

Solidago ptarmicoides (Prairie Goldenrod)

Conservation Status Rank Summary

Date Published: August 19, 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	2025-12-06	27327.9 km ² F = 20,000-200,000 km ²	3.930	MTNHP Range Maps	None
Area of Occupancy	2025-12-06	[18, 19] 4km ² cells D = 6-25 4-km ² grid cells	2.060	MTNHP databases	Of the approximate 96,004 2km x 2km grid cells that cover Montana, 18-19 cells contain observations of the species.
Number of Occurrences	2025-12-06	[18, 20] B = 6 - 20	1.380	MTNHP Databases	The current observation data appears to aggregate into about 18-20 occurrences
Population Size	2025-12-06	* E = 2,500 - 10,000 individuals	3.140	MTNHP databases/ Expert Opinion	Two populations each were estimated at over 1,000 plants. Most other occurrences that had numerical estimates had less than 100 plants each.
# of Occurrences in Good Condition	2025-12-08	* BC = Very few to few (1-12) occurrences with good viability	[1.100, 2.200]	MTNHP databases/ Expert Opinion	At least two occurrences have good to excellent viability though a few other occurrences likely have good viability as well.
% of Area Occupied in Good Condition			-		Factor not used in ranking.
Environmental Specificity	2025-03-01	Narrow B = Narrow; specialist or community with key requirements common	-	Expert Opinion	Factor not used in ranking. Assessed by Scott Mincemoyer
Rarity is calculated by averaging weighted factor scores: $((3.93 \times 1) + (2.06 \times 2) + (1.38 \times 1) + (3.14 \times 2) + ([1.10, 2.20] \times 2)) / 8 = [2.24, 2.51]$					
Trends					
Short-term Trend	2025-12-06	* FG = Decline of 30% to relatively stable	[-0.070, 0.000]	Expert Opinion	Short term trends are unknown, though the species habitat has likely been relatively stable in the recent past, as a result the species has likely been relatively stable.
Long-term Trend	2025-12-06	* FG = Decline of 30% to relatively stable	[-0.070, 0.000]	Expert Opinion	Long term trends are unknown. The extent and quality of some of the species' habitat has likely been negatively impacted, though the species likely has not experienced significant declines.

Trends score is calculated by summing weighted short and long-term trend scores:
 $([-0.07, 0.00] \times 2) + ([-0.07, 0.00] \times 1) = [-0.21, 0.00]$

*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		Low D = Low	5.500		No significant or likely threats have been identified. Neither livestock grazing nor invasive species appear to be significant threats at the current time.
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: (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: $([2.24, 2.51] \times 70\%) + \text{Threats: } (5.50 \times 30\%) + \text{Trends: } ([-0.21, 0.00]) = [3.01, 3.41]$

Calculated Rank: S3

Accepted Rank	S3
Author(s)	Scott Mincemoyer
Rank Approved By	Andrea Pipp
State Rank Reason	<i>Solidago ptarmicoides</i> occurs in eastern Montana on the western edge of its North American range. Since 2015, survey efforts have led to finding more locations in Richland and Carter counties, where populations may be small to locally abundant. Population trends remain unknown, though it is presumed that populations are relatively stable or have experienced only minor declines as its habitat has remained largely intact and in good condition. Surveys have not identified potential threats to the species. Thus, the state conservation status for <i>Solidago ptarmicoides</i> appears to be more stable than previously thought, resulting in a State Rank change from S2S3 to S3. Monitoring that assesses population trends is needed in Montana. Surveys that continue to document population size, viability, and extent, habitat conditions, and potential threats at intervals of at least every 10 years are needed. Surveys on lands modelled as predicted suitable habitat are also needed to bring forth information on the state's 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=PDAST8P1F0>

Predicted Suitable Habitat Model:

<https://mtnhp.mt.gov/resources/models/?elcode=PDAST8P1F0>

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 that assesses population trends is needed in Montana. Surveys that continue to document population size, viability, and extent, habitat conditions, and potential threats at intervals of at least every 10 years are needed. Surveys on lands modelled as predicted suitable habitat are also needed to bring forth information on the state's 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
No threats data available for this species							