

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: ***Polygonatum biflorum* (Walter) Elliott small Solomon's seal**
 SYNONYMS: *P. commutatum* (Schult. & Schult. f.) A. Dietr.; *P. giganteum* A. Dietr.

Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	C	Widely distributed throughout e ½ of R2, from ne-most (Crook Co) WY, e through s-most, e-most, and n-most SD; thence s through NE (although apparently largely absent from the sw ¼ of the state), and the e ½ of KS. [Vouchers at KANU from 40 cos in KS; 19 cos in NE; and Campbell, Charles Mix, Clay, Custer, Day, Deuel, Grant, Gregory, Minnehaha, Pennington, Perkins, and Union Cos, SD.] Status: G5; WY S1 Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> Churchill 1991 Freeman in prep. Great Plains Flora Association 1977 Hartman 1997
2 Distribution outside R2	C	Widely distributed throughout the e US and se Canada. Reported by Gleason & Cronquist from "MA and s NH to MN, Man and ND, s to FL and n Mexico." Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> Gleason & Cronquist 1981
3 Dispersal Capability	D/B	Evaluator was unable to find any direct information about dispersal capability [rank D]. Species is certainly restricted, at least to some degree, by habitat requirements [rank B]. Confidence in Rank High or Medium or Low	
4 Abundance in R2	B	Evaluator was unable to find any direct information about species' abundance througout R2. Species is certainly secure in KS and most of NE, where it is encountered in a rather wide array of habitats. Confidence in Rank High or Medium or Low	
5 Population Trend in R2	B	Evaluator was unable to find any direct information about population trends. I have no reason to doubt that populations are not stable, at least throughout the greater part of species' range. Confidence in Rank High or Medium or Low	
6 Habitat Trend in R2	B	Churchill cites species as occurring in "moist deciduous woodlands" in the Great Plains, but observation of herbarium specimen labels at KANU reveals that species occupies a wide variety of habitats, including uplands, forest edges, and openings. In SD, species is reported from pine forests. Species is found on limestone-, sandy- and granitic soils. Although some habitat has undoubtedly been lost in the e-most part of R2, it also seems likely that fire suppression has created new habitat throughout R2. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> Churchill 1991

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Criteria	Rank	Rationale	Literature Citations
7 Habitat Vulnerability or Modification	B	Evaluator was unable to find any direct information about habitat vulnerability. However, species occupies a wide range of habitats and appears to be an effective and persist colonizer of appropriate habitats. Confidence in Rank High or Medium or Low	
8 Life History and Demographics	B	Perennial forb from a fleshy tuberous rhizome. Flowering early May through mid June; fruiting mid June through mid September. Species fruits rather abundantly. Evaluator has observed very large populations. I assume species is a fairly effective and persist colonizer of appropriate habitats. Confidence in Rank High or Medium or Low	
Evaluator: Caleb A. Morse, R.L. McGregor Herbarium (KANU), University of Kansas Campus West, 2045 Constant Ave, Lawrence KS 66047			Date: 01/08/02

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

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

² KANU catalog # 282099: SD, Custer Co: 10 mi SE Keystone on 16A, 29 Jun 1966, S. *Stephens* 6118; KANU catalog # 282070: SD, Pennington Co: 10 mi W Rapid City, along Rapid Crekk, 12 Jun 1969, S. *Stephens* 31786 & R. *Brooks*; KANU catalog #s 282079 & 282088: SD, Pennington Co: 10 mi S Keystone, Black Hills NF, 2 Jul 1966, T.B. *Croat* 2426; KANU catalog # 282086: SD, Pennington Co: 10 mi S Keystone, 2 Jul 1966, W.T. *Barker* 2833; KANU catalog # 282100: SD, Pennington Co: 6 mi E Sheridan Lake, bank of Spring Creek, 18 Jul 1966, S. *Stephens* 7161.

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.

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REFERENCES

- Churchill, S.P. 1991. Liliaceae, pp. 1241–1258 in Great Plains Flora Association, *Flora of the Great Plains*. University Press of Kansas. Lawrence, Kansas. vii + 1402 pp.
- Freeman, C.C. (in prep.) Checklist of the Vascular Plants of the Grassland Biome of Central North America.
- Gleason, H.A. and A. Cronquist. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada* (2nd Ed.). New York Botanical Garden. Bronx, New York. lxxv + 910 pp.
- Great Plains Flora Association. 1977. *Atlas of the Flora of the Great Plains*. Iowa State University Press. Ames, Iowa. xii + 600 pp.
- Hartman, R.L. 1997. *Atlas of the Vascular Plants of Wyoming*. Published by the author at Rocky Mountain Herbarium, University of Wyoming. Laramie, Wyoming. [unpaginated]