

Common Name: HARPER'S FIMBRY

Scientific Name: Fimbristylis perpusilla Harper ex Small & Britton

Other Commonly Used Names: Harper's fimbristylis, dwarf fimbry

Previously Used Scientific Names: none

Family: Cyperaceae (sedge)

Rarity Ranks: G2/S1

State Legal Status: Endangered

Federal Legal Status: none

Federal Wetland Status: OBL

Description: Annual, grass-like **herb**, 2 - 3 inches tall, growing in small clumps. **Leaves** 1 - 3 inches (2.5 - 8 cm) long, very narrow (0.5 mm wide), spreading or arching upward. **Flower stalks** wiry, usually longer than the leaves. **Flower cluster** at the tip of the stalk, with a green, leaf-like **bract**, $\frac{3}{8}$ - $\frac{3}{4}$ inches (1-2 cm) long, extending beyond the flower spikes. **Flower spike** about $\frac{1}{8}$ inch (2 - 4 mm) long, oval, greenish-brown, composed of many small, sharp-pointed scales that conceal flowers and fruits; **flowers** are bisexual. **Fruit** tiny, pitted, seed-like, banana-shaped (10x magnification is required to see features of the spikes and fruits).

Similar Species: Harper's fimbry is much smaller than other fimbry species except for Vahl's fimbry (*Fimbristylis vahlii*), which has oval fruits and a bract up to 4 inches (4 - 10 cm) long beneath the flower spike. Small spikerushes (*Eleocharis* spp.) are similar but lack true leaves and have only one tiny, cone-like spike at the tips of their thread-like stems.

Related Rare Species: See flatrock fimbry (*Fimbristylis brevivaginata*, Special Concern) on this website.

Habitat: Muddy shores and exposed bottoms of limesink, flatwoods, and farm ponds, silty sandbars in blackwater rivers, dried-up backwater sloughs.

Life History: Harper's fimbry is an annual whose seeds can remain dormant for years until a dry year produces the muddy pond edges that it inhabits. The small flowers of Harper's fimbry are wind-pollinated; seeds are probably dispersed by waterfowl and small animals.

Survey Recommendations: Surveys are best conducted during fruiting (September–October) because mature fruits are needed for identification. Plants may not be visible at a pond for years, then will re-appear when seasonal water fluctuations are favorable.

Range: Georgia, South Carolina, North Carolina, Tennessee, Virginia, Maryland, and Delaware.

Threats: Destruction of ponds by draining, filling, and cattle trampling. Fire suppression.

Georgia Conservation Status: Four populations are known, 2 on conservation lands.

Conservation and Management Recommendations: Avoid draining or filling natural ponds. Allow fires in surrounding uplands to burn across ponds. Avoid plowing fire lines or cutting roads around ponds. Exclude cattle from natural ponds.

Selected References:

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

Kral, R. 1983. A report on some rare, threatened, or endangered forest-related vascular plants of the South. Technical Publication R8-TP2. United States Forest Service, Atlanta.

Kral, R. 1971. A treatment of *Abildgaardia*, *Bulbostylis*, and *Fimbristylis* for North America. Sida 4(2): 57-227.

NatureServe. 2007. NatureServe Explorer. Arlington, Virginia. http://www.natureserve.org/explorer

Patrick, T.S., J.R. Allison, and G.A. Krakow. 1995. Protected plants of Georgia. Georgia Department of Natural Resources, Natural Heritage Program, Social Circle.

Weakley, A.S. 2007. Flora of the Carolinas, Virginia, Georgia, and surrounding areas. University of North Carolina Herbarium, Chapel Hill. http://www.herbarium.unc.edu/flora.htm

Author of species account: Linda G. Chafin

Date Compiled or Updated:

L. Chafin, Jan. 2008: original account K. Owers, Jan. 2010: added pictures

