

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <b>Peromyscus leucopus / White-Footed Mouse</b>			
Criteria	Rank	Rationale	Literature Citations
<b>1</b> Distribution within R2	<b>B</b>	R2 is on the western periphery of the range of <i>P. leucopus</i> . In Wyoming this species is known from the Big Horn and Black Hills National Forests, and is likely to occur on Thunder Basin National Grassland. In Colorado this species encompasses the eastern edge of the state, and is only known to occur on the Comanche National Grasslands. South Dakota, Nebraska, and Kansas are more within the core range of this species, and it is known or likely to occur on all National Forest lands within these states. The white-footed mouse can be found in a wide variety of habitats, but generally it occupies woodlands along gallery forests of major rivers and adjacent grasslands. This mouse is quite adaptable, and the only constant habitat requirement is some form of canopy cover.  Confidence in Rank <b>High</b>	1,2,3,4,5,6,7,8,9,10,11
<b>2</b> Distribution outside R2	<b>C</b>	The bulk of distribution for this species occurs outside of R2, where the mouse's range extends from southern Saskatchewan, south to Arizona and Mexico, as well as east all the way to the Atlantic coast, north to Maine, and south as far as South Carolina. <i>P. leucopus</i> occurs over a large geographic range and a wide variety of habitats outside of R2.  Confidence in Rank <b>High</b>	1,2,3,8
<b>3</b> Dispersal Capability	<b>B</b>	Most <i>P. leucopus</i> spend their lives within 30 meters of their natal nest. They may have several nests within this area, and often change nest sites every 3 to 4 months. They usually exist in fairly high densities and probably only disperse at a local scale. Within R2 they are restricted mainly to riparian woodlands along major rivers.  Confidence in Rank <b>Medium</b>	1,3,10
<b>4</b> Abundance in R2	<b>B</b>	Although <i>P. leucopus</i> is fairly abundant throughout its entire range, it is less common within R2, especially on the western periphery. In Wyoming it is considered to be a "rare" resident, and South Dakota considers it to be "uncommon". However, the further east you go, the more abundant it becomes. In eastern Colorado it is thought to be "common" where it is known to occur, and in Kansas it is considered "the most abundant mammal in deciduous forests". Despite this, I would still have to rank it as uncommon within R2.  Confidence in Rank <b>Medium</b>	2,3,4,5,9

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<b>5</b> Population Trend in R2	<b>B</b>	Population trends seem to indicate a stable population for the most part, although exact numbers are not known. Clark & Stromberg suggest that the population within Wyoming may have decreased slightly in the past few years due to overgrazing of brush understory in riparian habitats. There are only 2 subspecies that are known to have decreased in size, but neither of them is found within R2.  Confidence in Rank <b>Low</b>	1,2,3
<b>6</b> Habitat Trend in R2	<b>D</b>	A lack of relevant data in this area makes it hard to assess habitat trends. In Wyoming recent habitat loss has been documented due to overgrazing in riparian areas. This could very well be a problem throughout R2, although no documentation was found to support this.  Confidence in Rank <b>Low</b>	
<b>7</b> Habitat Vulnerability or Modification	<b>B</b>	Habitat is vulnerable to overgrazing in riparian areas. General habitat destruction from urbanization and development is also a threat. However, a study done in Pennsylvania showed that abundance of this species increased with forest fragmentation, (Yahner 1992 from WYNDD Database). Habitat occurring on BLM lands is protected.  Confidence in Rank <b>Medium</b>	1,2
<b>8</b> Life History and Demographics	<b>B</b>	Females generally have 2 to 4 litters a year, of 3 to 5 young on average. Gestation takes about 25 days, and young leave the nest at five weeks of age. At eight weeks of age they are able to breed and their life expectancy is approximately 1 to 2 years. <i>P. leucopus</i> is one of the most broadly adapted species within its genus, especially in regards to habitat and diet. However, this species has a large variety of predators and has been documented to have high mortality rates in spring and early summer due to increased predation pressures at that time. These mice are also known to be hosts for fleas, mites, ticks, and warbles externally, and a variety of endoparasites live within them as well. Given the fact these mice may be subject to high mortality rates at a crucial time of the year, I am giving a B ranking for this category.  Confidence in Rank <b>High</b>	1,2,3,8,10
Initial Evaluator(s): Darby Dark-Smiley, Research Scientist, Wyoming Natural Diversity Database			Date: July 24, 2001

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### 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) Turner, R.W. 1974. Mammals of the Black Hills of South Dakota and Wyoming. University of Kansas Museum of Natural History Miscellaneous Publication 60.
- 5) 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.
- 6) Colorado Gap Analysis Program. 2001. Species distribution models: <http://ndis.nrel.colostate.edu/cogap/cogaphome.html>.
- 7) South Dakota Gap Analysis Program. 2001. Species distribution models: <http://wfs.sdstate.edu/sdgap/sdgap.htm>
- 8) Whitaker Jr., J.O. 1980. National Audubon Society Field Guide to North American Mammals. Alfred A. Knopf Publishing, New York, New York.
- 9) Colorado Species Occurrence and Abundance Tool. 2001. Species abundances by county: <http://ndis.nrel.colostate.edu/ndis/countyab/>
- 10) 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.
- 11) Wyoming Game & Fish Department, Wildlife Division. 1999. Threatened, Endangered, and Nongame Bird and Mammal Investigations – Annual Completion Report. Produced by the Nongame Program Biological Services Section, Wyoming Game & Fish Department, Lander, Wyoming.

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

<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>			
	<u>Known</u>	<u>Likely</u>	<u>Known</u>	<u>Likely</u>	<u>Known</u>	<u>Likely</u>	<u>Known</u>	<u>Likely</u>		
Arapaho-Roosevelt NF	-	-	3	-	4	-	7	-	-	8?
White River NF	-	-			4	-	5	5	6	-
Routt NF	-	-			4	-	5	-	6,7	-
Grand Mesa, Uncompahgre, Gunnison NF	-	-			4	-			-	-
San Juan NF	-	-							-	6
Rio Grande NF	-	-								
Pike-San Isabel NF	-	-								
Comanche NG	1,2	-								
Pawnee NG	-	-								

Comments:

? Refers to National Forests where presence is expected based on the literature, but with a certainty of less than 50%. This is questionable because it is out of the known range, and this mouse can easily be confused with *P. maniculatus*.

Primary Sources:

- 1 CO GAP, 2001 - predicted distribution map.
- 2 Colorado Species Occurrence & Abundance Tool: <http://ndis.nrel.colostate.edu/ndis/countyab/>
- 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.
- 7 Turner, R.W. 1974 – confirmed locations in the Black Hills.
- 8 Wyoming Game & Fish. 1999. Annual Completion Report.

<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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**National Forests in the Rocky Mountain Region where species is KNOWN (K) or LIKELY(L)<sup>2</sup> to occur:**

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