

# Least Bittern

*Ixobrychus exilis*



Photo by Martin Meyers

### Habitat Use Profile

Habitats Used in Nevada	
Marsh Mojave Lowland Riparian	
Key Habitat Parameters ●	
Plant Composition	Cattail, bulrush, sedges, willow spp., other woody riparian shrubs
Plant Density	Large patches of high-density emergent vegetation <sup>1</sup>
Mosaic	Shallow marsh with variable stem densities, heavy on the high densities, interspersed with open water and woody vegetation <sup>1</sup>
Water Depth	At nest: 8 – 96 cm (3 – 40"); foraging: shallow (≤ 60 cm, 25") <sup>1</sup>
Hydrology	Minimal daily fluctuation in stage probably most suitable <sup>EO</sup>
Response to Vegetation Removal	Unknown, but probably negative to whole stand loss <sup>EO</sup>
Area Requirements ●	
Minimum Patch Size	Unknown
Recommended Patch Size	50 ha (110 ac) <sup>EO</sup>
Home Range	Unknown

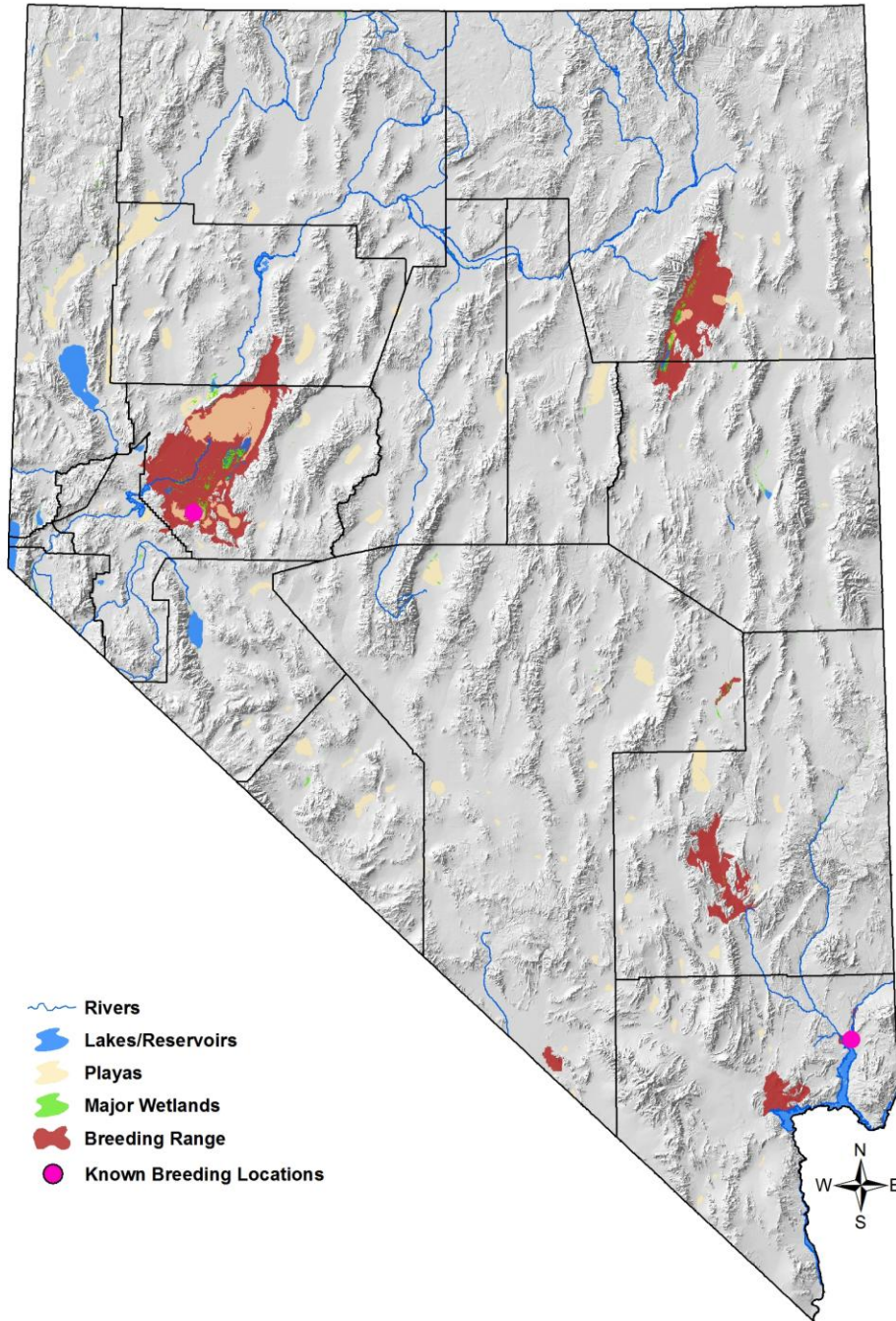
### Conservation Profile

Priority Status	
Conservation Species	
Species Concerns	
Possible declines Small population size Habitat threats	
Other Rankings	
Continental PIF	None
Audubon Watchlist	None
NV Natural Heritage	S2b
USFWS	Migratory Bird
BLM	None
USFS	None
NDOW	Conservation Priority
IW Waterbird Plan	Moderate Concern
Trends	
Historical ●	Unknown, but significant declines assumed <sup>1</sup>
Recent ●	Possibly declining <sup>1</sup>
Population Size Estimates	
Nevada	Unknown
Global	Unknown
Percent of Global	Unknown
Population Objective	
Maintain/Increase <sup>EO</sup>	
Monitoring Coverage	
Source	Secretive marshbird surveys by BOR, SNWA, and others
Coverage in NV	Unknown
Key Conservation Areas	
Protection	Muddy and Virgin Rivers
Restoration	Muddy and Virgin Rivers, Desert Springs and Wetlands (Mojave)

### Natural History Profile

Seasonal Presence in Nevada	
Spring – summer, may be year-round	
Known Breeding Dates in Nevada	
May – August, possibly earlier <sup>1</sup>	
Nest and Nesting Habits	
Nest Placement	Platform in emergent or adjacent woody cover, 15 – 76 cm (6 – 32") above water; less than 10 m (35 ft) from open water <sup>1</sup>
Site Fidelity	Unknown
Food Habits	
Basic	Omnivorous; shallow water prober/hunter
