

Interior PNW Douglas-fir Forest and Woodland (G210)

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
Rarity					
Range Extent	2024-06-30	Y: 75000.0 km ²	3.930	GIS Analysis	Approx 75,000 sq km. though the exact distribution of this group vs the Rocky Mtn Douglas-fir Group is uncertain.
Area of Occupancy	2024-06-30	14082.0 km ² (matrix)	4.130	2024 draft landcover layer	14,082 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		[4.400, 5.500]	Expert Opinion	Rank reflects the uncertainty in the amount of the habitat still in condition and ecological function due to fire suppression and increased forest densities.
Environmental Specificity	2024-06-30	Broad	-	Expert Opinion	Factor not used in ranking.
Rarity is calculated by averaging weighted factor scores: $((3.93 \times 1) + (4.13 \times 2) + ([4.40, 5.50] \times 2)) / 5 = [4.20, 4.64]$					
Trends					
Short-term Trend	2024-06-30		[-0.070, 0.000]	Expert Opinion	Reflects the relative stability of the type but also that some habitat may have been lost or degraded due to fire suppression and increased densities and fuel loadings as well as impacts from recent, severe wildfires.
Long-term Trend	2024-06-30		[-0.070, 0.070]	Expert Opinion	Reflects the uncertainty and relative stability of the type but also that some habitat may have been lost or degraded due to fire suppression and increased densities and fuel loadings as well as impacts from recent, severe wildfires. Conversely, some increase in extent has occurred as a result of fire suppression and encroachment of Douglas-fir and grand fir.
Trends score is calculated by summing weighted short and long-term trend scores: $((-0.07, 0.00] \times 2) + ([-0.07, 0.07] \times 1) = [-0.21, 0.07]$					

Threats

Rank Factor	Date Assessed	Value	Score	Data Source	Comments
Threats					
Overall Threat Impact		High - medium	[1.830, 3.670]		None
Intrinsic Vulnerability	2024-06-30	Moderately vulnerable	-	Expert Opinion	Factor not used in ranking.
Threat score is calculated from Overall Threat Impact when available or Intrinsic Vulnerability if not: ([1.83, 3.67]) = [1.83, 3.67]					

Individual Threats Data

Threat Category	Date Assessed	Impact Score	Scope	Severity	Immediacy	Comments
Biological Resource Use	2025-03-20	Low	Small	Moderate-Slight	Moderate-Low	Logging activities.
Natural System Modifications	2025-03-20	Medium - Low	Restricted -Small	Serious-Moderate	Moderate-Low	Increased frequency of severe wildfires.
Invasive & Other Problematic Species, Genes & Diseases	2025-03-20	Low	Restricted -Small	Slight	High-Low	Invasive species such as hawkweeds in mesic forest and other species in the drier portions of these habitats.
Climate Change & Severe Weather	2025-03-20	Low	Pervasive-Large	Slight	High	Increase in temperatures and increased frequency of drought.
Threat Tally: 0 - Very High, 0 - High, [0,1] - Medium, [3,4] - Low Overall Threat Impact* = High - medium						

*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: $([4.20, 4.64] \times 70\%) + \text{Threats: } ([1.83, 3.67] \times 30\%) + \text{Trends: } ([-0.21, 0.07]) = [3.28, 4.42]$

Calculated Rank: S4?

Accepted Rank	S4
Date Approved	2025-06-03
Approval Authority	Scott Mincemoyer
Rank Justification	These forests are relatively common in western MT. Habitat has been impacted in the past and continues to be by the combination of fire suppression and increased fuel loads in conjunction with more recent increases in severe wildfires. Other threats currently appear to be limited in scope or severity, such that the habitat appears to be relatively secure.

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/displayEG_Detail.aspx?eg=EVFM0G210

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
Residential & Commercial Development - 1	2025-03-20	sm	Expert Opinion	Negligible	Serious-Moderate	High	Development.
Biological Resource Use - 5.3 - Logging & Wood Harvesting	2025-03-20	sm	Expert Opinion	Small	Moderate-Slight	Moderate-Low	Logging activities.
Natural System Modifications - 7.1 - Fire & Fire Suppression	2025-03-20	sm	Expert Opinion	Restricted-Small	Serious-Moderate	Moderate-Low	Increased frequency of severe wildfires.
Invasive & Other Problematic Species, Genes & Diseases - 8.1 - Invasive Non-Native/Alien Species/Diseases	2025-03-20	sm	Expert Opinion	Restricted-Small	Slight	High-Low	Invasive species such as hawkweeds in mesic forest and other species in the drier portions of these habitats.
Climate Change & Severe Weather - 11	2025-03-20	sm	Expert Opinion	Pervasive-Large	Slight	High	Increase in temperatures and increased frequency of drought.