

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: Plains sharp-tailed grouse (*Tympanuchus phasianellus jamesi*)

Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	The plains sharp-tailed grouse occurs in all states of Region 2. Confidence in Rank High or Medium or Low	•
2 Distribution outside R2	C	Plains sharp-tailed grouse - resident from north-central Alberta and central Saskatchewan south to Montana (except the extreme west), northeastern Wyoming, northeastern Colorado, portions of Nebraska, South Dakota, and North Dakota. Its range formerly extended to Kansas, Oklahoma, and New Mexico. Region 2 contains most of the species' range. Widespread but has disappeared from large portions of the historic range, due mainly to habitat loss/degradation resulting from agricultural practices, livestock overgrazing, and habitat succession; these threats remain significant. Confidence in Rank High or Medium or Low	• www.natureserve.org
3 Dispersal Capability	C	No known impediments to dispersal. Confidence in Rank High or Medium or Low	•
4 Abundance in R2	D	There are no absolute numbers available for the plains sharp-tailed grouse. Confidence in Rank High or Medium or Low	•

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<p>5 Population Trend in R2</p>	<p>B</p>	<p>For the period 1966-1995 the North American Breeding Bird Survey indicates no significant rangewide trends. Regional and local declines and extirpations have occurred. Distribution in most parts of southern portion of range now greatly reduced. Originally occupied 21 states and eight provinces; extirpated this century from seven (AOU 1998, Connelly et al. 1998). Populations are known to undergo dramatic population fluctuations (Baydack 1995, Kobriger 1995). A highly significant 7 percent annual decline was detected for Canada, a significant 7.7 percent annual decline was noted for the U.S. western region, and a significant 8.3 percent increase was detected in North Dakota; overall three survey regions showed significant declines, two showed significant increases, and five showed no significant trends (n = 122). During the more recent period 1980-1995 two regions showed significant declines, two showed significant increases, and six regions showed no significant trends (n = 98; Sauer et al. 1996). Populations in southern Canada (except British Columbia), North Dakota, South Dakota, Nebraska, and eastern Montana more secure than other populations; increasing in Idaho and Utah from 1986-1996 (Connelly et al. 1998). In most of the northern plains, the species is stable to increasing. The species is viewed as apparently secure in Wyoming, South Dakota, and Nebraska, imperiled in Colorado, and critically imperiled in Kansas.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • http://www.mbr-pwrc.usgs.gov/cgi-bin/atlas99.pl?03080 • www.natureserve.org
<p>6 Habitat Trend in R2</p>	<p>B</p>	<p>Although habitats are influenced by grazing, fire restrictions, and other factors, improvements to habitat appear to take place under various farm programs.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • www.natureserve.org

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<p>7 Habitat Vulnerability or Modification</p>	<p>B</p>	<p>HABITAT: Historic conversion of native habitat to private cultivation is cited as a major contributor to declines (Buss and Dziedzic 1955, Kessler and Bosch 1982). Natural succession of grasslands and shrublands to forests, accelerated or expanded geographically by artificial fire regimes, have influenced habitat quality and populations in several regions. Habitat and distribution is constrained in regions where fire suppression has reduced early and mid-successional vegetation communities. Encroachment of aspen into prairie habitat has reduced the number of leks in southwestern Manitoba (Berger and Baydack 1992). Some types of prairie and shrub-steppe habitats protected from fire are readily colonized by evergreens which degrade habitat quality. Various evergreen trees (PINUS spp., PSEUDOTSUGA MENSEZII, JUNIPERUS spp.), and fewer deciduous species (QUERCUS spp., BETULA spp.) aggressively compete with shrubs, grasses and forbs, and dominate sites contributing to increased avian predation. At the landscape level these vegetation changes fragment and isolate habitats and populations (Berg 1990, Manley and Wood 1990, Dickson 1993).</p> <p>GRAZING: Over-grazing by domestic livestock is the activity most frequently attributed to causing declines, especially where it degrades habitat by reducing residual cover necessary for nesting, brood rearing, and predator evasion (Kessler and Bosch 1982). Kessler and Bosch (1982) surveyed biologists who manage both COLUMBIANUS and JAMESI and found that grazing intensity and subsequent effects on residual cover were overwhelmingly identified as the major conflict in conserving the taxon.</p> <p>HUNTING: Because they display on traditional lek sites during the fall hunting season, may be especially vulnerable to excessive harvest, particularly if the population is low and in fragmented habitats (Klott 1993). Annual harvest rates in Idaho range from approximately 10-30 percent (approximately 6,500 birds) of the total population during the hunting season. Harvest rates in Colorado are not reliable, but are likely less than 10 percent of the total estimated population. Harvest rates in British Columbia may approach 50 percent in some years (Ritcey 1995, USFWS 1999). Range-wide, current harvest estimates vary from 4-56 percent, and at lower population levels may negatively impact some populations (Connelly et al. 1998). However, for relatively large, stable populations hunting is not likely to have an additive effect</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • www.natureserve.org

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Criteria	Rank	Rationale	Literature Citations
8 Life History and Demographics	D	Confidence in Rank High or Medium or Low	•
Initial Evaluator(s): John Sidle			Date: 7/10/01

National Forests in the Rocky Mountain Region where species is KNOWN (K) or LIKELY(L)¹ 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
	L	Cimmaron NG		Samuel R.McKelvie NF	K	Black Hills NF	L	Shoshone NF	
White River NF				Halsey NF	K	Buffalo Gap NG	K	Bighorn NF	
Routt NF				Nebraska NF	K	Ft. Pierre NG	K	Black Hills NF	
Grand Mesa, Uncompahgre, Gunnison NF				Ogalala NG	K			Medicine Bow NF	
San Juan NF								Thunder Basin NG	K
Rio Grande NF									
Pike-San Isabel NF									
Comanche NG									

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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