

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <i>Selaginella mutica</i> / Blunt-leaf Spike-moss			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	AD	<p>Blunt-leaf Spike-moss is at the northern limits of its distribution in the Medicine Bow Range in Carbon County, Wyoming, on the Medicine Bow National Forest. It also occurs in Colorado, therefore, additional state information is necessary in order to determine its status in Region 2.</p> <p>This species is found in ledges and cracks on cliffs and ledges in montane areas. In Wyoming, this species can be found on cliffs and boulder outcrops of granite or sandstone with thin patches of soil amid lichens and other cryptogams at 6,200 to 9,600 feet. In eastern Colorado, it is found in rocky, arid canyonsides (Weber and Wittman 2001). Its Wyoming habitat is patchy on the landscape.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> <li>• Dorn 2001</li> <li>• Dorn and Dorn 1972</li> <li>• Fertig 1999</li> <li>• Lellinger 1985</li> <li>• University of Wyoming 1998</li> <li>• USDA Forest Service 2001</li> <li>• Weber and Wittman 2001</li> <li>• Welp et al. 2000</li> </ul>
2 Distribution outside R2	B	<p>Blunt-leaf Spike-moss is known from southern Wyoming to eastern Utah, south to Arizona, southwest Texas and northern Mexico. In Wyoming, this species occurs on lands outside the Region 2 boundary in the Green River Basin of Sweetwater County.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> <li>• Cronquist et al. 1972</li> <li>• Dorn 2001</li> <li>• Fertig 1999</li> <li>• Flora of North America Editorial Committee 1993</li> <li>• Lellinger 1985</li> <li>• University of Wyoming 1998</li> <li>• Welsh et al. 1993</li> </ul>
3 Dispersal Capability	D	<p>Dispersal vectors are unknown.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> <li>• -</li> </ul>
4 Abundance in R2	AD	<p>Blunt-leaf Spike-moss is known from three extant records discovered or relocated between 1972-1995. One population is on the Medicine Bow National Forest. No population data are available, but in one location the species was described as "sparse". It may be more abundant, since it is inconspicuous and easily overlooked. This species is ranked "S1" in Wyoming and it is present but not ranked in Colorado.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> <li>• Fertig 1999</li> <li>• University of Wyoming 1998</li> <li>• USDA Forest Service 2001</li> <li>• WYNDD 2002</li> </ul>

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5 Population Trend in R2	D	Not known, but presumed stable.  Confidence in Rank High	<ul style="list-style-type: none"> <li>Fertig 1999</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	CD	Threats are probably low. Blunt-leaf Spike-moss occurs on lands managed for multiple use by the Curt Gowdy State Park and the Medicine Bow National Forest. It also occurs on the Ashley National Forest (Flaming Gorge National Recreation Area).  Confidence in Rank Medium	<ul style="list-style-type: none"> <li>Fertig 1999</li> <li>Welp et al. 2000</li> <li>WYNDD 2002</li> </ul>
8 Life History and Demographics	D	Blunt-leaf Spike-moss is a loosely-matted, spore-forming perennial.  Additional information on the species, including longevity, mortality, and spore biology, are not available.  Confidence in Rank High	<ul style="list-style-type: none"> <li>Cronquist et al. 1972</li> <li>Fertig 1999</li> <li>Flora of North America Editorial Committee 1993</li> <li>Lellinger 1985</li> <li>Welsh et al. 1993</li> </ul>
Initial Evaluator(s): Bonnie Heidel, Joy Handley and Scott Laursen			Date: May 13, 2002

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

<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.

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<u>Colorado NF/NG</u>	Known	Likely	<u>Kansas NF/NG</u>	Known	Likely	<u>Nebraska NF/NG</u>	Known	Likely	<u>South Dakota NF/NG</u>	Known	Likely	<u>Wyoming NF/NG</u>	Known	Likely
Arapaho-Roosevelt NF			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						Ogalala NG						Medicine Bow NF	X	
San Juan NF												Thunder Basin NG		
Rio Grande NF														
Pike-San Isabel NF														
Comanche NG														

Literature cited

Cronquist, A., A.H. Holmgren, N.H. Holmgren, and J.L. Reveal. 1972. Intermountain Flora, Volume 1: Geological and Botanical History of the Region, its Plant Geography and a Glossary. The Vascular Cryptogams and the Gymnosperms. The New York Botanical Garden, New York.

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

Dorn, R.D. and J. Dorn. 1972. Ferns and other Pteridophytes of Montana, Wyoming, and the Black Hills of South Dakota.

Fertig, W. 1999. State Species Abstract: *Selaginella mutica*. Wyoming Natural Diversity Database. Available on the internet at [www.uwyo.edu/wyndd](http://www.uwyo.edu/wyndd)

Flora of North America Editorial Committee. 1993. Flora of North America North of Mexico. Vol. 2 Pteridophytes and Gymnosperms. Oxford Univ. Press, New York.

Lellinger, D.B. 1985. A Field Manual of the Ferns and Fern Allies of the United States and Canada. Smithsonian Institution Press, Washington, D. C.

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.

USDA Forest Service – Region 2. 2001. “Wyoming plant species” evaluation list and criteria provided to Wyoming Natural Diversity Database. Denver, CO.

Weber, W.A. and R.C. Wittman. 2001. Colorado Flora – Eastern Slope, third edition. University Press of Colorado.

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.

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Welsh, S.L., N.D. Atwood, S. Goodrich, and L.C. Higgins, (eds). 1993. A Utah Flora, second edition, revised. Brigham Young University Print Services, Provo, UT.

Wyoming Natural Diversity Database. 2002. Ongoing documentation of sensitive species distribution, biology, status, and references for the state of Wyoming. University of Wyoming, Laramie.