

Virginia's Warbler

Oreothlypis virginiae



Photo by Greg Scyphers

Habitat Use Profile

Habitats Used in Nevada	
Pinyon-Juniper Montane Shrubland Montane Riparian	
Key Habitat Parameters ◐	
Plant Composition	Montane shrubs, mountain mahogany, pinyon pine, juniper, willows, possibly aspen
Plant Density	Dense shrub layer, open woodlands; no quantitative information on plant density ⁴
Mosaic	Steep brushy areas within or in proximity to open pinyon – juniper, mountain mahogany, or montane riparian woodlands ⁴
Distance to Water	Unknown
Response to Vegetation Removal	Unknown
Area Requirements ◐	
Minimum Patch Size	Unknown
Recommended Patch Size	100 ha [250 ac] ^{EO}
Territory Size	0.8 – 2.3 ha [2 - 6 ac] ⁴

Conservation Profile

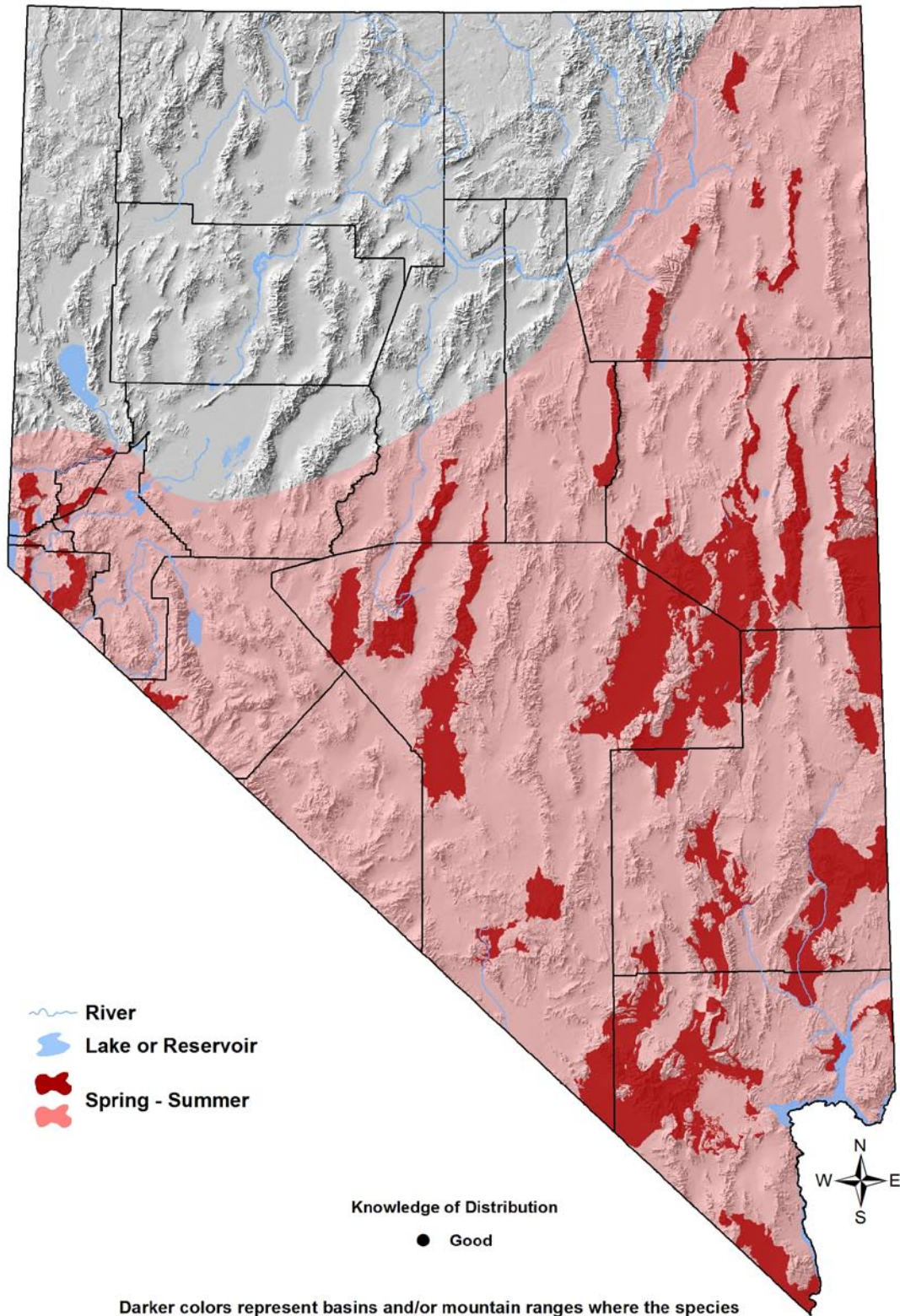
Priority Status	
Conservation Priority Species	
Species Concerns	
Insufficient knowledge of habitat requirements Unknown population trend Habitat threats	
Other Rankings	
Continental PIF	Watch List
Audubon Watchlist	Yellow
NV Natural Heritage	S4B
USFWS	Bird of Conservation Concern, Migratory Bird
BLM	None
USFS	None
NDOW	Conservation Priority
Trends	
Historical ◐	Unknown
Recent ◐	Limited information suggests stable trend rangewide, less certain in Nevada ⁵
Population Size Estimates	
Nevada (NBC) ◐	8,200
Global ◐	410,000 ⁵
Percent of Global	2%
Population Objective	
Maintain / Increase ^{4, EO}	
Monitoring Coverage	
Source	Nevada Bird Count
Coverage in NV	Good
Key Conservation Areas	
Protection	Brushy mid-elevations of central and eastern mountains
Restoration	Same

