

Calliope Hummingbird

Stellula calliope



Photo by Martin Meyers

Habitat Use Profile

Habitats Used in Nevada	
Montane Shrubland Montane Riparian Aspen Coniferous Forest Springs	
Key Habitat Parameters •	
Plant Composition (Woody)	Aspen, willow, mixed deciduous and coniferous trees ¹
Plant Composition (Nectar)	Requires blooming understory, primarily forbs ^{1, E0}
Plant Density	Canopy closure < 40% ¹
Mosaic	Mixed-age stand structure, usually early- to mid-successional; typically near forest openings or adjacent to montane shrublands or meadows; also benefits from presence of sap wells made by sapsuckers ¹
Distance to Water	Near water ¹
Other Habitats Used	In migration, lowland riparian, (sub)urban areas with feeders ¹
Response to Vegetation Removal	Negative, especially for understory ^{E0}
Area Requirements •	
Minimum Patch Size	Unknown
Recommended Patch Size	Entire stand of deciduous woodland ^{E0}
Home Range	4 km [2.5 mi] of linear habitat ¹

Conservation Profile

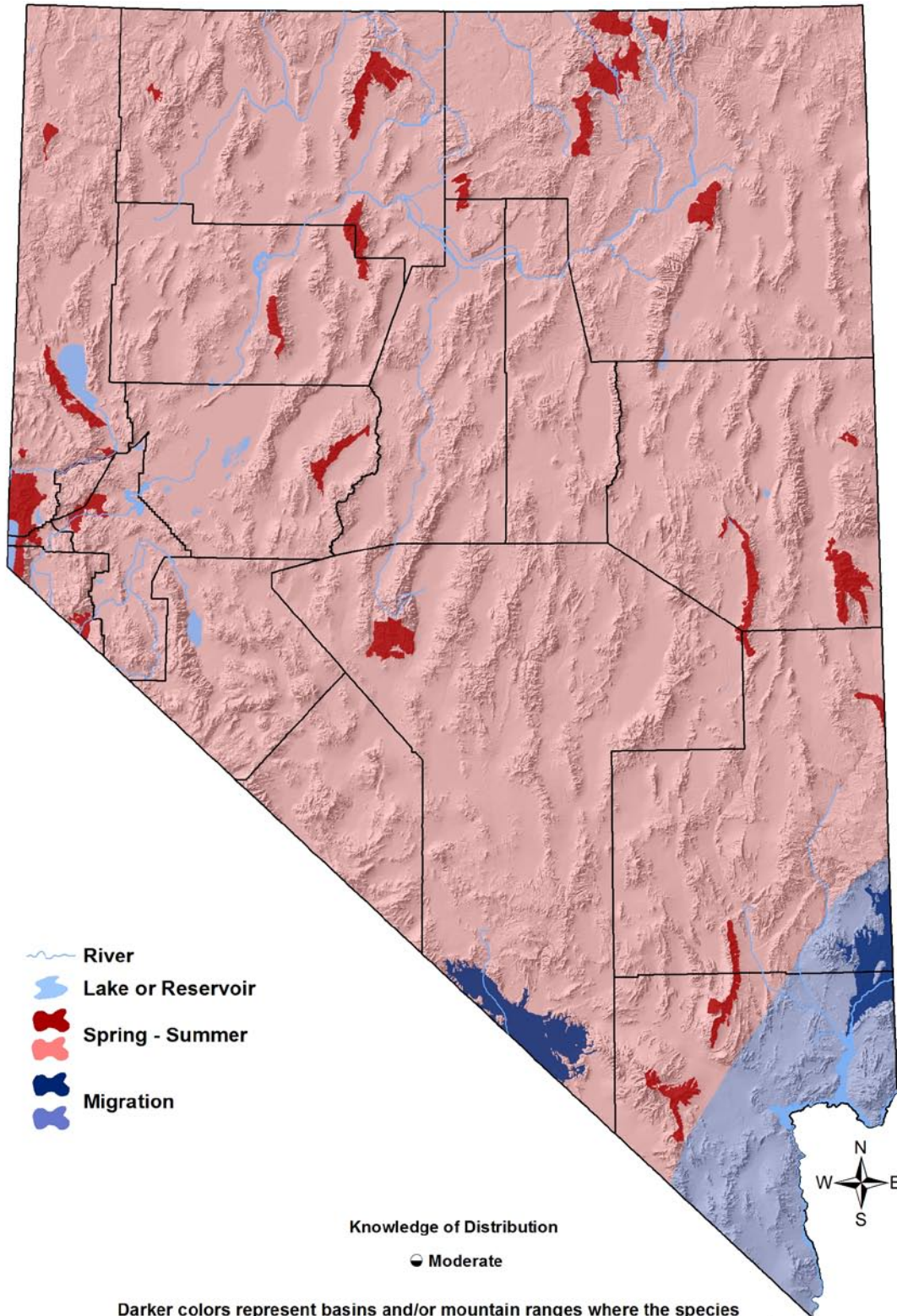
Priority Status	
Conservation Priority Species	
Species Concerns	
Possible habitat threats Unknown population trend	
Other Rankings	
Continental PIF	Watch List
Audubon Watchlist	Yellow
NV Natural Heritage	None
USFWS	Bird of Conservation Concern, Migratory Bird
BLM	None
USFS	None
NDOW	Stewardship
Trends	
Historical ◦	Unknown
Recent ◦	Poor data, possibly stable ⁶
Population Size Estimates	
Nevada (NBC) ◦	9,500
Global •	1,000,000 ⁵
Percent of Global	1%
Population Objective	
Maintain / Increase ^{5, E0}	
Monitoring Coverage	
Source	Nevada Bird Count
Coverage in NV	Fair
Key Conservation Areas	
Protection	Carson, Jarbidge, and Toiyabe ranges
Restoration	All Great Basin Montane Riparian and Aspen habitat

