

White-faced Ibis *Plegadis chihi*



Photo by Larry Neel

Habitat Use Profile

| Habitats Used in Nevada | |
|-------------------------------------|---|
| Marsh Agricultural Wet Meadow | |
| Key Habitat Parameters ● | |
| Plant Composition | Cattail, bulrush, sedges, pasture grasses, hay crops, willow spp., salt cedar |
| Plant Density | Patches of high density emergent vegetation or flooded shrub thickets for nesting; moderately dense, flooded vegetation for foraging ³ |
| Mosaic | Shallow marsh with variable stem densities near flooded agricultural fields or wet meadows (< 6 km, 4 mi, from colony) ^{3,EO} |
| Water Depth | < 30 cm (12") for foraging ^{EO} |
| Hydrology | Requires flooded conditions ³ |
| Response to Vegetation Removal | Negative in nesting site ^{EO} |
| Area Requirements ● | |
| Minimum Patch Size | Unknown |
| Recommended Patch Size | 1,200 ha (2,600 ac) ^{3,EO} |
| Home Range | Unknown |

Conservation Profile

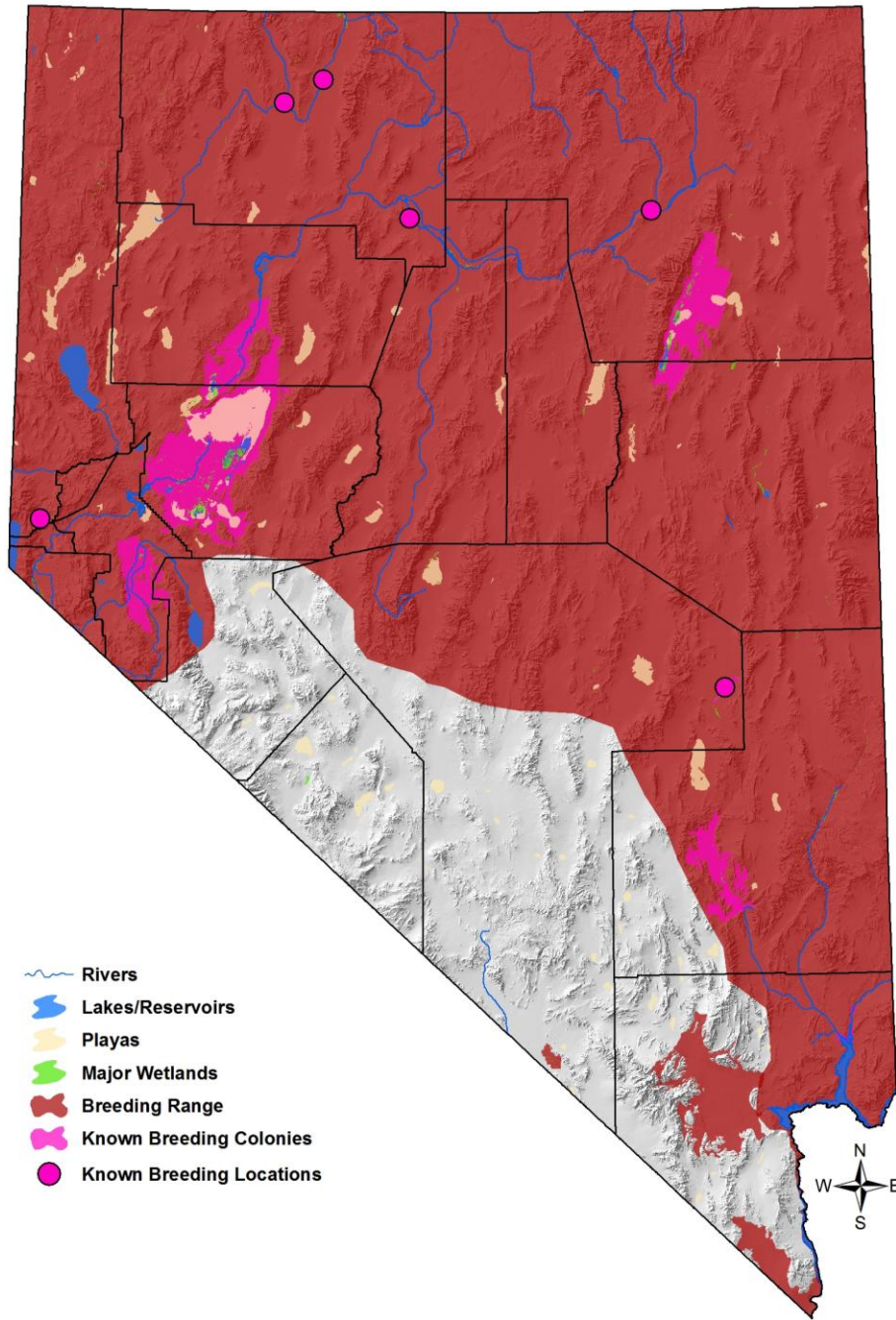
| Priority Status | |
|-------------------------------|---|
| Conservation Species | |
| Species Concerns | |
| Habitat threats | |
| Other Rankings | |
| Continental PIF | None |
| Audubon Watchlist | None |
| NV Natural Heritage | S3B |
| USFWS | Migratory Bird |
| BLM | None |
| USFS | None |
| NDOW | Conservation Priority |
| IW Waterbird Plan | Moderate Concern |
| Trends | |
| Historical | Unknown |
| Recent ● | Declining ¹ |
| Population Size Estimates | |
| Nevada ● | 5,000; highly variable ¹ |
| Global ● | ≥ 100,000 ² |
| Percent of Global ● | 5% |
| Population Objective | |
| Increase by 20% ^{EO} | |
| Monitoring Coverage | |
| Source | NDOW aerial surveys, NWR and WMA counts, Aquatic Bird Count |
| Coverage in NV ● | Very good |
| Key Conservation Areas | |
| Protection | Lahontan and Ruby valleys, Humboldt River system |
| Restoration | Lahontan and Ruby valleys, Humboldt River system |

