

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: Monarch Butterfly (<i>Danaus plexippus</i>)			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	The monarch butterfly is a wide-ranging species and occurs in every state in Region 2. Breeding sites for the eastern population occur, at a minimum, along the eastern half of Kansas, Nebraska, and South Dakota. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> • CBD 2014
2 Distribution outside R2	C	The monarch butterfly is found throughout the United States, southern Canada and northern and interior Mexico. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> • CBD 2014 • CDC 2008
3 Dispersal Capability	C	No barriers to dispersal are known, though high mountain ranges and large urban areas may present challenges to dispersal (speculation). Monarchs west of the Continental Divide typically winter along coastal California, while the eastern population winters in Mexico. Monarchs are wholly dependent on milkweeds for breeding, so the loss of milkweeds across could hinder or prevent dispersal of monarch butterflies into formerly occupied areas. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> • CBD 2014
4 Abundance in R2	C	Abundance within Region 2 is largely unknown, though breeding monarchs are known to occur along the eastern half of Kansas, Nebraska and South Dakota. Migrating monarchs pass through all states in Region 2. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> • CBD 2014
5 Population Trend in R2	A	The number of monarch butterflies has declined by more than 90 percent in the last two decades. Numbers east of the Continental Divide have declined by more than 90 percent and numbers west of the Divide by more than 50 percent. While there could be local or regional differences in the amount of decline, it is evident that the overall trend in Region 2 is downward. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> • CBD 2014
6 Habitat Trend in R2	A	Overall reduction of milkweed has occurred across the range of the monarch butterfly, and this reduction has likely occurred throughout Region 2. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> • CBD 2014 • USFWS 2015

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7 Habitat Vulnerability or Modification	A	Increased pesticide use and ongoing land cover changes (e.g., urbanization, intensive agriculture) could result in the continued loss of milkweed, the host plant for the monarch (only plant on which the monarch lays eggs, only food source for larval stage). Climate change could increase the intensity, duration and frequency of drought, reducing the quality and abundance of milkweed. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> • USFWS 2015 • CBD 2014 • Monarch Joint Venture 2015b
8 Life History and Demographics	B	Monarch butterflies migrate thousands of miles and take multiple generations to complete migration. Monarch use milkweeds exclusively for breeding and larval feeding. Longest lived butterfly. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> • CEC 2008 • CBD 2014 • Monarch Joint Venture 2015a
Evaluator(s):			Date:

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

Because the monarch butterfly is a wide-ranging species and has been observed at high and low elevations, the species is expected to occur at every national forest and national grassland in Region 2. Recommend a (K) for all units.

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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Species Name:											
<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	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								Thunder Basin NG			
Rio Grande NF											
Pike-San Isabel NF											
Comanche NG											
Pawnee NG											

References

Center for Biological Diversity (CBD), Center for Food Safety, The Xerces Society, Dr. Lincoln Brower. 2014. Petition to protect the monarch butterfly (*Danaus plexippus plexippus*) under the Endangered Species Act. August 26, 2014. 159 pp.

Center for Environmental Cooperation (CEC). 2008. North American monarch conservation plan 56 pp.

U.S. Fish and Wildlife Service. 2015. 90-day finding on a petition to list the monarch butterfly as a threatened species under the Endangered Species Act. Federal Docket No. FWS-R3-ES-2014-0056. Appendix for Monarch Butterfly. 29 pp.

Monarch Joint Venture. 2015a. Biology. [<http://monarchjointventure.org/monarch-biology/>]

Monarch Joint Venture. 2015b. Threats. [<http://monarchjointventure.org/threats/>]