
Brewer's Sparrow

Spizella breweri

Aves — Passeriformes — Emberizidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide:	Secure (G5)
Statewide:	Vulnerable breeding (S3B)
ESA:	No status
USFS:	Region 1: No status; Region 4: No status
BLM:	Regional/State imperiled (Type 3)
IDFG:	Protected nongame

BASIS FOR INCLUSION

Threats and rangewide declines.

TAXONOMY

Two subspecies are recognized: Brewer's sparrow (*S. b. breweri*) and timberline sparrow (*S. b. taverneri*) (American Ornithologist' Union 1957). Some recent evidence suggests that the timberline sparrow may actually be a separate species (Rotenberry et al. 1999).

DISTRIBUTION AND ABUNDANCE

Brewer's sparrow is largely a Great Basin species. The largest breeding populations are found in the shrubsteppe areas of Washington, Oregon, Idaho, Nevada, Montana, Wyoming, Colorado, and Utah. Brewer's sparrows range also extends across portions of western Canada and southwestern North Dakota, southern California, central Arizona, and northwestern New Mexico. This species winters in portions of southwestern U.S., south to southern Baja California and central mainland of Mexico. The current distribution of Brewer's sparrows is assumed similar to historical; no large-scale changes in range have been documented (Rotenberry et al. 1999). Relatively abundant in suitable habitat, the estimated population size for this species in Idaho is approximately 1.2 million individual birds (Rosenberg 2004).

POPULATION TREND

Breeding Bird Survey (BBS) data indicate the Brewer's sparrow to be declining throughout its range (Sauer et al. 2005). Over the long-term BBS period of 1966–2004, numbers have declined significantly in Idaho (-3.9% per year), in the western U.S. (-2.7%), and in the U.S. as a whole (-2.8%). Populations declines also are reported for the shorter-term periods of 1966–1979 and 1980–2004 for these same BBS regions (Sauer et al. 2005).

HABITAT AND ECOLOGY

The Brewer's sparrow is a shrubsteppe obligate species, closely associated with big sagebrush (*Artemisia tridentata*; Short 1984, Paige and Ritter 1999). It can also be found in shrubby openings of piñon-juniper and mountain mahogany woodlands

(Rotenberry et al. 1999). Presence and abundance of Brewer's sparrows are correlated positively with total shrub cover, bare ground, taller shrubs, patch size, and habitat heterogeneity; they are negatively correlated with grass and salt shrub cover (Wiens and Rotenberry 1980, 1981).

