

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: Perognathus flavus / Silky Pocket Mouse			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	<p>Within R2, <i>P. flavus</i> is known or likely to occur on all of the National Grasslands. It is also known to occur along the edges of the Rio Grande National Forest in Colorado, and may occur on the Samuel R. McKelvie and Nebraska National Forests in Nebraska. The silky pocket mouse can be found in sandy or rocky soils in arid grasslands and shrublands. Grassy cover seems to be the most important habitat requirement for this species. This mouse has been known to occur in grasslands, deserts, and juniper woodlands, although soil and vegetation types can vary to some degree.</p> <p>Confidence in Rank High</p>	1,2,3,4,5,6,7,8,10,11,12
2 Distribution outside R2	C	<p>A great deal of the distribution of this species is found outside of the Rocky Mountain Region. There are a total of 14 subspecies for <i>P. flavus</i> and only 3 of these are found within R2. The other 11 subspecies are located from southeastern Utah, to western Oklahoma and south through Arizona, New Mexico, Texas, and much of central Mexico. One disjunct population occurs along the coastal plain of the Gulf of California, in Sonora. Populations of all these subspecies are fairly contiguous as long as grassy habitat exists, except for the disjunct population in Sonora.</p> <p>Confidence in Rank High</p>	1,2,3,6,8
3 Dispersal Capability	D	<p>Very little is known about dispersal for this species. These mice are solitary in nature, except during the breeding season, and therefore may disperse to a certain degree. Dispersal could be limited by major barriers and appropriate habitat and food supplies.</p> <p>Confidence in Rank Low</p>	

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4 Abundance in R2	B	This species seems to be uncommon within R2. In Wyoming it is considered a rare species, and throughout the plains states it is the least abundant of the pocket mice. The highest abundances within R2 occur in Colorado, where this species is thought to be “fairly common” in the grasslands where it is found. Abundance and density of this species can vary greatly from year to year, depending on various factors. <i>P. leucopus</i> is probably more abundant on BLM and privately-owned lands. Confidence in Rank Medium	1,2,5,6,8,10,11,12
5 Population Trend in R2	B	Although population data are lacking somewhat, it appears that the R2 population is stable. The WYNDD Database states that in Wyoming the population trend is “probably stable, but unknown for sure”. It is possible a slight decrease may have occurred recently due to overgrazing, but this is hard to know since population densities can fluctuate so much from year to year. Recent and historical abundances in Colorado seem to be high, indicating a stable population there. Confidence in Rank Low	1,2,3,8
6 Habitat Trend in R2	D	A lack of relevant data in this area makes it difficult to assess habitat trends. Overgrazing and habitat conversion into agricultural lands has perhaps slightly decreased available habitat for this species recently, but probably only to a minimal degree. Confidence in Rank Low	
7 Habitat Vulnerability or Modification	B	Primary habitat can be vulnerable to livestock grazing and overall destruction and degradation by urban and rural development. Much of the suitable habitat for this species is not found on National Forests lands, and therefore may not be well protected. Confidence in Rank High	1,2

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8 Life History and Demographics	B	Females generally have 1 or 2 litters per year of 2-6 young each. In R2 it is likely they have only 1 litter per year, while in the south they usually have 2 litters per year. The young become independent after 1 month and life expectancy is 2 to 3 years. Predators include foxes, coyotes, weasels, owls, and snakes. Direct competition with kangaroo rats has been demonstrated in a study done in the Chihuahuan Desert in New Mexico. In this study the removal of kangaroo rats resulted in increased grassiness, thereby resulting in greater abundances of <i>P. flavus</i> . The wide population fluctuations that can occur in this species can make it vulnerable to disturbances and local extinctions. Confidence in Rank Medium	1,2,3,7,9
Initial Evaluator(s): Darby Dark-Smiley, Research Scientist, Wyoming Natural Diversity Database.			Date: July 23, 2001

Literature Citations:

