



## Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife  
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## Long-leaved Panic-grass

*Panicum rigidulum* Bosc ex Nees ssp. *pubescens*  
(Vasey) Freckmann and Lelong  
State Status: Threatened  
Federal Status: None

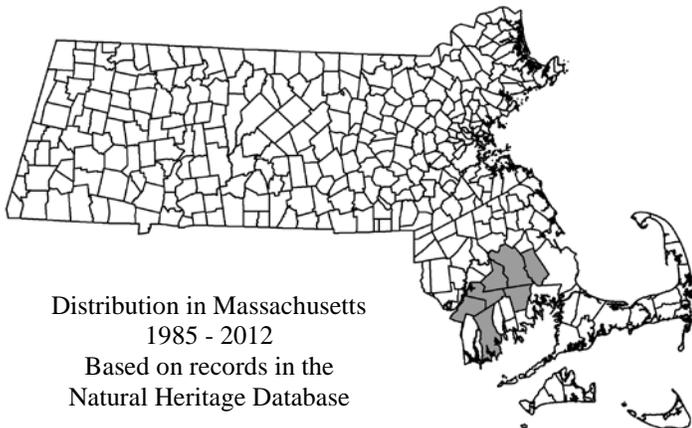
**Description:** Long-leaved Panic-grass (*Panicum rigidulum* ssp. *pubescens*) is a coarse, tufted perennial in the Grass family (Poaceae) that grows in clumps up to 1.5 m tall (~ 4.5 ft.). The panicle is either pyramidal or narrow, and 10 to 30 cm in height. It blooms from summer to fall, and has distinctive dark red inflorescences that may be slightly branched, ascending, or clumped in an ascending spike. The lance-ovoid spikelets are 1.8 to 3.5 mm long, borne on pedicels 0.5 to 1.5 mm in length. The narrow leaf blades grow primarily from the base of the plant, and are 20 to 40 cm on a mature specimen. Two subspecies of *Panicum rigidulum* are known in Massachusetts: *P. rigidulum* ssp. *rigidulum* is widespread throughout the state, while *P. rigidulum* ssp. *pubescens* is rare and listed as Threatened.

**Aids to Identification:** To positively identify panic-grasses, a technical manual must be used. A strongly compressed leaf sheath and short pedicels differentiate Long-leaved Panic-grass from other *Panicum* species. The two subspecies can be distinguished by differences in the length and pubescence of the ligules. In the rare *P. rigidulum* ssp. *pubescens*, the ligule is 0.5 to 3 mm long and finely pubescent, whereas in *P. rigidulum* ssp. *rigidulum*, the ligule is glabrous and 0.3 to 1 mm long. Additionally, the leaf blades of *P. rigidulum* ssp. *rigidulum* are usually somewhat wider than those of *P. rigidulum* ssp. *pubescens* (5–12 mm vs. 2–7 mm).



Long-leaved Panic-grass inflorescence (top) and tufted growth form (bottom). Photos by Jennifer Garrett.

**Similar species:** Numerous panic-grass species are similar in appearance. A technical manual must be used to distinguish Long-leaved Panic-grass from other species. See Aids to Identification for characters that help to distinguish the two subspecies of Long-leaved Panic-grass that occur in Massachusetts.



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

## Flowering and Fruiting in Massachusetts

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

**Population Status in Massachusetts:** Long-leaved Panic-grass is listed as a Threatened species in Massachusetts. 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. Population sizes of Long-leaved Panic-grass range from a few plants to thousands of individuals. The scarcity of this species in Massachusetts results in part from its restricted habitat. The species depends on periodic natural disturbances such as fluctuating water levels of coastal plain pond shores or anthropogenic disturbances such as periodic mowing and vegetation clearing along power line corridors. In Massachusetts, *P. rigidulum* ssp. *pubescens* occurs only in the southeastern portion of the state. It is known currently from Bristol and Plymouth Counties, and it occurred historically in Dukes County.

**Range:** Long-leaved Panic-grass occurs from Maine to Florida, west to Michigan, Illinois, and Texas.

**Habitat:** Long-leaved Panic-grass typically grows in moist, sandy or peaty soil in full sun. Habitats include coastal plain pondshores, bog edges, borders of basin marshes, vernal pools, and moist to wet depressions in utility corridor rights-of-way. Species associated with Long-leaved Panic-grass include: Colic-root (*Aletris farinosa*), Turk's Cap Lily (*Lilium superbum*), Northern Muhly (*Muhlenbergia uniflora*), Warty Panic-grass (*Panicum verrucosum*), and Brown Beak-sedge (*Rhynchospora capitellata*). In coastal plain pond habitats, it is found with Slender-leaved Flat-topped Goldenrod (*Euthamia caroliniana*), Threeway Sedge (*Dulichium arundinaceum*), Plymouth Gentian (*Sabatia kennedyana*), Yellow-eyed Grasses (*Xyris* spp.), and other pondshore species.

### Threats and Management Recommendations:

Natural succession is a major threat to *Panicum rigidulum* ssp. *pubescens*, especially where the species occurs in isolated patches surrounded by woody vegetation. Selective clearing and maintenance of cleared areas may be needed to ensure sufficient habitat for this species. Severe disturbance and soil compaction associated with ORVs or other vehicles should be restricted to prevent damage to populations. 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.

### References and Additional Information:

Gleason, H. A., and A. Cronquist. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*, 2<sup>nd</sup> 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 2012  
Map Updated 2012