Natural History Profile

Seasonal Presence in Nevada	
Spring – Summer	
Known Breeding Dates in Nevada	
Late April – July ^{2, 3}	
Nest and Nesting Habits	
Nest Placement	On tree branch 2-12 m [6.5 – 40 ft] off ground, concealed by higher branch ¹
Site Fidelity	Moderate to high for breeding territory ¹
Food Habits	
Basic	Nectarivore and insectivore in forb/shrub layer
Primary Diet	Nectar and small insects from flowers ¹
Secondary Diet	Sap wells made by sapsuckers ¹

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Darker colors represent basins and/or mountain ranges where the species has been recorded within the past 12 years. Lighter colors represent the broader area within which the species is presumed to occur in appropriate habitat types.

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Overview

The Calliope Hummingbird is a fairly common breeder in mixed forests of the Carson Range and Jarbidge Mountains. It also occurs in smaller numbers throughout much of the state, for example the Spring Mountains and Sheep Range of southern Nevada. Calliope Hummingbirds are most associated with a montane mosaic of deciduous woodland, blooming understory, and forest edges and openings.

The difficulty of monitoring hummingbird populations accurately is apparent in the widely varying statewide population estimates produced by the Nevada Bird Count (9,500) and Partners in Flight (60,000).⁵ For this reason, we encourage development of more targeted monitoring approach than has been available in the past for this and other hummingbird species. Better monitoring protocols and additional research would allow us to better estimate trends, and to more accurately determine habitat requirements and potential threats. At present, conservation concern for the Calliope Hummingbird is somewhat conjectural. It bears noting that hummingbirds that depend upon montane blooms may be impacted in some manner if and when climate change alters blooming phenology in their currently occupied range.

Abundance and Occupancy by Habitat

Birds / 40 ha on NBC Transects in the Great Basin and Mojave Regions

Primary Habitat at Transect	Transects Occupied	Birds/40 ha (95% C.I.)
Great Basin		
Montane Riparian	2% (2/88)	1.3 (0.1 – 2.5)
Aspen	11% (2/18)	0.7 (0.6 – 0.8)
Coniferous Forest	26% (5/19)	0.6 (0.4 – 0.8)
Mojave		
Montane Riparian	11% (1/9)	0.2 (n/a)
Aspen	14% (1/7)	1.0 (n/a)

- Across wider region, estimated density 0.7 – 2 birds / ha in good breeding habitat¹
- BBS-based population estimate for Nevada is 60,000⁵

Nevada-Specific Studies and Analyses

No information

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Main Threats and Challenges

Habitat Threats

- No clear habitat threats have been identified for this species
- Habitat threats to Aspen (p. Hab-3-1), Coniferous Forest (p. Hab-5-1), Montane Riparian (p. Hab-13-1), Montane Shrubland (p.Hab-14-1) and Springs (p. Hab-19-1) habitats apply to this species

Research, Planning, and Conservation Challenges

- Population trends and population size are not known
- Beyond general landscape preferences, specific habitat needs and threats are not well understood

Conservation Strategies

Habitat Strategies

- In the absence of more specific information, Aspen (p. Hab-3-1), Coniferous Forest (p. Hab-5-1), Montane Riparian (p. Hab-13-1), Montane Shrubland (p.Hab-14-1) and Springs (p. Hab-19-1) habitat conservation strategies should benefit this species
- Manage montane areas to maintain a multi-age mosaic of deciduous woodlands (willows and aspen), coniferous forest, montane shrubs, and forest openings and meadows that support flowering forbs
- Seek opportunities to protect productive flowering meadows from grazing pressure if it significantly reduces bloom abundance

Research, Planning, and Monitoring Strategies

- Develop and implement a monitoring program suited to hummingbirds, and develop better estimates of trends and population size
- Conduct studies to clarify habitat requirements and threats
- Investigate opportunities to integrate research and monitoring efforts with national hummingbird conservation networks⁴

Public Outreach Strategies

- None identified

References: ¹Calder and Calder (1994); ²GBBO unpublished Atlas data; ³Heath and Ballard (2003); ⁴Hummingbird Monitoring Network, www.hummonnet.org; ⁵Rich et al. (2004); ⁶Sauer et al. (2008); ^{EO} Expert opinion