REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: ***Schoenoplectus saximontanus* (Fernald) J. Raynal Rocky Mountain twine-bulrush**
SYNONYMS: *Scirpus saximontanus* Fernald [Kolstad 1991]; *Scirpus supinus* L. var. *saximontanus* (Fernald) T. Koyama

Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	A?	Broadly but discontinously distributed throughout the e ½ of R2. Known from se-most (Goshen Co) WY, e to central SD, s through n-central and se ¾ NE, nw ¼ (?) of CO, and e 2/3 of KS. [Voucher at KANU from Dawes Co, NE. Vouchers at other herbaria from Cherry, Clay, Filmore, Franklin, Harlan, Holt, Kearney, Perkins, York Cos, NE (Rolfsmeier). Vouchers at KANU from Douglas, Harper, Kiowa, and Meade Cos, KS. Vouchers at other KS herbaria from Cloud, Rooks, and Saline Cos, KS (Freeman in prep. b). Weber & Wittman cite species as "[r]are, in drying mud flats on the plains and piedmont valleys" of CO.] Status: G5; CO S1; KS S1; NE S1; WY S1. Confidence in Rank High or **Medium** or Low	• Freeman in prep. a • Freeman in prep. b • Great Plains Flora Association 1977 • Hazlett 1998 • Kolstad 1991 • Rolfsmeier 1995 • Weber & Wittman 2001
2 Distribution outside R2	B	Broadly but discontinously distributed throughout the central and southern Great Plains (known from central SD, s through n-central and se ¾ of NE, se-most WY, nw ¼ of CO, e 2/3 of KS, w OK, and w and central TX, into n Mexico). Disjunct populations reported from s Brit Col, sw CA, w-central UT, central and w-central MO, se IL, and central OH (Smith). Confidence in Rank High or **Medium** or Low	• Freeman in prep. a • Great Plains Flora Association 1977 • McKenzie 1998 • Smith in prep. • Smith & Yatskievych 1996 • Yatskievych 1999
3 Dispersal Capability	A	Evaluator was unable to find any direct information about dispersal capability. Dispersal is probably mediated largely by animal vectors, especially water fowl. Given species' annual life cycle, the apparent ephemeral nature of populations, and species' habitat requirements, however, it is likely that species exhibits a fairly limited dispersal capability. Confidence in Rank High or **Medium** or Low	• Smith & Yatskievych 1996
4 Abundance in R2	B	Species is known from comparatively few sites throughout R2 and does not appear to be particularly common anywhere it is found [rank B is qualified]. However, it is likely that species is also often overlooked by botanists. Field studies of species' distribution may well turn up additional populations in these areas and further work is warranted. Species is likely similar in its life history to closely related *S. hallii*, which shows dramatic fluctuation in population sizes from year to year. Sites with suitable habitat should be visited over several seasons before researchers assume species to absent. Confidence in Rank High or **Medium** or Low	• McKenzie 1998
5 Population Trend in R2	D	Its probable that, like closely related *S. hallii*, species has a considerable seed bank and populations are fluctuate in size from year to year. However, not enough is known about population dynamics to be able to assess long- or short-term population trends in R2. Confidence in Rank High or Medium or **Low**	• McKenzie 1998

Species: ***Schoenoplectus saximontanus* (Fernald) J. Raynal Rocky Mountain twine-bulrush**
SYNONYMS: *Scirpus saximontanus* Fernald [Kolstad 1991]; *Scirpus supinus* L. var. *saximontanus* (Fernald) T. Koyama

Criteria	Rank	Rationale	Literature Citations
6 Habitat Trend in R2	B/D	*S. saximontanus* is probably best characterized as an early successional species, occupying a range of seasonally-wet habitats, including mudflats, playa lakes, and seasonally-wet depressions in cultivated fields. Observation of herbarium specimen labels suggests that species is usually found on sandy soils, although Rolfsmeier reports that in NE species "is more common on heavier soils." Smith & Yatskievych report on a population found in an area "heavily impacted by previous farming" and specimens housed at KANU were collected in seasonally-wet depressions of cultivated fields, both of which suggest that species may tolerate a considerable amount of disturbance [rank B]. Evaluator was unable to find any direct information about habitat trends within R2, however. Further study of species distribution and habitat requirements are warranted [rank D]. Confidence in Rank High or **Medium** or Low	• Rolfsmeier 1995 • Smith & Yatskievych 1996 • Yatskievych 1999
7 Habitat Vulnerability or Modification	B/D	Species likely has hydrological requirements similar to closely related *S. hallii*, and may be adversely affected by similar human activities (in particular, draining sites, or lowering OR raising water tables), although species occasionally has been reported from a variety of moderately to severely disturbed habitats [rank B]. Evaluator was unable to find any direct information about required habitat, however. Further study of species distribution and habitat requirements are warranted [rank D]. Confidence in Rank High or **Medium** or Low	• McKenzie 1998 • Smith & Yatskievych 1996
8 Life History and Demographics	B	Cespitose, annual graminoid. Flowering and fruiting mid July through mid October. Like closely related *S. hallii*, populations probably fluctuate in size from year to year. McKenzie notes that seeds of *S. hallii* "apparently germinate sporadically from year to year depending on the availability of wet, exposed habitat… [causing species to] disappear for long periods only to reappear when conditions are favorable." Nevertheless, little is known about the precise factors that control germination of seed and consequent abundance of that species from year to year. *S. hallii* has a significant seed bank and McKenzie considers documented reports less than 25 years old to represent extant populations. Studies of *S. saximontanus* should probably start with similar assumptions. Confidence in Rank High or **Medium** or Low	• McKenzie 1998

