

# Semi-Desert Grassland (G311)

## Conservation Status Rank Summary

March 20, 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
<b>Rarity</b>					
Range Extent	2024-06-30	Y: [1500.0, 6000.0] km <sup>2</sup>	[2.360, 3.140]	GIS Analysis	Approx 1,500-6,000 sq km depending on whether any grasslands in sw MT are classified here or if the group is limited in extent to the Bighorn Basin.
Area of Occupancy	2025-03-20	55.0 km <sup>2</sup> (large patch)	2.750	2024 draft landcover layer	55 sq km mapped in landcover layer as of 11/2024.
Number of Occurrences			-		Factor not used in ranking.
Population Size			-		Factor not used in ranking.
# of Occurrences in Good Condition			-		Factor not used in ranking.
% of Area Occupied in Good Condition	2024-06-30		-	Expert Opinion	Factor not used in ranking. Amount of habitat that is still in good condition is uncertain.
Environmental Specificity	2024-06-30	Moderate	-	Expert Opinion	Factor not used in ranking.
Rarity is calculated by averaging weighted factor scores: $(( [2.36, 3.14] \times 1 ) + ( 2.75 \times 2 ) ) / 3 = [2.62, 2.88]$					
<b>Trends</b>					
Short-term Trend	2024-06-30		[-0.070, 0.000]	Expert Opinion	Reflects the uncertainty in the short-term trend though some declines have likely occurred.
Long-term Trend	2024-06-30		-0.070	Expert Opinion	Reflects the decreases in condition and extent due to grazing and invasion by non-native species though these impacts may have been relatively limited thus far in these arid sites.
Trends score is calculated by summing weighted short and long-term trend scores: $(( [-0.07, 0.00] \times 2 ) + ( -0.07 \times 1 ) ) = [-0.21, -0.07]$					

## Threats

Rank Factor	Date Assessed	Value	Score	Data Source	Comments
<b>Threats</b>					
<b>Overall Threat Impact</b>		Medium - low	[3.670, 5.500]		None
<b>Intrinsic Vulnerability</b>	2024-06-30	Moderately to not intrin. vuln.	-	Expert Opinion	Factor not used in ranking.
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
<b>Agriculture &amp; Aquaculture</b>	2025-03-20	Medium - Low	Large	Moderate-Slight	High	Livestock grazing.
<b>Invasive &amp; Other Problematic Species, Genes &amp; Diseases</b>	2025-03-20	Medium - Low	Large	Moderate-Slight	High	.
Threat Tally: 0 - Very High, 0 - High, [0,2] - Medium, [0,2] - 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:  $([2.62, 2.88] \times 70\%) + \text{Threats: } ([3.67, 5.50] \times 30\%) + \text{Trends: } ([-0.21, -0.07]) = [2.73, 3.60]$

Calculated Rank: S3?

<b>Accepted Rank</b>	S3?
<b>Date Approved</b>	2025-06-04
<b>Approval Authority</b>	Scott Mincemoyer
<b>Rank Justification</b>	These arid grasslands are very limited in extent. They have likely decreased in condition due to grazing and invasive species, and they will likely continue to be threatened by these activities and impacts. However, the overall condition and extent of these habitats are poorly documented leading to uncertainty in their rank.

## 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](https://mtnhp.mt.gov/docs/Montana_State_Rank_Criteria_20211201.pdf)

Montana Field Guide Species Account:

[https://fieldguide.mt.gov/displayEG\\_Detail.aspx?eg=EVGL0G311](https://fieldguide.mt.gov/displayEG_Detail.aspx?eg=EVGL0G311)

## 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
Agriculture & Aquaculture - 2.3 - Livestock Farming & Ranching	2025-03-20	sm	Expert Opinion	Large	Moderate-Slight	High	Livestock grazing.
Invasive & Other Problematic Species, Genes & Diseases - 8.1 - Invasive Non-Native/Alien Species/Diseases	2025-03-20	sm	Expert Opinion	Large	Moderate-Slight	High	.