Gray Flycatcher (*Empidonax wrightii*)
Conservation Status Rank Summary

November 18, 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	2024-11-18	S: 15566.8 km²	3.140	MTNHP Range Maps	None
Area of Occupancy	2024-11-18	425 | 4km² cells	3.440	MTNHP Modeling	None
Number of Occurrences	2024-11-18		1.380		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	2008-09-15	Narrow	-	MTNHP Species Rank Data Table	**Factor not used in ranking.** Sagebrush and juniper obligate | Methodology: NS (2003) | Original Score: B
Rarity is calculated by averaging weighted factor scores: **((3.14 × 1) + (3.44 × 2) + (1.38 × 1)) / 4 = 2.85**					
Trends					
Short-term Trend	2008-09-15		[0.070, 0.140]	MTNHP Species Rank Data Table	Species colonizing state and expanding range. Regionally and nationally increasing according to BBS data. | Methodology: NS (2003) | Original Score: F
Long-term Trend	2024-11-18		0.140		None
Trends score is calculated by summing weighted short and long-term trend scores: **(([0.07, 0.14] × 2) + (0.14 × 1)) = [0.28, 0.42]**					

Threats

Rank Factor	Date Assessed	Value	Score	Data Source	Comments
Threats					
Overall Threat Impact		Medium - low	[3.670, 5.500]		Fire, and potentially grazing
Intrinsic Vulnerability			-		Factor not used in ranking.
Threat score is calculated from Overall Threat Impact when available or Intrinsic Vulnerability if not: **([3.67, 5.50]) = [3.67, 5.50]**					

Individual Threats Data

Threat Category	Date Assessed	Impact Score	Scope	Severity	Immediacy	Comments
Agriculture & Aquaculture	2024-11-18	Low	Small	Moderate	High	Removal or degradation of shrublands from grazing or to benefit grazing
Natural System Modifications	2024-11-18	Medium - Low	Pervasive	Moderate-Slight	Moderate	Suppression of the natural fire cycle leading to conversion of shrublands to conifer forest
Threat Tally: 0 - Very High, 0 - High, [0,1] - Medium, [1,2] - Low Overall Threat Impact* = Medium - low						

*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: (2.85 × 70%) + Threats: ([3.67, 5.50] × 30%) + Trends: ([0.28, 0.42]) = [3.38, 4.07]

Calculated Rank: S4?

Accepted Rank	S3S4B
Date Approved	2024-11-18
Approval Authority	Montana Species of Concern Committee
Rank Justification	Species is relatively rare within southwestern Montana. An increasing number of observations in recent years indicates the species is expanding its range into Montana and while still a rare bird, is likely to increase in abundance in the coming years. It faces minor threats from habitat loss related to loss of shrubland breeding habitats.

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=ABPAE33100

Predicted Suitable Habitat Model:
https://mtnhp.mt.gov/resources/models/?elcode=ABPAE33100

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

Most of the rank categories are well defined. A more specific threats assessment would provide additional certainty in the rank score.

Summary of Information Needs

Better definition of threats. Specifically the scope of threats for the species and a better assessment of impacts of these threats on habitat.

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
Agriculture & Aquaculture - 2.3 - Livestock Farming & Ranching	2024-11-18	Dan Bachen	Expert Opinion	Small	Moderate	High	Removal or degredation of shrublands from grazing or to benefit grazing
Natural System Modifications - 7.1 - Fire & Fire Suppression	2024-11-18	Dan Bachen	Expert Opinion	Pervasive	Moderate-Slight	Moderate	Suppression of the natural fire cycle leading to converiosn of shrublands to conifer forest