

Saussurea weberi (Weber's Saw-wort)

Conservation Status Rank Summary

Date Published: August 14, 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	2025-12-03	16098.0 km ² E = 5,000-20,000 km ²	3.140	MTNHP Range Maps	None
Area of Occupancy	2025-12-03	2 4km ² cells B = 2 4-km ² grid cells	0.690	MTNHP databases	Of the approximate 96,004 2km x 2km grid cells that cover Montana, 2 cells contain observations of the species.
Number of Occurrences	2025-12-03	2 A = 1 - 5	0.000	MTNHP databases	Two occurrences: One at Goat Flats in the A-P Wilderness and one in the Absarokas
Population Size	2025-12-03	[500, 1000] C = 250 - 1,000 individuals	1.570	MTNHP databases	The one population estimate placed the occurrence at Goat Flat at 500-1000 plants, though this estimate is from several decades ago. The other occurrence only contained a few plants based on the one observation.
# of Occurrences in Good Condition	2025-12-03	* B = Very few (1-3) occurrences with excellent or good viability or ecological integrity	1.100	MTNHP databases/ Expert Opinion	None
% of Area Occupied in Good Condition			-		Factor not used in ranking.
Environmental Specificity	2025-03-01	Very narrow A = Very narrow; specialist or community with key requirements scarce	-	Expert Opinion	Factor not used in ranking. Assessed by Scott Mincemoyer
Rarity is calculated by averaging weighted factor scores: $((3.14 \times 1) + (0.69 \times 2) + (0.00 \times 1) + (1.57 \times 2) + (1.10 \times 2)) / 8 = 1.23$					
Trends					
Short-term Trend	2025-12-03	* FG = Decline of 30% to relatively stable	[-0.070, 0.000]	Expert Opinion	Short term trends are unknown, though its habitat remains intact and of high quality, as a result, population levels have likely been relatively stable or declined only slightly in the recent past.
Long-term Trend	2025-12-03	* U = Unknown	-	Expert Opinion	Factor not used in ranking. Trends are unknown though the habitat appears to be stable. Climate

					change may have impacted the population over the past century.
Trends score is calculated by summing weighted short and long-term trend scores: ($([-0.07, 0.00] \times 2)$) = $[-0.14, 0.00]$					

*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			-		Factor not used in ranking.
Intrinsic Vulnerability	2025-03-01	Moderately vulnerable B = Moderately vulnerable	2.750	Expert Opinion	Assessed by Scott Mincemoyer
Threat score is calculated from Overall Threat Impact when available or Intrinsic Vulnerability if not: (2.75) = 2.75					

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

Due to rarity, species is automatically classified as S1

Calculated Rank: S1

Accepted Rank	S1S2
Author(s)	Scott Mincemoyer
Rank Approved By	Andrea Pipp
State Rank Reason	<i>Saussurea weberi</i> is extremely rare in Montana where it is known from two occurrences. Of these, only one occurrence has a population size that is apparently moderate to large. Population trends are presumed to be stable due to its remote, alpine habitat. Threats have not been reported though climate change poses a potential risk to state's populations. Due to its extreme rarity in Montana, <i>Saussurea weberi</i> has a conservation status rank of imperiled to critically imperiled. Monitoring and surveys that bring forth current data on distributions, population counts and viability, habitat conditions, and threats are greatly needed. Surveys in other areas of suitable habitat are also need to better inform on the species' state distribution.

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=PDAST8B060>

Predicted Suitable Habitat Model:

<https://mtnhp.mt.gov/resources/models/?elcode=PDAST8B060>

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

Monitoring and surveys that bring forth current data on distributions, population counts and viability, habitat conditions, and threats are greatly needed. Surveys in other areas of suitable habitat are also need to better inform on the species' state distribution.

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
Climate Change & Severe Weather - 11	2025-12-03	S. Mincemoyer	Expert Opinion, CCVI	Pervasive	Moderate-Slight	Unknown	Climate change including increased temperatures, decreased snowpacks and increases in the frequency and severity of drought may impact the species and its alpine habitat. The species is rated as "Extremely Vulnerable" to climate change in a CCVI analysis.