Delphinium distichum (Two-spike Larkspur)
Conservation Status Rank Summary

Date Published: October 22, 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	2026-02-10	11878.7 km² E = 5,000-20,000 km²	3.140	MTNHP Range Map	None
Area of Occupancy	2026-02-10	8 | 4km² cells D = 6-25 4-km² grid cells	2.060	MTNHP Databases	Of the 96,004 2km x 2km grid cells that cover Montana, known occurrences of the species occupy 8 grid cells.
Number of Occurrences	2026-02-10	8 B = 6 - 20	1.380	MTNHP Database	Observations group into 8 Element Occurrences. All occurrences are based on historical collections/observations. However, the habitat should still be intact and there is no reason to believe that occurrences have been extirpated.
Population Size	2026-02-10	* U = Unknown	-	MTNHP Database	**Factor not used in ranking.** Population size is unknown though it is likely relatively small.
# of Occurrences in Good Condition	2026-02-10	* U = Unknown	-		**Factor not used in ranking.**
% 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: **((3.14 × 1) + (2.06 × 2) + (1.38 × 1)) / 4 = 2.16**					
Trends					
Short-term Trend	2026-02-10	* U = Unknown	-		**Factor not used in ranking.** Short-term trends are unknown.
Long-term Trend	2026-02-10	* 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		Unknown / U = Unknown	-		**Factor not used in ranking.** The known occurrences have not been visited or resurveyed since 1922-1981 so potential threats are largely unknown. However, the sites are in montane-subalpine habitats that are likely relatively undisturbed and not significantly threatened.
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

Rarity: (2.16 × 70%) + Threats: (2.75 × 30%) + Trends: (0.00) = 2.34

Calculated Rank: S2

Accepted Rank	S2?
Author(s)	Andrea Pipp
Major Contributor(s)	Scott Mincemoyer
Rank Approved By	Andrea Pipp
State Rank Reason	*Delphinium distichum* is rare in Montana, where it is known from at least 6 historical collections in the southwest and northwest portions of the state. Collections and observations were made between 1922 and 1981 and their locations are imprecisely recorded. However, their general locations appear to still be intact, so it is presumed that specific occurrences may be extant. Population sizes, extents, and trends and threats are unknown. Revisits to all known occurrences are needed to determine presence/absence. Where present, data on population parameters, habitat conditions, and potential threats is greatly needed to accurate assess its conservation status 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=PDRAN0B2E0

Predicted Suitable Habitat Model:
https://mtnhp.mt.gov/resources/models/?elcode=PDRAN0B2E0

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

Revisits to all known occurrences are needed to determine presence/absence. Where present, data on population parameters, habitat conditions, and potential threats is greatly needed to accurate assess its conservation status 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 threats data available for this species							