White-faced Ibis

Plegadis chihi

REGULATORY STATUS

USFWS: Migratory Bird
USFS R2: No special status
USFS R4 No special status
Wyoming BLM: Sensitive
State of Wyoming: Protected Bird

CONSERVATION RANKS

USFWS: No special status
WGFD: NSS3 (Bb), Tier II
WYNDD: G5, S1
Wyoming Contribution: LOW
IUCN: Least Concern
PIF Continental Concern Score: Not ranked

STATUS AND RANK COMMENTS

White-faced Ibis (*Plegadis chihi*) has no additional regulatory status or conservation rank considerations beyond those listed above.

NATURAL HISTORY

Taxonomy:
There are currently no recognized subspecies of White-faced Ibis [1, 2].

Description:
Identification of White-faced Ibis is possible in the field. The species is a medium-sized wading bird, smaller than most herons and egrets in Wyoming. Adults have a body length of 45 to 56 cm. Males and females are identical in appearance. The species has a long decurved bill and long neck and legs. In the breeding season, the plumage is dark maroon to brown overall, with a metallic green and bronze iridescence. On the head, reddish-purple bare skin around the eye is surrounded by white feathers. During the non-breeding season, the bird lacks iridescent plumage and the white feathers around the eyes. The bare skin around the eye is dark. Juvenile birds have a pinkish bill and a pale brown head and neck [1, 3]. The species is unlikely to be confused with any other species in Wyoming.

Distribution & Range:
White-faced Ibis is found from the southern United States to South America. The species is locally distributed at breeding colonies during the breeding season across the western United States including Wyoming. The species migrates to Mexico and the southern United States for the winter. Since the early 1980s, the species has recolonized areas where it had been extirpated such as Iowa, South Dakota, and North Dakota [1, 4].

Habitat:
White-faced Ibis is found in a variety of shallow wetland habitats such as marshes, ponds, mudflats, and swamps. In Wyoming, the species is typically associated with marshes, wet meadows, and vegetated shorelines, similar to elsewhere in the species' range. Breeding habitat is typically characterized by islands with emergent vegetation, which are used for nesting and roosting. Habitat use is similar year round [1, 5, 6]. The majority of breeding colonies in Wyoming can be found in the Bear River drainage and in the Laramie Basin.

Phenology:
White-faced Ibis is migratory and arrives in Wyoming in mid-April [6]. In Wyoming, clutch initiation generally begins in June. Incubation averages 20 days. At 10 to 12 days of age, young leave the nest but remain in nearby vegetation. Young leave the nesting colony at 6 to 7 weeks of age [1]. Timing of fall migration is not well known for Wyoming but likely occurs from late August to September [6].

Diet:
White-faced Ibis feeds upon aquatic and moist-soil insects, crustaceans, and earthworms [1].

CONSERVATION CONCERNS

Abundance:
Continental: WIDESPREAD
Wyoming: VERY RARE
There are no robust estimates of White-faced Ibis abundance in Wyoming [7]. The species has a statewide abundance rank of VERY RARE and appears to be uncommon within suitable environments in the occupied area [8]. Colonial nesting waterbird surveys conducted from 2002–2006 by the Wyoming Game and Fish Department (WGFD) recorded a range of 17 to 132 individuals annually across all surveyed sites [9-13]. From 1968–2015, annual Wyoming Breeding Bird Survey (BBS) detections of White-faced Ibis ranged from 0 to 7, with none recorded in most years [14]. A total of 35 White-faced Ibis were detected (all in 2011) during surveys for the Integrated Monitoring of Bird Conservation Regions (IMBCR) program between 2009–2015 [7]. While surveys conducted as part of the BBS and IMBCR programs may occasionally detect this species, neither is specifically designed to capture ibis observations.

Population Trends:
Historic: LARGE DECLINE
Recent: INCREASE
Following pesticide bans in the 1970s, abundance of White-faced Ibis has increased across its range. Survey-wide trend data from the North American BBS indicate that White-faced Ibis numbers experienced statistically significant annual increases of 4.86% from 1966–2013 and 22.27% from 2003–2013 [15]. Robust population trends are not available for White-faced Ibis in Wyoming because the species is infrequently detected during monitoring efforts. Consequently, it is unknown if population trends in Wyoming follow national trends [1, 5, 15].

