

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

**NOTE:** There are serious questions regarding the taxonomic validity and status of this subspecies. The taxon was last described from only 6 specimens in 1938, and has been neither evaluated nor documented in the field since then. Regional mammalogists have speculated that, if a unique subspecies did occur here at one time, it may have been extirpated by deliberate poisoning campaigns. Also, many mammalogists question the supposed isolation of this subspecies, and hypothesize that *S. tridecemlineatus* in northwestern Wyoming regularly exchange genes and individuals with populations to the north, south, and east (Long 1965, Clark and Stromberg 1987, Hafner et al. 1998). Most information in this form is presented under the assumption that the taxon is extant and valid, but this assumption clearly needs investigation. Generally low confidence ranks are a result of the above questions.

Species: <i>Spermophilus tridecemlineatus alleni</i> / Allen's thirteen-lined ground squirrel			
Criteria	Rank	Rationale	Literature Citations

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<p><b>1</b> Distribution within R2</p>	<p><b>A</b></p>	<p>Taxon is thought to be restricted to the Big Horn and Wind River basins in northwest Wyoming, with possible extension into the upper Green River drainage. Thus potential occurrence in the Rocky Mountain Region is restricted only to the Bighorn and Shoshone NF. However, this geographic isolation may not be complete, and if a <i>S. tridecemlineatus</i> population occurs in this area it may be contiguous with <i>S. tridecemlineatus</i> populations elsewhere.</p> <p>Confidence in Rank <b>Low</b></p>	<p>Clark, T. W. and M. R. Stromberg. 1987. Mammals in Wyoming. University Press of Kansas. Lawrence, Kansas.</p> <p>Hafner, D. J., E. Yensen, and G. L. Kirkland Jr. (editors). 1998. North American rodents; status survey and conservation action plan. World Conservation Union, Gland, Switzerland.</p> <p>Hall, E. R. 1981. The mammals of North America. Second edition. John Wiley and Sons, New York, New York.</p> <p>Long, C.A. 1965. The mammals of Wyoming. University of Kansas Museum of Natural History Publication 14: 493-758.</p> <p>B. Luce, personal communication. Wyoming Game and Fish Department, Lander, Wyoming.</p> <p>Whitaker, J. O. Jr. 1999. Thirteen-lined ground squirrel (<i>Spermophilus tridecemlineatus</i>). Pages 437-438 IN: D.E. Wilson and S. Ruff, editors. The Smithsonian book of North American mammals. Smithsonian Institution Press, Washington, D.C., in association with the American Society of Mammalogists.</p>

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2 Distribution outside R2	<b>A</b>	<p>Although <i>S. tridecemlineatus</i> is widely distributed across central North America, this subspecies is thought to be restricted to northwest Wyoming. However, as discussed above, this supposed isolation may not be complete.</p> <p>Confidence in Rank <b>Low</b></p>	(see citations for criteria 1)
3 Dispersal Capability	<b>B</b>	<p>Difficult to assess; grasslands are generally the preferred habitat, although occupation of and dispersal through shrub-dominated areas likely occurs. This is not an especially mobile taxon, but it is not obligated to remain in proximity to any rare habitat elements, either. This criteria may warrant a C ranking.</p> <p>Confidence in Rank <b>Low</b></p>	<p>Clark, T. W. and M. R. Stromberg. 1987. Mammals in Wyoming. University Press of Kansas. Lawrence, Kansas.</p> <p>Whitaker, J. O. Jr. 1999. Thirteen-lined ground squirrel (<i>Spermophilus tridecemlineatus</i>). Pages 437-438 IN: D.E. Wilson and S. Ruff, editors. The Smithsonian book of North American mammals. Smithsonian Institution Press, Washington, D.C., in association with the American Society of Mammalogists.</p>
4 Abundance in R2	<b>D</b>	<p>This evaluator (G. Beauvais) is unaware of any current data on which to base abundance estimates. Based on distribution and general habitat use, the majority of individuals of this subspecies probably occur on BLM and privately-owned lands, with only a few ranging onto grasslands that fall within the boundaries of the Shoshone and Bighorn NF.</p> <p>Confidence in Rank <b>Medium</b></p>	
5 Population Trend in R2	<b>D</b>	<p>This evaluator (G. Beauvais) is unaware of any current data on which to base trend estimates. The general consensus is that this subspecies has probably undergone a population decline, and possibly has been extirpated. However, this appears to be based mostly on conjecture rather than solid data.</p> <p>Confidence in Rank <b>Medium</b></p>	

