

SPECIES EVALUATION

*Carex paupercola*, Priority 1. *Carex magellanica* Lamarck (CAMA12). boreal bog sedge. CNHP G5 / SR, Track N G5 N?. CO SR, WY S1. WY Disjunct 3 MBNF

Criteria	Rank	Confidence	Rationale	Sources of Information
1 Distribution within R2	<b>B</b>	<b>M</b>	This is a small, obscure plant that can be easily overlooked; hence there are probably several to many more sites remaining to be discovered in Colorado and Wyoming. Ranked S1 in Wyoming, not ranked in Colorado, Utah, or Montana.	Weber and Wittmann 2001ab, Johnston 2001, Dorn 2001.
2 Distribution outside R2	<b>C</b>	<b>H</b>	Widespread distribution in North America.	Hultén 1968, Harrington 1954.
3 Dispersal Capability	<b>D</b>	<b>H</b>	Dispersal mechanisms unknown.	Handley and others 2002.
4 Abundance in R2	<b>B</b>	<b>M</b>	Common in the habitat in Colorado, and apparently also in Utah and Montana. Reported as “frequent” in the habitat in Wyoming. The habitat is fairly general; therefore several to many more sites are expected to be discovered in R2 in the future. “Demographic stochasticity” is irrelevant.	Fertig 2000, my observations, Weber and Wittmann 2001ab.
5 Population Trend in R2	<b>B</b>	<b>L</b>	Populations appear to be stable, based on a very limited number of observations. No monitoring done as far as known.	My observations, Fertig 2000.
6 Habitat Trend in R2	<b>B</b>	<b>M</b>	“Typically found in wet sphagnum or <i>Eleocharis/Carex [utriculata]</i> bogs and other wet areas” (Mills and Fertig 2000). “Subalpine fens, often with Sphagnum” (Weber and Wittmann 2001ab). This is a fairly generalized habitat. These habitats seem to be stable, yet on private land there continue to be declines in habitat due to construction and development, road and trail use, and livestock grazing. Nonetheless, we have no monitoring data specific to this species, hence the low confidence. There is now increased attention on protection of fens and bogs.	My observations, Fertig 2000, Weber and Wittmann 2001ab.
7 Habitat Vulnerability or Modification	<b>B</b>	<b>H</b>	Fens and bogs are vulnerable to almost any kind of continual use, although we have no monitoring data on effects at the sites for <i>Carex magellanica</i> . Rehabilitation of these sites is difficult or sometimes impossible because of some sites’ great age.	My observations, Mitsch and Gosselink 1993.
8 Life History and Demographics	<b>D</b>	<b>H</b>	Details of life history and demographics in the Rocky Mountains are unknown.	Handley and others 2002.

## SPECIES EVALUATION

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

\* 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		K	L	NEBRASKA NF/NG		K	L	WYOMING NF/NG		K	L
Arapaho-Roosevelt NF				Samuel R. McKelvie NF				Shoshone NF			
White River NF				Halsey NF				Bighorn NF			
Routt NF				Nebraska NF				Black Hills NF			
Grand Mesa Uncompahgre Gunnison NF				Ogala NG				Medicine Bow NF			
San Juan NF				SOUTH DAKOTA NF/NG				Thunder Basin NG			
Rio Grande NF				Black Hills NF				KANSAS NF/NG			
Pike-San Isabel NF				Buffalo Gap NG				Cimarron NG			
Comanche NG				Ft. Pierre NG							
Pawnee NG											

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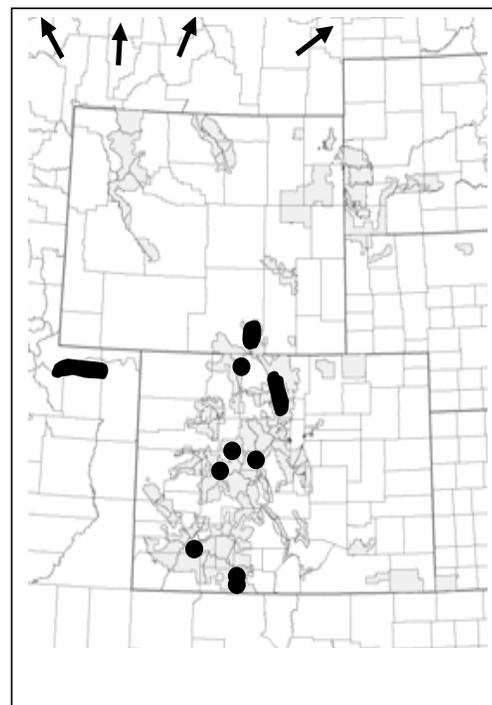
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**Taxonomy.** Most botanists call this species *Carex magellanica*, rather than *C. paupercula*, which is a newer name. All accept it as a species.

