Flat-stemmed Spike-rush
Eleocharis compressa

Description
Flat-stemmed spike-rush is an upright perennial herb that grows from 6 inches to 2½ feet (1.6-8 dm) tall, and forms colonies because of its underground stems. The aerial stems, which have a compressed or flattened appearance, make up most of the plant since the leaves are reduced to sheaths at the base of the stem. The minute flowers are held in a single spikelet, up to ½ inch (13 mm) long, which is located at the top of the stem. The tiny fruits mature in summer and fall and are about 1/16 inch (about 1 mm) long.

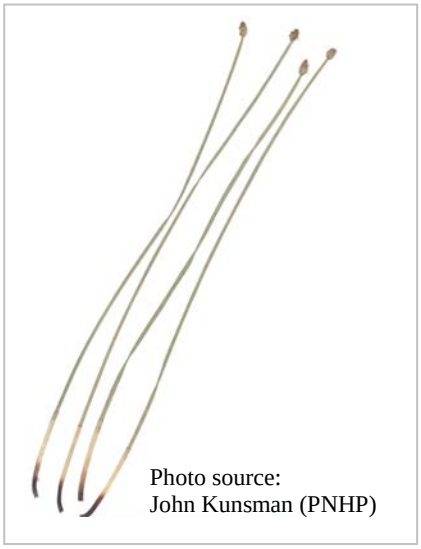
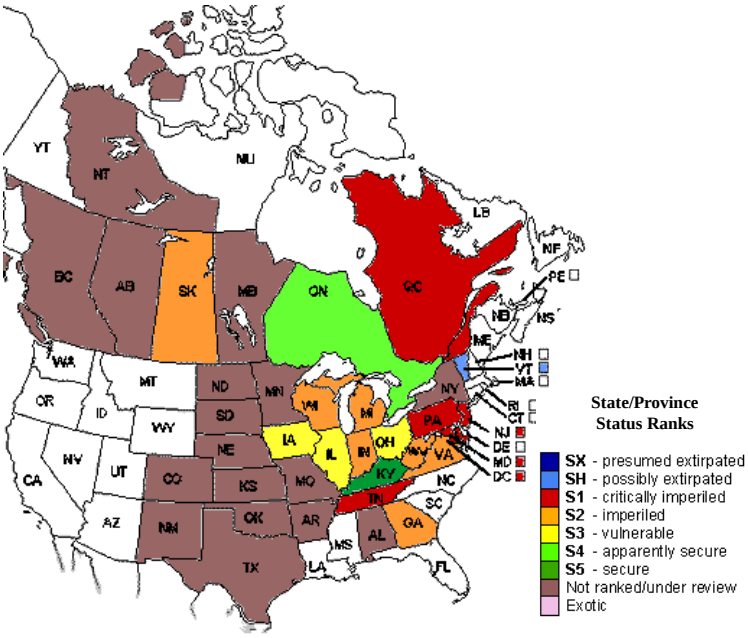


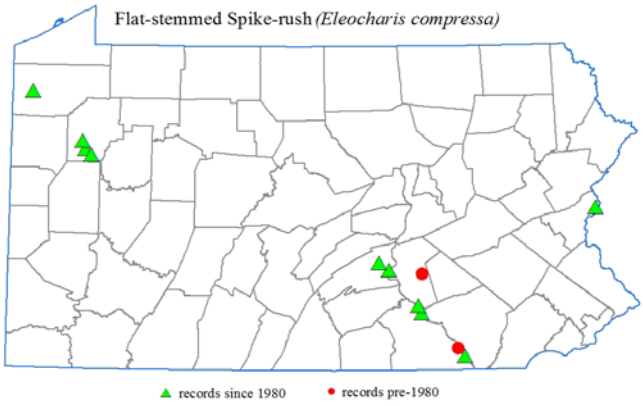
Photo source:
John Kunsman (PNHP)

Distribution & Habitat
Flat-stemmed spike-rush has a large range through much of North America. In Pennsylvania, it has been documented historically in scattered counties, especially along the lower Susquehanna River. It grows on river shorelines and riverbed rock outcrops, which are subject to annual scouring.

North American State/Province Conservation Status
Map by NatureServe 2014



Current State Status
The PA Biological Survey (PABS) considers flat-stemmed spike-rush to be a species of special concern, based on the few occurrences that have been recently confirmed and its specialized habitat. It has a PA legal rarity status and a PABS suggested rarity status of Endangered. Fewer than 10 populations are currently known from the state.



Conservation Considerations
Flat-stemmed spike-rush appears to be restricted to riverine habitats in Pennsylvania. The viability of the known populations will require maintaining the natural hydrology of the rivers, with the seasonal fluctuations and scouring, as well as retaining the natural conditions of the shorelines, riverbed outcrops, and islands. Invasive species may be a threat at some locations.

NatureServe conservation status ranks
G4 – Apparently globally secure; S1 – Critically imperiled in Pennsylvania

Pennsylvania Natural Heritage Program

References

- NatureServe. 2014. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.1. NatureServe, Arlington, Virginia. Available at http://www.natureserve.org/explorer. Accessed May 10, 2007.
- Rhoads, A.F. and T.A. Block. 2007. The Plants of Pennsylvania: An Illustrated Manual. 2nd edition. University of Pennsylvania Press, Philadelphia.