REGION 2 SENSITIVE SPECIES EVALUATION FORM

Criteria	Rank	Rationale	Literature Citations				
1 Distribution within R2	BD	Seaside Sedge is known only from the Absaroka and Wind River ranges in Fremont, Park, and Sublette counties, on the Shoshone National Forest. This taxon also occurs in central Colorado, therefore, additional information is needed to determine its status in Region 2. In Wyoming, it is found in alpine and subalpine bogs, wet tundra, on cliffs, talus, and in dry meadows at 10,000-12,240 feet. It is associated with <i>Deschampsia cespitosa</i> , <i>Juncus castaneus, Carex bipartita, Sedum rhodanthum</i> and <i>Polygonum viviparum</i> . Confidence in Rank High	 Dorn 2001 Evert 1982 Fertig 1998 Fertig 2000a, b Fertig et al. 1994 Jones and Fertig 1999 Johnston 2001 Mills and Fertig 1996 Scott 1997 Welp et al. 2000 				
2 Distribution outside R2	BC	Carex incurviformis var. danaensis occurs sporadically from central Alberta and British Columbia to northwestern Montana, east central Idaho, and northwestern Wyoming, with disjunct populations in central California and central Colorado.	 Fertig 1999 Fertig and Jones 1994 Hermann 1970 				
3 Dispersal Capability	D	Dispersal vectors are not known. Confidence in Rank Medium	• -				
4 Abundance in R2	BD	Population sizes are not known for most occurrences. Seaside sedge is known from 10 records in Wyoming, all of which have been observed or discovered since 1981. Nine of the populations are on the Shoshone National Forest. It is ranked "S2" in Wyoming, and is not ranked in Colorado. Confidence in Rank Medium	 Fertig 1998 Fertig 2000 Jones and Fertig 1999 Mills and Fertig 1996 Welp et al. 2000 WYNDD 2001 				
5 Population Trend in R2	BD	Populations are presumed to be stable, although hard census and trend data are lacking for all known occurrences. Confidence in Rank Medium	• WYNDD 2001				

Criteria	Rank	Rationale	Literature Citations			
6 Habitat Trend in R2	В	Habitat quality of its alpine habitat is stable. Confidence in Rank High	• -			
7 Habitat Vulnerability or Modification	С	Threats are probably low due to the remote and rugged alpine habitat. Seven occurrences are found in Bridger-Teton and Shoshone National Forests on land managed as wilderness, 3 occurrences are on land managed for multiple use by the Shoshone National Forest.	 Evert 1982 Fertig 1998 Fertig 1999 Fertig 2000a, b Fertig and Jones 1994 Fertig et al. 1994 Jones and Fertig 1999 Mills and Fertig 1996 Welp et al. 2000 			
8 Life History and Demographics	D	This perennial sedge spreads by long, woody rhizomes, forming small clumps. Flowering and fruiting occur from July through August. Additional information on the taxon, including life history stages, population structure, longevity, mortality, and seed biology, are not available.	 Hermann 1970 Scott 1997 WYNDD 2001 			
Initial Evalua	tor(s):	Confidence in Rank High	Date: February 13, 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.

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

Literature cited

Dorn, R.D. 2001. Vascular Plants of Wyoming, third edition. Mountain West Publishing, Cheyenne, WY.

Evert, E. F. 1982. Noteworthy Collections, Wyoming. Madrono 29 (2): 124-125.

Fertig, W. 1998. The status of rare plants on Shoshone National Forest: 1995-97 survey results. Report prepared by the Wyoming Natural Diversity Database, Laramie, WY.

Fertig, W. 1999. Sensitive plant surveys and status of rare plant species on Bridger-Teton National Forest, 1997-1998. Report prepared by the Wyoming Natural Diversity Database, Laramie, Wyoming.

Fertig, W. 2000a. State Species Abstract: *Carex incurviformis* var. *danaenis*. Wyoming Natural Diversity Database. Available on the internet at www.uwyo.edu/wyndd

Fertig, W. 2000. Rare vascular plant species in the Wyoming portion of the Utah-Wyoming Rocky Mountains Ecoregion. Prepared for the Wyoming Nature Conservancy by the Wyoming Natural Diversity Database, Laramie, WY.

Fertig, W. and G. Jones. 1994. Establishment record for Osborn Mountain Research Natural Area within Bridger-Teton National Forest, Sublette County, Wyoming. Unpublished report prepared for US Forest Service Region 4, by the Wyoming Natural Diversity Database, Laramie, WY.

Fertig, W., C. Refsdal, and J. Whipple. 1994. Wyoming Rare Plant Field Guide. Wyoming Rare Plant Technical Committee, Cheyenne Wyoming.

Hermann, F.J. 1970. Manual of the Carices of the Rocky Mountains and Colorado Basin. Agriculture Handbook 374: 1-397. USDA Forest Service, Washington DC.

Jones, G.P. and W. Fertig. 1999. Ecological evaluation of the potential Arrow Mountain Research Natural Area within the Shoshone National Forest, Fremont County, Wyoming. Unpublished report prepared for the Shoshone National Forest, USDA Forest Service by the Wyoming Natural Diversity Database, University of Wyoming.

Johnston, B.C. 2001. Field Guide to Sedge Species of the Rocky Mountain Region. Pub. R2-RR-01-03. USDA Forest Service, Rocky Mountain Region, Denver, CO.

Mills, S. and W. Fertig. 1996. Field guide to rare and Sensitive plants of the Shoshone National Forest. Report prepared by the Wyoming Natural Diversity Database, Laramie, WY.

Scott, R.W. 1997. The Alpine Flora of the Rocky Mountains. Volume 1 The Middle Rockies. University of Utah Press, Salt Lake City, UT.

University of Wyoming – Rocky Mountain Herbarium. 1998. Atlas of the Flora of Wyoming. Posted electronically through 1998 at: http://www.esb.utexas.edu/tchumley/wyomap/ and unposted accession information at the Rocky Mountain Herbarium through 2001.

Welp, L., W.F. Fertig, G.P. Jones, G.P. Beauvais, and S.M. Ogle. 2000. Fine filter analysis of the Bighorn, Medicine Bow, and Shoshone National Forests in Wyoming. Wyoming Natural Diversity Database, Laramie, WY.

Wyoming Natural Diversity Database. 2001. Ongoing documentation of sensitive species distribution, biology, status, and references for the state of Wyoming. University of Wyoming, Laramie.