

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: Dickcissel ( <i>Spiza americana</i> )			
Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	C	The dickcissel occurs in all states of Region 2.  Confidence in Rank <b>High</b> or Medium or Low	<ul style="list-style-type: none"> <li>• <a href="http://www.natureserve.org">www.natureserve.org</a></li> <li>• <a href="http://www.mbr-pwrc.usgs.gov/bbs/">http://www.mbr-pwrc.usgs.gov/bbs/</a></li> </ul>
2 Distribution outside R2	C	<p><b>BREEDING:</b> eastern Montana and southern Saskatchewan east across Great Lakes region to southern Ontario and central New York, south to northeastern Wyoming, eastern Colorado, southern Texas, central Alabama, and South Carolina; formerly in Atlantic lowlands from Massachusetts to North Carolina.</p> <p><b>NON-BREEDING:</b> from Nayarit south through Central America to South America; mostly from Panama to Guianas and northern Brazil; Colombia and Venezuela and in much smaller numbers in Guianas and extreme northern Brazil, sometimes Trinidad, locally in Atlantic and Gulf lowlands of U.S. Predominant wintering area is the llanos of Venezuela in the states of Portuguesa, Cojedes, and Guarico.</p> <p>Confidence in Rank <b>High</b> or Medium or Low</p>	<ul style="list-style-type: none"> <li>• AOU 1998</li> <li>• Ridgely and Tudor 1989</li> <li>• Basili and Temple 1999</li> </ul>
3 Dispersal Capability	C	<p>No known barriers to dispersal</p> <p>Confidence in Rank <b>High</b> or Medium or Low</p>	<ul style="list-style-type: none"> <li>•</li> </ul>

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<p><b>4</b> Abundance in R2</p>	<p><b>D</b></p>	<p>BREEDING: In southeast Nebraska, 1989-1990, dickcissel and grasshopper sparrow were most abundant species encountered in grassland. Relative abundance reported from survey-wide North American Breeding Bird Survey (BBS), 1966-1996, was 16.29 birds per survey. Highest relative abundance reported in Kansas (63.49 birds per survey). Next highest relative abundances in Missouri and Oklahoma (43.27 and 42.28 birds per survey route respectively; Sauer et al. 1997).</p> <p>Some individuals winter in North America. Christmas Bird Count (CBC) 1959-1988 survey-wide relative abundance was 0.04 birds per 100 survey hours. Highest relative abundance on CBC reported in Massachusetts (0.05 birds per 100 survey hours) for same period.</p> <p>NON-BREEDING: Total population estimated at over 6 million, based on roost counts in Venezuela in January and February, 1993 (Basili and Temple 1999).</p> <p>Confidence in Rank <b>High</b> or <b>Medium</b> or <b>Low</b></p>	<ul style="list-style-type: none"><li>• King and Savidge 1995</li><li>• Sauer et al. 1997</li><li>• Basili and Temple 1999</li></ul>

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<p><b>5</b> Population Trend in R2</p>	<p><b>B</b></p>	<p>The global trend indicates stable. Initial population decline recorded after North American Breeding Bird Survey (BBS) began in 1966 but decline appears to have leveled off. BBS data indicate a significant population decline in eastern (-4.2 percent annual change; P = 0.00; n = 283) and central (-1.0 percent annual change; P = 0.00; n = 499) North America, 1966-1996. Significant declines, 1966-1996, reported in Illinois, Iowa, Kentucky, Missouri, North Dakota, and Wisconsin. Only increase recorded in Oklahoma (1.5 percent annual change; P = 0.02; n = 58) for the same period.</p> <p>Trend increased after 1980. Significant population increase in central region (0.8 percent annual change; P = 0.02; n = 465) of North America, 1980-1996. For twelve states, significant decreases for period 1966-1979; for 1980-1996, however, significant increases in two of these states, non-significant increases in nine states. Only continuing significant decrease in Missouri for the same period.</p> <p>Although most birds winter in the tropics, some stay in coastal and southern United States through winter. Christmas Bird Count shows non-significant (P larger than 0.10) surveywide decline 1959-1988 (-0.4 percent annual decline; n = 255; Sauer et al. 1996). Termination of the USDA Conservation Reserve Program and a return of enrolled land to cultivation are expected to cause a population decline of 17% in North Dakota.</p> <p>The species is secure in South Dakota, Nebraska, and Kansas, vulnerable in Colorado and imperiled in Wyoming.</p> <p>Confidence in Rank <b>High</b> or Medium or Low</p>	<ul style="list-style-type: none"><li>• <a href="http://www.natureserve.org">www.natureserve.org</a></li><li>• Sauer et al. 1997</li><li>• Johnson and Igl 1995</li></ul>

