Common Loon (*Gavia immer*) Conservation Status Rank Summary

January 31, 2025

For details on assessment and ranking methodology, see: <u>Conservation Status Assessment Definitions, Process,</u> <u>Rank Factors, and Calculation of State Ranks for Montana Species</u>

Rank Factor	Date Assessed	Value	Score	Data Source	Comments	
Rarity						
Range Extent	2024-12-04	S: 35137.0 km²	None	MTNHP Range Maps	None	
Area of Occupancy	2024-12-04	198 4km² cells	None	MTNHP Modeling	None	
Number of Occurrences	2024-12-04 None		None	MTNHP Databases	155 occurances, but each is not occupied annually. Approximately 60-75 breeding pairs in the state	
Population Size	2024-12-04		None	Montana Fish Wildlife and Parks	72 pairs are reported by MTFWP	
# of Occurrences in Good Condition			-		Factor not used in ranking.	
% of Area Occupied in Good Condition			-		Factor not used in ranking.	
Environmental Specificity	2009-01-21	Very narrow	-	MTNHP Species Rank Data Table	Factor not used in ranking. Species is dependent on very specialized nesting habitat (floating islands). Methodology: NS (2003) Original Score: A	
	Rarity	is calculated by a	averaging v None	veighted fac	tor scores:	
Trends						
Short-term Trend	2009-01-21		None	MTNHP Species Rank Data Table	Montana Common Loon Management Plan has a short term lambda = 1.04 per year or 48% increase over 10 years. This is probably best regarded as a stable trend because all suitable lakes seem to be occupied. Methodology: NS (2003) Original Score: E	
Long-term Trend	2009-01-21		None	MTNHP Species Rank Data Table	Lake and floating island habitats relatively stable since European arrival, but loons have been excluded from a number of lakes by human activities. Methodology: NS (2003) Original Score: E	
Tren	ds score is calo	culated by summi	ng weighte None	ed short and	long-term trend scores:	

Rarity and Trends

Threats

Rank Factor	Rank Factor Date Assessed		Score	Data Source	Comments		
Threats							
Overall Threat Impact		Low/No Threats None			Nest site disturbance, mortality on coasts, pollution are the threats that have been identified.		
Intrinsic Vulnerability	2009-01-21	Highly vulnerable	-	MTNHP Species Rank Data Table	Factor not used in ranking. Methodology: NS (2003) Original Score: A		
Threat score is calculated from Overall Threat Impact when available or Intrinsic Vulnerability if not: None							

Individual Threats Data

Threat Category	Date Assessed	Impact Score	Scope	Severity	Immediacy	Comments	
Human Intrusions & Disturbance	2025-01-31	Low	Large	Slight	High	Disturbance of nest sites. Currently programs are in place to mitigate this, so severity is low.	
Threat Tally: 0 - Very High, 0 - High, 0 - Medium, 1 - Low Overall Threat Impact* = Low/No Threats							

*See <u>Conservation Status Assessment Definitions</u>, <u>Process</u>, <u>Rank Factors</u>, <u>and Calculation of State Ranks for Montana Species</u> for calculation of Overall Threat Impact based on the number and impact of individual threats</u>.

Conservation Status Rank Calculation

Raw score

Due to Rarity (AOO or Pop_Size), species is automatically classified as S1

Calculated Rank: S1

Accepted Rank	S3B					
Date Approved	Date Unknown					
Approval Authority	Legacy Assessment: MTNHP Staff					
Rank Justification	pecies is an uncommon to rare breeding resident across parts of western Montana. t appears stable and faces low level threats.					

Supplementary Information

Montana Natural Heritage Program. 2021. Conservation Status Assessment Definitions, Process, Rank Factors, and Calculation of State Ranks for Montana Species. 18 p. <u>https://mtnhp.mt.gov/docs/Montana_State_Rank_Criteria_20211201.pdf</u>

Montana Field Guide Species Account: https://fieldguide.mt.gov/speciesDetail.aspx?elcode=ABNBA01030

Predicted Suitable Habitat Model:

https://mtnhp.mt.gov/resources/models/?elcode=ABNBA01030

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	Rank Assessment		Criteria				
Factor	Category	Value	citeria				
General	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)				
Status	Status Quality	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)				
	Dance Quelity	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)				
	Range Quality	Marginal	Range polygon defined, but may include or exclude notable areas where the species may or may not occur on the landscape				
Rarity		Poor	Range polygon not defined				
		Adequate	Species-habitat relationship is well-defined (e.g. relevant literature or robust habitat model available)				
	Habitat Quality	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				
		Adequate	Threat Impact is a single value (including "Unthreatened")				
Threats	Threat Quality	Marginal	Threat Impact assessed at more than one value (e.g. "High - Medium")				
meats	Threat Quality	Poor	Threat Impact is Unknown but Intrinsic Vulnerability is assessed				
		Unknown	Threat Impact is Unknown and Intrinsic Vulnerability is not assessed				
	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				
Trends	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

Information to assess status is available.

Summary of Information Needs

No further information is needed but given the species rarity, monitoring through should continue.

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
Human Intrusions & Disturbance - 6.1 - Recreational Activities	2025-01-31	Dan Bachen	MTFWP, expert opinion.	Large	Slight	High	Disturbance of nest sites. Currently programs are in place to mitigate this, so severity is low.