

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: Northern harrier (*Circus cyaneus*)

Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	B	The species occurs throughout all of the states of Region 2.  Confidence in Rank <b>High</b> or <b>Medium</b> or <b>Low</b>	•
2 Distribution outside R2	C	<b>BREEDING:</b> in North America, from northern Alaska to northern Saskatchewan and southern Quebec; south to northern Baja California, southern Texas, southern Missouri, West Virginia, southeastern Virginia, and North Carolina (and formerly Florida). In Eurasia, from British Isles, Scandinavia, northern Russia and Siberia south to Mediterranean region, southern Russian, Turkestan, Amrulan, Ussuriland, Sakhalin, and the Kurile Islands. Breeds rarely or erratically south of the North American breeding range. Breeding range is large but often highly discontinuous.  <b>NON-BREEDING:</b> in North America from southern Canada or the northern contiguous U.S. south through the United States, Middle America, and the Antilles to northern Colombia, Venezuela, and Barbados; casual or accidental in Hawaii. In North America, winters in largest numbers in the Great Basin and central and southern Great Plains. The coastal areas of New York, New Jersey, Delaware, Maryland, and Virginia support the highest number of wintering birds in the Northeast. In Eurasia, from British Isles, southern Scandinavia, and southern Japan south to northwestern Africa, Asia Minor, India, Burma, eastern China, and the Ryukyu Islands.  Confidence in Rank <b>High</b> or <b>Medium</b> or <b>Low</b>	• <a href="http://www.natureserve.org">www.natureserve.org</a>
3 Dispersal Capability	C	Confidence in Rank <b>High</b> or <b>Medium</b> or <b>Low</b>	•
4 Abundance in R2	B	Estimated number of breeding pairs in Canada in the early 1990s was estimated at 20,000-50,000. There are no estimates of absolute numbers in the U.S.  Confidence in Rank <b>High</b> or <b>Medium</b> or <b>Low</b>	• <a href="http://www.natureserve.org">ww.natureserve.org</a>

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<p><b>5</b> Population Trend in R2</p>	<p><b>A</b></p>	<p>North American Breeding Bird Survey (BBS) results from 1966-87 and 1980-89 can be used to look at several regional trends. The regions analyzed are composed of the following: East (east of the Mississippi River), Central (between the Mississippi River and the Rocky Mountains), and West (west of the Rockies, excluding Mexico and Alaska). Harriers breed sparsely or not at all in most southeastern states. Breeding populations exhibited different trends depending on the period (i.e., 22-year vs. 10-year) and the region analyzed. During the 22-year period, harriers showed a slight, significant increase in the East (<math>P &lt; 0.05</math>), whereas a significant decline was observed in the Central region (<math>P &lt; 0.01</math>). From 1980- 89, harriers showed significant decreasing trends in the Central (<math>P &lt; 0.10</math>) and Western (<math>P &lt; 0.05</math>) regions.</p> <p>For U.S. Fish and Wildlife Service subregions, only the 22-year period was analyzed. Harriers exhibited significant declines in the Southwest (Region 2, <math>P &lt; 0.01</math>) and the Northern Plains (Region 6, <math>P &lt; 0.05</math>). These data suggest that populations in the East, and more specifically the Northeast, may be stable or increasing slightly. However, breeding harriers appear to be declining in the Central and Western regions, especially in the Southwest and Northern Plains subregions.</p> <p>The species is viewed as secure in South Dakota and Wyoming, vulnerable in Colorado and Nebraska, and imperiled in Kansas.</p> <p>Confidence in Rank <b>High</b> or <b>Medium</b> or Low</p>	<ul style="list-style-type: none"> <li>• <a href="http://www.mbr-pwrc.usgs.gov/bbs/specclis.html">http://www.mbr-pwrc.usgs.gov/bbs/specclis.html</a></li> <li>• <a href="http://www.natureserve.org">www.natureserve.org</a></li> </ul>

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<p><b>6</b> Habitat Trend in R2</p>	<p><b>A</b></p>	<p>Northern harriers prefer relatively open habitats characterized by tall, dense vegetation, and abundant residual vegetation (Duebber and Lokemoen 1977, Hamerstrom and Kopeny 1981, Apfelbaum and Seelbach 1983, Kantrud and Higgins 1992). They use native or tame vegetation in wet or dry grasslands, fresh to alkali wetlands, lightly grazed pastures, croplands, fallow fields, oldfields, and brushy areas (Stewart and Kantrud 1965, Stewart 1975, Linner 1980, Evans 1982, Apfelbaum and Seelbach 1983, Faanes 1983, Kantrud and Higgins 1992, Dhol et al. 1994, Prescott et al. 1995, MacWhirter and Bildstein 1996, Prescott 1997). Although cropland and fallow fields are used for nesting, most nests are found in undisturbed wetlands or grasslands dominated by thick vegetation (Duebber and Lokemoen 1977, Apfelbaum and Seelbach 1983, Kantrud and Higgins 1992). Nest success may be lower in cropland and fallow fields than in undisturbed areas (Kibbe 1975).</p> <p>Tall, dense vegetation, and abundant residual vegetation is uncommon on NFS lands and private lands.</p> <p>Confidence in Rank <b>High</b> or <b>Medium</b> or <b>Low</b></p>	<ul style="list-style-type: none"> <li>• <a href="http://www.npwrc.usgs.gov/resource/literatr/grasbird/harrier/harrier.htm">http://www.npwrc.usgs.gov/resource/literatr/grasbird/harrier/harrier.htm</a></li> <li>• see citations in references section</li> </ul>
<p><b>7</b> Habitat Vulnerability or Modification</p>	<p><b>B</b></p>	<p>Agricultural practices in the midwestern and western U.S. have contributed to declines in breeding harriers. In the Northeast, the value of agricultural areas to harriers has declined as a result of increased use of cropland versus hayfields and earlier haying and harrowing.</p> <p>Confidence in Rank <b>High</b> or <b>Medium</b> or <b>Low</b></p>	<ul style="list-style-type: none"> <li>• <a href="http://www.natureserve.com">www.natureserve.com</a></li> </ul>

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8 Life History and Demographics	D	Confidence in Rank <b>High</b> or Medium or Low	•
Initial Evaluator(s): John Sidle			Date: 6/29/01

**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
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	K	Ft. Pierre NG	K	Black Hills NF	L
Grand Mesa, Uncompahgre, Gunnison NF	L			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								

<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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