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<p><b>6</b> Habitat Trend in R2</p>	<p><b>B</b></p>	<p>Dickcissels prefer habitat with dense, moderate to tall vegetation (particularly with some forbs) and moderately deep litter (Gross 1921, 1968; Harmeson 1972, 1974; Wiens 1973; Harrison 1974; Petersen 1978; Rotenberry and Wiens 1980; Roth 1980; Finck 1983, 1984; Skinner et al. 1984; Kahl et al. 1985; Frawley 1989; Sample 1989; Delisle and Savidge 1997; Winter 1998). Suitable habitats are found in oldfields, hayfields, fencerows, hedgerows, road rights-of-way, planted cover (e.g., Conservation Reserve Program [CRP] fields and dense nesting cover), and moderately grazed and idle prairie (Gross 1921, 1968; Taber 1947; Sauer 1953; Ely 1957; Hergenrader 1962; Graber and Graber 1963; Meanley 1963; Emlen and Wiens 1965; Blankespoor 1970; Berry 1971; Harmeson 1972, 1974; Harrison 1974; Stewart 1975; Sealy 1976; Petersen 1978; Rotenberry and Wiens 1980; Roth 1980; Faanes 1981; Finck 1983, 1984; Renken 1983; Skinner et al. 1984; Kahl et al. 1985; Basore et al. 1986; Sample 1989; Camp and Best 1993; Johnson and Schwartz 1993; Steigman 1993; Faanes and Lingle 1995; Johnson and Igl 1995; King and Savidge 1995; Hull et al. 1996; Best et al. 1997; Delisle and Savidge 1997; Winter 1998; Hughes et al. 1999; Jensen 1999).</p> <p>On NFS lands in Region 2, there is not much habitat with dense, moderate to tall vegetation. Dickcissel habitat is largely found on private land enrolled in various farm set aside programs.</p> <p>Confidence in Rank <b>High</b> or Medium or Low</p>	<ul style="list-style-type: none"> <li>• see citations in references section</li> </ul>

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<p><b>7</b> Habitat Vulnerability or Modification</p>	<p><b>C</b></p>	<p>Not very threatened range-wide, self-protecting by unsuitability for other uses <b>Threats:</b> Primary cause of mortality apparently poisoning of roosting birds in Venezuela by aerial or ground application of parathion and other pesticides during non-breeding season (Basili and Temple 1999). Local breeding populations are threatened by loss of nests and nestlings when fields are mowed.</p> <p>NON-BREEDING SEASON: Night roosts have been sprayed with organophosphates to kill dickcissels which are considered a pest species especially by rice and sorghum farmers (Basili and Temple 1995). Some roosts may contain up to 3 million birds and, if targeted, could significantly reduce numbers.</p> <p>Less grazing on NFS lands would enhance dickcissel habitat locally. Continuation of appropriate set-aside programs would also ensure habitat for dickcissels.</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.org">www.natureserve.org</a></li></ul>

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<p><b>8</b> Life History and Demographics</p>	<p><b>B</b></p>	<p>PARASITISM: Brood parasitism by the Brown-headed Cowbird (MOLOTHRUS ATER) occurs at variable rates (Taber 1947, Hergenrader 1962, Overmire 1962, Friedmann et al. 1977, Fleischer 1986, Klute 1994) but, if present, can lower productivity (Overmire 1963; Wiens 1963; Zimmerman 1982, 1983; Scharz 1969; Elliott 1976; Fretwell 1977; Winter 1998). When comparing brood parasitism rates in the central Great Plains, Basili (1997) found significantly higher brood parasitism rates in Kansas and Nebraska and significantly lower rates in Texas. Rates of brood parasitism varied from 2.8% of 143 nests in Texas (Steigman 1993) to 94.7% of 19 nests in northeastern Kansas (Elliott 1976). This variation in the rate of brood parasitism was related to the variation in cowbird density in different areas of the central Great Plains (Basili 1997).</p> <p>Brood parasitism by cowbirds can be nest density dependent; areas with low nesting densities of Dickcissels, such as tallgrass prairies, can experience higher intensities and frequencies of parasitism than areas with high nesting densities, such as oldfields (Fretwell 1977; Zimmerman 1982, 1983). However, Fleischer (1986) found that rates of brood parasitism in Kansas were not related to Dickcissel nest density, but were related to nest height. Parasitized nests were placed significantly higher (mean of 0.65 meters) above the ground than unparasitized nests (mean of 0.34 meters). Fretwell (1972) observed that higher rates of brood parasitism occurred when nests were placed near Red-winged Blackbird (AGELAIUS PHOENICEUS) nests. In Illinois, nests located within 50 meters of woody edges or other tall (more than 2 meters), woody vegetation were more than twice as likely to be parasitized as nests more than 50 meters from woody vegetation (J.R. Herkert and S.K. Robinson, unpubl. data). In southwestern Missouri, the frequency of parasitism increased significantly with proximity to shrubby edges; frequency of brood parasitism was highest less than 50 meters from a shrubby edge (Winter 1998). However, in Kansas, significantly higher brood parasitism rates were not found for nests less than 100 meters from wooded edges (Jensen, pers. comm.). In Missouri tallgrass prairie fragments, the rate of brood parasitism was not related to fragment size (Winter 1998).</p> <p>Confidence in Rank <b>High</b> or <b>Medium</b> or <b>Low</b></p>	<ul style="list-style-type: none"><li>• citations at <a href="http://www.natureserve.org">www.natureserve.org</a></li></ul>

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Criteria

Rank

Rationale

Literature Citations

Initial Evaluator(s): John Sidle

Date: 06/25/01

**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>	Known	Likely	<u>Kansas NF/NG</u>	Known	Likely	<u>Nebraska NF/NG</u>	Known	Likely	<u>South Dakota NF/NG</u>	Known	Likely	<u>Wyoming NF/NG</u>	Known	Likely
Arapaho-Roosevelt NF	K		Cimmaron NG	K		Samuel R.McKelvie NF	K		Black Hills NF			Shoshone NF		
White River NF						Halsey NF	K		Buffalo Gap NG			Bighorn NF		
Routt NF						Nebraska NF	K		Ft. Pierre NG			Black Hills NF	K	
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	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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