Bombus californicus (California Bumble Bee)
Conservation Status Rank Summary

June 19, 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	2025-06-19	Y: 246517.2 km²	4.710	MTNHP Range Maps	None
Area of Occupancy	2025-06-19	4230 | 4km² cells	4.810	MTNHP Modeling	None
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			-		Factor not used in ranking.
Environmental Specificity	2025-06-10	Broad	-	Expert Opinion (Xerces, 2025)	Factor not used in ranking.
Rarity is calculated by averaging weighted factor scores: **((4.71 × 1) + (4.81 × 2)) / 3 = 4.78**					
Trends					
Short-term Trend	2025-06-19		-		Factor not used in ranking.
Long-term Trend	2025-06-19		-		Factor not used in ranking.
No trend data used in this rank					

Threats

Rank Factor	Date Assessed	Value	Score	Data Source	Comments
Threats					
Overall Threat Impact		Low/No Threats	5.500		None
Intrinsic Vulnerability	2025-06-10	Not intrinsically vulnerable	-	Expert Opinion (Xerces, 2025)	**Factor not used in ranking.**
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 Threat Identified	2025-06-19	Low	None	None	None	None
Threat Tally: 0 - Very High, 0 - High, 0 - Medium, 1 - Low Overall Threat Impact* = Low/No Threats						

*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: (4.78 × 70%) + Threats: (5.50 × 30%) + Trends: (0.00) = 4.99

Calculated Rank: S5

Accepted Rank	S5
Date Approved	2025-06-19
Approval Authority	Montana Natural Heritage Program Staff
Rank Justification	Species is common, widespread in suitable habitat. It faces no known threats. Trend is unknown.

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=IIHYM24450

Predicted Suitable Habitat Model:
https://mtnhp.mt.gov/resources/models/?elcode=IIHYM24450

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 Threat Identified - 0	2025-06-19	None	None	None	None	None	None