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, Height	Closed-canopy stands preferred; understory apparently unimportant; foraging height 30 m (100 ft) [3]
Mosaic	Largely unknown; prefers mid to late successional forests; avoids clearings and edges [3]
Distance to Water	No known relationship
Response to Vegetation Removal	Negative [EO]
Area Requirements ●	
Minimum Patch Size	Unknown
Recommended Patch Size	50 ha (110 ac) [EO]
Home Range	0.35 ha (1 ac) [3]

Conservation Profile

Priority Status	
Conservation Species	
Species Concerns	
Small population size Restricted habitat	
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 [1]
Population Size Estimates	
Nevada (NBC) ●	140
Global ●	2,400,000 [2]
Percent of Global ●	< 1%
Population Objective	
Maintain/Increase [EO, 2]	
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 [3]	
Nest and Nesting Habits	
Nest Placement	In live, dense conifer branch about 7 m (22 ft) height [3]; no nests confirmed yet in Nevada
Site Fidelity	Unknown
Food Habits	
Basic	Insectivorous; canopy gleaner
Primary Prey	Terrestrial arthropods [3]
Secondary Prey	n/a

Confidence in Available Data: ● High ● Moderate ● Low

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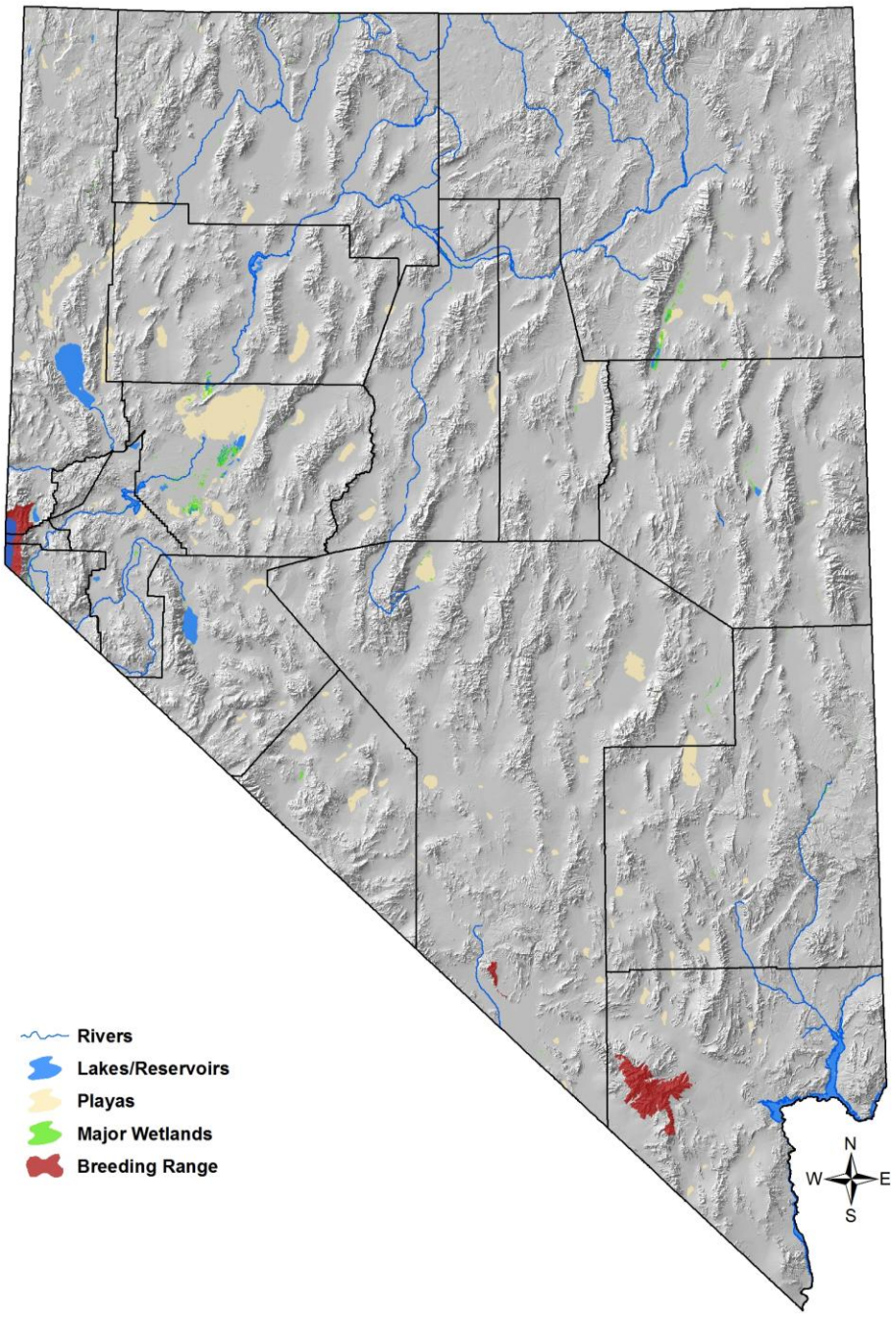

Note to Reviewers: The southern Nevada records seem suspect (?)

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References: [1] Sauer et al. (2008), [2] Rich et al. (2004), [3] Pearson (1997), [EO] expert opinion

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 overall distribution, and it is one of the few presumed breeding birds for which a nest has yet to be confirmed due to their highly secretive nesting habits. Given this geographical situation, the NBC-based population estimate for Nevada is likely more realistic than the PIF estimate. Hermit Warblers require large tracts of mature coniferous forest, but they apparently tolerate moderate forest thinning or removal of trees in small patches; extensive thinning that creates a large amount of habitat edge is detrimental, however (Pearson 1997). Unlike most other warblers, this species rarely uses hardwoods (Airola and Barrett 1985). In July, after breeding, birds often migrate upwards in elevation in small flocks that persist until the initiation of fall migration (Pearson 1997). Perhaps the greatest need for this species, other than conservation of larger tracts of mature coniferous forest in the Carson Range, is to expand monitoring efforts to better capture the population status of this species.

Abundance and Occupancy by Habitat

- Densities in Sierra Nevada reported from ~ 40 – 70 birds / 40 ha (Pearson 1997)

Nevada-Specific Studies and Analyses

- None

Main Threats and Challenges

- Specialized habitat needs (for large contiguous patches of mature coniferous forest; fragmented forest with significant edge is avoided)
- Nevada population is very small

Species with Similar Conservation Strategies

- Spotted Owl
- Williamson's Sapsucker

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Conservation Strategies

Habitat Strategies

1. Coniferous Forest conservation strategy applied to sufficiently large forest tracts benefit this species (see habitat accounts).
2. Protect and conserve large tracts of mature Coniferous Forest in the Carson Range, with preference to closed-canopy stands ≥ 50 ha (110 ac).

Research, Planning, and Monitoring

1. Increase monitoring coverage in the Carson Range, including confirmation of nesting in the state.
2. Determine minimum patch size requirements and clarify habitat requirements during the nesting season.
2. Conduct additional studies to determine Hermit Warbler tolerance for fuel reduction efforts.
3. Develop fire and fuel reduction plans that balance competing needs, including maintaining large tracts of mature forest as Hermit Warbler habitat.