

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <i>Sphagnum angustifolium</i> (C.Jens. ex Russ.) C. Jens. In Tolf/sphagnum moss			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	A	In Region 2, 2 locations in WY (probably fens) and 9 locations in fens in Colorado (at least 5 in iron fens on Forest Service lands, 1 in a fen in RMNP, and 3 in fens on private land). <i>Sphagnum angustifolium</i> is ranked S2 in Colorado. Bryophyte (moss) species are not ranked in Wyoming, Nebraska, Kansas, or South Dakota. No <i>S. angustifolium</i> has been found in South Dakota. Confidence in Rank High	<ul style="list-style-type: none"> • CNHP, 2002 • Cooper, 2002 • PLANTS, NRCS, 2001 • CU Herbarium • Andrus, R. 2000
2 Distribution outside R2	C	This species is also found in iron fens and poor fens in Washington, Oregon, Idaho, North Dakota, Utah, Montana, Canada, and Europe. <i>Sphagnum angustifolium</i> is ranked G5 by Natureserve. Confidence in Rank High	<ul style="list-style-type: none"> • NatureServe, 2001 • CU Herbarium • Andrus, 2000 • Vitt, 1988
3 Dispersal Capability	B	Primary means of distribution - the wind distributes spores. However, <i>Sphagnum angustifolium</i> will only colonize in suitable fen habitat. Confidence in Rank High	<ul style="list-style-type: none"> • Vitt, 1988 • McQueen, 1990
4 Abundance in R2	A	Number of populations are rare due to restricted habitat. Confidence in Rank Moderate	<ul style="list-style-type: none"> • Cooper, 1998
5 Population Trend in R2	D	Unknown Confidence in Rank Low	

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6 Habitat Trend in R2	A	In Colorado peat-mining, draining of fens, changes in hydrology, and the increase in motorized vehicle use have decreased the number and quality of fens. ATV tracks were noted through the Wager Gulch iron fen in 2001 and motorcycle tracks were seen through the Mt. Emmons Iron Fen in 1999. Confidence in Rank High	<ul style="list-style-type: none"> Cooper et al. 1998 Cooper 2000 CNHP, 2002
7 Habitat Vulnerability or Modification	A	Only 0.1% of Colorado are peatlands. <i>Sphagnum angustifolium</i> habitat is vulnerable to mining, peat-mining, construction of ditches, changes in hydrology, non-point pollution, alterations in water chemistry, and off-road motorized vehicle use. On federal lands location of populations are in multiple use management areas with very little protection. These habitats do not recover easily after disturbance. Significant man-caused disturbance is considered irreversible and has not been found capable of restoration. Confidence in Rank High	<ul style="list-style-type: none"> Cooper, 1990 Cooper, 1994 Cooper, 1998 Cooper, 2000
8 Life History and Demographics	A	<i>Sphagnum angustifolium</i> is a perennial species that grows very slowly in areas with high evapotranspiration. Fens accumulate peat at the rate of 8" per 1,000 years in cold climates and do not recover rapidly after disturbance. Confidence in Rank Moderate	<ul style="list-style-type: none"> USFWS, 2000
Evaluator(s): Gay Austin, Rangeland Management Specialist, Grand Mesa, Uncompaghre and Gunnison National Forest			Date: 1/7/07

Notes: Although *Sphagnum angustifolium* was not evaluated previously, because of its rarity and threatened habitat, I recommend that this species be put on the Sensitive species list for R2.

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National Forests in the Rocky Mountain Region where species is KNOWN (K) or LIKELY (L)¹ to occur: Species Name: *Cladina arbuscula* (Wallroth) Hale & Culberson ssp beringiana (Ahti)
Golubkova / Bering reindeer lichen

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

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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