

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: ***Cnemidophorus sexlineatus viridis*** – prairie racerunner lizard (= six-lined racerunner)

Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	<p>Prairie-lined racerunners (<i>C. s. viridis</i>) are a subspecies of the six-lined racerunner. <i>C. s. viridis</i> occurs throughout the prairies of the eastern half of Region 2, generally at elevations below 7,500 feet (6,7). They are typically found in sparsely vegetated areas of grassland, sandhills, open floodplains, and clearings in woodlands (7). There is little information to suggest the degree of population connectivity within its range in Region 2.</p> <p>Confidence of rank: <b>LOW</b></p>	<ul style="list-style-type: none"> <li>6,7,13</li> </ul>
2 Distribution outside R2	B	<p>There are two sub-species of racerunner in the United States: the eastern six-lined racerunner (<i>C. s. sexilineatus</i>), which occurs in the eastern U.S. from the Atlantic and Gulf coasts west to eastern Texas and Oklahoma; and the prairie-lined racerunner (<i>C. s. viridis</i>), which occurs in the Great Plains states as far west as eastern Colorado and southeastern Wyoming.</p> <p>Confidence of rank: <b>MEDIUM</b></p>	<ul style="list-style-type: none"> <li>6,7,13</li> </ul>
3 Dispersal Capability	B	<p>Racerunners do not travel far and then only through suitable habitat. Rough home range estimates are less than half an acre, but there does not seem to be any territorial boundaries, so wanderings outside this area often occur (6). However, there is some evidence that changes in habitat quality can elicit longer movements whereby racerunners exploit the most suitable habitat (6).</p> <p>Confidence in rank: <b>HIGH</b></p>	<ul style="list-style-type: none"> <li>6</li> </ul>
4 Abundance in R2	B-C	<p>It seems that racerunners can be common in locations with good habitat conditions, with reported densities of over 100 individuals per hectare (6, 7). However, no surveys have been conducted in large parts of their suspected range, so it is not known if this situation is common. <i>Cnemidoporus sexlineatus</i> species are listed as secure (S4-5) by Natural Heritage Programs over much of their central and southern range in the U.S., including Colorado, but the prairie-lined sub-species is listed as imperiled (S2) in Wyoming and South Dakota due to overall rarity of occurrence (13). Both these states are on the extreme periphery of <i>C. sexilineatus</i> range.</p> <p>Confidence in rank: <b>LOW</b></p>	<ul style="list-style-type: none"> <li>6,7,13</li> </ul>

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5 Population Trend in R2	B	Virtually no information exists on current population trends of prairie-lined racerunners. It is assumed, based on anecdotal information, that they are stable in both distribution and abundance (7).  Confidence in rank: <b>LOW</b>	<ul style="list-style-type: none"> <li>7</li> </ul>
6 Habitat Trend in R2	A-B	The availability of racerunner habitat is assumed to be stable or slightly declining. Given that they like sparsely vegetated areas and feed on insects, activities that favor dense vegetation and/or employ pesticides (e.g., cultivated crops) can eliminate racerunner habitat (7).  Confidence in rank: <b>MEDIUM</b>	<ul style="list-style-type: none"> <li>6,7,13</li> </ul>
7 Habitat Vulnerability or Modification	B	Racerunners appear to tolerate moderate habitat disturbance, as long as open, sparsely vegetated areas with insects persist. However, complete conversion of prairie to other uses (e.g., urban development or crop production) eliminates suitable habitat and can therefore eliminate local populations.  Confidence in rank: <b>MEDIUM</b>	<ul style="list-style-type: none"> <li>6,7,13</li> <li></li> </ul>
8 Life History and Demographics	B	Racerunners have clutches of about 3 eggs, with larger animals producing more eggs, and can have multiple clutches in one year if conditions are optimal (3). The age structure of populations seems to be heavily weighted toward young (i.e., less than 2 years old) individuals, with some reaching 4-6 years. A few studied populations seem to exhibit large fluctuations in abundances due to stochastic environmental variables that affect foraging habitat and insect populations (6).  Confidence in rank: <b>LOW</b>	<ul style="list-style-type: none"> <li>3,6</li> </ul>
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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>					
Known	Likely	Known	Likely	Known	Likely	Known	Likely	Known	Likely				
	7?	Cimmaron NG	3	7	Samuel R. McKelvie NF		10?	Black Hills NF		Shoshone NF			
					Halsey NF		10?	Buffalo Gap NG		10?	Bighorn NF		
					Nebraska NF		10?	Ft. Pierre NG			Black Hills NF		
					Ogalala NG		10				Medicine Bow NF		
											Thunder Basin NG		
	7?												
	7												
	7												

**Comments:**

? The species is likely to occur in this unit, but the information on which this designation is made is indirect, insufficient, or uncertain, making it somewhat questionable without further input from local experts.

Numbered entrees reflect the sources, as numbered in the list of references, from which the known and likely occurrence data were drawn.

<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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### References

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3. Collins, J. T. 1993. Amphibians and Reptiles in Kansas, third edition, University of Kansas Museum of Natural History Public Education Series No. 13. University Press of Kansas, Lawrence, Kansas.
4. Colorado Gap Analysis Program (CO GAP). 2001. Online predictive species distribution maps generated by the Colorado Gap Analysis Program, Colorado Division of Wildlife, Denver, Colorado.
5. Conant, R. 1958. A field Guide to Reptiles and Amphibians of Eastern and Central North America, Second Edition. Houghton Mifflin Company, Boston, Massachusetts.
6. Fitch, H.S. 1958. Natural history of the six-lined racerunner (*Cnemidophorus sexlineatus*). University of Kansas Publications, Museum of Natural History, Lawrence, Kansas.
7. Hammerson, G. A. 1999. Amphibians and Reptiles in Colorado, second edition. University Press of Colorado, Niwot, Colorado and Colorado Division of Wildlife, Denver, Colorado.
8. Hudson, G. E. 1942. The Amphibians and Retails of Nebraska, Nebraska conservation Bulletin No. 24. University of Nebraska Conservation and Survey Division, Lincoln, Nebraska.
9. South Dakota Gap Analysis Program (SD GAP). 2001. Online predictive species distribution maps generated by the South Dakota Gab Analysis Program, Department of Wildlife and Fisheries Sciences and South Dakota Cooperative Fish and Wildlife Research Unit, South Dakota State University, Brookings, South Dakota.
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12. Wyoming Gap Analysis Program (WY GAP). 1996. Terrestrial Vertebrate Species Map Atlas Volume 1: Amphibians, Reptiles, and Mammals. Wyoming Gap Analysis Program, University of Wyoming, Laramie, Wyoming.
- 13 Wyoming Natural Diversity Database. 2001. Unpublished distribution information for Wyoming from the Biological and Conservation Data System of the Wyoming Natural Diversity Database, University of Wyoming, Laramie, Wyoming.
14. Wyoming Game and Fish Department (WYGF). 1999. Atlas of Birds, Mammals, Reptiles and Amphibians in Wyoming. Wyoming Game and Fish Department, Wildlife Division, Lander, Wyoming.