Western Skink (*Plestiodon skiltonianus*)
Conservation Status Rank Summary

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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 Factor Rating	Score	Data Source	Comments
Rarity					
Range Extent	2025-01-08	38921.4 km² F = 20,000-200,000 km²	3.930	MTNHP Range Maps	None
Area of Occupancy	2025-01-08	2490 | 4km² cells G = 501-2,500 4-km² grid cells	4.130	MTNHP Modeling	None
Number of Occurrences	2025-01-08	104 D = 81 - 300	4.130	MTNHP Databases	None
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	2018-05-03	Narrow B = Narrow; specialist or community with key requirements common	-	MTNHP Species Rank Data Table	**Factor not used in ranking.** Grasslands and open woodlands often in association with talus | Methodology: NS (2003) | Original Score: B
Rarity is calculated by averaging weighted factor scores: **((3.93 × 1) + (4.13 × 2) + (4.13 × 1)) / 4 = 4.08**					
Trends					
Short-term Trend	2025-01-08	* U = Unknown	-	MTNHP Data	**Factor not used in ranking.** No trend data are available
Long-term Trend	2018-05-03	* U = Unknown	-	MTNHP Species Rank Data Table	**Factor not used in ranking.** No data on trends available | Methodology: NS (2003) | Original Score: U
No trend data used in this rank					

*Values may be absent if not precisely estimated; factors may still be assessed for rank if a Factor Rating can be assigned.

Threats

Rank Factor	Date Assessed	Value Factor Rating	Score	Data Source	Comments
Threats					
Overall Threat Impact		Very High - Medium AC = Very High - Medium	[0.000, 3.670]		Unknown
Intrinsic Vulnerability	2018-05-03	Moderately vulnerable B = 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 ca | Methodology: NS (2003) | Original Score: B
Threat score is calculated from Overall Threat Impact when available or Intrinsic Vulnerability if not: **([0.00, 3.67]) = [0.00, 3.67]**					

Individual Threats Data

Threat Category	Date Assessed	Impact Score	Scope	Severity	Immediacy	Comments
Residential & Commercial Development	2025-01-08	Low	Small	Moderate	High	Increased urbanization within western Montana valleys and loss of grassland habitat
Agriculture & Aquaculture	2026-04-14	Low	Small	Slight	Moderate	Conversion of native rangelands to croplands removes or degrades habitat through increased vegetative cover, removal of rocky substrates, sod-busting, and introduction of pesticides, herbicides, and fertilizers.
Natural System Modifications	2025-01-08	Medium - Low	Large	Moderate-Slight	High	Forest fire and fire suppression undoubtedly impact cover and basking sites. It is unknown what impact these have on the species in Montana.
Invasive & Other Problematic Species, Genes & Diseases	2025-01-08	High - Medium	Large	Serious-Moderate	High	Predation by domestic cats within urban and exurban areas, particularly in the Bitterroot and Clark Fork River Valleys. Threat is poorly characterized. Alteration of native ecosystems through the invasion of nonnative plants.
Threat Tally: 0 - Very High, [0,1] - High, 2 - Medium, [0,1] - Low Overall Threat Impact* = Very 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: (4.08 × 70%) + Threats: ([0.00, 3.67] × 30%) + Trends: (0.00) = [2.86, 3.96]

Calculated Rank: S3S4

Accepted Rank	S3
Author(s)	Dan Bachen
Rank Approved By	Montana Species of Concern Committee
State Rank Reason	Species is rare to uncommon within western Montana. Status is uncertain as trend data are unavailable and threats are poorly characterized. Threats likely include habitat loss from urbanization, fire and fire suppression impacting habitat suitability, and predation by domestic cats and invasion of habitat by nonnative plant species. General lack of knowledge impedes conservation of the species. The calculated rank of S3S4 has a high degree of uncertainty as little is known about the species and the Montana Species of Concern Committee has accepted the rank of S3 in an abundance of caution due to this lack of knowledge.

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=ARACH01110

Predicted Suitable Habitat Model:
https://mtnhp.mt.gov/resources/models/?elcode=ARACH01110

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

Summary of Information Availability

Range is well defined, but species is cryptic and infrequently observed. Trend is unknown and threats are poorly characterized.

Summary of Information Needs

Surveys of suitable habitat within forests are needed and resurvey of historic occurrences should provide trend information. Exploration of mortality would provide better threats information.

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
Residential & Commercial Development - 1.1 - Housing & Urban Areas	2025-01-08	Dan Bachen	Expert Opinion	Small	Moderate	High	Increased urbanization within western Montana valleys and loss of grassland habitat
Agriculture & Aquaculture - 2.1 - Annual & Perennial Non-Timber Crops	2026-04-14	Dan Bachen	SWAP Assessment	Small	Slight	Moderate	Conversion of native rangelands to croplands removes or degrades habitat through increased vegetative cover, removal of rocky substrates, sod-busting, and introduction of pesticides, herbicides, and fertilizers.
Natural System Modifications - 7.1 - Fire & Fire Suppression	2025-01-08	Dan Bachen	Expert Opinion	Large	Moderate-Slight	High	Forest fire and fire suppression undoubtedly impact cover and basking sites. It is unknown what impact these have on the species in Montana.
Invasive & Other Problematic Species, Genes & Diseases - 8.1 - Invasive Non-Native/Alien Species/Diseases	2025-01-08	Dan Bachen	Expert Opinion	Large	Serious-Moderate	High	Predation by domestic cats within urban and exurban areas, particularly in the Bitterroot and Clark Fork River Valleys. Threat is poorly characterized. Alteration of native ecosystems through the invasion of nonnative plants.