

## **American Bittern (*Botaurus lentiginosus*)**

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

NMPIF assessment score: 15

NM stewardship responsibility: Low

NAWCP status: Unknown

New Mexico BCRs: 16, 35, (18), (34)

Primary breeding habitat(s): Emergent Wetlands and Lakes

### **Summary of Concern**

American Bittern is a secretive marsh bird of widespread continental distribution. It breeds locally at several locations in New Mexico. Populations have decreased with the loss of wetland habitat across the species range. New Mexico populations may be declining.

### **Associated Species**

Pied-billed Grebe, Least Bittern (BC2), American Coot, Red-winged Blackbird, Yellow-headed Blackbird, Great-tailed Grackle

### **Distribution**

In the breeding season, American Bittern is very widely distributed across Canada and the northern two-thirds of the United States. It breeds more locally and sporadically farther south, in parts of New Mexico, Texas, very rarely in Louisiana, Florida, and at least formerly in central Mexico. It winters along both coasts and across the southernmost portion of the United States, south through Mexico to Central America (Gibbs et al. 1992).

In New Mexico, American Bittern is scarce and local, but may be present in marsh areas statewide, both in the breeding season and in the winter. It occurs most regularly from Bosque del Apache NWR to La Joya SGR along the Rio Grande, and in the Pecos watershed, especially at Bitter Lake NWR. Occasional breeding may also occur along the San Juan River, at Zuni and at Tucumcari Lake (Parmeter et al. 2002). Documentation of nesting in New Mexico is rare, but nests or dependent young have been found in San Juan County (Schmitt 1976), Socorro and Eddy counties (Ligon 1961) and Chaves County (Hubbard

1978). Summer records of “pumping” birds indicating probable nesting have occurred over the past 100 years in Rio Arriba, Colfax, San Miguel, Quay, Cibola, Bernalillo, and Grant counties (S.O. Williams III, pers. comm.).

### **Ecology and Habitat Requirements**

American Bitterns inhabit freshwater wetlands with tall, emergent vegetation. They often stand motionless—and cryptically concealed—in tall vegetation along marsh fringes and shorelines, waiting for potential prey to pass within reach. This species prefers shallow water and cattail habitats, and avoids deep-water cattails and river bulrush. Most nests across its range are placed in dense emergent vegetation, over water 5–20 cm in depth, concealed from above and sides by surrounding vegetation. Unlike many other waders, bitterns are largely asocial and territorial (Gibbs et al. 1992). Regional distribution and density correlate strongly year to year with number of wetland areas available (Niemuth and Solbert 2003).

### **Conservation Status**

#### **Species Assessment**

DISTRIBUTION	3
THREATS	4
GLOBAL POPULATION SIZE	3
LOCAL POPULATION TREND	4
IMPORTANCE OF NEW MEXICO TO BREEDING	1
<b>COMBINED SCORE</b>	<b>15</b>

American Bittern is a Biodiversity Conservation Concern, Level 1 species for New Mexico, with a total assessment score of 15. From NMPIF, it receives vulnerability scores of 4 for threats to breeding in the state and for local population trend.

### **Population Size**

No population estimates are available. Overall, American Bittern is more abundant as a breeder in Canada than in the United States. Size of the New Mexico breeding population is unknown, but relatively small.

## **Population Trend**

This species is not well sampled by BBS. Across its range, American Bittern has shown negative trends in different regions and for different time periods. BBS data from 1966 – 2004 indicate significant declines across the western BBS region (annual trend = -4.8,  $p = 0.00$ ,  $n = 116$ ). No BBS data are available for New Mexico. A score of 4 indicating a negative local trend was assigned by NMPIF.

## **Threats**

Like many other wetland species, the primary threat facing American Bittern is loss of habitat.

## **Management Issues and Recommendations**

Management for American Bittern in New Mexico should focus on wetlands preservation and maintenance.

## **NMPIF Recommendations**

- Avoid any further loss of wetland habitat.
- In managed wetlands, maintain areas of shallow water with emergent cattails and dense fringing belts of tall vegetation.
- Establish or maintain favorable habitat in blocks of 24 acres or larger to sustain one or more breeding pairs (Gibbs et al. 1992).

## **Species Conservation Objectives**

### **NMPIF Objectives**

- Seek to determine state population numbers and trends. Taped call-response surveys can be used to monitor trends in secretive marsh birds such as American Bittern. Lor and Malecki (2002) demonstrated that the sample size required to effectively establish a monitoring program to detect a 5% population change in this species is 24 stations with observed sightings.
- Maintain or increase current populations at all known breeding areas.

## Sources of Information

Gibbs, J. P., S. Melvin, and F. A. Reid. 1992. American Bittern. *In* The Birds of North America, No. 18 (A. Poole, P. Stettenheim, and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, DC: The American Ornithologists' Union.

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