Common Name: HALL'S BULRUSH

Scientific Name: *Schoenoplectus hallii* (A. Gray) S.G. Smith

Other Commonly Used Names: none

Previously Used Scientific Names: *Scirpus hallii* A. Gray, *Scirpus supinus* Linnaeus var. *hallii* (A. Gray) A. Gray

Family: Cyperaceae (sedge)

Rarity Ranks: G2/SH

State Legal Status: Special Concern

Federal Legal Status: none

Federal Wetland Status: OBL

Description: Annual, grass-like **herb** forming small tufts. **Stems** 2 - 32 inches (5 - 80 cm) tall, round, soft, often resting on the ground and arching upwards. **Leaves** up to 8 inches (20 cm)

long, with tan, fibrous sheaths that wrap around the stem and blades; lower part of the leaf is C-shaped in cross-section, upper part of the leaf flat. **Flower clusters** with 1 - 6 oval **spikelets**; an erect **bract** extends 1 - 6 inches beyond the spikelets, making it appear that flower clusters emerge from the side of the stem. **Spikelets** less than ¾ inch (2 cm) long and about ⅛ inch (2 - 3 mm) wide, covered with green or pale orange-brown scales, and containing black, seed-like fruits. **Fruits** about 1/16 inch (1.7 mm) long, with wavy, horizontal ridges; round or oval in outline, broadly rounded with one flat side in cross-section. Plants may have flowers and fruits hidden among the leaf sheaths at the base of the stem. Magnification of 10x or higher of the fruits is needed to make a positive identification.

Similar Species: Spikerushes (*Eleocharis* spp.) have a similar growth form, but all have a single, tiny, cone-like spike at the tip of their stems.

Related Rare Species: Sharp-scale bulrush (*Schoenoplectus erectus* ssp. *raynallii*, synonym: *Scirpus erismaniae*, Special Concern) closely resembles Hall's bulrush, but its fruits are oval in cross-section (see drawing, lower right). It occurs on pond shores in Decatur County.

Habitat: Peaty sand around the edges of natural ponds with fluctuating water levels.

Life History: Hall's bulrush is an annual herb that reproduces sexually. It grows around the edges of ponds where fluctuating water levels periodically expose bare sand and mud and discourage competing vegetation. It may disappear from a pond for years, then its seeds will germinate when there is bare, wet sand or exposed mud around the pond. Research has shown that the seeds mature in the fall but remain dormant until a combination of flooding, light, and ethylene (a plant hormone produced by flooded, organic soils that promotes seed germination) signal that conditions are optimum for seed germination and plant growth.

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

Range: Georgia, Kentucky, Oklahoma, Nebraska, Iowa, Kansas, Missouri, Illinois, Wisconsin, Indiana, Michigan, and Massachusetts.

Threats: Destruction of habitat by draining and filling ponds. Fire suppression and encroachment by woody plants into pond edges. Trampling by cows. Use of ponds by off-road vehicles. Lowering of water table by excessive withdrawal from the aquifer.

Georgia Conservation Status: One population was known in Dougherty County, but these plants have not been seen since 1966. However, bulrushes are hard to identify so this species may have been overlooked at other sites.

Conservation and Management Recommendations: Avoid filling or draining natural ponds. Apply prescribed fire to surrounding uplands every 2 - 3 years during the growing season, allowing fire to burn into pond edges. Avoid placing firebreaks around ponds. Exclude cattle and off-road vehicles from natural ponds. Prevent permanent drying of ponds by regulating withdrawal from the aquifer.

