Hermit Warbler
*Dendroica occidentalis*

**Habitat Use Profile**

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<th>Key Habitat Parameters ⚫</th>
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<td>Coniferous Forest</td>
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**Plant Composition**
- Douglas fir, Jeffrey, ponderosa, and lodgepole pines, incense cedar, red fir

**Plant Density**
- Closed-canopy stands preferred; understory apparently unimportant; typical foraging height 30 m [100 ft]

**Mosaic**
- Largely unknown; prefers mid to late successional forests; avoids clearings and edges

**Distance to Water**
- No known relationship

**Response to Vegetation Removal**
- Negative EXP

**Area Requirements ⚫**
- Minimum Patch Size
- Recommended Patch Size > 50 ha [125 ac] EXP
- Home Range 0.35 ha [0.9 ac]

**Natural History Profile**

**Seasonal Presence in Nevada**
- Spring - Summer

**Known Breeding Dates in Nevada**
- Mid-April – July

**Nest and Nesting Habits**
- Nest Placement: In live, dense conifer branch ≤ 7 m [23 ft] high; no nests yet found in Nevada
- Site Fidelity: Unknown

**Food Habits**
- Basic: Arboreal (canopy) gleaner
- Primary Diet: Terrestrial arthropods
- Secondary Diet: n/a

**Conservation Profile**

**Priority Status**
- Conservation Priority Species

**Species Concerns**
- Small population size
- Restricted habitat
- Unknown population trend

**Other Rankings**
- Continental PIF: Watch List
- Audubon Watchlist: Yellow
- NV Natural Heritage: S2B
- USFWS: Migratory Bird
- BLM: None
- USFS: None
- NDOW: Conservation Priority

**Trends**
- Historical: Unknown
- Recent: Stable in core of range, uncertain in Nevada

**Population Size Estimates**
- Nevada (NBC): 140
- Global: 2,400,000
- Percent of Global: < 1%

**Population Objective**
- Maintain / Increase

**Monitoring Coverage**
- Source: Nevada Bird Count
- Coverage in NV: Fair

**Key Conservation Areas**
- Protection: Carson Range
- Restoration: Carson Range

Confidence in Available Data: ⚫High ◀Moderate ○ Low
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Darker colors represent basins and/or mountain ranges where the species has been recorded within the past 12 years.
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**Overview**

Hermit Warblers breed in montane coniferous forests in the Pacific Northwest and the northern and central Sierra Nevada. Nevada’s breeding population in the Carson Range is small and located at the periphery of the species geographical range. The Hermit Warbler is one of our very few presumed breeding birds for which a nest has yet to be located, due to its highly secretive nesting habits.

Hermit Warblers require large tracts of mature coniferous forest. They apparently tolerate moderate forest thinning or removal of trees in small patches, but extensive thinning that creates a large amount of habitat edge is detrimental. Likewise, stand-replacement fires will decrease the habitat suitability for Hermit Warblers. It has also been shown to be negatively affected by development in the Lake Tahoe Basin. Unlike most other warblers, this species rarely uses hardwood stands. In July, after breeding is completed, Hermit Warblers often migrate upwards in elevation in small flocks that persist until the initiation of fall migration.

The greatest needs for this species are to conserve larger tracts of mature coniferous forest in the Carson Range, and to expand monitoring efforts to better determine its population and conservation status.

**Abundance and Occupancy by Habitat**

- In some areas west of the Sierra crest, Hermit Warblers can be the most abundant bird species detected in some forests, with densities reported from 40 – 70 birds / 40 ha [0.4 – 0.7 / ac]

**Nevada-Specific Studies and Analyses**

No information

**Main Threats and Challenges**

**Habitat Threats**

- Habitat threats have not been determined; possible threats include forest fragmentation due to fire, disease, or residential development
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Research, Planning, and Monitoring Challenges

- Lack of specific knowledge about habitat requirements, area requirements, population trends, or threats in Nevada
- Secretive habits, dense habitat, and small numbers make the species more difficult to monitor than most other songbirds

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**Conservation Strategies**

**Habitat Strategies**

- The Coniferous Forest (p. Hab-5-1) habitat conservation strategy benefits this species
- Protect and conserve mature coniferous forest in the Carson Range, with focus on closed-canopy stands of > 50 ha [125 ac]

**Research, Planning, and Monitoring Strategies**

- Increase monitoring coverage in the Carson Range to better determine population status and trends, and attempt to locate nests and quantify nesting microhabitat
- Determine minimum patch size requirements and preferred forest mosaic
- Conduct studies to determine Hermit Warbler response to forest thinning / fuel reduction
- Develop a fire management plan that promotes the long-term conservation of the Hermit Warbler’s preferred forest type

**Public Outreach Strategies**

- None identified

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References: ¹Airola and Barrett (1985); ²Fontaine et al. (2009); ³Manley et al. (2007); ⁴Pearson (1997); ⁵Rich et al. (2004); ⁶Sauer et al. (2008); ⁷Siegel and DeSante (2003); ⁸EOExpert opinion

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