

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: <i>Bonasa umbellus incana</i> / Ruffed Grouse			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	Ruffed grouse as a species reaches its southern range limit in R2. Currently widespread in forested areas of western and N. central WY, with isolated populations in the Black Hills and in northwestern CO. Not recorded for western NE and considered extirpated from eastern part of the state since early 20 th century. Extirpated from eastern KS since 1800s. No indications of any recent changes in distribution within R2. Confidence in Rank High	<ul style="list-style-type: none"> Wiggins, D.A. (2006, December 6). Ruffed Grouse (<i>Bonasa umbellus</i>): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region.
2 Distribution outside R2	C	Widespread species across heavily forested areas of Canada and northern US., consisting of about 15 subspecies. Confidence in Rank High	<ul style="list-style-type: none"> same
3 Dispersal Capability	A	Poor dispersal abilities which have likely limited the species' range in R2, with large expanses of shrubsteppe in WY and other xeric habitats acting as dispersal barriers. Lack of dispersal by adult and juvenile animals probably means genetic exchange among R2 populations is minimal. Confidence in Rank High	<ul style="list-style-type: none"> same
4 Abundance in R2	B	Occur in low abundance in the n. Black Hills. Only recently discovered in extreme NW of CO. Recent studies have described ruffed grouse as common or uncommon in northwestern WY, the Wind River Range, the Bighorn Mountains, and the Black Hills area in the northeast. Historically classified as common residents in these same areas. Confidence in Rank Medium	<ul style="list-style-type: none"> same

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<p>5 Population Trend in R2</p>	B	<p>Generally considered secure through most of their N. American range. Occur at relatively low population density and not easily sampled, making interpretations of abundance and trends difficult without more field population data. Species exhibits natural variation with some populations cycling at ~9-10 year intervals. R2 populations for which information is available do not appear to cycle. Two recent studies found annual decrease of 5.4 % in abundance in the central Rockies 1966-1998 and significant long-term negative trend in the no. Rockies. Mosaic of population trends in R2, with declines in abundance in the Black Hills and nw WY and increases in most other areas of WY. Historical information and BBS data suggest grouse were formerly common in the Black Hills region and uncommon by the 1960s. Recent point counts from the Black Hills NF suggest grouse are widespread but occur so uncommonly as to prevent reliable density estimates. Currently classified by WY and SD natural heritage programs as “secure”. Not a priority species within the PIF bird conservation plans for WY or CO (SD plan isn’t done yet). Hunting pressure may locally constrain populations.</p> <p>Confidence in Rank Medium</p>	<ul style="list-style-type: none"> • same
<p>6 Habitat Trend in R2</p>	A	<p>Have been observed using a wide variety of habitats. Closely tied to early successional deciduous habitats, esp. aspen forest throughout the range. Riparian corridors and woodlands, especially aspen appear to be key habitat in R2, while adjacent habitats may be used at different times. In R2 stands of aspen are thought to occur at levels far below historical abundance. Primary reason is probably lack of regeneration. Fire suppression and excessive herbivory by wild and domestic animals have been cited as factors in poor recruitment stands in R2.</p> <p>Confidence in Rank High</p>	<ul style="list-style-type: none"> • same

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7 Habitat Vulnerability or Modification	A	Lack of optimal habitat in R2 may be hampering population growth. Data from national forests in R2 suggest that esp. in WY the proportion of habitat composed of aspen forest is unusually low in the range of ruffed grouse (aspen cover (2000 data) = Bighorn: <1%, Black Hills WY & SD: 3%, and Shoshone: <1%. Logging may have positive and negative effects. No evidence of logging of aspen from the Bighorn and Shoshone from recent data, 1999-2000. However, for the same period, 210 and 24 acres respectively were logged on the Black Hills. Lack of regeneration due to factors like fire suppression and animal grazing may be of greatest concern. Confidence in Rank High	<ul style="list-style-type: none"> • same
8 Life History and Demographics	B	Restricted to mid-elevation forests in northern and western portions of R2, resulting in patchy distribution patterns. Poor dispersal abilities and low genetic exchange across R2 populations. Lay large clutches, but ground nests subject to high rates of predation. In populations east and north of R2, about 50% of yearling males attempt to hold a territory. Onset of breeding activity less clear for females, with all yearlings attempting to breed in some eastern populations, while in other populations some females did not. Post-fledging survival of chicks not well known but appears to be poor (38% from one study). Adult survival rates vary widely, with cyclic populations ~36%. Critical gaps in life history knowledge remain. Disease has been widely reported but not cited as an important mortality factor. Similar for parasites. Confidence in Rank High	<ul style="list-style-type: none"> • same
Evaluator(s): Peter McDonald			Date: 3/9/2007

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

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.