

Common Name: SOLITARY BEAKSEDGE

Scientific Name: Rhynchospora solitaria Harper

Other Commonly Used Names: solitary beakrush

Previously Used Scientific Names: none

Family: Cyperaceae (sedge)

Rarity Ranks: G1/S1

State Legal Status: Endangered

Federal Legal Status: none

Federal Wetland Status: NI

Description: Perennial, grass-like **herb**, solitary or forming small tufts of stems. **Stems** 20 - 24 feet (50 - 60 cm) tall, erect, very slender, round. **Leaves** 1½ - 2¾ inches (4 - 6 cm) long and about ¼ inch (2.5 - 3.5 mm) wide, flat with a blunt tip, widely spaced along the stem, few or none rising from the base of the plant. **Flower cluster** ½ inch (1.5 cm) wide, solitary at the top of the stem, each cluster with many narrow, pointed spikelets and wiry, green bracts slightly longer than the cluster. **Spikelets** about ¼ inch (6 - 7 mm) long, bristly, orange-brown. **Fruits** 1 - 2 per spikelet, about ½ inch (2 mm) long including the pointed tip, brown, seed-like, oval, covered with fine lines and pits; 3 - 4 fragile, barbed bristles, as long as or longer than the fruit, are attached to the base of the fruit. Beaksedge species are difficult to identify in the field; 10x or higher magnification is needed to examine spikelets and fruits.

Similar Species: Ciliate beaksedge (*Rhynchospora ciliaris*) also has orange-brown spikelets, but its stems are thicker and 3-sided and the basal leaves are longer, 2 - 4 inches (5 - 10 cm). About 50 species of beaksedge occur in Georgia's Coastal Plain.

Related Rare Species: At least 15 species of beaksedge are rare in Georgia. See Georgia beaksedge (*Rhynchospora culixa*), bearded beaksedge (*R. crinipes*), coastal beaksedge (*R. pleiantha*), pineland beaksedge (*R. punctata*), and Thorne's beaksedge (*R. thornei*) on this website.

Habitat: Lower slopes of grassy, sunny hillside seeps and streamhead seepage bogs.

Life History: Solitary beaksedge is a perennial herb that reproduces sexually as well as vegetatively by producing lateral offshoots from the base of the plant. All beaksedge flowers are wind-pollinated; their fruits are dispersed by water and gravity, and also by animals, assisted by the tiny, barbed bristles at the base of the fruit which attach to fur and feathers.

Survey Recommendations: Surveys are best conducted during fruiting (September–October). Mature fruits are needed for identification.

Range: Georgia, and one population in South Carolina.

Threats: Fire suppression, logging and clearcutting in wetlands, disruption of hydrologic connection between upland sandhills and seepage slopes by roads, firebreaks, and other disturbances.

Georgia Conservation Status: Five populations have been discovered since 1900, but only 3 are known to have survived; none are protected and all are threatened by fire suppression, development, or highway expansion.

Conservation and Management Recommendations: Apply prescribed fire every 2 - 3 years during the growing season. Avoid placing roads and firebreaks in wetlands. Avoid clearcutting or other mechanical disturbances to the soil or herb layer. Preserve hydrologic connection between upland pine forests and seepage areas.

Selected References:

Bridges, E.L. and S.L. Orzell. 1992. The rediscovery of *Rhynchospora solitaria* Harper (Cyperaceae) in Georgia. Phytologia 72(5): 369-372.

Chafin, L.G. 2007. Field guide to the rare plants of Georgia. State Botanical Garden of Georgia and University of Georgia Press, Athens.

FNA. 2003. Flora of North America, Vol. 23, Magnoliophyta: Commelinidae (in part), Cyperaceae (part 1). Oxford University Press, New York.

Godfrey, R.K. and J.W. Wooten. 1979. Aquatic and wetland plants of southeastern United States, Vol. 1, monocotyledons. University of Georgia Press, Athens.

Harper, R.M. 1901. On a collection of plants made in Georgia in the summer of 1900. Bulletin of the Torrey Botanical Club 28: 454-484.

Harper, R.M. 1904. Explorations in the Coastal Plain of Georgia during the season of 1902. Bulletin of the Torrey Botanical Club 31(1): 9-27.

NatureServe. 2008. NatureServe Explorer. Arlington, Virginia. http://www.natureserve.org/explorer

Sorrie, B.A. 1998. Noteworthy collections: Georgia. Castanea 63: 496-500.

Weakley, A.S. 2008. Flora of the Carolinas, Virginia, Georgia, northern Florida, and surrounding areas. University of North Carolina Herbarium, Chapel Hill. http://www.herbarium.unc.edu/flora.htm

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