

## **Bendire's Thrasher (*Toxostoma bendirei*)**

NMPIF level: Species Conservation Concern, Level 1 (SC1)

NMPIF assessment score: 21

NM stewardship responsibility: High

National PIF status: Watch List, Stewardship (Southwest region)

New Mexico BCRs: 16, 34, 35

Primary breeding habitat(s): Plains-Mesa Grassland, Great Basin Shrub, Chihuahuan Desert Shrub, Pinyon-Juniper Woodland (Juniper Savannah).

### **Summary of Concern**

Bendire's Thrasher is a secretive and sparsely distributed species of open shrub habitats in the southwest. BBS data suggest it has experienced significant negative population trends rangewide and in New Mexico, for reasons that are not entirely understood. A significant percentage of the species population may breed in New Mexico.

### **Associated Species**

Scaled Quail (SC2), Mourning Dove, Common Nighthawk, Loggerhead Shrike (SC2), Horned Lark, Northern Mockingbird, Lark Sparrow, Black-throated Sparrow (SC2), Western Meadowlark

### **Distribution**

Bendire's Thrasher breeds across the Southwest, from southeastern California and southern Nevada to the eastern third of New Mexico, and from southern Utah and Colorado south into Sonora and Chihuahua, and along the Pacific slope of Mexico to Sinaloa (England and Laudenslayer 1993).

Distribution appears to be patchy within the breeding range, but details are still poorly understood. In winter, the species withdraws from the northern portion of its summer range, including breeding areas in the Mojave and Great Basin deserts and the Colorado Plateau.

In New Mexico, Bendire's Thrasher breeds in scattered locations in the central and western portions of the state, from the Colorado border south to Mexico (Darling 1970, England and Laudenslayer 1993). It is described as being most common in the southwest portion of the state, particularly the northern

Animas Valley (Ligon 1961, Parmeter et al. 2002). The species is found in areas from Corona north and west to Santa Fe, occasionally in the Middle Rio Grande Valley from Los Lunas to the Jemez Mountains, and from southern San Juan County south to the Plains of San Agustin.

**Ecology and Habitat Requirements**

Bendire's Thrasher typically inhabits sparse desert shrubland and degraded grassland vegetation. It may also occur in open woodland with scattered shrubs. Unlike the Crissal Thrasher, it avoids riparian areas and arroyos with dense shrub cover. Plant composition of habitat varies with latitude and elevation. On the Colorado Plateau, the thrasher inhabits sagebrush with scattered junipers. At lower elevations and latitudes, it occupies desert habitat with one or more medium to large-sized shrub species, including greasewood, yucca, mesquite, catclaw acacia, cholla, or agave. In southern New Mexico, it breeds in degraded desert grassland areas, and desert shrub with various xerophytic shrub species, but little grass. In central New Mexico, Bendire's Thrasher is more commonly associated with cholla stands (England and Laudenslayer 1993). Where appropriate open shrub structure is present, it sometimes uses vegetation around human habitation and agricultural areas (Gilman 1909).

Northward migration into the breeding range begins early, from late January to early February, and continues through March. Most birds leave northern breeding areas in Arizona and New Mexico by the end of August (Phillips et al. 1964). This species nests often in cholla, mesquite, juniper or yucca. Two broods per season have been documented in Arizona, and suggested in New Mexico (Ligon 1961). As with distribution, many details of the ecology of this secretive species remain poorly known.

**Conservation Status**

**Species Assessment**

DISTRIBUTION	5
THREATS	3
GLOBAL POPULATION SIZE	4
LOCAL POPULATION TREND	4
IMPORTANCE OF NEW MEXICO TO BREEDING	5
<b>COMBINED SCORE</b>	<b>21</b>

Bendire's Thrasher is a Species Conservation Concern, Level 1 species for New Mexico, with a total assessment score of 21. Bendire's Thrasher is a national PIF Watch List Species, and a Stewardship

species for the Southwest Avifaunal Biome. It receives a maximum vulnerability score of 5 from PIF for its small distribution, and a high score of 4 for population size. NMPIF assigns this species a 4 for (declining) local population trend. Bendire's Thrasher receives a maximum score of 5 for importance of New Mexico populations (see discussion below). Bendire's Thrasher is a U.S. Fish and Wildlife Service (2002) national Bird of Conservation Concern.

### Population Size

Total population for state is unknown. PIF estimates a species population of 170,000, and that New Mexico holds about 41% of the species population, or about 69,000 birds. New Mexico clearly has a very high stewardship responsibility for this species.

### Population Trend

Bendire's Thrasher is difficult to detect and identify, and not well-sampled by BBS. However, data indicating a significant and strongly negative population trend rangewide have helped raise this species to PIF Watch List status. BBS data for 1966-2006 are:

	Annual Trend (%)	P-value	Number of Routes
New Mexico	-5.3	0.12	16
FWS Region 2	-5.0	0.04	34
Western States	-5.4	0.01	44

### Threats

Given this species' apparent tolerance, or even preference, for somewhat degraded shrub and grassland habitat, the reasons for recent declines remain unclear. Phillips et al. (1964) suggested the species is favored by woodland clearing and agricultural activities in Arizona. Darling (1970) suggested that the New Mexico range may have expanded due to overgrazing leading to shrub and juniper encroachment in grassland areas. Elimination of open shrub habitat due to development or other factors may reduce breeding areas, but given current knowledge of species requirements, habitat loss may not explain negative population trends.

### Management Issues and Recommendations

Management for Bendire's Thrasher in New Mexico should focus primarily on acquiring better knowledge of habitat requirements, distribution of the breeding population statewide, and reasons for apparent declines.

### **NMPIF Recommendations**

- Encourage breeding surveys and ecological studies to help determine habitat needs and reasons for decline.
- Maintain open areas with large shrubs (3-6 ft) in appropriate habitat.
- Maintain habitat in known nesting areas, especially in northern McKinley and southern San Juan counties, and in Hidalgo, Grant, and Luna counties.

### **Species Conservation Objectives**

#### **PIF Objectives**

The PIF North American Landbird Conservation Plan places Bendire's Thrasher in the conservation category of Immediate Action to reverse or stabilize long-term population declines, and sets a continental population objective of doubling the current population over the next 30 years.

#### **NMPIF Objectives**

- Seek to stabilize or reverse negative population trends in New Mexico.

### **Sources of Information**

Darling, J. L. 1970. New breeding records of *Toxostoma curvirostre* and *T. bendirei* in New Mexico. *Condor* 72:366-367.

England, A. S., and W. F. Laudenslayer, Jr. 1993. Bendire's Thrasher (*Toxostoma bendirei*). In *The Birds of North America*, No. 71 (A Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D.C.

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Ligon, J. S. 1961. *New Mexico birds and where to find them*. Univ. New Mex. Press, Albuquerque, NM.

Parmeter, J., B. Neville, and D. Emkalns. 2002. New Mexico bird finding guide. New Mexico Ornithological Society, Albuquerque, NM.

Phillips, A. R., J. Marshall, and G. Monson. 1964. The birds of Arizona. Univ. Ariz. Press, Tucson, AZ.

U.S. Fish and Wildlife Service. 2002. Birds of conservation concern 2002. Division of Migratory Bird Management, Arlington, VA. 99 p.