Natural History Profile

Seasonal Presence in Nevada	
Spring – Summer	
Known Breeding Dates in Nevada	
Late May – July ³	
Nest and Nesting Habits	
Nest Placement	On ground under vegetation cover, often on slope ⁴
Site Fidelity	Unknown
Food Habits	
Basic	Arboreal and shrub gleaner
Primary Diet	Terrestrial or flying arthropods ⁴
Secondary Diet	n/a

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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

Virginia's Warbler is most often described as a breeder in pinyon-juniper and oak woodlands.⁴ In Nevada, at the northwest periphery of its range, its habitat associations appear to be somewhat more complex. Most often, Virginia's Warbler are found on mid-elevation slopes with a mixture of dense brush and open woodland, but specific habitat parameters are not well quantified, and this warbler's patterns of occurrence and abundance cannot be adequately explained as a function of any single defined habitat type. In Colorado, it was found on steep slopes with large shrubs, lower tree canopy cover, high shrub diversity, and more habitat edge;⁷ or, in another study, areas with many small and dense patches of shrubs, often with skunkbush and scattered juniper and pine.¹

Because the Virginia's Warbler tends to occur at the interface of basins and ranges (i.e. foothills), its local distribution patterns are not well captured in the range map shown above, which misleadingly suggests that it is present in valley bottoms. Of potential importance in Nevada is the Virginia's Warbler's reported affinity for mountain mahogany stands,^{EO} which is consistent with NBC data. It is not clear whether or not Virginia's Warblers benefit from proximity to water, or whether occasional reports of breeding in aspen woodlands in southern Nevada are representative or exceptional.

Virginia's Warblers arrive late on the breeding grounds (late April to early May), are patchily distributed throughout most of their range, and are often absent from apparently suitable habitat.² This patchy distribution, uncertainty about population trends, and the likelihood that specific habitat requirements exist that are not yet quantified, form the basis for conservation concern about this species.

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	5% (4/88)	1.4 (0.5 – 2.3)
Pinyon-Juniper	7% (5/70)	1.9 (0.9 – 2.9)
Mojave		
Montane Riparian	33% (3/9)	1.9 (0.0 – 3.8)
Montane Shrubland	38% (3/8)	1.2 (0.6 - 1.8)
Pinyon-Juniper	17% (2/12)	0.4 (n/a)

Nevada-Specific Studies and Analyses

Landscape Associations (NBC data)

The strongest explanatory factors for Virginia's Warbler presence/abundance in logistic regression analysis (*Appendix 3*) were cover of mountain mahogany, pinyon-juniper

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woodland, and coniferous forest. Montane riparian woodland may be important at the microhabitat scale, but was not significant in the analysis at the transect (i.e. landscape) scale. In the raw NBC data, presence of Pinyon-Juniper habitat was the most consistent property of transects on which Virginia's Warblers were present

Main Threats and Challenges

Habitat Threats

- Habitat threats have not been determined, but may include:^{EO}
 - Grazing by livestock or wild horses and burros
 - Fire
 - Invasive plants
 - Residential development, especially in southern Nevada

Research, Planning, and Monitoring Challenges

- Lack of detailed knowledge of preferred habitat parameters, population trends, and habitat threats

Conservation Strategies

Habitat Strategies

- Pinyon-Juniper (p. Hab-16-1), Montane Shrubland (p. Hab-14-1), and Montane Riparian (p. Hab-13-1) habitat conservation strategies benefit this species
- Manage mid-elevation slopes in occupied range to favor the persistence of landscapes comprised of interspersed or adjoining patches of dense brush, montane riparian woodlands, pinyon-juniper woodland, and mountain mahogany

Research, Planning, and Monitoring Strategies

- Continue monitoring to better determine trends, occupancy patterns, and habitat associations
- Conduct additional study to better determine habitat preferences, including the possible importance of mountain mahogany and proximity to water, and the possible use of aspen habitat in southern Nevada

Public Outreach Strategies

- None identified

References: ¹Berry and Bock (1998); ²Dobkin and Sauder (2004); ³GBBO unpublished Atlas data; ⁴Olson and Martin (1999); ⁵Rich et al. (2004); ⁶Sauer et al. (2008); ⁷Sedgwick (1987);
^{EO}Expert opinion