Black-footed Ferret (*Mustela nigripes*)
Conservation Status Rank Summary

Date Published: April 23, 2026

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

Rarity and Trends

Rank Factor	Date Assessed	Value Factor Rating	Score	Data Source	Comments
Rarity					
Range Extent	2024-09-25	2906.4 km² D = 1,000-5,000 km²	2.360	MTNHP Range Maps	None
Area of Occupancy			-		Factor not used in ranking.
Number of Occurrences	2024-09-25	4 A = 1 - 5	0.000	MTNHP Databases	None
Population Size			-		Factor not used in ranking.
# of Occurrences in Good Condition	2024-09-25	0 A = No occurrences with excellent or good (A or B) viability or ecological integrity	0.000	Keuler at al. 2020; Cully et al. 2010; MTNHP data	Sylvatic Plague has impacted all current and former sites occupied by the species
% of Area Occupied in Good Condition			-		Factor not used in ranking.
Environmental Specificity	2024-09-25	Narrow B = Narrow; specialist or community with key requirements common	-		Factor not used in ranking.
Rarity is calculated by averaging weighted factor scores: **((2.36 × 1) + (0.00 × 1) + (0.00 × 2)) / 4 = 0.59**					
Trends					
Short-term Trend	2024-09-25	* A = Decline of >90%	-0.500		Recent efforts to establish self-sustaining populations in Montana have failed. 2019 surveys estimated 19 individuals from two sites
Long-term Trend	2024-09-25	-99.0% A = Decline of >90%	-0.500	Miller et al. 1996; Livieri et al 2022	Species was extirpated from Montana and from most of their former large range mainly as a result of prairie dog and predator control programs. Reintroduction efforts have not been successful in establishing self-sustaining populations
Trends score is calculated by summing weighted short and long-term trend scores: **((-0.50 × 2) + (-0.50 × 1)) = -1.50**					

*Values may be absent if not precisely estimated; factors may still be assessed for rank if a Factor Rating can be assigned.

Threats

Rank Factor	Date Assessed	Value Factor Rating	Score	Data Source	Comments
Threats					
Overall Threat Impact		Very High A = Very High	0.000		None
Intrinsic Vulnerability	2024-09-25	Moderately vulnerable B = Moderately vulnerable	-	Hillman and Clark 1980;Forrest et al. 1988;Forrest et al. 1988	**Factor not used in ranking.** Species breeds anually and has 1-5 kits. It has good dispersal capabilities where sufficent desnisties of prairie dogs exist
Threat score is calculated from Overall Threat Impact when available or Intrinsic Vulnerability if not: **(0.00) = 0.00**					

Individual Threats Data

Threat Category	Date Assessed	Impact Score	Scope	Severity	Immediacy	Comments
Agriculture & Aquaculture	2026-04-23	Medium	Large	Moderate	High	Degridation of rangelands due to improper grazing and removal of prairie dogs to benefit cattle.
Biological Resource Use	2026-04-23	Medium	Large	Moderate	High	Prairie dog control, resulting in a lack of prey base and habitat for ferrets. Human caused threats to prairie dog populations include recreational shooting and poisoning in prairie dog colonies.
Invasive & Other Problematic Species, Genes & Diseases	2024-09-25	Very high	Pervasive	Extreme	High	Plague continues to impact reintroduced populations generally causing high mortality from indirect impacts on availablity of prey and direct disease impacts
Other Threats	2026-04-23	Very high	Pervasive	Extreme	High	Lack of genetic diversity within the population due to a prior bottleneck.
Threat Tally: 2 - Very High, 0 - High, 2 - Medium, 0 - Low Overall Threat Impact* = Very High						

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

Conservation Status Rank Calculation

Raw score

Rarity: (0.59 × 70%) + Threats: (0.00 × 30%) + Trends: (-1.50) = 0.00

Calculated Rank: S1

Accepted Rank	S1
Author(s)	Dan Bachen
Rank Approved By	Montana Species of Concern Committee
State Rank Reason	Species was previously extirpated from the state due to direct and indirect persecution and prairie dog eradication efforts. Reintroduction efforts have largely been unsuccessful due to Sylvatic Plague with only a handful of captive reared individuals remaining at reintroductions sites.

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=AMAJF02040

Predicted Suitable Habitat Model:
https://mtnhp.mt.gov/resources/models/?elcode=AMAJF02040

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 Factor	Assessment Category	Value	Criteria
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)
Rarity	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
		Poor	Range polygon not defined
	Habitat Quality	Adequate	Species-habitat relationship is well-defined (e.g. relevant literature or robust habitat model available)
		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
Threats	Threat Quality	Adequate	Threat Impact is a single value (including "Unthreatened")
		Marginal	Threat Impact assessed at more than one value (e.g. "High - Medium")
		Poor	Threat Impact is Unknown but Intrinsic Vulnerability is assessed
		Unknown	Threat Impact is Unknown and Intrinsic Vulnerability is not assessed
Trends	Recency	Current	Short-term Trend assessment date less than 10 years old
		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

Data to assess status are available

Summary of Information Needs

No additional information are needed at this time.

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
Agriculture & Aquaculture - 2.3 - Livestock Farming & Ranching	2026-04-23	Dan Bachen	SWAP Assessment	Large	Moderate	High	Degridation of rangelands due to improper grazing and removal of prairie dogs to benefit cattle.
Biological Resource Use - 5.1 - Hunting & Collecting Terrestrial Animals	2026-04-23	Dan Bachen	SWAP Assessment	Large	Moderate	High	Prairie dog control, resulting in a lack of prey base and habitat for ferrets. Human caused threats to prairie dog populations include recreational shooting and poisoning in prairie dog colonies.
Invasive & Other Problematic Species, Genes & Diseases - 8.1 - Invasive Non-Native/Alien Species/Diseases	2024-09-25	Dan Bachen	Livieri et al. 2022	Pervasive	Extreme	High	Plague continues to impact reintroduced populations generally causing high mortality from indirect impacts on availablity of prey and direct disease impacts
Other Threats - 12.1 - Other Threat	2026-04-23	Dan Bachen	SWAP Assessment	Pervasive	Extreme	High	Lack of genetic diversity within the population due to a prior bottleneck.