Intrinsic Vulnerability:
MODERATE VULNERABILITY
White-faced Ibis has specific breeding habitat requirements and relatively low fecundity, making the species moderately vulnerable. The species requires wetlands with islands with emergent vegetation and shallow water for breeding and foraging. Lifetime reproductive output may also

limit the species. White-faced Ibis produce a single clutch per year. Age of first breeding is normally at least two years of age. Average life expectancy is approximately nine years. Reproductive success may have large temporal variation. For example, within a colony, nest success can range from total failure to nearly every nest fledging at least one young. These factors suggest productivity may be a limiting factor for populations in the state [1, 5].

Extrinsic Stressors:

MODERATELY STRESSED

White-faced Ibis habitat is moderately threatened by human and environmental factors. The most significant threat to the species is continued wetland loss. Additionally, wetland habitat degradation can occur from trampling and grazing of wetlands by cattle [5]. Wetland loss may also result from persistent drought conditions. This may reduce the suitability and availability of wetlands for breeding in Wyoming. Drought conditions may become more severe and last for longer periods as a result of global climate change [16]. Human disturbance at nesting colonies can lead to nest abandonment and reproductive failure. The species continues to be exposed to pesticides, such as organochlorine pesticides and polychlorinated biphenyls on breeding grounds and DDT on the winter grounds. Exposure contributes to reduced breeding success through poisoning and eggshell thinning [1, 5, 17, 18].

KEY ACTIVITIES IN WYOMING

White-faced Ibis is classified as a Species of Greatest Conservation Need (SGCN) by the WGFD. Traditional, long-term, songbird monitoring programs such as the BBS [15] and IMBCR [7] have not detected the species with enough frequency to provide meaningful data. Since 1984, WGFD has conducted annual or periodic monitoring at the most important and productive sites for colonial waterbird SGCN to determine species presence and distribution, and to estimate number of nesting pairs. The most recent effort was the culmination of a multi-year cooperative agreement between the WGFD and the United States Fish and Wildlife Service to conduct an intensive survey of all historic, known, potential, and new colonial waterbird breeding sites statewide as part of a western range-wide effort to track population size, trends, and locations of breeding colonial waterbirds in the western United States [19, 20]. In 2014, an online Atlas of western colonial waterbird nesting sites was produced with data collected and submitted by participating states [21]. Every three to five years, WGFD personnel visit known colonial waterbird nesting sites outside of Yellowstone National Park to evaluate water level conditions, determine species present at each site, and estimate the number of nesting pairs of colonial waterbirds. There are currently no research projects designed specifically for White-faced Ibis in Wyoming.

ECOLOGICAL INFORMATION NEEDS

Abundance and population trend estimates of White-faced Ibis in Wyoming are unknown. Breeding success and annual productivity of the species in Wyoming are unknown.

MANAGEMENT IN WYOMING

This section authored solely by WGFD; Zachary J. Walker. White-faced Ibis is classified as a SGCN in Wyoming due to historical population declines throughout its range, limited breeding habitat within Wyoming, dearth of state-specific data, and susceptibility to drought and habitat degradation. Colonial waterbird surveys should be continued in order to monitor White-faced Ibis. Additional research should address data deficiencies. This would include breeding success, productivity, and population dynamics. Best management practices for White-faced Ibis include

minimizing human disturbance at nesting sites throughout the breeding season, and maintaining stable water levels within breeding habitats. Wetland habitats necessary for White-faced Ibis should be retained and enhanced when possible.

