

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: Ferruginous hawk (<i>Buteo regalis</i>)			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	The ferruginous hawk occurs in all states of Region 2. Confidence in Rank High or Medium or Low	•
2 Distribution outside R2	C	BREEDING: eastern Washington, southern Alberta, southern Saskatchewan, extreme southwestern Manitoba, south to eastern Oregon, Nevada, northern Arizona, northern New Mexico, Texas panhandle, extreme western Oklahoma, and western Kansas. Recently discovered breeding in California. Historic breeding range in the southwestern U.S. apparently was much greater than at present. Two subpopulations are recognized; one to the east and another to the west of the Rocky Mountains. NON-BREEDING: primarily southwestern and south-central U.S. south to Baja California and central mainland of Mexico; in the U.S., in largest numbers in western Texas, eastern New Mexico, and western Oklahoma. Winters locally in some more northerly breeding areas. Confidence in Rank High or Medium or Low	• www.natureserve.org
3 Dispersal Capability	C	No known barriers to dispersal. Confidence in Rank High or Medium or Low	•
4 Abundance in R2	B	Most recent population estimate is 5,842-11,330 compiled by Olendorff (1993). However, Schmutz et al. (1992) estimated 14,000 for the Great Plains alone. Estimated population in Canada in the early 1990s was 2000-4000 breeding pairs (Schmutz, 1994 COSEWIC report, cited by Jensen 1995). Between year movements of population centers and individuals makes estimation of actual abundance difficult. Confidence in Rank High or Medium or Low	• citations in references section

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<p>5 Population Trend in R2</p>	<p>A</p>	<p>Local declines have been noted, but a widespread decline was not evident as of the early-1990s. North American Breeding Bird Survey (BBS) data for the U.S. and Canada indicate a 13.5 percent increase from 1988 to 1989 and an average annual 0.5 percent increase for 1966-1989. Wintering data from Christmas Bird Counts also indicate an increase in numbers from 1952-1984. The range in Canada has been reduced by half, and that habitat within the range has been severely depleted and total numbers reduced by about 95 percent. Populations in Canada apparently are stable in available habitat. A recent range re-expansion in south-central Canada. Historically, very abundant in eastern Montana but numbers were lowered by the early 1900's. The species is viewed as apparently secure in South Dakota, imperiled in Nebraska and Kansas, and vulnerable in Wyoming and Colorado.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • www.natureserve.org • http://www.mbr-pwrc.usgs.gov/cgi-bin/plotpgm0.pl?davey/sauer/bbs99/htmind/03480.re6
<p>6 Habitat Trend in R2</p>	<p>A</p>	<p>Ferruginous Hawks prefer open grasslands and shrubsteppe communities. They use native and tame grasslands, pastures, hayland, cropland, and shrubsteppe (Stewart 1975, Woffinden 1975, Powers and Craig 1976, Fitzner et al. 1977, Blair 1978, Wakeley 1978, Lardy 1980, Schmidt 1981, Gilmer and Stewart 1983, Green and Morrison 1983, Konrad and Gilmer 1986, MacLaren et al. 1988, Palmer 1988, Roth and Marzluff 1989, Bechard et al. 1990, Black 1992, Leslie 1992, Niemuth 1992, Bechard and Schmutz 1995, Faanes and Lingle 1995, Houston 1995, Zelenak and Rotella 1997, Leary et al. 1998). Ferruginous Hawks usually occupy rolling or rugged terrain (Blair 1978, Palmer 1988, Black 1992). High elevations, forest interiors, narrow canyons, and cliff areas are avoided (Janes 1985, Palmer 1988, Black 1992), as is parkland habitat in Canada (Schmutz 1991a).</p> <p>Ferruginous Hawks are opportunistic nesters (Olendorff 1973, Woffinden 1975, Gilmer and Stewart 1983, MacLaren et al. 1988, Zelenak and Rotella 1997). Historically, the majority of nests were on or near the ground (dirt/rock/chalk outcrops, riverbed mounds, mud buttes, and rock piles); more recently, many nests are built in trees and large shrubs, on utility structures, artificial platforms, roofs of abandoned buildings, and river cutbanks (Davy 1930; Weston 1968; Olendorff 1973; Stewart 1975; Woffinden 1975; Lokemoen and Duebbert 1976; Fitzner et al. 1977; Blair 1978; Smith and Murphy 1978; Johnsgard 1979; Lardy 1980; Blair and Schitoskey 1982; Houston 1982, 1985; Gilmer and Stewart 1983; Woffinden and Murphy 1983; Ratcliffe and Murray 1984; Schmutz 1984, 1987, 1991a; Gaines 1985; MacLaren et al. 1988; Palmer 1988;</p>	<ul style="list-style-type: none"> • citations in references section

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		<p>Roth and Marzluff 1989; Bechard et al. 1990; De Smet and Conrad 1991; Atkinson 1992; Black 1992; Leslie 1992; Niemuth 1992; Bechard and Schmutz 1995; Faanes and Lingle 1995).</p> <p>Confidence in Rank High or Medium or Low</p>	
<p>7 Habitat Vulnerability or Modification</p>	<p>B</p>	<p>Some habitat has been lost due to agricultural development. Habitat in the breeding range in Canada has been severely depleted by agriculture, disturbance, and forest invasion, though recent trends suggest relative stability. Loss of grassland is not regarded as an immediate threat, but is likely a long-term threat. Ability of native grasslands and shrublands to support viable populations may be compromised by the invasion of exotic annuals, especially cheatgrass (<i>BROMUS TECTORUM</i>) and Russian thistle (<i>SALSOLA IBERICA</i>). However, conversion of large areas of dense shrublands to grasslands may locally benefit Ferruginous Hawks.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • www.natureserve.org
<p>8 Life History and Demographics</p>	<p>B</p>	<p>Easily disturbed during the breeding season. Abandonment of nests occurs particularly in the early stages of nesting. In eastern Colorado, nests in remote locations had greater productivity compared to more accessible nests. In South Dakota, the probability of fledging young was 11.4 percent greater in more remote nests than in nests within 2.47 kilometers of occupied buildings. In North Dakota, avoided cropland and nesting within 0.7 kilometers of occupied buildings. In Alberta, rarely nested within 0.5 kilometers of farmyards. In other instances, more tolerant of human disturbance. Nesting has occurred near active railroads and gravel roads. Sensitivity to disturbance may be heightened in years of low prey abundance. Shooting may also be a threat, especially on the wintering grounds. Poisoning of prey species may be a threat both directly to hawks eating poisoned animals and indirectly through reduction of prey base, especially at prey concentration areas such as prairie dog colonies.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none"> • www.natureserve.org
<p>Initial Evaluator(s): John Sidle</p>			<p>Date: 7/6/01</p>

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
Arapaho-Roosevelt NF	K	Cimmaron NG	K	Samuel R.McKelvie NF	K	Black Hills NF	K	Shoshone NF	L
White River NF	L			Halsey NF	K	Buffalo Gap NG	K	Bighorn NF	L
Routt NF	L			Nebraska NF	L	Ft. Pierre NG	K	Black Hills NF	K
Grand Mesa, Uncompahgre, Gunnison NF	K			Ogalala NG	K			Medicine Bow NF	K
San Juan NF	K							Thunder Basin NG	K
Rio Grande NF	K								
Pike-San Isabel NF	K								
Comanche NG	K								

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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