

***Schoenoplectus saximontanus* (Fernald) J. Raynal**
Rocky Mountain Bulrush



Ohio Natural Heritage Program

Family: Cyperaceae

Synonyms: *Scirpus saximontanus* Fernald. *Scirpus supinus* L. var. *saximontanus* (Fern.) T. Koyama

Description: Annual or short-lived perennial; culms often arching or decumbent, 0.1-0.6 m tall; leaves 3-4, 1 cauline leaf; spikelets 1-20, scales pale orange-brown to colorless; spikelet achenes blackish brown, sharply trigonous, ovoid to obovoid 1.3-1.8 x 1-1.4 mm, with 10-20 ridges (Flora of North America Committee 2002).

Flowering: June to early August; **Fruiting:** July to early October.

Similar Species: *Schoenoplectus saximontanus* is similar in appearance to other annual species of *Schoenoplectus* such as *S. purshianus* or *S. smithii*. It differs from these two species by having one cauline leaf and achenes with prominent, wavy ridges.



Total Range: USA: CA, CO, IL, KS, MO, NE, OH, OK, SD, TX, UT, WY; **CAN:** BC.

Ohio Range: Pickaway County.

Ohio Status: www.ohiodnr.com/dnap

Habitats: Open, vernal pothole ponds or shallow, wet depressions.

Threats: Wetland modification, agricultural land-use, and economic development.

Conservation Potential: This species is spread by waterfowl and may be found in seasonal ponds in western Ohio. Open seasonal ponds where this species occurs are very rare. Most ephemeral ponds have long been destroyed for agriculture. Crops are often planted in these ephemeral ponds in a dry spring when water levels drop early enough for planting.

Inventory Guidelines: A mature fruiting specimen with roots is recommended for proper identification. Collecting should be minimal.

Comments: In Ohio, *Schoenoplectus saximontanus* has only been found in one vernal, pothole pond located in an agricultural field. Floyd Bartley first collected this species in 1936 and made several additional collections afterwards. M. L. Fernald determined Bartley's specimen in 1936 as *Scirpus saximontanus* [now *Schoenoplectus saximontanus*], a species Fernald himself had described.

Schaffner (1937) first reported *Schoenoplectus saximontanus* for Ohio. Fernald (1950) lists Pickaway County, Ohio in its distribution. E. Lucy Braun (1967) considered the species native but stated, "it may have been introduced from the West." Since its discovery, numerous botanists visited the site and the species was last collected there in 1979.

Stuckey & Roberts in Cooperrider (1982) considered the species non-native stating that the species was perhaps introduced from the "west in feed grain to central Ohio...". Cooperrider et al. (2001) followed Stuckey and Roberts and listed the species as introduced. It is highly unlikely humans introduced this species to the seasonal pond, but more likely introduced to the site by waterfowl prior to settlement. S. Galen Smith in his Flora of North America treatment (Flora of North America Committee 2002) includes the Ohio location as part of its native range. Smith states, "the distribution of *Schoenoplectus saximontanus* is very scattered (local)." The species is rare in most of its range, listed as endangered in 7 states and 1 Canadian province (Natureserve 2006). The Ohio site is similar habitat to sites in western United States.

Smith et al. (2004), reports hybrids between *S. saximontanus* and *S. hallii* where the two species co-occur. *Schoenoplectus hallii* has not been found in Ohio but may be found in similar wet depressions in western Ohio. Hybrids between *S. saximontanus* and other bulrushes have not been reported.

In 2006, the Ohio Rare Plant Advisory Committee agreed the species is native based on the very slim possibility of seeds being spread through the movement of grain and from consulting with experts on the species.

The species was re-discovered at the same location in Pickaway County in 2008.

Selected References:

- Braun, E.L. 1967. The Monocotyledoneae [of Ohio]. Cat-tail to orchids. Ohio State University Press, Columbus, OH. ix + 464 pp.
- Cooperrider, T.S. 1982. Endangered and threatened plants of Ohio. Ohio Biol. Survey Biol. Notes, No. 16. The Ohio State University, Columbus, OH, 92 pp.
- Cooperrider, T.S., A.W. Cusick, & J.T. Kartesz, eds. 2001. Seventh catalog of the vascular plants of Ohio, Ohio State University Press, Columbus, OH, vii + 195 pp.
- Fernald, M.L. 1950. Gray's Manual of Botany, 8th Edition. American Book Company, New York, N.Y., 1632 pp.

Flora of North America Editorial Committee, eds. 2002. Flora of North America north of Mexico. Vol. 23. New York and Oxford. 608 pp.

NatureServe. 2006. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: November 21, 2006).

Schaffner, J.H. 1937. Additions to the revised catalog of Ohio vascular plants, Ohio J. of Science 37(4): 260-265.

Smith, M., P. McKenzie, P. Mettler & S.G. Smith. 2004. A putative hybrid of *Schoenoplectus saximontanus* and *S. hallii* from Oklahoma. SIDA 21(1): 475-479.

Yatskievych, G. 1999. Steyermark's Flora of Missouri. Vol. 1. The Missouri Botanical Garden Press, St. Louis Missouri. xii + 991 pp.



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