ISSUES

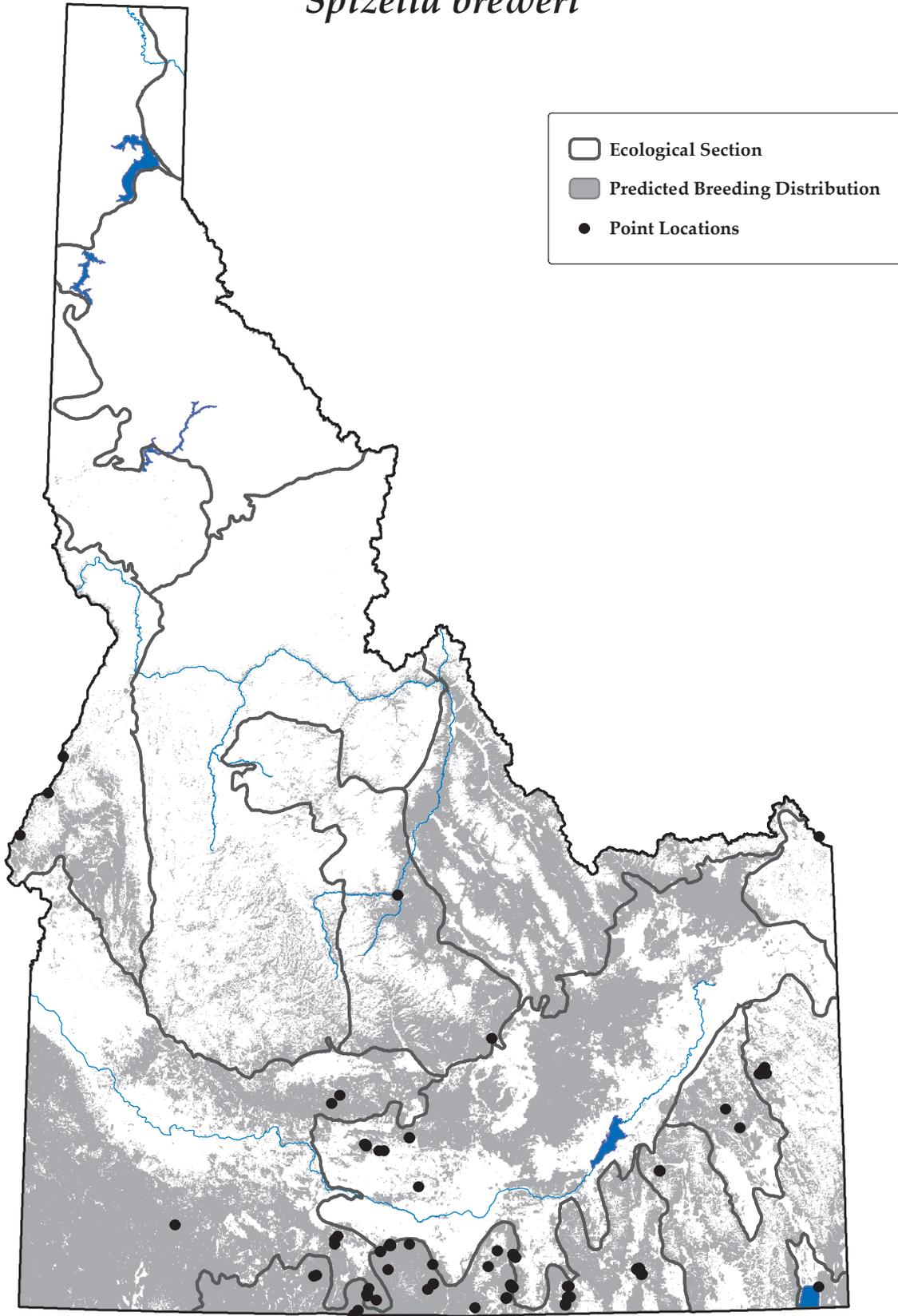
Habitat destruction and degradation are the primary threats to Brewer's sparrow populations. Activities that destroy native shrub cover (e.g., fire, chaining, herbicides, agricultural conversion, etc.) negatively impact this species (Rotenberry et al. 1999). Brewer's sparrows show both negative and positive population responses to grazing, depending on habitat type and intensity (Paige and Ritter 1999). This species is a nest parasite host and rates of parasitism by the brown-headed cowbird can be influenced by grazing and habitat fragmentation.

RECOMMENDED ACTIONS

Conservation actions should focus on preserving areas of intact, unfragmented shrubsteppe habitat (Rotenberry et al. 1999). The restoration of natural fire regimes will be critical to the long-term survival of this species (Paige and Ritter 1999). Lands such as the Craters of the Moon National Monument, Idaho National Laboratory, and the Snake River Birds of Prey National Conservation Area may function as important reserves of large tracts of shrubsteppe habitat; such tracts are likely critical for maintaining source populations of Brewer's sparrow (IDPIF 2000).

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Map created on September 22, 2005

and prepared by Idaho Conservation Data Center.

Sources: Point data are from Idaho Conservation Data Center, Idaho Department of Fish and Game (2005). Predicted distribution is from the Wildlife Habitat Relationships Models (WHR), A Gap Analysis of Idaho: Final Report. Idaho Cooperative Fish and Wildlife Research Unit, Moscow, ID (Scott et al. 2002). Predicted distribution is approximate (for more information, go to http://www.wildlife.uidaho.edu/idgap/idgap_report.asp).

