

Bobolink (*Dolichonyx oryzivorus*)

NMPIF level: Biodiversity Conservation Concern, Level 1 (BC1)

NMPIF assessment score: 12

NM stewardship responsibility: Low

National PIF status: No special status

New Mexico BCRs: 16

Primary breeding habitat(s): Wet Meadow and Montane Grassland, Agricultural

Summary of Concern

Bobolink is a declining grassland species with a mostly northern distribution across the United States and Canada. A very small and isolated breeding population occurs in wet meadow and hay field habitat in Rio Arriba county.

Associated Species

Savannah Sparrow, Western Meadowlark, Brewer's Blackbird

Distribution

Bobolinks breed in southern Canada and across the northern half of the United States, from the eastern seaboard west to eastern British Columbia, Washington and Oregon. In the western United States, the range extends south to southern Colorado. Isolated breeding outposts are near Springerville, Arizona and Los Ojos, New Mexico. This species winters in the pampas of Brazil and Argentina, where it is considered an agricultural pest (Martin and Gavin 1995).

In New Mexico, the area around the Parkview Fish Hatchery near Los Ojos, in Rio Arriba County, has been occupied by this species sporadically since at least 1925, and somewhat continuously in recent years. Breeding elsewhere in New Mexico has been suspected, but not documented, at some other northern sites (Parmeter et al. 2002).

Ecology and Habitat Requirements

Bobolink is primarily a species of tall grass or mixed grass prairie. Over the past century or more as this habitat has been lost to agriculture, characteristic habitat for Bobolink has shifted to hay fields and meadows in areas of cleared forest. It also uses grass-sedge fields along river bottomlands and irrigated meadows. In the east, older hay fields with less overall vegetative cover, less alfalfa, and more litter support higher densities. This species is also area-sensitive, with larger fields supporting denser populations. In New York, fields larger than 10 ha supported more than twice the number of males per 100 m of transect than fields smaller than 10 ha (Bollinger and Gavin 1992, Martin and Gavin 1995). Bobolinks also tend to avoid nesting close to woodland, forest, crop field or road edges (Bollinger and Gavin 2004, Renfrew et al. 2005).

This long-distance migrant may be present in northern New Mexico from late May through the end of August. Nests tend to be located in wet areas, though with some drainage (Wittenberger 1978). The nest is typically placed on the ground at the base of a large forb in areas of higher than average grass density. Predation on eggs and nestlings and nest exposure to adverse weather and flooding are probably the most significant mortality factors (Martin and Gavin 1995).

Conservation Status

Species Assessment

DISTRIBUTION	2
THREATS	4
GLOBAL POPULATION SIZE	2
LOCAL POPULATION TREND	3
IMPORTANCE OF NEW MEXICO TO BREEDING	1
COMBINED SCORE	12

Bobolink is a Biodiversity Conservation Concern, Level 1 species for New Mexico, with a total assessment score of 12. From NMPIF, it receives a high vulnerability score of 4 for threats to breeding in the state.

Population Size

PIF estimates a species population of 11 million. Size of the New Mexico population is very small, possibly on the order of 10 pairs or less.

Population Trend

BBS data show a moderate but statistically significant population decline rangewide from 1966-2004 (annual trend = -1.7, $p = 0.00$, $n = 1243$). Declines have grown larger since 1980, and are sharpest in the western BBS region (annual trend = -4.9, $p = 0.00$, $n = 72$). This species is not sampled by BBS in New Mexico, and NMPIF assigns a score of 3 indicating an uncertain local population trend. Nationally, PIF assigns a 4 for population trend.

Threats

Like many grassland species, Bobolinks are thought to be decreasing due to continuing loss of habitat. Overall hay field acreage has decreased over the last half century, while the percentage of hay fields planted to alfalfa mixtures—vegetation typically not used by Bobolinks—has gone up (Bollinger and Gavin 1992). In addition, hay fields now are cut 2–3 weeks earlier than they were in 1940s and 1950s, with mowing coinciding with peak nesting period (Martin and Gavin 1995).

Management Issues and Recommendations

Management for Bobolink in New Mexico should focus on appropriate wet meadow and hay field management in areas where the species has bred historically.

NMPIF Recommendations

- Fields should be mowed annually to maintain breeding habitat, but mowing should be delayed until after July 20 to minimize impacts on fledglings. Even later mowing would allow fledging of birds in renesting situations.
- If growing hay in the Los Ojos area, maintain contiguous fields of 75 ac or more.
- Wherever possible maintain blocks of 75 ac in grass-sedge fields close to northern streams.

Species Conservation Objectives

NMPIF Objectives

- Maintain or increase the current population in the Los Ojos area.

Sources of Information

Bollinger, E. K., and T. A. Gavin. 1992. Eastern Bobolink populations: ecology and conservation in an agricultural landscape. Pp. 497–506 *in* Ecology and conservation of neotropical migrant landbirds (J. M. Hagan III and D. W. Johnston, eds.). Smithsonian Inst. Press, Washington, D.C.

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Renfrew, R. B., C. A. Ribic, and J. L. Nack. 2005. Edge avoidance by nesting grassland birds: A futile strategy in a fragmented landscape. *Auk* 122:618-636.

Wittenberger, J. F. 1978. The breeding biology of an isolated Bobolink population in Oregon. *Condor* 80:355-371.