Black-backed Woodpecker (*Picoides arcticus*)
Conservation Status Rank Summary

December 12, 2024

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	2024-12-12	Y: 178375.2 km²	3.930	MTNHP Range Maps	None
Area of Occupancy			-		**Factor not used in ranking.**
Number of Occurrences	2024-12-12	259	4.130	MTNHP Databases	None
Population Size			-		**Factor not used in ranking.**
# of Occurrences in Good Condition	2024-12-12		2.200		None
% of Area Occupied in Good Condition			-		**Factor not used in ranking.**
Environmental Specificity	2011-12-20	Narrow	-	MTNHP Species Rank Data Table	**Factor not used in ranking.** Narrow specialist. Species is dependent on post-fire snags which are relatively common in Montana right now. | Methodology: NS (2003) | Original Score: B
Rarity is calculated by averaging weighted factor scores: **((3.93 × 1) + (4.13 × 1) + (2.20 × 2)) / 4 = 3.12**					
Trends					
Short-term Trend	2023-12-20	35.8%	0.140	IMBCR	IMBCR trend in population estimates for Montana. "-Point Estimate"
Long-term Trend	2011-12-20		0.000	MTNHP Species Rank Data Table	Conifer forest burns have likely gone up and down, but are overall relatively stable since European arrival within +/-25% | Methodology: NS (2003) | Original Score: E
Trends score is calculated by summing weighted short and long-term trend scores: **((0.14 × 2) + (0.00 × 1)) = 0.28**					

Threats

Rank Factor	Date Assessed	Value	Score	Data Source	Comments
Threats					
Overall Threat Impact		High - medium	[1.830, 3.670]		Timber harvest, fire suppression, or drastic alteration of fire as a natural disturbance on the landscape as a result of climate change are probably the greatest threats to the species. Salvage logging of burned areas has the potential to impact the suitability of these high quality habitats with subsequent impacts on local populations.
Intrinsic Vulnerability	2011-12-20	Moderately vulnerable	-	MTNHP Species Rank Data Table	**Factor not used in ranking.** Moderately Vulnerable. Species exhibits moderate age of maturity, frequency of reproduction, and/or fecundity such that populations generally tend to recover from decreases in abundance within 5-20 years or 2-5 generations. Species has good dispersal capabilities such that extirpated populations generally become reestablished through natural recolonization. Species is dependent on ephemeral habitats. | Methodology: NS (2003) | Original Score: B
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	2024-12-12	Medium	Large	Moderate	High	Habitat loss due to salvage logging and to a lesser extent, thinning of forested habitat to reduce fire risk.
Natural System Modifications	2024-12-12	Low	Restricted	Moderate	High	Suppression of fire and reduction in the area burned every year undoubtedly has a negative impact on the species in both the short and long term.
Climate Change & Severe Weather	2024-12-12	High - Medium	Pervasive	Serious-Moderate	Moderate	Audubon's Survival by Degrees project predicts a significant reduction in species breeding habitat with warming of 1.5C.
Threat Tally: 0 - Very High, [0,1] - High, [1,2] - Medium, 1 - 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: (3.12 × 70%) + Threats: ([1.83, 3.67] × 30%) + Trends: (0.28) = [3.01, 3.56]

Calculated Rank: S3?

Accepted Rank	S3
Date Approved	1992-09-01
Approval Authority	Montana Species of Concern Committee
Rank Justification	Species is an uncommon resident of forested areas within Montana. Although it will use forested habitat it is particularly associated with burned areas due to the high density of snags for nesting and abundant beetle larvae within dead and dying trees. Population trend is difficult to quantify. Recent structured surveys show increased detections of the species, but populations are spatially transient as habitat suitability changes with the distribution of recent fires. Threats include fire suppression efforts that reduce burned acreage and changing fire dynamics, salvage logging of snags in burned areas, and changing climate.

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=ABNYF07090

Predicted Suitable Habitat Model:
https://mtnhp.mt.gov/resources/models/?elcode=ABNYF07090

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

<u>Summary of Information Availability</u>

Data to assess species status are generally available, but short-term trend has some uncertainty associate with it.

<u>Summary of Information Needs</u>

As the species can increase significantly in local areas in response to fire, trend is a bit nebulous and general avian monitoring protocols may not be sufficient to truly characterize population trajectory. It is worth considering whether species-specific monitoring would provide better information. Threats are well understood but could be refined. Specifically, Scope of threats from fire and logging need to be better characterized on a landscape level as do their subsequent impacts.

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
Biological Resource Use - 5.3 - Logging & Wood Harvesting	2024-12-12	Dan Bachen	None	Large	Moderate	High	Habitat loss due to salvage logging and to a lesser extent, thinning of forested habitat to reduce fire risk.
Natural System Modifications - 7.1 - Fire & Fire Suppression	2024-12-12	Dan Bachen	None	Restricted	Moderate	High	Suppression of fire and reduction in the area burned every year undoubtedly has a negative impact on the species in both the short and long term.
Climate Change & Severe Weather - 11.1 - Habitat Shifting & Alteration	2024-12-12	Dan Bachen	Audubon Survival by Degrees project	Pervasive	Serious-Moderate	Moderat e	Audubon's Survival by Degrees project predicts a significant reduction in species breeding habitat with warming of 1.5C.