

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: *Selaginella underwoodii* / Underwood's Spike-moss

Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	AD	<p>Underwood's Spike-moss is at the northern end of its range in Region 2. It occurs in the Laramie Range in Albany and Platte counties, Wyoming, on the Medicine Bow National Forest. It also occurs in Colorado, therefore, additional information is necessary in order to determine its status in Region 2.</p> <p>This species is found primarily on shady ledges and crevices in igneous rocks. Wyoming populations are usually found on granite cliffs and rock outcrops within Douglas-fir or ponderosa pine woods at 5900 to 8600 feet. Its mesic microhabitat within the harsh outcrop setting is patchy and discontinuous on the landscape. In eastern Colorado, it is known from protected canyonsides (Weber and Wittman 2001).</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • Dorn 2001 • Fertig 1999 • Lellinger 1985 • University of Wyoming 1998 • USDA Forest Service 2001 • Weber and Wittman 2001 • Welp et al. 2000
2 Distribution outside R2	B	<p>Underwood's Spike-moss is known from southeastern Wyoming and Colorado, south to Western Texas, Utah and Arizona.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • Cronquist et al.1972 • Lellinger 1985
3 Dispersal Capability	D	<p>Dispersal vectors are unknown.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • -
4 Abundance in R2	AD	<p>Underwood's Spike-moss is known from 5 extant and 1 historical record (last observed in 1921) in Wyoming. Four of the extant occurrences have been discovered or relocated since 1991. Two occurrences are on the Medicine Bow National Forest. Census data are lacking, but most populations have been described as "sparse" to "small", often with fewer than 100 plants. This species is ranked "S1" in Wyoming and is present but not tracked in Colorado.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • Fertig 1999 • USDA Forest Service 2001 • Welp et al. 2000 • WYNDD 2002
5 Population Trend in R2	D	<p>Not known.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • -

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Criteria	Rank	Rationale	Literature Citations
6 Habitat Trend in R2	D	Not known. Confidence in Rank High	• -
7 Habitat Vulnerability or Modification	BD	Threats to its outcrop habitat are not known, but are probably low. Underwood's Spike-moss occurs on lands managed for multiple use by the Medicine Bow National Forest. Confidence in Rank Medium	<ul style="list-style-type: none"> • Fertig 1999 • Welp et al. 2000 • WYNDD 2002
8 Life History and Demographics	D	Underwood's Spike-moss is a loosely-matted, spore-producing perennial. 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"> • Cronquist et al. 1972 • Fertig 1999 • Lellinger 1985
Initial Evaluator(s): Joy Handley and Bonnie Heidel			Date: May 14, 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.

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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														

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