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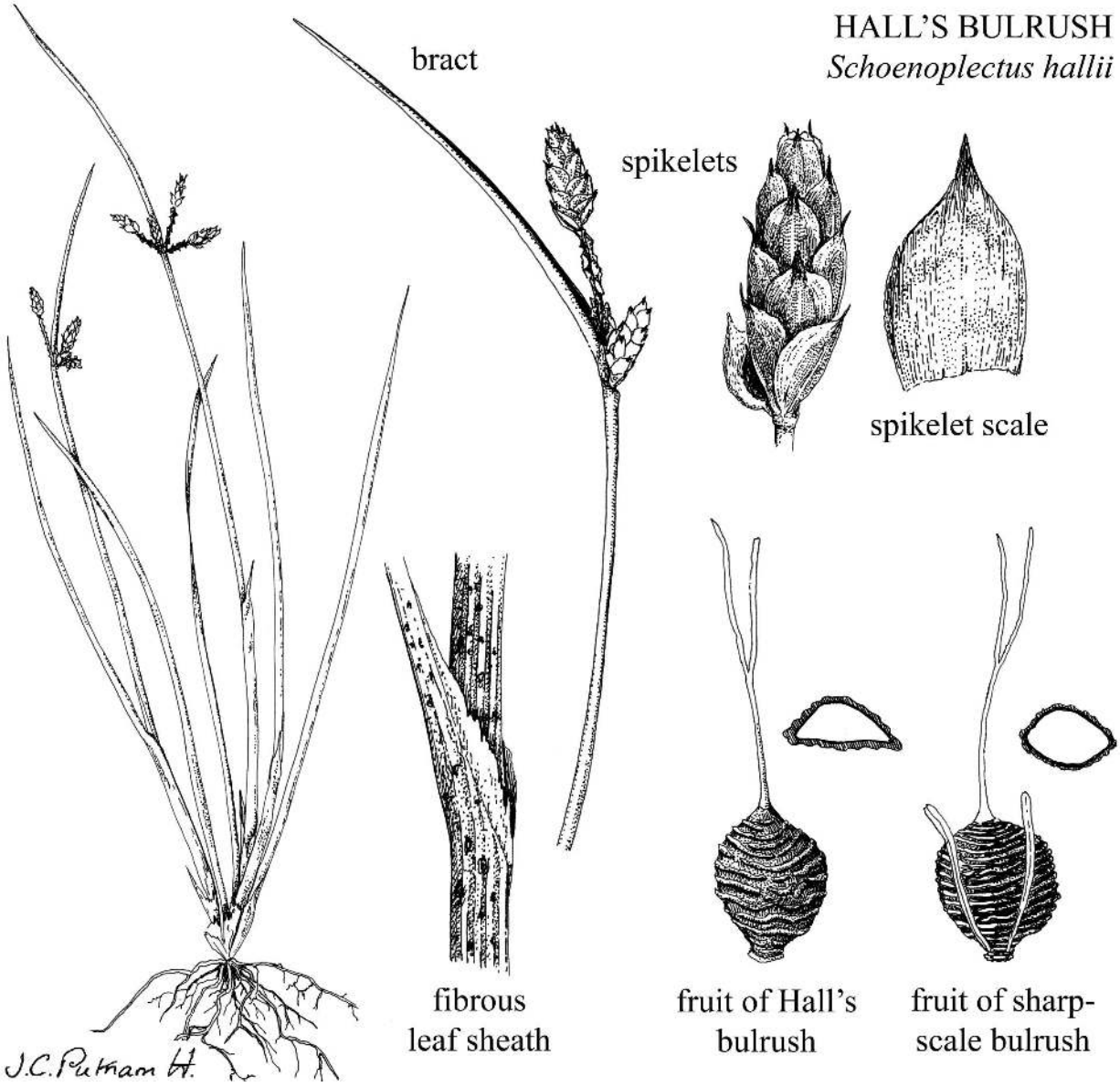
L. Chafin, Aug. 2008: original account
K. Owers, Feb. 2010: added pictures


HALL'S BULRUSH
Schoenoplectus hallii
bract
spikelets
spikelet scale
fibrous leaf sheath
fruit of Hall's bulrush
fruit of sharp-scale bulrush
J.C. Putnam H.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