

# Hermit Warbler

*Dendroica occidentalis*



Photo by Martin Meyers

### Habitat Use Profile

Habitats Used in Nevada	
Coniferous Forest	
Key Habitat Parameters ◐	
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] <sup>4</sup>
Mosaic	Largely unknown; prefers mid to late successional forests; avoids clearings and edges <sup>4</sup>
Distance to Water	No known relationship
Response to Vegetation Removal	Negative <sup>E0</sup>
Area Requirements ◐	
Minimum Patch Size	Unknown
Recommended Patch Size	> 50 ha [125 ac] <sup>E0</sup>
Home Range	0.35 ha [0.9 ac] <sup>4</sup>

### Conservation Profile

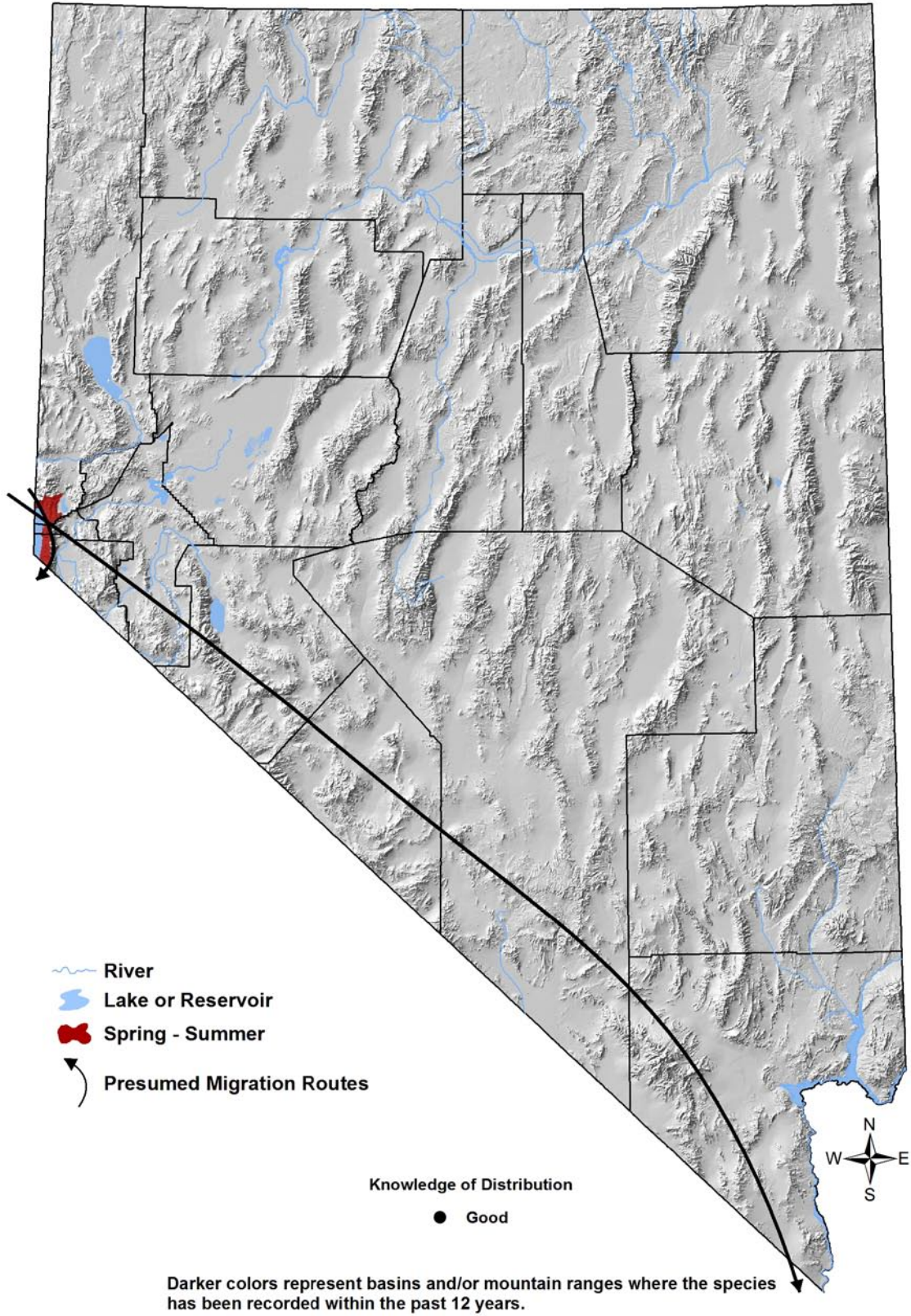
Priority Status	
Conservation Priority Species	
Species Concerns	
Small population size Restricted habitat Unknown population trend	
Other Rankings	
Continental PIF	Watch List
Audubon Watchlist	Yellow
NV Natural Heritage	S2B
USFWS	Migratory Bird
BLM	None
USFS	None
NDOW	Conservation Priority
Trends	
Historical ◐	Unknown
Recent ◐	Stable in core of range, uncertain in Nevada <sup>6</sup>
Population Size Estimates	
Nevada (NBC) ◐	140
Global ◐	2,400,000 <sup>5</sup>
Percent of Global	< 1%
Population Objective	
Maintain / Increase <sup>5, E0</sup>	
Monitoring Coverage	
Source	Nevada Bird Count
Coverage in NV	Fair
Key Conservation Areas	
Protection	Carson Range
Restoration	Carson Range

### Natural History Profile

Seasonal Presence in Nevada	
Spring - Summer	
Known Breeding Dates in Nevada	
Mid-April – July <sup>4</sup>	
Nest and Nesting Habits	
Nest Placement	In live, dense conifer branch ≤ 7 m [23 ft] high; <sup>4</sup> no nests yet found in Nevada
Site Fidelity	Unknown
Food Habits	
Basic	Arboreal (canopy) gleaner
Primary Diet	Terrestrial arthropods <sup>4</sup>
Secondary Diet	n/a

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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,<sup>7</sup> but extensive thinning that creates a large amount of habitat edge is detrimental.<sup>4</sup> Likewise, stand-replacement fires will decrease the habitat suitability for Hermit Warblers.<sup>2</sup> It has also been shown to be negatively affected by development in the Lake Tahoe Basin.<sup>3</sup> Unlike most other warblers, this species rarely uses hardwood stands.<sup>1</sup> In July, after breeding is completed, Hermit Warblers often migrate upwards in elevation in small flocks that persist until the initiation of fall migration.<sup>4</sup>

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]<sup>4</sup>

## **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

## **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

References: <sup>1</sup>Airola and Barrett (1985); <sup>3</sup>Fontaine et al. (2009); <sup>3</sup>Manley et al. (2007); <sup>4</sup>Pearson (1997); <sup>5</sup>Rich et al. (2004); <sup>6</sup>Sauer et al. (2008); <sup>7</sup>Siegel and DeSante (2003); <sup>E0</sup>Expert opinion