

***Lobaria scrobiculata* (Textured Lungwort Lichen)**

Conservation Status Rank Summary

April 11, 2025

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	Score	Data Source	Comments
Rarity					
Range Extent	2025-04-09	Y: 3742.0 km ²	2.360	MTNHP database	The 6 Species Occurrences occur within a range extent of 3,742 square kilometers.
Area of Occupancy	2025-04-09	6 4km ² cells	2.060	MTNHP database	Of the 30,590 4x4 square kilometer grid cells that cover Montana, 6 cells are occupied by <i>Lobaria scrobiculata</i> Species Occurrences.
Number of Occurrences	2025-04-09	6	1.380	MTNHP database.	Six Species Occurrences.
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	2025-04-09	Narrow	-	McCune and Geiser 2023	Factor not used in ranking. Restricted to sheltered mossy rock outcrops in western Montana.
Rarity is calculated by averaging weighted factor scores: $((2.36 \times 1) + (2.06 \times 2) + (1.38 \times 1)) / 4 = 1.97$					
Trends					
Short-term Trend			-		Factor not used in ranking.
Long-term Trend			-		Factor not used in ranking.
No trend data used in ranking this species					

Threats

Rank Factor	Date Assessed	Value	Score	Data Source	Comments
Threats					
Overall Threat Impact			-		Factor not used in ranking.
Intrinsic Vulnerability			-		Factor not used in ranking.
No threat or vulnerability data used in ranking this species					

Individual Threats Data

Threat Category	Date Assessed	Impact Score	Scope	Severity	Immediacy	Comments
No individual threats data used in ranking this species						

Conservation Status Rank Calculation

Raw score

Rarity: $(1.97 \times 100\%)$ + Threats: (0.00) + Trends: (0.00) = 1.97

Calculated Rank: S2

Accepted Rank	S2
Date Approved	2025-04-11
Approval Authority	Andrea Pipp
Rank Justification	<i>Lobaria scrobiculata</i> is a circumpolar boreal lichen that within the Pacific Northwest is rare east of the Cascade Range (McCune and Geiser 2023). In Montana, it is known from a small number of occurrences where it is restricted to sheltered mossy rock outcrops, often near streams or lakes. Current data on known locations, population sizes, threats, trends, and other information is needed.

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=NLLEC0G110>

Predicted Suitable Habitat Model:

<https://mtnhp.mt.gov/resources/models/?elcode=NLLEC0G110>

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

Only information that determines rarity has been collected.

Summary of Information Needs

Information on threats and trends is needed.

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							