



## Natural Heritage & Endangered Species Program

[www.mass.gov/nhesp](http://www.mass.gov/nhesp)

Massachusetts Division of Fisheries & Wildlife

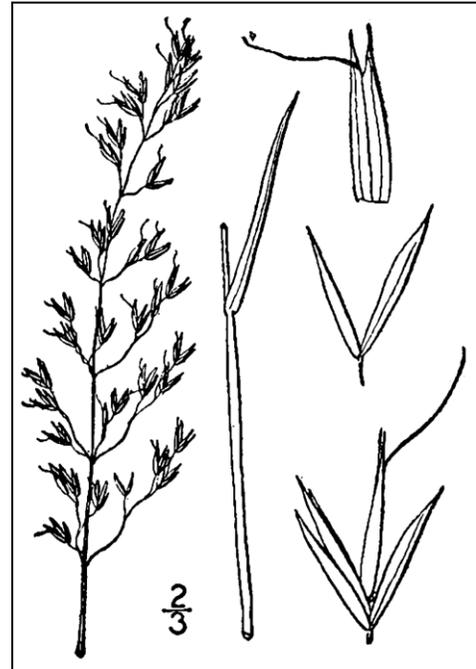
## Swamp Wedgescale *Sphenopholis pensylvanica* (L.) A.S. Hitchcock

State Status: **Threatened**

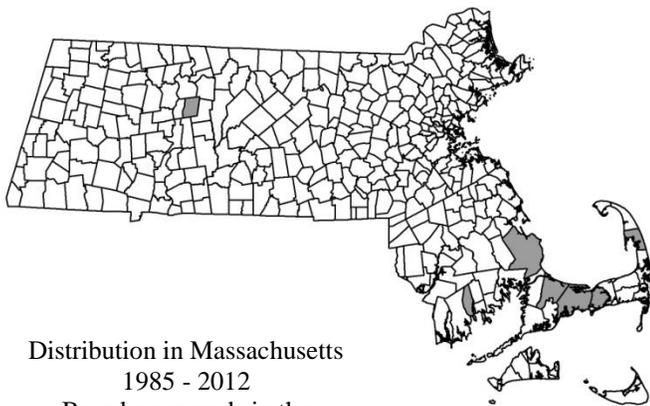
Federal Status: **None**

**DESCRIPTION:** Swamp Wedgescale is perennial member of the Grass family (Poaceae) found in acidic, springy ground. It has a cespitose (tufted) growth form, reaching 30 to 120 cm tall, with narrow, loosely branched panicles. The scientific name is derived from Greek: *spheno*, a wedge, and *pholis*, a scale, describing the obovate, wedge-shape of the second glume (floral scale at the base of a spikelet).

**AIDS TO IDENTIFICATION:** A technical manual and hand lens or microscope are needed for identification of this and other grass species. Spikelets are 4.5 to 9.5 mm long with 2 to 3 florets that disarticulate below the glumes. The two glumes differ in size and shape; the lower one is narrower, and the upper one elliptical to obovate. The florets above the glumes have bifid (2-cleft) lemmas. The upper lemma has a distinct, long awn (3.5–7 mm). Leaves are 4 to 10 cm long, narrow (2–8 mm), and evenly distributed on the culm.



*Swamp Wedgescale has a narrow inflorescence with longer spikelets than other Sphenopholis species in New England, and a distinct awn on the upper lemma. Illustration from: 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: 217.*



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

**SIMILAR SPECIES:** Swamp Wedgescale is the only species of wedgescale in Massachusetts that has long awns on the upper lemmas. It can be differentiated from other *Sphenopholis* species by this characteristic, including Prairie Wedgescale (*S. obtusata*) and Slender Wedgescale (*S. intermedia*), both of which occur in moist habitats. Shining Wedgescale (*S. nitida*; Threatened) is a species of dry, upland habitats that is awnless, or rarely short-awned. A hybrid *S. x pallens* (*S. pensylvanica* x *S. obtusata*) has awns on the lemmas that are much shorter (0.1–4 mm) than those of Swamp Wedgescale.

**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.

[www.mass.gov/nhesp](http://www.mass.gov/nhesp)

**POPULATION STATUS IN MASSACHUSETTS:**

Swamp Wedgescale 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. Swamp Wedgescale currently occurs in Franklin, Bristol, Plymouth, and Barnstable Counties, with historical records from Hampden, Middlesex, Essex, Norfolk and Nantucket Counties.

**RANGE:** Swamp Wedgescale occurs in the eastern United States from New York and Massachusetts south to Florida, and west to Ohio south Louisiana; it also occurs in one location in eastern Missouri. It reaches its northeastern range limit in Massachusetts and New York, where it is listed as Endangered. It is known from all counties in Connecticut, but only from historical records in Rhode Island.

**HABITAT:** In Massachusetts, Swamp Wedgescale has been found in acidic, often cool, springy ground and seepage areas in shrubby woodlands, on sphagnum-covered hummocks and logs in red maple swamps, and at the mucky edges of floating sphagnum mats. The most common associates are Red Maple (*Acer rubrum*), Sweet Pepper-bush (*Clethra alnifolia*), Swamp Azalea (*Rhododendron viscosum*), Spicebush (*Lindera benzoin*), Highbush-blueberry (*Vaccinium corymbosum*), greenbriars (*Smilax* spp.), Skunk Cabbage (*Symplocarpus foetidus*), and sphagnum mosses (*Sphagnum* spp.). In coastal areas, Swamp Wedgescale also may occur in Atlantic White Cedar (*Chamaecyparis thyoides*) bogs.

**THREATS AND MANAGEMENT**

**RECOMMENDATIONS:** Changes in wetland hydrology should be avoided at sites with known populations of Swamp Wedgescale. Caution is needed when operating logging or other equipment near known occurrences, as springy seeps associated with woodland brooks may be particularly sensitive to damage. Several invasive species (e.g., Common Reed, *Phragmites australis*; Multiflora Rose, *Rosa multiflora*; and Purple Loosestrife, *Lythrum salicaria*) have been found with Swamp Wedgescale; monitoring and control of invasive species may help to reduce competition. All active management of state-listed 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.

**Flowering and Fruiting in Massachusetts**

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

**REFERENCES:**

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, NY.

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 2015

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