# Peregrine Falcon (*Falco peregrinus*) Conservation Status Rank Summary

April 15, 2022

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	Factor Date Value Value		Score Data Source		Comments			
Rarity								
Range Extent	2025-01-31	Y: 380530.8 km²	4.710	MTNHP Range Maps	None			
Area of Occupancy	2025-01-31	945   4km² cells	4.130	MTNHP Modeling	None			
Number of Occurrences	2025-02-14		4.130	Montana Peregrine Institute	Atleast 110 active nests in 2018			
Population Size	2011-12-22		1.570	MTNHP Species Rank Data Table	The Montana Peregrine Institute documented 9 active Peregrine nest sites in 2011 which likely indicates a population of between 250-1,000 individuals.   Methodology: NS (2003)   Origina Score: C			
# of Occurrences in Good Condition			-		Factor not used in ranking.			
% of Area Occupied in Good Condition	ccupied adition		-		Factor not used in ranking.			
Environmental Specificity	2011-12-22	Narrow	-	MTNHP Species Rank Data Table	Factor not used in ranking. Narrow Specialist. Species is dependent on cliff habitat for nesting and these are relatively uncommon on the landscape. Other than that they are generalist forager for ducks, pigeons, and Galliformes.   Methodology: NS (2003)   Original Score: B			
Rarity is calculated by averaging weighted factor scores: ( (4.71 × 1) + (4.13 × 2) + (4.13 × 1) + (1.57 × 2) ) / 6 = 3.37								
Trends								
Short-term Trend	2022-04-12		0.070	Montana Peregrine Institute Territory Counts	The 3-year average of occupied territories increased from 89 to 110 between 2006-2008 and 2016-2018.			
Long-term Trend 2025-01-31 -0.400 Expert Opinior		Expert Opinion	The relative difference in abundance between historic and current populations is difficult to gauge. The species is continuing to occupy habitat it was extirpated from but is still much less common in the eastern and central regions of the state and has yet to begin to recolonize some of these areas.					

## **Rarity and Trends**

# Trends score is calculated by summing weighted short and long-term trend scores: ( (0.07 $\times$ 2) + (-0.40 $\times$ 1) ) = -0.26

## Threats

Rank Factor	Date Assessed	ate Value essed		Data Source	Comments			
Threats								
Overall Threat Impact		Low/No Threats	5.500		No major threat identified, but nest competition, falconry and nest disturbance may represent threats.			
Intrinsic Vulnerability	2011-12-22	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	2025-01-31	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: (3.37 × 70%) + Threats: (5.50 × 30%) + Trends: (-0.26) = 3.75

Calculated Rank: S4

Accepted Rank	S4				
Date Approved	2022-04-15				
Approval Authority	Montana Species of Concern Committee				
Rank Justification	Impacts from the pesticide DDT in the mid 20th century caused catastrophic declines in abundance of this species across its range. A ban on this pesticide and subsequent conservation actions have recovered populations and resulted in delisting and removal of protections extended under the Endangered Species Act. In Montana the species had recolonized much of its historic range and continues to increase in abundance. This has resulted in its removal from the State species of Concern list in 2022.				

#### **Supplementary Information**

Montana Natural Heritage Program. 2021. Conservation Status Assessment Definitions, Process, Rank Factors, and Calculation of State Ranks for Montana Species. 18 p. <u>https://mtnhp.mt.gov/docs/Montana\_State\_Rank\_Criteria\_20211201.pdf</u>

Montana Field Guide Species Account: https://fieldguide.mt.gov/speciesDetail.aspx?elcode=ABNKD06070

Predicted Suitable Habitat Model: https://mtnhp.mt.gov/resources/models/?elcode=ABNKD06070

#### **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	Malua	Criteria				
Factor	Category	value					
General	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)				
Status		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")				
Throats		Marginal	Threat Impact assessed at more than one value (e.g. "High - Medium")				
meats		Poor	Threat Impact is Unknown but Intrinsic Vulnerability is assessed				
		Unknown	Threat Impact is Unknown and Intrinsic Vulnerability is not assessed				
	Recency	Current	Short-term Trend assessment date less than 10 years old				
Trends		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

Information to assess status is available

Summary of Information Needs

No further information is needed but monitoring should continue to document population changes and insure continued recovery.

#### **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	2025-01-31	None	None	None	None	None	None