Primary Prey	Small fish, aquatic invertebrates <sup>1</sup>
Secondary Prey	Crustaceans, small mammals, plant material, eggs <sup>1</sup>

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References: <sup>1</sup> Gibbs et al. (1992), <sup>EO</sup> expert opinion

### Overview

The Least Bittern in Nevada is a largely unknown breeding bird. The Nevada Breeding Bird Atlas project confirmed earlier evidence of breeding in Lahontan Valley (Carson Lake, with earlier reports also including Stillwater NWR), and found likely breeding evidence at Overton WMA and Pahrangat NWR. Other areas with breeding activity include the Henderson Bird Viewing Preserve, the Virgin River near Littlefield (Rathbun and Braden 2003). Old records also exist for Ruby Valley, but without recent confirmation of the species. These records paint a picture of a very spotty breeding distribution, but as with other secretive marshbirds, the possibility always exists that there are additional breeding locations in the state. Secretive marshbirds require a specialized survey technique for inventory and monitoring, and they are discovered only incidentally during other surveys. Developing an improved capacity to monitor this bird is a priority, as is implementation of general marsh conservation strategies in areas where breeding is known or likely to occur.

### Abundance and Occupancy by Habitat

- ~ 1 bird / ha in suitable marshes along LCR (Gibbs et al. 1992)

### Nevada-Specific Studies and Analyses

- None

### Main Threats and Challenges

- Conversion or dewatering of marshes
- Water fluctuations during breeding season
- Possible effects of selenium accumulation

### Species with Similar Conservation Strategies

- Snowy Egret
- Clapper Rail

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**Conservation Strategies**

**Habitat Strategies**

1. Marsh conservation strategy benefits this species (see habitat accounts)
2. Maintain water levels in breeding marshes during nesting

**Research, Planning, and Monitoring**

1. Develop improved population monitoring according to Conway (2004)
2. Inventory potential breeding areas in Nevada using these methods