

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <i>Astragalus barrii</i> Barneby / Barr's milkvetch / ASBA (Scientific Name/Common Name/National Code for Plants – USDA PLANTS)			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	A regional endemic occurring just south, west, and northwest of the Black Hills in ne WY, sw SD, nw NE, and se MT. Confidence in Rank High	<ul style="list-style-type: none"> • Marriott 1992, Schmoller 1993, SDNHD 2001,
2 Distribution outside R2	B	Ca. 24 occurrences lie in 4 counties of southeastern MT, where it is still listed as a R1 sensitive species. Confidence in Rank High	<ul style="list-style-type: none"> • GPFA 1986, GPFA 1977, Barneby 1964, MTNHP 2001, Schassberger 1990.
3 Dispersal Capability	D	Produces small, inconspicuous, hairy, leguminous pods with 6-12 ovules/pod apparently only one of which develops into a fertile seed/pod. Dispersal ability / mechanism unknown. Large, localized colonies suggest that seeds/pods are moved only short distances by wind, water, small mammals, etc. Probably infrequent long-distance dispersal by birds or mammals. Substrates are often clayey so pods could adhere to hooves/paws of large mammals. Confidence in Rank Medium	<ul style="list-style-type: none"> • Barneby 1964, Schassberger 1990.
4 Abundance in R2	B	WY: 29 sites/sub-occurrences have been documented in 7 counties of ne WY, SD: 23 occurrences are known from 4 counties in sw SD. NE: At least one site is known in nw NEB. Confidence in Rank High	<ul style="list-style-type: none"> • Marriott 1992, RM 2001, SDNHD 2001, Schmoller 1993.
5 Population Trend in R2	B	No long term, quantitative trend data, but populations at several sites have persisted since the 1950's. New sites are still being found. However, some private land sites/populations have been destroyed by coal mining. Confidence in Rank Low	<ul style="list-style-type: none"> • Marriott 1992, Schmoller 1993.
6 Habitat Trend in R2	B	Inhabits mostly barren substrates, e.g. badlands, or sparsely vegetated grassland of buttes, ridges, washes, etc. Very little of this plant's habitat appears to have been destroyed thus far. Confidence in Rank Medium	<ul style="list-style-type: none"> •

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<p>7 Habitat Vulnerability or Modification</p>	<p>BC</p>	<p>Habitat is, to some degree, threatened by coal, bentonite, zeolite mining and by oil and gas development. However, much of the habitat likely does not occur where there are economically recoverable minerals, so not all of this plant's habitat is threatened. A few populations are protected within a National Park (Badlands). It's sparsely vegetated habitat does not generally attract livestock, so livestock impacts would be limited to trailing, or places where they congregate, ie. corrals, pasture corners, etc. Droughts have been observed to apparently kill plants on certain microsites (Schassberger 1990).</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> • SDNHD 2001, Schassberger 1990.
<p>8 Life History and Demographics</p>	<p>D</p>	<p>Prostrate, matted or tufted (pulvinate) perennial from taproots. Many of the colonies/populations are large with several thousand individuals. Suspect that plants may be fairly long lived (≥ 20 years), with infrequent or episodic seedling establishment. Scarification of seeds enhances germination. Pollinated by bees.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> • Schassberger 1990, Barneby 1964.
<p>Evaluator(s): David J. Ode</p>			<p>Date: 27 September, 2001</p>

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

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<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
		Cimarron NG		Samuel R. McKelvie NF		Black Hills NF		Shoshone NF	
				Halsey NF		Buffalo Gap NG	X	Bighorn NF	
				Nebraska NF		Ft. Pierre NG		Black Hills NF	
				Ogalala NG	?			Medicine Bow NF	
								Thunder Basin NG	X

Sources Cited

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Montana Natural Heritage Program (MTNHP). 2001. Montana Rare Plant Field Guide. Web site: <http://nhp.nris.state.mt.us/plants/index.html>

Rocky Mountain Herbarium (RM). 2001. Atlas of Vascular Plants of Wyoming. Web site: <http://www.esb.utexas.edu/tchumley/wyomap/atlas.htm>. University of Wyoming, Laramie, WY

Schassberger, Lisa A. 1990. Report on the conservation status of *Astragalus barrii*, a candidate threatened species. Unpublished report submitted to the U.S. Fish & Wildlife Service by the Montana Natural Heritage Program, Helena, MT.

Schmoller, David. 1993. Status survey for *Astragalus barrii*. Draft report to the Wall Ranger District, Buffalo Gap National Grassland, Wall, SD.

South Dakota Natural Heritage Database (SDNHD). 2001. Game, Fish and Parks Department, Pierre, SD.

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.