

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: (Gulo Gulo / Wolverine)			
Criteria	Rank	Rationale	Literature Citations
<p>1 Distribution within R2</p>	<p>B</p>	<p>Wolverine is thought to prefer remote habitats that occur within the coniferous subalpine zone or within the open and barren rock laden alpine zone that occurs along the Rocky Mountain Chain in Wyoming (Yellowstone) and southern Rocky Mountain chain (Colorado). Wolverines have been documented in the Greater Yellowstone Ecosystem (GYE) with additional records, outside of GYE, brought to bear in 1982. Early thinking indicated that wolverines were mostly located in Yellowstone N.P., but the 1982 effort indicated that lands outside the park also had presence of wolverine in greater numbers than previously thought. Currently many believe the chain of mountains along western Wyoming still have wolverines, with an occasional sighting of animals in the Sierra Madre and Medicine-Bow and Big Horn mountains. Investigation by the state in Colorado in 19 97 indicated the possible presence of wolverines in some parts of Colorado. However, this effort was not able to verify or confirm the suspected track observations made during survey effort. See section #4 for recent unverified reports in Colorado.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • Warren, 1910 • Warren, 1942 • Hoak et al. 1982 • Ruggerio et al. 1994 • Neade et al., 1985 • Byrne and Copeland, 1997 • Byrne, 1995 • Sidle et al., 1998
<p>2 Distribution outside R2</p>	<p>B</p>	<p>The presence of Wolverines has not been well documented outside of Idaho, Montana and Washington in recent times, but historical records exist for wolverine in California, Oregon, Utah, North Dakota and South Dakota. Some believe that the only viable populations of wolverines exist in Montana and certain areas of Idaho. Outside of these areas information is lacking to assess whether other areas have small population centers that are yet to be discovered.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • Garton and Maj, 1993 • Barnes, 1927 • Ingles, 1965 • Grinnell et al., 1937 • Davis, 1939 • Allen, 1942 • Edelmann and Copeland, 1999 • Marshall, 1989

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3 Dispersal Capability	B	<p>The few homerange studies that been conducted (US, Alaska and Canada) indicate males have a much larger homerange and appear to use a variety of habitat conditions over this broad area. Females in most of the studies have exhibited smaller homeranges and at least in the one study in British Columbia female homeranges have occured within remote and lightly to non-roaded type areas areas. Homeranges for males can easily exceed 98 sq. miles per individual and some studies have reported male homeranges as high as 150 sq. miles or higher. Wolverines have the capability of traveling great distances in search of food, or in search of a mate. Early indications from scant wolverine investigations indicate that loop roads may influence wolverine use patterns on the landscape, but the only one study along the coastal mountains of British Columbia is looking truly examining fragmentation effects from land management practices and how these may influence seasonal movement patterns of wolverines.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • Copeland, 1996 • Krebs, 2000 • La Froth 2000
4 Abundance in R2	A	<p>Based on limited sampling, unsolicited sighting reports (reliable and unreliable) and historic records it appears that <i>Gulo gulo</i> still exists in the Greater Yellowstone area of Wyoming. Outside of this area only occasional reports have occurred. Recent, unverified reports of wolverine have occurred in Wyoming (Medicine-Bow Range) and Colorado (Arapaho-Roosevelt NF and San Juan NF).</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • Garcia, 2001 • Lowry, 2001 • Beavauis, 2001 • Hoak et al., 1982 • Byrne, 1995 • Sidle et al., 1998 • Byrne and Copeland, 1997
5 Population Trend in R2	A	<p>Information on wolverine abundance is not available for Region 2 and therefore estimating the population trend for this species can not be done with any assurance of the reliability of such an estimate.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • Sidle et al., 1998

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6 Habitat Trend in R2	B	<p>The quantity and quality of wolverine habitat in Region 2 is a complex issue. Currently, Colorado is the only state in the Region that has modeled potential wolverine denning habitat based on parameters developed by Copeland. This model provides a rough account for where potential wolverine denning habitat exists on the landscape and needs to have a thorough field review before any confidence parameters can be placed on the model outputs. It appears from where potential denning habitat occurs in Colorado, and we believe is true elsewhere in the Region, that many of the area identified would fall with National Parks, Wilderness, RNAs and other restrictive allocations. We believe only a small percent of these modeled conditions might fall out of the categories listed above. It is therefore to predict if a trend pattern exists with the habitat, since many of the potential areas are in categories and locations where management is either prohibited or less likely to occur.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • Copeland, 1996 • Sidle et al, 1998
7 Habitat Vulnerability or Modification	B	<p>See discussion above as great importance is being placed on the denning habitat component for wolverines. Some of the early myths about management affects to wolverines may be altered with the recent studies being done in the United States and Canada. It is too early in these investigations to get a clear picture at this time.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • Copeland, 1996 • Krebs, 2000 • Ruggerio et al., 1994 • Sidle et al., 1998
8 Life History and Demographics	A	<p>Outside of the two recent intensive studies in British Columbia (Coastal and southern Canadian Rocky Mountains, and doctoral thesis examination of wolverines in the Saw Tooth Mountains of Idaho, little information exists to begin a dialogue of demography of this species along the western tier of states.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • Copeland, 1996 • Krebs, 2000 • La Froth, 2000 • Ruggerio et al., 1994
Evaluator(s): Fred Wahl			June 17,2001

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

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

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