

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: *Scirpus cyperinus* (L.) Kunth / Woolgrass, Cottongrass bulrush / SCCY

Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	R2 listed but ranked uncommon due to the Black Hills being at the periphery of the range. Listed as S4 in South Dakota. Monitoring data and State Heritage Element Occurrence Records reveal 12+ records for this species in SD (more locations exist but SD has not tracked this species for a number of years, as it is no longer a species of concern (S4). Larson and Johnson list it as occasional at mid to high elevations in the Central Black Hills. In 2001 Fertig (WYNDD) planned to list it as S2S3 in Wyoming (Fertig pers. comm. 2001). The recent May 2002 Wyoming Plant Species of Concern gives a rank of S2 but no details were given as to why the rank had changed from the S2S3 to the S2. S2 (according to the Heritage Ranks on the WYNDD) is defined as, "Imperiled because of rarity (often from 6-20 occurrences) or because of factors demonstrably making a species vulnerable to extinction" and S3 is defined as, "Rare or local throughout its range or found locally in a restricted range (usually known from 21-100 occurrences)." Survey data from the Black Hills National Forest indicates a rank of S3 (as currently defined by WYNDD) is justified as 40+ currently known locations are documented from the Bearlodge Mountains of WY, alone (see attached Black Hills NF <i>Scirpus cyperinus</i> location map). It is unknown how many occurrences of <i>Scirpus cyperinus</i> exist on private land in the Bearlodge Mountains, however, similar habitat used by the plant species on FS administered land has been observed to occur on adjacent private land. Confidence in Rank High	<ul style="list-style-type: none"> • FS Records • BHNH Sensitive Plant Monitoring, 2000, 2001 • Larson and Johnson, 1999 • WYNDD, 2002 • EMAIL MESSAGE FROM FERTIG (JULY 12, 2001) CHANGING THE WYOMING RANK FROM S1 TO S2S3 BASED ON NUMBER OF NEW POPULATION LOCATIONS LOCATED IN THE BEARLODGE MOUNTAINS • NatureServe Website (July 18, 2001) • <i>Scirpus cyperinus</i> map of Wyoming locations, Black Hills National Forest (2002?).
2 Distribution outside R2	C	Widely distributed throughout eastern North America, the Pacific northwest, Montana, and most of Canada west to Alberta. Has been dropped from species of concern consideration in Idaho (1996) because the species was found to be common. Confidence in Rank High	<ul style="list-style-type: none"> • NatureServe, 2001 • PLANTS, NRCS, 2001 • Idaho Fish and Game Website July 3, 2001
3 Dispersal Capability	C	Light weight seeds may travel considerable distances, but the seeds must land in appropriate habitats to grow (pers. obs. Reed Crook). Confidence in Rank High	

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4 Abundance in R2	C	Currently known from 40+ populations in the Bearlodge Mountains of Wyoming (many of these sites are large, with 100's or more clumps) and occasionally at mid to high elevations in the Central Black Hills. Populations are less disjunct in the Black Hills than previously thought. It has been demonstrated to be sufficiently widespread enough in the Black Hills to no longer merit status on the R2 sensitive species list (2001). Confidence in Rank High	<ul style="list-style-type: none"> BHNF sensitive plant monitoring 2000, 2001 FS Records USFS Region 2 Sensitive Plant Scorecard – South Dakota (2001 Ode, Reyher, Bacon, Crook)
5 Population Trend in R2	D	Trend unknown, Recent surveys have revealed many more occurrences of this species, and indicate stable populations that are possibly expanding (related to the wet decade, survey timing, other?), but some evidence of historical decline (tied to reduction in overall riparian habitat and beaver populations). Many sites are in areas where grazing occurs yet populations persist (some containing hundreds of plants). This species is apparently not a preferred livestock forage because its one of the last species to be grazed (photo documentation). Larson (1999) states that the young shoots are palatable early in the growing season but later become coarse and unpalatable. Confidence in Rank Medium	<ul style="list-style-type: none"> District Data BHNF sensitive plant monitoring 2000, 2001 Larson J. L. 1999
6 Habitat Trend in R2	A	Riparian areas are thought to be in decline, or at least to have declined in the past. Beaver, thought to be beneficial to the habitat needs of this species, are much lower than historical numbers. Confidence in Rank Medium	<ul style="list-style-type: none"> Parrish et al., 1996
7 Habitat Vulnerability or Modification	B	Documents prior to 2000 indicate a vulnerability to livestock use and other habitat disturbance. Road construction and other stream alterations have likely negatively affected this species. This species is apparently not a preferred livestock forage because its one of the last species to be grazed (Forest Service 2000 photo documentation). Larson (1999) states that the young shoots are palatable early in the growing season but later become coarse and unpalatable. Impoundments may provide habitat for this species Confidence in Rank Medium	<ul style="list-style-type: none"> Larson & Johnson 1999 Fertig, 1993 2000 Baseline Monitoring Data USFS Region 2 Sensitive Plant Scorecard – South Dakota (2001 Ode, Reyher, Bacon, Crook) Larson J. L. 1999

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Criteria	Rank	Rationale	Literature Citations
8 Life History and Demographics	B	<p>Rhizomatous perennial. Information from where the species grows in another area of the U.S.: Woolgrass is a competitive species and a rapid colonizer of disturbed wetlands. In other parts of North America, this early successional species has been shown to dominate a mined peatland within 5 years, and that it has grown well in wetlands created for wastewater treatment. Perhaps one of the most promising species for use in wetland restoration and creation is woolgrass. It is easy to establish and tolerates stressful conditions, and makes it a good candidate for work on sites with appropriate hydrological conditions (early season inundation and saturation and dry-down conditions in summer and early autumn). It will invade newly exposed substrates if a seed source is nearby, or can be a long-lived component of sedge meadow. Once established, tussocks continue to grow for many years. Woolgrass produces large quantities of seed. The flowers are wind pollinated. Seeds are dispersed by wind, water and occasionally in the fur of small mammals. Seed production is extremely high. Estimations for woolgrass are 108,000 seeds/inflorescence. Based on studies, Larson (1999) suggests that woolgrass must pass through a dormancy period, which helps prevent germination during unfavorable conditions following fall seed dispersal.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • Larson, 1993 • Larson, G.E. & Johnson, J. 1999 • Larson J. L. 1999
Evaluator(s): Reed Wight Crook, Botanist, Black Hills National Forest Darcie Bacon, Botanist, Black Hills National Forest			Date: 4 Dec. 2001 Updated July 26, 2002

Notes

There have been taxonomic questions raised about *Scirpus cyperinus* and *S. atrocinctus* in the Black Hills. Whether these plants are considered one or two species, they have a broader ecological amplitude than previously known, i.e. variety of geologies, elevations, geographic locations, precipitation ranges) in the Black Hills, with abundant populations when combined for the states of South Dakota and Wyoming in the Black Hills ecoregion.

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

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<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		Cimarron NG		Samuel R. McKelvie NF		Black Hills NF	X	Shoshone NF			
White River NF				Halsey NF		Buffalo Gap NG		Bighorn NF			
Routt NF				Nebraska NF		Ft. Pierre NG		Black Hills NF	X		
Grand Mesa, Uncompahgre, Gunnison NF				Ogalala NG				Medicine Bow NF			
San Juan NF								Thunder Basin NG			
Rio Grande NF											
Pike-San Isabel NF											
Comanche NG											
Pawnee NG											

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FS Records can include: monitoring data, district data, historical accounts, ect.

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