**Discussion.** These habitats are vulnerable, and calcareous fens and bogs are not commonly found in good condition. This species is widespread in North America. *Carex magellanica* may have viability concerns, but a more widespread and complete inventory of wetlands, especially fens, is necessary. Rather than focusing on conservation of this species, perhaps a better way is to improve management of all wetlands, which goes hand-in-hand with conservation of this species.

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SPECIES EVALUATION  
REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: *Carex paupercula* / Bog Sedge (*C. magellanica*)

Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	AB	Within Wyoming, Bog Sedge is found on the Medicine Bow Range in Albany and Carbon counties, on the Medicine Bow National Forest. It is also reported from Colorado and additional information is needed to determine its status in Region 2. Rangewide, this species is typically found in wet sphagnum or <i>Eleocharis/Carex rostrata</i> bogs and other wet areas. In Wyoming, it occurs at elevations of 9000-10,500 feet. This peat habitat is rare, small, and isolated on the landscape. Confidence in Rank Medium	<ul style="list-style-type: none"> <li>• Dorn 2001</li> <li>• Fertig 2000</li> <li>• Hurd et al. 1998</li> <li>• Jankovsky-Jones et al. 1995</li> <li>• Johnston 2001</li> <li>• University of Wyoming 1998</li> </ul>
2 Distribution outside R2	B	Bog Sedge is a boreal species that extends from Alaska across the provinces of Canada and territories, extending south in the eastern United States from Massachusetts to Pennsylvania, Indiana, and Minnesota. In the western United States it is disjunct in the central Rocky Mountains of Colorado and Wyoming, extending west to Nevada and Washington. Confidence in Rank High	<ul style="list-style-type: none"> <li>• Cronquist et al. 1977</li> <li>• Hermann 1970</li> <li>• Hitchcock et al. 1969</li> <li>• Lesica and Shelly 1991</li> <li>• NatureServe 2002</li> </ul>
3 Dispersal Capability	D	Dispersal vectors are not known. Confidence in Rank Medium	<ul style="list-style-type: none"> <li>• -</li> </ul>
4 Abundance in R2	AD	This species is known from 3 occurrences in Wyoming, only one of which has been located since 1964 (most recently in 1994). It was reported as "frequent" in the Medicine Bow Range by Nelson (1984). It is ranked "S1" in Wyoming and it is present but not ranked in Colorado. Confidence in Rank LOW	<ul style="list-style-type: none"> <li>• Fertig 2000</li> <li>• Jankovsky-Jones et al. 1995</li> <li>• Nelson 1984</li> <li>• WYNDD 2002</li> </ul>
5 Population Trend in R2	D	Not known. Confidence in Rank High	<ul style="list-style-type: none"> <li>• -</li> </ul>
6 Habitat Trend in R2	D	Not known. Confidence in Rank High	<ul style="list-style-type: none"> <li>• -</li> </ul>
7 Habitat Vulnerability or Modification	B	Bog sedge may be impacted by hydrological change in the watershed, if not grazing and recreational activities. All known Wyoming occurrences are on Medicine Bow National Forest. One population is found within the potential Ribbon Forest Research Natural Area, the other populations are reported from lands managed for multiple use, but their current status is unknown. Confidence in Rank Medium	<ul style="list-style-type: none"> <li>• Fertig 2000</li> <li>• Jankovsky-Jones et al. 1995</li> </ul>
8 Life History and Demographics	D	Bog sedge is a wind-pollinated, tufted to rhizomatous perennial that flowers and fruits more than once in its lifecycle. Additional information on the species, including life history stages, population structure, longevity, mortality, and seed biology, are not available. Confidence in Rank High	<ul style="list-style-type: none"> <li>• Cronquist et al. 1977</li> <li>• Fertig 2000</li> <li>• Hermann 1970</li> <li>• Hitchcock et al. 1969</li> </ul>
Initial Evaluator(s): Joy Handley, Bonnie Heidel and Scott Laursen			Date: February 5, 2002

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

<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
		Cimmaron NG		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				Ogallala NG				Medicine Bow NF	X
San Juan NF								Thunder Basin NG	
Rio Grande NF									
Pike-San Isabel NF									
Comanche NG									

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<sup>1</sup> 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.