Evaluator:
Caleb A. Morse, R.L. McGregor Herbarium (KANU), University of Kansas Campus West, 2045 Constant Ave, Lawrence KS 66047

Date: 12/29/01

National Forests in the Rocky Mountain Region where species is KNOWN (K) or LIKELY (L)[1] to occur:

Note: Species is very poorly documented throughout R2, but should probably sought in likely habitats in all FS lands at lower elevations.

[1] Likely is defined as more likely to occur than not occur on the National Forest or Grassland. This generally can be thought of as having a 50% chance or greater of appearing on NFS lands.

Colorado NF/NG	Known	Likely	Kansas NF/NG	Known	Likely	Nebraska NF/NG	Known	Likely	South Dakota NF/NG	Known	Likely	Wyoming NF/NG	Known	Likely
Arapaho-Roosevelt NF			Cimmaron NG		X	Samuel R.McKelvie NF		X	Black Hills NF		X	Shoshone NF		
White River NF						Halsey NF		X	Buffalo Gap NG		X	Bighorn NF		
Routt NF						Nebraska NF		X	Ft. Pierre NG		X	Black Hills NF		
Grand Mesa, Uncompahgre, Gunnison NF						Ogalala NG		X				Medicine Bow NF		
San Juan NF												Thunder Basin NG		X?
Rio Grande NF														
Pawnee NG	X2													
Pike-San Isabel NF														
Comanche NG		X												

2 Voucher specimen cited in Hazlett (1998).

Formatted

REFERENCES

Freeman, C.C. in prep a. Checklist of the Vascular Plants of the Grassland Biome of Central North America.

Freeman, C.C. in prep b. The Cyperaceae of Kansas.

Great Plains Flora Association. 1977. *Atlas of the Flora of the Great Plains*. Iowa State University Press. Ames, Iowa. xii + 600 pp.

Hazlett, D.L. 1998. Vascular plant species of the Pawnee National Grassland. General Technical Report RMRS-GTR-17. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Fort Collins, Colorado. 26 pp.

Kolstad, O.A. 1991. Cyperaceae, pp. 1059–1113 *in* Great Plains Flora Association, *Flora of the Great Plains*. University Press of Kansas. Lawrence, Kansas. vii + 1402 pp.

McKenzie, P.M. 1998. Hall's bulrush (*Schoenoplectus hallii*) status assessment. U.S. Fish and Wildlife Service. Columbia, Missouri. v + 46 pp.

Rolfsmeier, S.B. 1995. Keys and distributional maps for Nebraska Cyperaceae, Part 1: *Bulbostylis*, *Cyperus*, *Dulichium*, *Eleocharis*, *Eriophorum*, *Fimbristylis*, *Fuirena*, *Lipocarpha*, and *Scirpus*. *Trans. Nebraska Acad. Sci.* 22: 27–42.

Smith, S.G. in prep. *Schoenoplectus*, in Flora of North America Editorial Committee, *Flora of North America North of Mexico*.

Smith, S.G. and G. Yatskievych. 1996. Notes on the genus *Scirpus* sensu lato in Missouri. *Rhodora* 98: 169–179.

Weber, W.A. and R.C. Wittman. 2001. *Colorado Flora: Eastern Slope* (3rd Edition). University Press of Colorado. Boulder, Colorado. xl + 521 pp.

Yatskievych, G. 1999. *Steyermark's Flora of Missouri, Vol. 1*. Missouri Department of Conservation and Missouri Botanical Garden. Jefferson City and St. Louis, Missouri. xii + 991 pp.