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<p><b>6</b> Habitat Trend in R2</p>	<p><b>D</b></p>	<p>Difficult to assess. Whitaker (1999) suggested a general range expansion in <i>S. tridecemlineatus</i> in response to anthropogenic actions; however, other authors (e.g., Long 1965) suggest that deliberate poisoning has severely reduced habitat quality for <i>S. t. alleni</i> in the past. True grasslands are preferred, although occupation of and dispersal through shrub-dominated environments probably occurs. The lack of credible data regarding the validity and status of this subspecies precludes a good ranking of this criteria.</p> <p>Confidence in Rank <b>Medium</b></p>	<p>Clark, T. W. and M. R. Stromberg. 1987. Mammals in Wyoming. University Press of Kansas. Lawrence, Kansas.</p> <p>Long, C.A. 1965. The mammals of Wyoming. University of Kansas Museum of Natural History Publication 14: 493-758.</p> <p>Whitaker, J. O. Jr. 1999. Thirteen-lined ground squirrel (<i>Spermophilus tridecemlineatus</i>). Pages 437-438 IN: D.E. Wilson and S. Ruff, editors. The Smithsonian book of North American mammals. Smithsonian Institution Press, Washington, D.C., in association with the American Society of Mammalogists.</p>
<p><b>7</b> Habitat Vulnerability or Modification</p>	<p><b>C</b></p>	<p>In general, grasslands are rather robust to disturbances; in many cases, grasslands actually require disturbances such as grazing or fire for local persistence. The extent to which exotic weed infestations are impacting grassland rodent populations in this area is unknown. Typical management of grasslands on NF lands (e.g., livestock grazing, recreation) likely do not substantially impact <i>S. tridecemlineatus</i> populations.</p> <p>Confidence in Rank <b>Medium</b></p>	<p>(see citations for criteria 1)</p>

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8 Life History and Demographics	<b>C</b>	<p>This evaluator (G. Beauvais) is unaware of any life-history traits that would predispose this taxon to local extinction. Many predators take <i>S. tridecemlineatus</i>, but reproductive output and general life history traits may be sufficiently adapted to absorb this mortality.</p> <p>Confidence in Rank <b>Medium</b></p>	<p>Clark, T. W. and M. R. Stromberg. 1987. Mammals in Wyoming. University Press of Kansas. Lawrence, Kansas.</p> <p>Long, C.A. 1965. The mammals of Wyoming. University of Kansas Museum of Natural History Publication 14: 493-758.</p> <p>Whitaker, J. O. Jr. 1999. Thirteen-lined ground squirrel (<i>Spermophilus tridecemlineatus</i>). Pages 437-438 IN: D.E. Wilson and S. Ruff, editors. The Smithsonian book of North American mammals. Smithsonian Institution Press, Washington, D.C., in association with the American Society of Mammalogists.</p>
Initial Evaluator(s): <b>Dr. Gary P. Beauvais, Director, Wyoming Natural Diversity Database - University of Wyoming.</b>			Date: <b>24 July 2001</b>

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>		<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
Arapaho-Roosevelt NF		Cimmaron NG		Samuel R.McKelvie NF		Black Hills NF		Shoshone NF	H
White River NF				Halsey NF		Buffalo Gap NG		Bighorn NF	H
Routt NF				Nebraska NF		Ft. Pierre NG		Black Hills NF	
Grand Mesa, Uncompahgre, Gunnison NF				Ogalala NG				Medicine Bow NF	
San Juan NF								Thunder Basin NG	
Rio Grande NF									
Pike-San Isabel NF									
Comanche NG									

Pawnee NG -

**NOTE: “H” refers to National Forest units where presence has been recorded historically; note that this taxon has not been confirmed in the field since 1938.**