REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: New Mexico meadow jumping mouse*, Zapus hudsonius luteus*

Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	A	Jones (1999) reported this subspecies from western Las Animas County in southern Colorado. A Feb. 2009 species list received from USFWS includes Archuleta, Conejos, Costilla, La Plata, Las Animas and Montezuma counties (occupied or within the historical range). Confidence in Rank High	• Jones, C. A. 1999. Zapus hudsonius in southern Colorado. Museum of Texas Tech University Occasional Papers 191:1-7.
2 Distribution outside R2	A	Endemic to New Mexico, Arizona, and a small area of southern Colorado. Recent genetic studies confirm that the New Mexico meadow jumping mouse is a distinct subspecies from other *Zapus hudsonius* subspecies. This subspecies currently is represented by 11 known extant occurrences; up to at least 8 additional historical localities may possibly support extant populations. Confidence in Rank High	• NatureServe 2009 • FWS. 2008. Candidate Notice of Review. Federal Register 73(238): 75175-75244
3 Dispersal Capability	A	The highly fragmented distribution makes this subspecies vulnerable to continuing declines with very low probability of natural recolonization. Confidence in Rank Medium	• NatureServe 2009
4 Abundance in R2	B	Total adult population size is unknown but presumably is at least several hundred (assuming 20 extant occurrences each represented by at least 50 adults). Very few are known from Colorado. Confidence in Rank Low	• NatureServe 2009

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5 Population Trend in R2	A	In the late 1980s, Morrison (1992) determined that *Zapus hudsonius luteus* still occurred in all resurveyed sites in New Mexico and found this subspecies in additional sites in the Jemez and Sacramento mountains, Rio Grande Valley, and the lower Rio Chama Valley. However, surveys conducted in 2005 and 2006 documented a drastic decline in the number of occupied localities and suitable habitat across the range of the species in New Mexico and Arizona. Of the original 98 known historical localities, there are now only 10 known extant localities in New Mexico, one in Arizona, and an additional eight localities that have not been surveyed since the early to mid 1990s (USFWS 2007). The highly fragmented nature of its distribution is also a major contributor to the vulnerability of this species and increases the likelihood of very small, isolated populations being extirpated. The insufficient number of secure populations, and the destruction, modification, or curtailment of its habitat, continue to pose the most immediate threats to this species. Confidence in Rank Medium	• Morrison, J. L. 1992. Persistence of the meadow jumping mouse, Zapus hudsonius luteus, in New Mexico. Southwest. Nat. 37:308-311. • U.S. Fish and Wildlife Service (USFWS). 2007. New Mexico meadow jumping mouse *Zapus hudsonius luteus*. USFWS, Arizona Ecological Services Field Office. 1 pp. • FWS 2008
6 Habitat Trend in R2	A/B	Populations are believed to have been negatively affected by destruction and degradation of wetlands and riparian zones, resulting from overgrazing, water use and management, highway reconstruction, development, recreation and beaver removal (USFWS 2087). Recent surveys determined that the disappearance of the species from historical localities was associated with elimination and degradation of habitat (Frey 2005). Threats are affecting the survival of jumping mouse in all but two of the extant localities, and therefore are considered to be of a high magnitude and are imminent. Confidence in Rank Low	• USFWS 2008 • Frey, J. K. 2005. Status assessment of montane populations of the New Mexico jumping mouse (*Zapus hudsonius luteus*) in New Mexico. Report to New Mexico Department of Game and Fish, Santa Fe, New Mexico. Contract # 05-516.57. 74 pp. + appendices.
7 Habitat Vulnerability or Modification	A	The jumping mouse nests in dry soils, but uses moist, streamside, dense riparian/wetland vegetation. Habitat includes sedge-forb-willow zones along permanent streams (Jemez and Sacramento mountains); large wet meadows within river floodplains (Rio Grande Valley); and narrow riparian zones along irrigation ditches (Bosque del Apache NWR) (Morrison 1992). In many areas, moist riparian zones with tall, dense sedges provide suitable habitat; the presence of beavers is useful in maintaining habitat. This jumping mouse would benefit from protection of high quality riparian zones and restoration of degraded (e.g., over-grazed or eroded) riparian zones. Confidence in Rank Medium	• Morrison, J. L. 1992. Persistence of the meadow jumping mouse, *Zapus hudsonius luteus*, in New Mexico. Southwest. Nat. 37:308-311. • FWS 2008

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8 Life History and Demographics	B	Habitat specialist. These mice generally live less than 3 years in the wild. Confidence in Rank Medium	• NatureServe 2009
Evaluator(s): Nancy Warren, RO			Date: 03/13/09

ATTACHMENT SS2

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

Species Name: New Mexico meadow jumping mouse														
Colorado NF/NG	**Known**	**Likely**	**Kansas NF/NG**	**Known**	**Likely**	**Nebraska NF/NG**	**Known**	**Likely**	**South Dakota NF/NG**	**Known**	**Likely**	**Wyoming NF/NG**	**Known**	**Likely**
Arapaho-Roosevelt NF			Cimarron 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		
San Juan NF		X										Thunder Basin NG		
Rio Grande NF	X													
Pike-San Isabel NF														
Comanche NG														
Pawnee NG														

[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.