



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**Sandplain Blue-eyed Grass
*Sisyrinchium fuscatum***

E. Bickn.

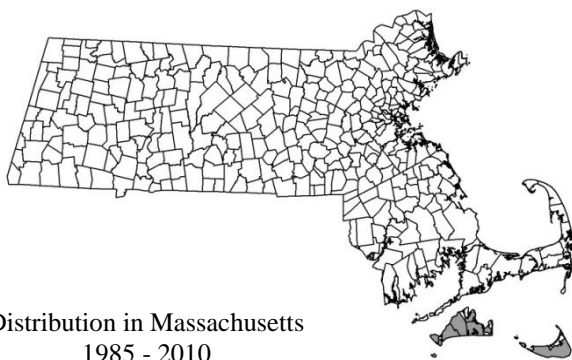
State Status: **Special Concern**

Federal Status: **None**

DESCRIPTION: Despite its name, this rare species isn't a grass, but rather a handsome perennial wildflower of the iris family (Iridaceae). Typically 20 to 45 cm in height (~8–17 in.), the deep, green foliage forms small, dense tufts giving the plant an overall bunchgrass look. Brown, fibrous tufts found at the base are the remainders of the previous year's leaves. Stems and leaves are deep blue-green and glaucous, darkening to brown or black in drying. Linear, grass-like leaves are stiff (up to 3mm wide) and usually over half the height of the stem. Rigid stems (1–3 mm wide) are often curved and flattened with distinct, stiff wings. An erect spathe continues the line of the stem past the terminal inflorescence. The bright violet-blue flowers are small (8–10 mm) and often numerous; borne in pedicellate inflorescences at the plant apex, the flowers can number from three to twelve per plant. The tiny, bright yellow-orange anthers at the center of the flower starkly contrast with the purple petals creating the "eye" of the flower. Each flower yields two, small, globular fruits (3–5 mm) which are brown. Fruit capsules contain many tiny pitted seeds.



Sandplain Blue-eyed Grass: Photos showing the growth form of a robust plant in the sandplain habitat, with a close up of flowers. Both photos by B.A. Sorrie, NHESP.



Distribution in Massachusetts
1985 - 2010

Based on records in the
Natural Heritage Database

AIDS TO IDENTIFICATION: Sandplain Blue-eyed Grass is the only member of the genus with the dense, fibrous tufts at the base of the plant. To find them, close examination of the leaf base may be necessary. Unlike other species of this genus in Massachusetts, this species is specific to open, dry, sandy coastal habitats. It flowers in early to midsummer and fruits late summer to early autumn.

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

Massachusetts Division of Fisheries & Wildlife

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SIMILAR SPECIES: Narrowleaf Blue-eyed Grass (*S. angustifolium*) and Eastern Blue-eyed Grass (*S. atlanticum*) are both very similar to Sandplain Blue-eyed Grass. In addition to having a distinctive fibrous base, Sandplain Blue-eyed Grass is generally stiffer in habit than both species. It also has wider leaves and is more tufted than Narrowleaf Blue-eyed Grass; further, the latter species also has a more broadly winged stem. The foliage of Eastern Blue-eyed Grass is paler in color than Sandplain Blue-eyed Grass. Other species in this genus known from Massachusetts include Slender Blue-eyed Grass (*S. mucronatum*; Endangered) and Strict Blue-eyed Grass (*S. montanum*), both of which have a single sessile inflorescence.

HABITAT IN MASSACHUSETTS: Sandplain Blue-eyed Grass inhabits sandy soils of early succession coastal sandplain grasslands. It is often found in isolated patches in full sun, where it can be locally abundant. Associates may include Little Bluestem (*Schizachyrium scoparium*), Bushy Rockrose (*Crocanthemum dumosum*), New England Blazing Star (*Liatris novae-angliae*; Special Concern), Black Huckleberry (*Gaylussacia baccata*), Scrub Oak (*Quercus ilicifolia*), Gray Goldenrod (*Solidago nemoralis*), Bushy Aster (*Symphotrichum dumosum*), Beach Pinweed (*Lechea maritima*), Bearberry (*Arctostaphylos uva-ursi*), and Low Bush Blueberry (*Vaccinium angustifolium*).

RANGE: Sandplain Blue-eyed Grass is currently known from Florida north along the Atlantic coast to Massachusetts and New York with isolated populations in Nova Scotia. It occurs west to Louisiana along the southern coast. This species is listed as extirpated from Maryland and historic for Rhode Island.

THREATS: Threats to this species include habitat loss due to development, and exclusion of fire or other disturbance, which can lead to competition from invasive and aggressive native species (e.g., Black Huckleberry, Scrub Oak).

POPULATION STATUS IN MASSACHUSETTS: Sandplain Blue-eyed Grass is listed under the Massachusetts Endangered Species Act as a species of Special Concern. 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. Sandplain Blue-eyed Grass is currently known from Nantucket and

Dukes Counties, and is historically known from Barnstable County.

MANAGEMENT RECOMMENDATIONS: Burning, mowing, or some kind of soil scarification has been recommended to retard succession of woody species. Infrequent mowing has been shown to maintain site suitability in some areas. However, Clarke and Patterson (2007) found that Sandplain Blue-eyed Grass may take a long time to become abundant in an area post-disturbance. This should be taken into account when developing a management plan. 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 coordination with the Massachusetts Natural Heritage Endangered Species Program.

Flowers present

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

Fruit present

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

REFERENCES:

Bicknell, E.P. 1899. Studies in *Sisyrinchium*-V: Two new Eastern species. *Bulletin of the Torrey Botanical Club* 26(9): 496–499.

Clarke, G.L., and W.A. Patterson III. 2007. The distribution of disturbance-dependent rare plants in a coastal Massachusetts sandplain: Implications for conservation and management. *Biological Conservation* 136: 4–16.

Updated 2015

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