

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <b>Rubber boa (<i>Charina bottae</i>)</b>			
Criteria	Rank	Rationale	Literature Citations
<b>1</b> Distribution within R2	<b>B</b>	Rubber boas have a very limited distribution in Region 2, which is on the extreme eastern periphery of their North American Range. In all of Region 2, they are only found in northwestern and north-central Wyoming in foothills and lower montane zones. Range-wide they seem to favor broken woodlands, forest, and shrublands, where they are usually found under logs, rocks, or bark of dead trees. Some studies have reported rubber boas in a wider range of habitats, but the highest concentrations still occur in those mentioned above. All the Region 2 occurrences of rubber boas are of the Rocky Mountain subspecies ( <i>C. b. utahensis</i> ).  Confidence in Rank <b>Medium</b>	<ul style="list-style-type: none"> <li>• 2,9</li> </ul>
<b>2</b> Distribution outside R2	<b>B</b>	Rubber boas occur from the west coast of central California, north to southern British Columbia. Their range covers much of northern California, Washington, Oregon, and Idaho. They reach as far west as montane western Montana and northwestern Wyoming. They can also be found in northern Utah and Nevada. There are isolated, disjunct populations in central and southern California. There are three subspecies: <i>C. b. bottae</i> occurs on the Pacific coast; <i>C. b. umbratica</i> occurs in isolated populations in southern California; <i>C. b. utahensis</i> occurs in the Rocky Mountain west.  Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>• 7</li> </ul>
<b>3</b> Dispersal Capability	<b>B</b>	Dispersal ability and site fidelity are not well documented for this species. Like other snakes, there is likely some degree of fidelity to winter hibernacula, but individual snakes may range over moderately large areas of suitable habitat during warm months. The ability to disperse over inhospitable habitat is unknown, but assumed to be low, since they are not generally seen far from places of concealment. Due to lack of concrete data, confidence in this rank is low.  Confidence in Rank <b>Low</b>	<ul style="list-style-type: none"> <li>• 2,7,9</li> </ul>

ATTACHMENT SS2

Species: <b>Rubber boa (<i>Charina bottae</i>)</b>			
Criteria	Rank	Rationale	Literature Citations
<b>4</b> Abundance in R2	<b>B</b>	Virtually nothing is known about abundance of rubber boas in Region 2. Elsewhere in their range, they have been listed as uncommon to common, with areas of local abundance. Since Region 2 is on the periphery of their range, abundances are likely to be lower. It is thought to be uncommon in Wyoming, since there are few reported occurrences. However, infrequent sightings are also likely due to the secretive nature of the snake, which likes to remain beneath surface objects (e.g., logs and rocks) or in rodent burrows. It can be more abundant on a local basis (e.g., Tensleep Creek on the westslope of the Bighorn Mountains.)  Confidence in Rank <b>Medium</b>	<ul style="list-style-type: none"> <li>• 2,9</li> </ul>
<b>5</b> Population Trend in R2	<b>D</b>	No population trend data exists for this species in Region 2.  Confidence in Rank <b>High</b>	<ul style="list-style-type: none"> <li>• na</li> </ul>
<b>6</b> Habitat Trend in R2	<b>B</b>	Habitat trend is unclear, but is likely stable. Areas in Region 2 that are frequented by boas are not currently under heavy development pressure. Given the lack of direct data, the confidence in this rank is low.  Confidence in Rank <b>Low</b>	<ul style="list-style-type: none"> <li>• 7,9</li> </ul>
<b>7</b> Habitat Vulnerability or Modification	<b>B</b>	The greatest threat to <i>C. bottae</i> habitat would be conversion from woodlands to a non-wooded state with little coarse surface litter under which snakes can hide, such as urban development. Areas in Region 2 that are frequented by boas are not currently under heavy development pressure. However, fire, logging, or other activities that negatively impact the abundance of small mammals (a primary prey item) or coarse woody debris could decrease suitable habitat for the rubber boa. The ecological plasticity of rubber boas is not known, but studies in Oregon suggest that given suitable cover, <i>C. bottae</i> may be found in a wider variety of habitats than previously expected. Given the lack of direct data, confidence in this rank is low.  Confidence in Rank <b>Low</b>	<ul style="list-style-type: none"> <li>• 7,9</li> </ul>

