Northern Short-tailed Shrew (*Blarina brevicauda*) Conservation Status Rank Summary

September 12, 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>

Rarity and Trends

Rank Factor	Date Assessed	Value	Score	Data Source	Comments
Rarity					
Range Extent	2024-01-17	Y: 3213.5 km²	None	MTNHP Range Maps	None
Area of Occupancy			-		Factor not used in ranking.
Number of Occurrences			_		Factor not used in ranking.
Population Size			-		Factor not used in ranking.
# of Occurrences in Good Condition			-		Factor not used in ranking.
% of Area Occupied in Good Condition			-		Factor not used in ranking.
Environmental Specificity	2018-05-03	Unknown	-	MTNHP Species Rank Data Table, Methodolo gy: NS (2003) Original Score: U	Factor not used in ranking. Unknown in Montana
Rarity is calculated by averaging weighted factor scores: None					

Trends				
Short-term Trend	2018-05-03	1	MTNHP Species Rank Data Table, Methodolo gy: NS (2003) Original Score: U	Factor not used in ranking. Unknown
Long-term Trend	2018-05-03	-	MTNHP Species Rank Data	Factor not used in ranking. Unknown

		Table, Methodolo gy: NS (2003) Original Score: U		
No trend data used in ranking this species None				

Threats

Rank Factor	Date Assessed	Value	Score	Data Source	Comments
Threats					
Overall Threat Impact		Unknown	-		Factor not used in ranking. Unknown
Intrinsic Vulnerability	2018-05-03	Not intrinsically vulnerable	None	MTNHP Species Rank Data Table, Methodolo gy: NS (2003) Original Score: C	Not vulnerable

Threat score is calculated from Overall Threat Impact when available or Intrinsic Vulnerability if not: None

Individual Threats Data

Threat Category	Date Assessed	Impact Score	Scope	Severity	Immediacy	Comments
No individual threats data used in ranking this species						

Conservation Status Rank Calculation

Raw score

Not enough rank factors to rank

Calculated Rank: SU

Accepted Rank	SU
Date Approved	2024-09-30
Approval Authority	Montana Species of Concern Committee
Rank Justification	Species has one capture record in Montana and data to assess status are unavailable.

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=AMABA03010

Predicted Suitable Habitat Model:

https://mtnhp.mt.gov/resources/models/?elcode=AMABA03010

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				
Factor	Category	Value	Criteria		
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	Status Quality	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)		
		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)		
	Range Quality	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		
	TI O . I''	Adequate	Threat Impact is a single value (including "Unthreatened")		
		Marginal	Threat Impact assessed at more than one value (e.g. "High - Medium")		
Throats	Throat Quality	Marginal	The data in past assessed at more than one talue (e.g. mg. mediam)		
Threats	Threat Quality	Poor	Threat Impact is Unknown but Intrinsic Vulnerability is assessed		
Threats	Threat Quality		13 3		
Threats	Threat Quality	Poor	Threat Impact is Unknown but Intrinsic Vulnerability is assessed		
Threats	Threat Quality Recency	Poor Unknown	Threat Impact is Unknown but Intrinsic Vulnerability is assessed Threat Impact is Unknown and Intrinsic Vulnerability is not assessed		
Threats		Poor Unknown Current Out of Date but	Threat Impact is Unknown but Intrinsic Vulnerability is assessed Threat Impact is Unknown and Intrinsic Vulnerability is not assessed Short-term Trend assessment date less than 10 years old		
		Poor Unknown Current Out of Date but Adequate	Threat Impact is Unknown but Intrinsic Vulnerability is assessed Threat Impact is Unknown and Intrinsic Vulnerability is not assessed Short-term Trend assessment date less than 10 years old Short-term Trend assessment date is more than 10 years old or Unknown, but species is Unthreatened		
Threats Trends		Poor Unknown Current Out of Date but Adequate Out of Date	Threat Impact is Unknown but Intrinsic Vulnerability is assessed Threat Impact is Unknown and Intrinsic Vulnerability is not assessed Short-term Trend assessment date less than 10 years old Short-term Trend assessment date is more than 10 years old or Unknown, but species is Unthreatened Short-term Trend assessment date more than 10 years old		
		Poor Unknown Current Out of Date but Adequate Out of Date Not Available	Threat Impact is Unknown but Intrinsic Vulnerability is assessed Threat Impact is Unknown and Intrinsic Vulnerability is not assessed Short-term Trend assessment date less than 10 years old Short-term Trend assessment date is more than 10 years old or Unknown, but species is Unthreatened Short-term Trend assessment date more than 10 years old Short-term Trend data are not available Short-term Trend assessed at a single value or multiple values with a minimum trend greater than -10%		
	Recency	Poor Unknown Current Out of Date but Adequate Out of Date Not Available Sufficient Unknown but	Threat Impact is Unknown but Intrinsic Vulnerability is assessed Threat Impact is Unknown and Intrinsic Vulnerability is not assessed Short-term Trend assessment date less than 10 years old Short-term Trend assessment date is more than 10 years old or Unknown, but species is Unthreatened Short-term Trend assessment date more than 10 years old Short-term Trend data are not available Short-term Trend assessed at a single value or multiple values with a minimum trend greater than -10% (stable or increasing)		

Summary of Information Availability

Aside from species presence in the state, no data are available to assess status.

Summary of Information Needs

Targeted surveys within and outside of the species range across all potential habitat are necessary to delineate a more robust range polygon, generate predicted habitat models and better understand status. These baseline surveys should be conducted at meaningful intervals to establish trend.