

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: Sparganium minimum (Hartman) Wallr. / Small bur-reed / SPNA (Synonym: .Sparganium natans L.. in PLANTS)			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	A	<p>Small bur-reed occurs primarily in the mountains of northern Colorado (Boulder, Grand, Jackson, Larimer counties) with an isolated population further south in Teller County. It occurs in two isolated locations in the part of Wyoming included in R2 (Carbon and Fremont counties). In R2, SPNA is peripheral and somewhat disjunct from the main range of the species.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • PLANTS database • University of Colorado Herbarium • WYNDD species abstract (2000) • Rocky Mountain Herbarium
2 Distribution outside R2	C	<p>Small bur-reed is a circumboreal species, broadly distributed across the western (AK, AZ, CA, ID, MT, OR, UT, WA), upper Midwestern (IL, IN, MI, MN, WI) and northeastern (ME, MA, NH, NJ, NY, PA, RI) United States. In Canada SPNA occurs every province. It also occurs throughout northern Eurasia. It has formal status as rare, threatened, or endangered in CA, CT, IL, MA, NJ, NY, PA, UT, VT, and WY. It is described as infrequent or at least rarely collected, in northern UT.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • PLANTS database • Flora of North America (V. 22) • NatureServe database • Goodrich & Neese, Uinta Basin Flora (1986)
3 Dispersal Capability	B	<p>SPNA reproduces by seed and vegetatively by rhizomes. Its long-distance dispersal capability is relatively poor, although it is eaten by waterfowl and some achenes may survive digestion. The fruits and seeds float for a time, which may allow them to be transported among wetlands connected by flowing water.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • Flora of North America (V. 22) • USDA – SCS Western Wetland Flora: Field Guide to Plant Species

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<p>4 Abundance in R2</p>	<p>A</p>	<p>Of the two Wyoming populations in R2, one has not been observed since the 1950s. There are 18 specimens representing at least 10 Colorado populations in the University of Colorado herbarium. Nearly all of these have been discovered in the last 15 years.</p> <p>Abundance is difficult to judge, since collectors usually did not indicate how much of the wetland was covered by small bur-reed. However, most of the wetlands in which small bur-reed has been found are themselves small kettle lakes, so the potential for abundance is limited.</p> <p>Because SPNA is a wetland plant and difficult to identify accurately when not in fruit, its distribution and abundance may be underreported in R2.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> • WYNDD species abstract (2000) • W.A. Weber, Colorado Flora (3rd ed.) • University of Colorado Herbarium • Rocky Mountain Herbarium
<p>5 Population Trend in R2</p>	<p>D</p>	<p>SPNA's habitat does not face any specific threats and is not known to be declining, but there is insufficient information concerning the trend of known populations. One collection is labeled "Estes Park"; if that indeed is where the plant was collected, that population is almost certainly extirpated.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • University of Colorado herbarium
<p>6 Habitat Trend in R2</p>	<p>B</p>	<p>Unknown but probably stable. Small bur-reed is a subalpine species in R2, where it prefers stable wetland habitats such as the margins of deflation basins and glacial kettle ponds. It is less often found in beaver-modified habitats, perhaps because of the unstable hydrology.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> • Flora of North America (V. 22)

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7 Habitat Vulnerability or Modification	B	<p>As an obligate wetland species, SPNA is vulnerable to changes in hydrology and water quality resulting from recreation, timber management, or fire. It is known to occur in watersheds that have experienced catastrophic wildfires in the past 150 years.</p> <p>Two populations occur within Rocky Mountain National Park, at least one is within the Kettle Lakes Research Natural Area and one is within the Todd Gulch Fen Special Botanical Area.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> USFWS, National List of Plant Species that Occur in Wetlands (1996 draft revision) University of Colorado herbarium
8 Life History and Demographics	D	<p>If small bur-reed is similar to other <i>Sparganium</i> species, it would tend to occupy all available habitat within a wetland, and to persist as long as there is shallow water for it to grow in. SPNA is a perennial, rhizomatous species. Other aspects of SPNA's life history are unknown. A study of <i>S. erectum</i> found higher levels of sexual reproduction in newly established populations than in older populations, which reproduced mainly vegetatively.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> Y. Piquot, et al. 1998. Variation in sexual and asexual reproduction among young and old populations of the perennial macrophyte <i>Sparganium erectum</i>. <i>Oikos</i> 82(1):139-148
Evaluator(s): Janet J. Coles			Date: September 28, 2002

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

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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Species Name:											
<u>Colorado NF/NG</u>		<u>Kansas NF/NG</u>		<u>Nebraska NF/NG</u>		<u>South Dakota NF/NG</u>		<u>Wyoming NF/NG</u>			
Known	Likely	Known	Likely	Known	Likely	Known	Likely	Known	Likely	Known	Likely
Arapaho-Roosevelt NF	X	Cimarron NG		Samuel R.McKelvie NF		Black Hills NF		Shoshone NF		X	
White River NF				Halsey NF		Buffalo Gap NG		Bighorn NF			
Routt NF	X			Nebraska NF		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											
Pike-San Isabel NF	X										
Comanche NG											
Pawnee NG											