Boechera languida (Daggett Rockcress)
Conservation Status Rank Summary

Date Published: August 28, 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	2026-01-29	842.7 km² / C = 250-1,000 km²	1.570	MTNHP Range Maps	The 2026 MTNHP range map somewhat over-estimates the species actual range which is based on verified observations. However, both estimates fall within the same categorical option for assessing Range Extent.
Area of Occupancy	2026-01-29	6 | 4km² cells / D = 6-25 4-km² grid cells	2.060	MTNHP Databases	Of the approximate 96,004 2km x 2km grid cells that cover Montana, 6 cells contain observations of the species.
Number of Occurrences	2026-01-29	6 / B = 6 - 20	1.380	MTNHP Databases	Current observations group into 6 occurrences. Observations from outside of Carbon County are based on misidentifications of other species.
Population Size	2026-01-29	* / U = Unknown	-	MTNHP Databases	**Factor not used in ranking.** Good population data for the observations are lacking, though all occurrences appear to be small.
# of Occurrences in Good Condition	2026-01-29	* / U = Unknown	-		**Factor not used in ranking.**
% of Area Occupied in Good Condition			-		**Factor not used in ranking.**
Environmental Specificity	2025-03-01	Moderate / C = Moderate; generalist or community with some key requirements scarce	-	Expert Opinion	**Factor not used in ranking.** Assessed by Scott Mincemoyer
Rarity is calculated by averaging weighted factor scores: **((1.57 × 1) + (2.06 × 2) + (1.38 × 1)) / 4 = 1.77**					
Trends					
Short-term Trend	2026-01-29	* / U = Unknown	-		**Factor not used in ranking.** Short-term trends are unknown.
Long-term Trend	2026-01-29	* / U = Unknown	-		**Factor not used in ranking.** Long-term trends are unknown.
No trend data used in this rank					

*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		Medium - Low / CD = Medium - Low	[3.670, 5.500]		No significant threats have been identified, besides potential disturbance activity due to the proximity of a couple of sites to roads.
Intrinsic Vulnerability	2025-03-01	Not intrinsically vulnerable / C = Not intrinsically vulnerable	-	Expert Opinion	**Factor not used in ranking.** Assessed by Scott Mincemoyer
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
No Threat Identified	None	Low	None	None	None	
Threat Tally: 0 - Very High, 0 - High, 0 - Medium, 1 - Low Overall Threat Impact* = Medium - Low						

*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: (1.77 × 70%) + Threats: ([3.67, 5.50] × 30%) + Trends: (0.00) = [2.34, 2.89]

Calculated Rank: S2S3

Accepted Rank	S2S3
Author(s)	Scott Mincemoyer
Rank Approved By	Andrea Pipp
State Rank Reason	*Boechera languida* is rare in Montana, where it is known from about six occurrences in the Big Horn Basin/Pryor Mountain Desert (MTNHP 2026). Population counts and extent are very poorly documented, and trends are unknown. Threats to the species appear to be limited with a couple of occurrences being adjacent to dirt roads, which increases the chance of negative impacts from off-road vehicle use and related road activities. Surveys that bring forth current data on population parameters, habitat conditions, mapping, and potential threats at all occurrences are greatly needed. Additional surveys into areas of potentially suitable is also necessary to more accurately determine the species status and distribution in Montana.

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=PDBRA060E2

Predicted Suitable Habitat Model:
https://mtnhp.mt.gov/resources/models/?elcode=PDBRA060E2

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

Summary of Information Needs

Surveys that bring forth current data on population parameters, habitat conditions, mapping, and potential threats at all occurrences are greatly needed. Additional surveys into areas of potentially suitable is also necessary to more accurately determine the species status and distribution in Montana.

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	None	None	None	None	None	None	
Transportation & Service Corridors - 4.1 - Roads & Railroads	2026-01-29	S. Mincemoyer	Expert Opinion	Restricted	Unknown	Unknown	A couple occurrences are adjacent to dirt roads and populations could be negatively impacted by human activity including off-road use.