CONTRIBUTORS

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Figure 1: White-faced Ibis feeding in seasonal wetland in Seedskadee National Wildlife Refuge, Sweetwater County, Wyoming. (Photo courtesy of Tom Koerner, USFWS)

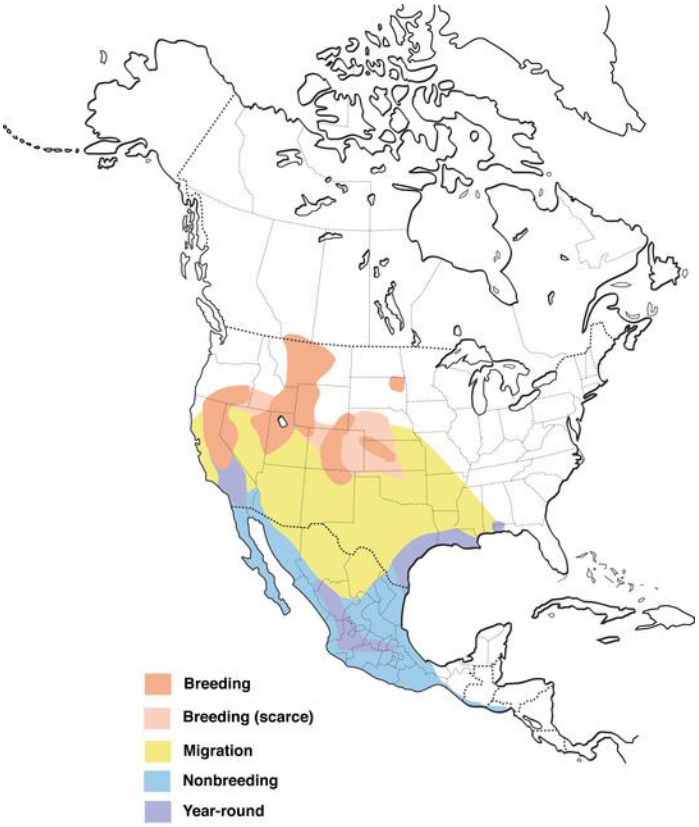

Figure 2: North American range of *Plegadis chihi*. (Map courtesy of Birds of North America, http://bna.birds.cornell.edu/bna, maintained by the Cornell Lab of Ornithology)

Figure 3: Protected marsh in Table Mountain Wildlife Habitat Management Area with White-faced Ibis visible, south of Torrington, Wyoming. (Photo courtesy of Kimberly Szcodronski, WGFD)

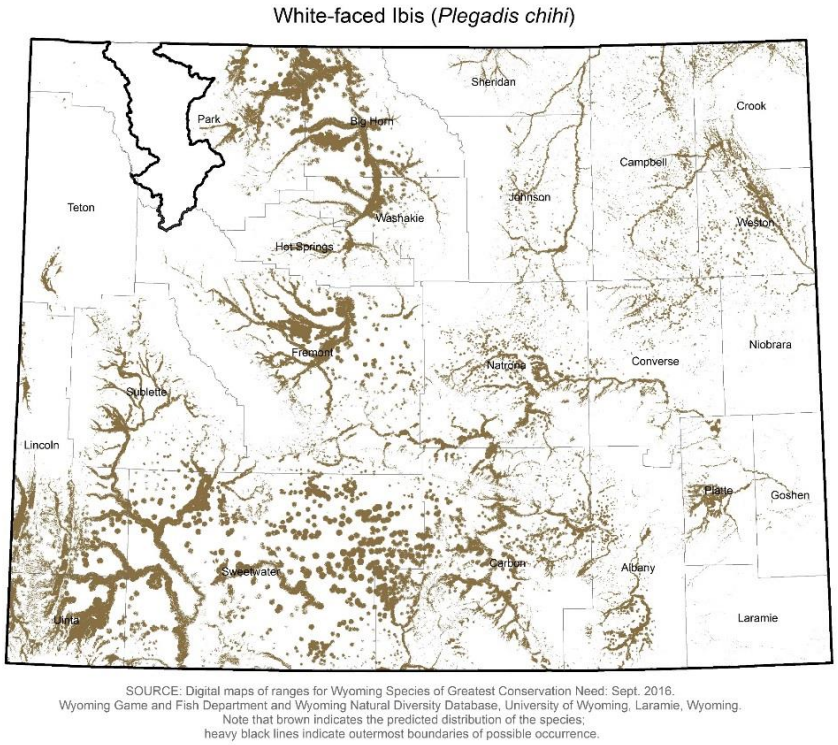

Figure 4: Range and predicted distribution of *Plegadis chihi* in Wyoming.