Natural History Profile

| Seasonal Presence in Nevada | |
|--------------------------------|--|
| Spring – summer | |
| Known Breeding Dates in Nevada | |
| May – July ⁴ | |
| Nest and Nesting Habits | |
| Nest Placement | Above water (20 – 50 cm, 8 – 21") in tall emergent vegetation or flooded shrubs ^{1,3} |
| Site Fidelity | High for colony site ³ |
| Other | Highly colonial nester ³ |
| Food Habits | |
| Basic | Predatory; marsh/soil prober |
| Primary Prey | Benthic, aquatic, and soil invertebrates ³ |
| Secondary Prey | Small vertebrates ³ |

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Plegadis chihi



Note to Reviewers: Map will be mapped more spatially explicit

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Plegadis chihi

References: ¹ L. Neel (pers. comm.), ² Kushlan et al. (2002), ³ Ryder and Manry (1994), ⁴ GBBO unpubl. atlas data, ^{EO} expert opinion

Overview

Determining the current conservation status of the White-faced Ibis in Nevada recently became somewhat more problematic. The species suffered significant historical declines due to habitat loss and pesticides, but staged a somewhat dramatic recovery beginning in the 1980s (Ryder and Manry 1994). Until recently, it appeared that ibis numbers were fairly stable in Nevada (apart from normal annual fluctuations caused by drought cycles), but more recent data suggest the possibility of a renewed declining trend (WAP Team 2006). Evidence for these possible declines comes primarily from Lahontan Valley, the White-faced Ibis's breeding stronghold in the state. Specifically, the current ten-year average for Lahontan Valley (4,200) is substantially lower than the three-year average reported in 1999 (12,200; Ivey and Herziger 2006), and lower than the five-year average reported in 2000 (11,300; L. Neel pers. comm.). In the 1980s, peak populations of 16,000 were recorded in Lahontan Valley (Ryder and Manry 1994), and in 1985 a population objective for Nevada was defined as maintaining a breeding population of 10,000 birds [USFWS]. If the species is declining in Nevada as these data indicate, it contrasts with the regionally-reported trend towards increases or stability over the past few decades (Ryder and Manry 1994). This species is known to shift colony sites flexibly based on local conditions (L. Neel, pers. comm.), and therefore managing habitats for this species is beneficial even in areas where it is not currently known as a breeder. It is also important to confirm apparent declines and their causes in Nevada (as opposed to population cycles driven by annual precipitation), and if confirmed, to develop counteractive management strategies.

Abundance and Occupancy by Habitat

- Current population estimate based on 10-year average of Lahontan Valley counts; does not include data for Ruby Lake NWR, but breeding birds there and elsewhere around the state are estimated at ~ 800.
- Peak count for Nevada in recent history was 8,200 birds throughout northwestern Nevada, including Lahontan Valley, in 1997 (L. Neel pers. comm.)
- Population goals based on population estimates from 1980s and 1990s (Earnst et al. 1998, Sharp 1985)
- Densities of 75 – 150 nests / ha recorded at Carson Lake, Lahontan Valley (Ryder and Manry 1994)

White-faced Ibis
Plegadis chihi

- NBC data (percent columns actually refer to **proportion** of transects occupied)

| | | % Transects Occupied (Great Basin) | % Transects Occupied (Mojave) |
|------------------|--|------------------------------------|-------------------------------|
| Lowland Riparian | | 0.09 (6/66) | 0.03 (1/36) |
| Wetland | | 0.40 (12/30) | 0 |

Nevada-Specific Studies and Analyses

- NDOW shorebird counts in Lahontan Valley

Main Threats and Challenges

- Conversion or dewatering of Marsh habitat and flooded agriculture
- Water level fluctuations during nesting (Ryder and Manry 1994)

Species with Similar Conservation Strategies

- Sandhill Crane (foraging habitat)
- Long-billed Curlew
- Snowy Egret

Further Reading

- Earnst et al. (1998)
- Yates et al. (2009)

White-faced Ibis

Plegadis chihi

Conservation Strategies

Habitat Strategies

1. Marsh, Agricultural, and Wet Meadow conservation strategies benefit this species (see habitat accounts)
2. Maintain traditional flood irrigation practices, where possible, in critical nesting areas (Lahontan Valley, Lovelock Valley, and Ruby Valley)
3. Maintain water management in managed units where nesting is initiated in order to maintain flooded conditions through nesting, where possible

Public Outreach

1. Encourage traditional agricultural landscapes and practices

Research, Planning, and Monitoring

1. Determine whether populations to which Nevada contributes are truly in decline or whether they are redistributing across the region, and identify causes.