- 1) Clark, T.W. and M.R. Stromberg. 1987. Mammals in Wyoming. University Press of Kansas, Lawrence, Kansas.
- 2) Wyoming Natural Diversity Database. 2001. Unpublished data. University of Wyoming, Laramie, Wyoming.
- 3) Wilson, D.E. and S. Ruff, Eds. 1999. The Smithsonian Book of North American Mammals. Smithsonian Institution Press, Washington and London.
- 4) Bee, J.W., G.E. Glass, R.S. Hoffmann, and R.R. Patterson. 1981. Mammals in Kansas. University of Kansas Publications Museum of Natural History, Lawrence, Kansas.
- 5) Colorado Gap Analysis Program. 2001. Species distribution models: <http://ndis.nrel.colostate.edu/cogap/cogaphome.html>.
- 6) South Dakota Gap Analysis Program. 2001. Species distribution models: <http://wfs.sdstate.edu/sdgap/sdgap.htm>
- 7) Whitaker Jr., J.O. 1980. National Audubon Society Field Guide to North American Mammals. Alfred A. Knopf Publishing, New York, New York.
- 8) Colorado Species Occurrence and Abundance Tool. 2001. Species abundances by county: <http://ndis.nrel.colostate.edu/ndis/countyab/>
- 9) Heske, E.J., J.H. Brown, and M. Shahroukh. 1994. Long-term experimental study of a Chihuahuan Desert rodent community: 13 Years of competition. Ecology (Tempe). 75:438-445.
- 10) CNHP Database. 2001. Unpublished distribution information for *P. flavus* in Colorado from the Biological and Conservation Data System of the Colorado Natural Heritage Program, Colorado State University, Fort Collins, Colorado.
- 11) Jones, Jr., J.K., D.M. Armstrong, and J.R. Choate. 1985. Guide to Mammals of the Plains States. University of Nebraska Press, Lincoln, Nebraska.
- 12) Wyoming Gap Analysis Program. 1996. Terrestrial Vertebrate Species Map Atlas Volume 1: Amphibians, Reptiles, and Mammals. Wyoming Gap Analysis Program, University of Wyoming, Laramie, Wyoming.

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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>Known</u>	<u>Likely</u>	<u>Kansas NF/NG</u>	<u>Known</u>	<u>Likely</u>	<u>Nebraska NF/NG</u>	<u>Known</u>	<u>Likely</u>	<u>South Dakota NF/NG</u>	<u>Known</u>	<u>Likely</u>	<u>Wyoming NF/NG</u>	<u>Known</u>	<u>Likely</u>
Arapaho-Roosevelt NF	-	-	Cimmaron NG	3		Samuel R.McKelvie NF	-	4?	Black Hills NF	-	-	Shoshone NF	-	-
White River NF	-	-				Halsey NF	-	-	Buffalo Gap NG	-	5	Bighorn NF	-	-
Routt NF	-	-				Nebraska NF	-	4?	Ft. Pierre NG	-	-	Black Hills NF	-	-
Grand Mesa, Uncompahgre, Gunnison NF	-	-				Ogalala NG	4	-				Medicine Bow NF	-	-
San Juan NF	-	1										Thunder Basin NG	6	-
Rio Grande NF	2	-												
Pike-San Isabel NF	-	-												
Comanche NG	-	1												
Pawnee NG	-	1												

Comments:

? Refers to National Forests where presence is expected based on the literature, but with a certainty of less than 50%.

Primary Sources:

- 1 CO GAP, 2001 - predicted distribution map.
- 2 CNHP Database, 2001.
- 3 Bee et al., 1981 – known distribution map in Kansas.
- 4 Jones Jr., J.K., D.M. Armstrong and J.R. Choate. 1985 – general distribution map for the plains states.
- 5 SD GAP, 2001 – known/predicted distribution map.
- 6 Clark & Stromberg. 1987 – known distribution map in Wyoming.

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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