ATTACHMENT SS2

Species: <b>Rubber boa (<i>Charina bottae</i>)</b>			
Criteria	Rank	Rationale	Literature Citations
<p><b>8</b> Life History and Demographics</p>	<p><b>B</b></p>	<p>Information on population demographics, reproduction is scarce, particularly for rubber boas in the Rocky Mountains. Low ratios of juvenile to adult boas in field studies suggest that these snakes are relatively long lived and there is fairly high natal mortality, although little quantitative survivorship data has been reported. Sex ratios at birth favor females, but ratios at later life stages are equal, suggesting higher mortality among females. Rubber boas give birth to perhaps 7 to live young per year. Since all information on life history is vague, the confidence in this rank is low.</p> <p>Confidence in Rank <b>Low</b></p>	<ul style="list-style-type: none"> <li>• 2,5,9</li> </ul>
<p>Initial Evaluator(s): Douglas Keinath, zoologist, Wyoming Natural Diversity Database, University of Wyoming, Laramie, Wyoming</p>			<p>Date: 10/01/2001</p>

ATTACHMENT SS2

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>Known</u>	<u>Likely</u>	<u>Kansas NF/NG</u>	<u>Known</u>	<u>Likely</u>	<u>Nebraska NF/NG</u>	<u>Known</u>	<u>Likely</u>	<u>South Dakota NF/NG</u>	<u>Known</u>	<u>Likely</u>	<u>Wyoming NF/NG</u>	<u>Known</u>	<u>Likely</u>
Arapaho-Roosevelt NF	-	-	Cimmaron NG	-	-	Samuel R.McKelvie NF	-	-	Black Hills NF	-	-	Shoshone NF	-	2,8
White River NF	-	-				Halsey NF	-	-	Buffalo Gap NG	-	-	Bighorn NF	8	2
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	-	-												

Footnotes:

- ? The species is known or 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.

---

<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.

## ATTACHMENT SS2

### References

1. Colorado Gap Analysis Program (CO GAP). 2001. Online predictive species distribution maps generated by the Colorado Gap Analysis Program (<http://ndis.nrel.colostate.edu/co~au/cogaphome.html>), Colorado Division of Wildlife, Denver, Colorado.
2. Baxter, George T. and Stone, Michael D. 1980. Amphibians and Reptiles of Wyoming, Second Edition. Wyoming Game and Fish Department, Cheyenne, Wyoming.
3. CNHP Database. 2001. Unpublished distribution information for sensitive species in Colorado from the Biological and Conservation Data System of the Colorado Natural Heritage Program, Colorado State University, Fort Collins, Colorado.
4. Hammerson, Geoffrey A. 1999. Amphibians and Reptiles in Colorado, Second Edition. University Press of Colorado, Niwor, Colorado.
5. Hoyer, Richard F. 1974. Description of a rubber boa (*Carina bottae*) population from western Oregon. *Herpetologica*, 30(3): 275-283.
6. South Dakota Gap Analysis Program (SO GAP). 2001. Online predictive species distribution maps generated by the South Dakota Gab Analysis Program (<http://wfs.sdstate.edu/sdgap/sdgap.htm>), Department of Wildlife and Fisheries Sciences and South Dakota Cooperative Fish and Wildlife Research Unit, South Dakota State University, Brookings, South Dakota.
7. Stebbins, Robert C. 1985. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Company, Boston, Massachusetts.
8. Welp L., W. F. Fertig, G. P. Jones, G. P Beauvais, and S. M. Ogle. 2000. Fine Filter Analysis of Bighorn, Medicine Bow and Shoshone National Forests in Wyoming. Report prepared for the U. S. Forest Service Region 2, Denver, Colorado by the Wyoming Natural Diversity Database, University of Wyoming, Laramie, Wyoming.
9. WYNDD 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.
10. 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.
11. 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.