American Pipit (Anthus rubescens) Conservation Status Rank Summary

December 26, 2023

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

Rarity and Trends

Rank Factor	Rank Factor Date Assessed		Score Data Source		Comments			
Rarity								
Range Extent	2023-12-20	S: 139913.2 km²	3.930	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			-		Factor not used in ranking.			

Rarity is calculated by averaging weighted factor scores: $((3.93 \times 1)) / 1 = 3.93$

Trends									
Short-term Trend	2023-12-20	[-35.7, 65.2%]	[-0.140, 0.140]	IMBCR	IMBCR trend in population estimates for Montana. "- 95% CI"				
Long-term Trend			-		Factor not used in ranking.				

Trends score is calculated by summing weighted short and long-term trend scores: $(([-0.14, 0.14] \times 2)) = [-0.28, 0.28]$

Threats

Rank Factor Date Assessed		Value Score		Data Source	Comments		
Threats							
Overall Threat Impact		Medium - low	[3.670 <i>,</i> 5.500]		None		
Intrinsic Vulnerability			-		Factor not used in ranking.		

Threat score is calculated from Overall Threat Impact when available or Intrinsic Vulnerability if not: ([3.67, 5.50]) = [3.67, 5.50]

Individual Threats Data

Threat Category	Date Assessed	Impact Score	Scope	Severity	Immediacy	Comments
Climate Change & Severe Weather	2023-12-20	Medium - Low	Pervasive	Moderate- Slight	High	Warming climate will reduce montane grasslands and tundra through conifer encroachment.

Threat Tally: 0 - Very High, 0 - High, [0,1] - Medium, [0,1] - Low Overall Threat Impact* = Medium - low

^{*}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.

Conservation Status Rank Calculation

Raw score

Rarity: $(3.93 \times 70\%)$ + Threats: $([3.67, 5.50] \times 30\%)$ + Trends: ([-0.28, 0.28]) = [3.57, 4.68]

Calculated Rank: S4?

Accepted Rank	S4B					
Date Approved	2023-12-26					
Approval Authority	Heritage Program					
Rank Justification	Species is stable but uncommon outside of preferred habitat. Threatened by loss of alpine habitat.					

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=ABPBM02090

Predicted Suitable Habitat Model:

https://mtnhp.mt.gov/resources/models/?elcode=ABPBM02090

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		Value	Criteria				
Factor	Category	value	Citteria				
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				
		Adequate	Threat Impact is a single value (including "Unthreatened")				
Threats	Threat Quality	Marginal	Threat Impact assessed at more than one value (e.g. "High - Medium")				
inreats	Threat Quality	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				
	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				
Trends		Not Available	Short-term Trend data are not available				
		Sufficient	Short-term Trend assessed at a single value or multiple values with a minimum trend greater than -10% (stable or increasing)				
	Trend Quality	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

All information to assess status are available.

Summary of Information Needs

Species should continue to be monitored as it faces significant threats.

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
Climate Change & Severe Weather - 11.1 - Habitat Shifting & Alteration	2023-12-20	Dan Bachen	None	Pervasiv e	Moderate- Slight	High	Warming climate will reduce montane grasslands and tundra through conifer encroachment.