

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: *Cryptogramma stelleri* / Fragile Rockbrake, Slender Rock-brake

Criteria	Rank	Rationale	Literature Citations
<p>1 Distribution within R2</p>	AD	<p>Region 2 harbors disjunct Rocky Mountain populations of Fragile rockbrake. Within Wyoming, it occurs in the Bighorn and Shoshone national forests in Sheridan and Fremont counties on the Wind River and Bighorn ranges in Fremont and Sheridan and counties. It also occurs in Colorado.</p> <p>This species is found in moist, protected locations. In Wyoming, it occurs in thin, mossy soil on shady limestone cliffs near water at 6600-8700 feet.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • Dorn 1992 • Evert no date • Fertig 1998, 1999, 2000 • Harrington 1954 • Hartman et al. 1991 • Jones and Fertig 1998 • University of Wyoming 1998 • Welp et al. 2000
<p>2 Distribution outside R2</p>	B	<p>Fragile rockbrake is known from Alaska to Labrador south to Oregon, Montana, Iowa, Michigan, and West Virginia, with disjunct populations in Wyoming, New Mexico, and Utah. In Wyoming, it is also known outside Region 2 boundaries from the Teton Range and Yellowstone Plateau in Park and Teton counties.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • Cronquist et al. 1972 • Fertig 2000 • Gleason and Cronquist 1991 • Hitchcock et al. 1961 • Hulten 1968 • Lellinger 1985 • Markow and Fertig 1993 • NatureServe 2002 • Porsild and Cody 1980 • University of Wyoming 1998 • Welsh 1993
<p>3 Dispersal Capability</p>	CD	<p>Not known. Spores, however, commonly disperse long distances via the atmosphere or water.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • -

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4 Abundance in R2	A	<p>It is known in Wyoming from 5 extant occurrences, 3 of which have been located since 1990 (most recently in 1996) and 1 historical record. Only two of these are in Region, on the Bighorn and Shoshone national forests. Little census data are available, but this species appears to be extremely uncommon and restricted to small microsites within a specialized habitat (ledges with thin mossy soil in shady limestone cliffs near water).</p> <p>It is ranked "S1" in Wyoming and "S2" in Colorado.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> Fertig 2000 WYNDD 2001
5 Population Trend in R2	D	<p>Not known.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> -
6 Habitat Trend in R2	A	<p>The habitat quality of Fragile rockbrake may have decreased in the last century due to the logging.</p> <p>Confidence in Rank LOW</p>	<ul style="list-style-type: none"> Fertig 2000
7 Habitat Vulnerability or Modification	A	<p>Fragile rockbrake may be threatened by logging activity or road construction in its habitat. It occurs on Bighorn, Bridger-Teton, Shoshone, and Targhee national forests, which are managed for multiple use. It also occurs in Yellowstone National Park.</p> <p>Confidence in Rank LOW</p>	<ul style="list-style-type: none"> Fertig 2000
8 Life History and Demographics	D	<p>Fragile rockbrake is a perennial fern with leaves scattered along a creeping, scaly rhizome. The spore producing period is from July to August.</p> <p>Life history information on this species, including life history stages, population structure, longevity, mortality, pollination biology and gamete/spore biology, are not available.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> Fertig 2000 Hartman et al. 1991
Initial Evaluator(s): Bonnie Heidel and Scott Laursen			Date: February 19, 2002

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National Forests in the Rocky Mountain Region where species is KNOWN (K) or LIKELY(L)¹ 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	X
				Halsey NF		Buffalo Gap NG		Bighorn NF	X
				Nebraska NF		Ft. Pierre NG		Black Hills NF	
				Ogalala NG				Medicine Bow NF	
								Thunder Basin NG	

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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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