

Hispid Pocket Mouse (*Chaetodipus hispidus*)

Conservation Status Rank Summary

Date Published: April 9, 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	2024-09-16	8123.4 km ² E = 5,000-20,000 km ²	3.140	MTNHP Range Maps	None
Area of Occupancy	2024-09-16	4 4km ² cells C = 3-5 4-km ² grid cells	1.380	MTNHP Modeling	None
Number of Occurrences	2024-09-16	8 B = 6 - 20	1.380	MTNHP Databases	None
Population Size			-		Factor not used in ranking.
# of Occurrences in Good Condition	2024-09-16	* U = Unknown	-		Factor not used in ranking.
% of Area Occupied in Good Condition			-		Factor not used in ranking.
Environmental Specificity	2018-05-03	Moderate C = Moderate; generalist or community with some key requirements scarce	-	MTNHP Species Rank Data Table	Factor not used in ranking. Associated with steppe habitats that may include some conifer component Methodology: NS (2003) Original Score: C
Rarity is calculated by averaging weighted factor scores: $((3.14 \times 1) + (1.38 \times 2) + (1.38 \times 1)) / 4 = 1.82$					
Trends					
Short-term Trend	2024-09-16	* A = Decline of >90%	-0.500	FWP	Efforts by FWP to capture the species at previously occupied sites in 2017 were unsuccessful.
Long-term Trend	2012-01-05	* FH = Decline of 30% to increase of 25%	[-0.070, 0.070]	MTNHP Species Rank Data Table	Grassland and savannah cover types in the limited area in southeastern Montana where the species is known to occur have probably been stable since European arrival. Methodology: NS (2003) Original Score: E
Trends score is calculated by summing weighted short and long-term trend scores: $((-0.50 \times 2) + ([-0.07, 0.07] \times 1)) = [-1.07, -0.93]$					

*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		Unknown U = Unknown	-		Factor not used in ranking. Unknown
Intrinsic Vulnerability	2018-05-03	Not intrinsically vulnerable C = Not intrinsically vulnerable	5.500	MTNHP Species Rank Data Table	Not Intrinsically Vulnerable. Species matures quickly, reproduces frequently, and/or has a high fecundity such that populations recover quickly (5 years or 2 generations) from decreases in abundance. Species has good dispersal capabilities such that e Methodology: NS (2003) Original Score: C
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 individual threats data used in this rank						

Conservation Status Rank Calculation

Raw score

Rarity: $(1.82 \times 70\%)$ + Threats: $(5.50 \times 30\%)$ + Trends: $([-1.07, -0.93]) = [1.85, 1.99]$

Calculated Rank: S2

Accepted Rank	SU
Author(s)	Dan Bachen
Rank Approved By	Montana Species of Concern Committee
State Rank Reason	Species has been documented in southeastern Montana adjacent to the South Dakota border, although range extent has not been adequately assessed. Recent surveys of previously occupied sites have failed to document the species, suggesting possible decline or extirpation. Threats are poorly understood, and rank is based on the species Intrinsic Vulnerability which may underestimate the current threats to the species. Although data that can be used to assess species rank exists for the species, confidence in the data is low and as such the Species of Concern Committee has assessed the rank as SU.

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=AMAFD05050>

Predicted Suitable Habitat Model:

<https://mtnhp.mt.gov/resources/models/?elcode=AMAFD05050>

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

Not much available.

Summary of Information Needs

Range, Habitat, Trend and Threats are all 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	Immediacy	Comments
No Threat Identified - 0.5 - Unknown/Undetermined Threat	2025-01-08	None	None	None	None	None	None