in shape and size among species. In the Capillary Beak-sedge, the achene is relatively elongate and narrowed gradually to the base. It is associated with six downwardly-barbed bristles, and is topped by a long, very gradually tapering tubercle, which looks like a dunce’s cap. The entire inflorescence is usually overtopped by a threadlike bract.

SIMILAR SPECIES: There are several common beak-sedges that could be confused with the Capillary Beak-sedge, and a technical manual should be consulted when trying to distinguish members of this genus. Two beak-sedges that have repeatedly been reported to co-occur with *R. capillacea* in the field are White Beak-sedge (*R. alba*) in fens, and Brown Beak-sedge (*R. capitellata*) along river shores. Capillary Beak-sedge differs from the White Beak-sedge in having fewer bristles per flower (six, as opposed to eight to fourteen in White Beak-sedge) that are not feathery at the base (plumose at the base in White Beak-sedge). To the naked eye, the Capillary Beak-sedge has a narrower, ovoid cluster of flowers that is brownish, and the White Beak-sedge has a broader-tipped cluster of flowers that is white or tawny-colored. Capillary Beak-sedge differs from the Brown Beak-sedge in having a narrower achene, with many fewer clusters of flowers. To the naked eye, the one or two clusters of flowers in *R. capillacea* are narrow and ellipse-shaped. In *R. capitellata*, there are usually several hemispheric clusters.

RANGE: The Capillary Beak-sedge occurs from Newfoundland west to Saskatchewan, and south to Texas and Alabama.

HABITAT: In Massachusetts, this shade-intolerant species is found growing in open, mucky areas of calcareous fens, which are nutrient-rich peatlands that have contact with local groundwater. Usually the plants are found growing in low, open areas of micro-disturbance, such as along deer paths or seepage channels. Plants associated with Capillary Beak-rush in Massachusetts include Shrubby Cinquefoil (*Dasiphora floribunda*), Fen-sedge (*Carex tetanica*), Dioecious Sedge (*Carex sterilis*), Slender Woolly-fruited Sedge (*Carex lasiocarpa*), Grass-of-Parnassus (*Parnassia glauca*), Yellow Sedge (*Carex flava*), White Beak-sedge (*Rhynchospora alba*), Tamarack (*Larix laricina*), and Black Spruce (*Picea mariana*).

POPULATION STATUS IN MASSACHUSETTS:

Only two occurrences of the Capillary Beak-sedge are currently known in Massachusetts. The two Massachusetts locations occur in Berkshire County, a region that supports nutrient-rich wetlands due to its underlying calcareous bedrock. The Capillary Beak-sedge is listed under the Massachusetts Endangered Species Act as Endangered. All listed species are protected from killing, collecting, possession, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors.

MANAGEMENT RECOMMENDATIONS:

As for many rare species, exact needs for management of Capillary Beak-sedge are not known. The following comments are based primarily on observations of populations in Massachusetts. Habitat conversion, alterations to local hydrology, and open wetland succession to forested wetland are the primary threats faced by this species. Management efforts should focus on maintaining local hydrology (including intact seepage areas) and maintaining open fen conditions with small areas of disturbance, such as those created by seeps and animal trails.

Fruit Present:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Updated 2015

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