



Natural Heritage & Endangered Species Program

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Massachusetts Division of Fisheries & Wildlife

Foxtail Sedge *Carex alopecoidea* Tuck.

State Status: **Threatened**
Federal Status: **None**

GENERAL DESCRIPTION: Foxtail Sedge, a member of the Sedge family (Cyperaceae), is a perennial, herbaceous, grass-like plant found in calcareous wet meadows of river floodplains. It is a densely tufted, stout but soft, plant that is 4 to 8 dm (1-2.5 ft.) tall with fruiting stems that are usually shorter than the thin, soft leaves.

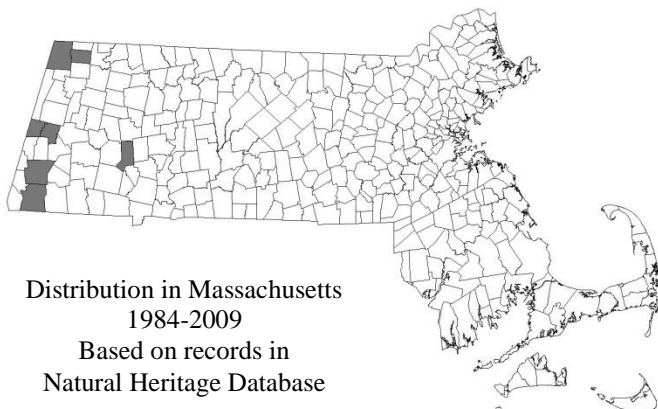
AIDS TO IDENTIFICATION: To positively identify the Foxtail Sedge and other members of the genus *Carex*, a technical manual should be consulted. Species in this genus have tiny, wind-pollinated flowers that are borne in spikes. Each flower is unisexual, and is closely subtended by small, flat scales that sometimes conceal the flowers. The staminate (i.e., pollen-bearing) flowers are subtended by a single scale. The pistillate (i.e., ovule-bearing) flowers are subtended by two scales, an outer flat scale (“pistillate scale”) and an inner, sac-like scale, called a “perigynium,” that encloses the flower, and later, the fruit. If the perigynium tapers or contracts to a tip, it is described as a “beak.”



Holmgren, N.H. et al. *Illustrated Companion to Gleason and Cronquist's Manual*, New York Botanical Garden, 1998.

The Foxtail Sedge belongs to a group of *Carex* species (section *Vulpinae*), that usually have congested spikes (several small spikes clustered together), spongy or “corky” tissue at the perigynium bases, and tapered (vs. abruptly contracted) perigynium beaks. In the Foxtail Sedge, the congested spikes are thick-cylindric to lance-shaped. Perigynia are flat, rounded at the base, and gradually tapered at the tip into a rough beak. They become wholly or partly brown at maturity, with 2 to 3 veins on the convex outer face, and no veins on the flat inner face. The achenes (tiny, hard fruits) are lenticular (lens-shaped) and fill only part of the perigynia. The leaf sheaths are unusual in that they are red-dotted.

SIMILAR SPECIES: Species that could be confused with the Foxtail Sedge in wet meadows and floodplains of Massachusetts include the Fox Sedge (*Carex*



Distribution in Massachusetts
1984-2009
Based on records in
Natural Heritage Database

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

Massachusetts Division of Fisheries & Wildlife

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vulpinoidea), Wrinkle-sheathed Sedge (*C. stipata*), and Smooth-sheathed Sedge (*C. laevivaginata*). The widespread *C. vulpinoidea* and *C. stipata* have “corrugated” or wrinkled leaf sheaths, unlike the smooth sheaths of the Foxtail Sedge. *Carex laevivaginata* also has smooth sheaths; however, they are not red-dotted as in the Foxtail Sedge. The Thin-leaved Sedge (*C. cephaloidea*) resembles the Foxtail Sedge; however it is typically found in rich woods, and has corrugated leaf sheaths.

HABITAT: Foxtail Sedge grows in floodplain meadows and thickets, generally in alkaline alluvial soils. In Massachusetts, Foxtail Sedge is typically found with other sedges, grasses, and herbs in open swales within floodplain forests. Associated species include Ostrich Fern (*Matteuccia struthiopteris*), Sensitive Fern (*Onoclea sensibilis*), False Hellebore (*Veratrum viride*), False Nettle (*Boehmeria cylindrica*), Clearweed (*Pilea pumila*), Rice Cut-grass (*Leersia oryzoides*), bedstraws (*Galium* spp.), Jumpseed (*Polygonum virginianum*), Reed Canary Grass (*Phalaris arundinacea*), and various sedges, including Hairy-Fruited Sedge (*C. trichocarpa*, a state Threatened species), and Fox Sedge (*C. vulpinoidea*). Associated floodplain forest trees include Silver Maple (*Acer saccharinum*), Basswood (*Tilia americana*), and American Elm (*Ulmus americana*).

RANGE: The documented range of Foxtail Sedge extends from Quebec and Maine west to Michigan and Minnesota and south to New Jersey, Indiana, and Iowa.

POPULATION STATUS IN MASSACHUSETTS: Foxtail Sedge is listed under the Massachusetts Endangered Species Act as Threatened. 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. There are ten current stations (discovered or relocated since 1984) of Foxtail Sedge in the Commonwealth. They occur in seven towns in Berkshire and Hampshire counties along the Hoosic, Housatonic, and Westfield Rivers.

MANAGEMENT RECOMMENDATIONS: As for many rare species, exact needs for management of Foxtail Sedge are not known. The following comments are based primarily on observations of populations in Massachusetts. Loss of natural floodplain habitat appears to be a major cause of rarity in Massachusetts. In order to maintain the existing native populations and to prevent Foxtail Sedge’s extirpation from the Commonwealth, it is critical that its habitat remain intact. Known populations of Foxtail Sedge in Massachusetts occur along rivers and streams that experience periodic flooding. The disturbance of seasonal flooding may be necessary to perpetuate Foxtail Sedge populations by limiting shrub growth and maintaining an open community structure. Any alteration of stream or river hydrology should be avoided in areas where foxtail sedge occurs. Control of invasive plant species, often common in river floodplains, is another management concern.

MATURE PERIGYNIA PRESENT:

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

Updated 2015

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