White-faced Ibis (*Plegadis chihi*) Conservation Status Rank Summary

December 9, 2024

For details on assessment and ranking methodology, see: <u>Conservation Status Assessment Definitions, Process,</u> <u>Rank Factors, and Calculation of State Ranks for Montana Species</u>

Rank Factor	Date Assessed	Value	Score	Data Source	Comments			
Rarity								
Range Extent	2024-12-09	S: 224568.0 km ²	4.710	MTNHP Range Maps	None			
Area of Occupancy			-		Factor not used in ranking.			
Number of Occurrences	2024-12-09	8	1.380	MTNHP Databases	None			
Population Size			-		Factor not used in ranking.			
# of Occurrences in Good Condition	2024-12-09		2.200		None			
% of Area Occupied in Good Condition			-		Factor not used in ranking.			
Environmental Specificity	2011-12-20	Narrow	-	MTNHP Species Rank Data Table	Factor not used in ranking. Narrow specialist. Species is dependent on large wetland complexes which are relatively rare in Montana. Methodology: NS (2003) Original Score: B			
Rarity is calculated by averaging weighted factor scores: ((4.71 × 1) + (1.38 × 1) + (2.20 × 2)) / 4 = 2.62								
Trends								
Short-term Trend	2024-12-09		0.000		None			
Long-term Trend	2011-12-20		0.000	MTNHP Species Rank Data Table	Large wetland complex habitats relatively stable since European arrival. Methodology: NS (2003) Original Score: F			
Trends score is calculated by summing weighted short and long-term trend scores: ((0.00 × 2) + (0.00 × 1)) = 0.00								

Rarity and Trends

Threats

Rank Factor	ank Factor Date Value		Score	Data Source	Comments	
Threats						
Overall Threat Impact		Low/No Threats	5.500		Altered hydrology as a result of climate change, nest site disturbance, and contaminants (e.g., elevated selenium) in some areas all represent threats to the species.	
Intrinsic Vulnerability	2011-12-20	Moderately vulnerable	-	MTNHP Species Rank Data Table	Factor not used in ranking. Moderately Vulnerable. Species exhibits moderate age of maturity, frequency of reproduction, and/or fecundity such that populations generally tend to recover from decreases in abundance within 5- 20 years or 2-5 generations. Species has good dispersal capabilities such that extirpated populations generally become reestablished through natural recolonization. Methodology: NS (2003) Original Score: B	
Threat score is calculated from Overall Threat Impact when available or Intrinsic Vulnerability if not: (5.50) = 5.50						

Individual Threats Data

Threat Category	Date Assessed	Impact Score	Scope	Severity	Immediacy	Comments		
No Threat Identified	2024-12-09	Low	None	None	None	None		
Threat Tally: 0 - Very High, 0 - High, 0 - Medium, 1 - Low Overall Threat Impact* = Low/No Threats								

*See <u>Conservation Status Assessment Definitions</u>, <u>Process</u>, <u>Rank Factors</u>, <u>and Calculation of State Ranks for Montana Species</u> for calculation of Overall Threat Impact based on the number and impact of individual threats</u>.

Conservation Status Rank Calculation

Raw score

Rarity: (2.62 × 70%) + Threats: (5.50 × 30%) + Trends: (0.00) = 3.49

Calculated Rank: S3

Accepted Rank	S3B					
Date Approved	1989-02-15					
Approval Authority	Montana Species of Concern Committee					
Rank Justification	Species is relatively common across central and northern Montana but breeds at very few locations within this area. Based on observational data, most historic breeding sites appear to continue to be occupied. No threats are known.					

Supplementary Information

Montana Natural Heritage Program. 2021. Conservation Status Assessment Definitions, Process, Rank Factors, and Calculation of State Ranks for Montana Species. 18 p. https://mtnhp.mt.gov/docs/Montana_State_Rank_Criteria_20211201.pdf

Montana Field Guide Species Account:

https://fieldguide.mt.gov/speciesDetail.aspx?elcode=ABNGE02020

Predicted Suitable Habitat Model:

https://mtnhp.mt.gov/resources/models/?elcode=ABNGE02020

Information Needs

Information needs are assessed by considering the availability of factors used to assess species status as well as the quality of these assessments. Current information availability and quality to inform Conservation Status Rank for this species are highlighted.

Rank	Assessment	Mahua	Critaria				
Factor	Category	value	Citteria				
General Status	Status Quality	Adequate	Calculated rank has low uncertainty and is represented by a single rank (e.g. S3); accepted rank may be adjusted to a range rank (e.g. S2S3)				
		Poor	Rank assessed as SU or calculated rank has notable uncertainty and corresponds to a range rank with 2 or more values (e.g. S2?, S1S3, or S4S5)				
	Range Quality	Adequate	Range polygon adequately represents area of probable occupancy and does not include substantial unoccupied areas; range may be adequately defined and still include areas of unsuitable habitat (e.g. mountain ranges for plains species)				
		Marginal	Range polygon defined, but may include or exclude notable areas where the species may or may not occur on the landscape				
Rarity		Poor	Range polygon not defined				
_		Adequate	Species-habitat relationship is well-defined (e.g. relevant literature or robust habitat model available)				
	Habitat Quality	Marginal	Understanding of species-habitat relationship is adequate among some but not all habitats (e.g. literature covers similar habitats outside of Montana or habitat model performance is only somewhat adequate)				
		Poor	Species-habitat relationship is not well understood				
	Threat Quality	Adequate	Threat Impact is a single value (including "Unthreatened")				
Threats		Marginal	Threat Impact assessed at more than one value (e.g. "High - Medium")				
inteats		Poor	Threat Impact is Unknown but Intrinsic Vulnerability is assessed				
		Unknown	Threat Impact is Unknown and Intrinsic Vulnerability is not assessed				
		Current	Short-term Trend assessment date less than 10 years old				
Trends	Recency	Out of Date but Adequate	Short-term Trend assessment date is more than 10 years old or Unknown, but species is Unthreatened				
		Out of Date	Short-term Trend assessment date more than 10 years old				
		Not Available	Short-term Trend data are not available				
	Trend Quality	Sufficient	Short-term Trend assessed at a single value or multiple values with a minimum trend greater than -10% (stable or increasing)				
		Unknown but Sufficient	Short-term Trend is Unknown, but species is Unthreatened				
		Poor	Short-term Trend is less than -10% (in decline) with two or more values selected				
		Unknown	Short-term Trend is Unknown				

Summary of Information Availability

Trend data are only from observations. No threats were identified on review, but species may face threats that are not well documented.

Summary of Information Needs

Regular monitoring of breeding sites and additional information on threats are needed.

Additional Threat Details

The table below contains the complete threats assessment for this species. While the Conservation Status Rank Calculation is based on cumulative, broadly categorized (Level 1) threats data, threats are assessed and tracked for more specifically categorized (Level 2) threats when available.

Threat Category	Date Assessed	Assessed By	Data Source	Scope	Severity	Imme- diacy	Comments
No Threat Identified - 0	2024-12-09	None	None	None	None	None	None
Climate Change & Severe Weather - 11.1 - Habitat Shifting & Alteration	2024-12-09	Dan Bachen	Audubon Survival by degrees	Pervasiv e	Neutral- Benefit	Moderat e	Audubon's Climate by Degrees project predicts expansion of breeding habitat under warming scinerios