Calliope Hummingbird  
*Stellula calliope*

**Habitat Use Profile**

<table>
<thead>
<tr>
<th>Habitats Used in Nevada</th>
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<tbody>
<tr>
<td>Montane Shrubland</td>
<td></td>
</tr>
<tr>
<td>Montane Riparian</td>
<td></td>
</tr>
<tr>
<td>Aspen</td>
<td></td>
</tr>
<tr>
<td>Coniferous Forest</td>
<td></td>
</tr>
<tr>
<td>Springs</td>
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</tbody>
</table>

**Key Habitat Parameters**

- **Plant Composition (Woody)**: Aspen, willow, mixed deciduous and coniferous trees
- **Plant Composition (Nectar)**: Requires blooming understory, primarily forbs
- **Plant Density**: Canopy closure < 40%
- **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
- **Distance to Water**: Near water
- **Other Habitats Used**: In migration, lowland riparian, (sub)urban areas with feeders
- **Response to Vegetation Removal**: Negative, especially for understory

**Area Requirements**

- **Minimum Patch Size**: Unknown
- **Recommended Patch Size**: Entire stand of deciduous woodland
- **Home Range**: 4 km [2.5 mi] of linear habitat

**Conservation Profile**

<table>
<thead>
<tr>
<th>Priority Status</th>
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<tbody>
<tr>
<td>Conservation Priority Species</td>
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</table>

**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

**Population Size Estimates**

- Nevada (NBC): 9,500
- Global: 1,000,000
- Percent of Global: 1%

**Population Objective**

- Maintain / Increase

**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

**Nest and Nesting Habits**

- Nest Placement: On tree branch 2-12 m [6.5 – 40 ft] off ground, concealed by higher branch
- Site Fidelity: Moderate to high for breeding territory

**Food Habits**

- Basic: Nectarivore and insectivore in forb/shrub layer
- Primary Diet: Nectar and small insects from flowers
- Secondary Diet: Sap wells made by sapsuckers

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Photo by Martin Meyers
Calliope Hummingbird

*Stellula calliope*

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

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

- Across wider region, estimated density 0.7 – 2 birds / ha in good breeding habitat\(^1\)
- BBS-based population estimate for Nevada is 60,000 \(^5\)

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 networks

**Public Outreach Strategies**

- None identified

**References:**  