



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

Tussock Hairgrass
Deschampsia cespitosa
ssp. *glauca*
(Hartm.) Hartm.

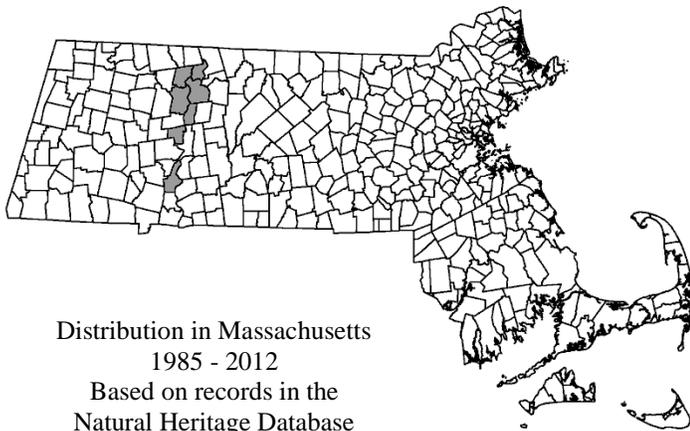
State Status: **Endangered**
Federal Status: **None**

DESCRIPTION: Tussock Hairgrass is a perennial member of the Grass family (Poaceae) found on rocky and gravelly river shores. Its stems are 7 to 75 cm (3–30 in.) tall, topped with conspicuous, branched inflorescences that are 2 to 22 cm long. The leaves are flat or folded and 1 to 5 mm wide; the lowest leaves are up to 8 cm long. The scientific name refers to the characteristic tufted growth form and whitish bloom.

AIDS TO IDENTIFICATION: A technical manual should be consulted for identification of grass species. The basic flowering unit of grasses is a spikelet, which may have a pair of bracts (glumes) at its base. A spikelet is comprised of one to many individual flowers (florets). Each floret has a pair of bracts at its base called the lemma and the palea. In hairgrasses (*Deschampsia* spp.) found in Massachusetts, the spikelets are up to 7 mm long, with two florets and a hairy rachilla that projects beyond the base of the upper lemma. The glumes are about the same length as the lemmas. The lemmas are rounded on the back, with a tuft of hairs at the base and five faint veins; the midrib diverges at or below the

middle into a short bristle (awn). Tussock Hairgrass differs from other hairgrasses by having stems no more than 75 cm tall, with leaves up to 5 mm wide and no more than 8 cm long.

SIMILAR SPECIES: Common Hairgrass (*Deschampsia flexuosa*) is found throughout Massachusetts in sunny, rocky or sandy areas, sometimes growing alongside Tussock Hairgrass. It differs from Tussock Hairgrass in having narrower (1–2 mm) and inrolled leaves. The lemmas of Common Hairgrass are also minutely rough or pubescent and have a conspicuously bent awn that projects 1 to 3 mm beyond the lemmas; Tussock Hairgrass has smooth lemmas with awns that are more or less straight and shorter than or only slightly projecting beyond the lemmas. The palea of Common Hairgrass is not cleft at the tip as it is in Tussock Hairgrass. An introduced subspecies, *D. cespitosa* ssp. *cespitosa*, found primarily in open, human-disturbed habitats, is similar to Tussock Hairgrass but is not glaucous and is substantially larger. *D. cespitosa* ssp. *cespitosa* has stems 65 to 170 cm (26–67 in) tall and 2 to 6 mm thick near the base, with long panicles (15–45 cm). Its lower stem leaves are 15 to 50 cm long. It has long ligules (5–10 mm) and spikelets that are 2.5 to 7 mm long. Tussock Hairgrass has shorter lower stem leaves (1–8 cm), shorter ligules (3–4 mm), and spikelets that are 3 to 4.5 mm.



Distribution in Massachusetts
1985 - 2012
Based on records in the
Natural Heritage Database

POPULATION STATUS IN MASSACHUSETTS: Tussock Hairgrass is listed under the Massachusetts Endangered Species Act as Endangered. 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. Tussock Hairgrass occurs in Franklin, Hampshire, and Hampden Counties, and was found historically along the Merrimack River in Middlesex County. It is considered introduced in Norfolk County.

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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RANGE: Tussock Hairgrass is found in eastern North America from Canada south to Illinois, Kentucky, and North Carolina. It is listed as Endangered in Kentucky, Maryland and Massachusetts; Special Concern in Connecticut; and Rare in Indiana.

HABITAT: The known occurrences of Tussock Hairgrass in Massachusetts are all on river-scoured bedrock, cobble, or gravel shores along the Connecticut River.

THREATS AND MANAGEMENT

RECOMMENDATIONS: As for many rare species, exact needs for management of Tussock Hairgrass are not known. Its habitat is maintained by regular flooding and scouring; existing populations would be threatened by damming or other alteration of hydrological conditions. 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.

Fruiting in Massachusetts

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

REFERENCES:

Gleason, H. A., and A. Cronquist. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*, 2nd edition. The New York Botanical Garden, Bronx, NY.

Haines, A. 2011. *Flora Novae Angliae – a Manual for the Identification of Native and Naturalized Higher Vascular Plants of New England*. New England Wildflower Society, Yale Univ. Press, New Haven, CT.

Updated 2015

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