

Lewis's Woodpecker

Melanerpes lewis



Photo by Martin Meyers

Habitat Use Profile

Habitats Used in Nevada	
Aspen Montane Riparian (Coniferous Forest)	
Key Habitat Parameters •	
Plant Composition	Aspen, cottonwoods, ponderosa and Jeffrey pines
Plant Density & Size	Prefers snags of dbh \geq 31 cm [12 in] at density of 2 / ha [1 / ac]; tree canopy closure 30% for nesting; shrub cover 50% ⁷
Mosaic	Intact deciduous tree and shrub layers in riparian / aspen zones; multiple age-classes with older-aged component in adjacent coniferous forest ⁷
Distance to Water	Usually in close proximity in Nevada ³
Response to Vegetation Removal	Negative ^{EO}
Prey Populations	May benefit from presence of anthills which are used as a food source ⁷
Area Requirements ○	
Minimum Patch Size	Unknown, but can occur in small / narrow riparian patch ^{EO}
Recommended Patch Size	Entire riparian / aspen stand ^{EO}
Home Range / Territory Size	Territories 1 – 6 ha [2 - 15 ac]; foraging area much larger ⁷

Conservation Profile

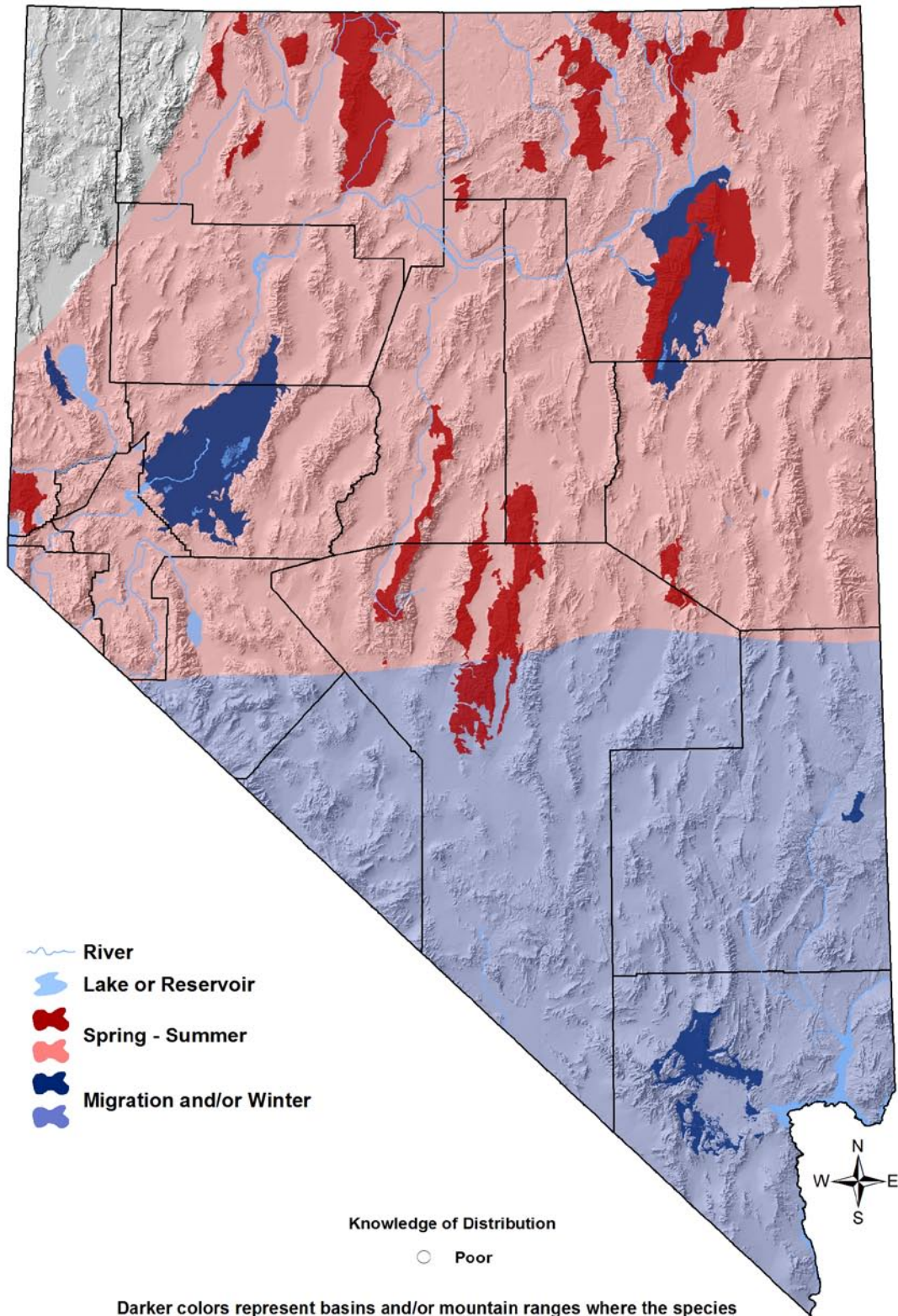
Priority Status	
Conservation Priority Species	
Species Concerns	
Historical declines Possible recent declines Habitat threats Stewardship responsibility	
Other Rankings	
Continental PIF Audubon Watchlist NV Natural Heritage USFWS BLM USFS NDOW	Watch List Red S3 Bird of Conservation Concern, Migratory Bird Sensitive Species None Conservation Priority
Trends	
Historical • Recent •	Declines and range contractions ⁷ Probable declines ⁶
Population Size Estimates	
Nevada (NBC) • Global • Percent of Global	13,000 130,000 ⁵ 10 %
Population Objective	
Maintain / Increase ^{5, EO}	
Monitoring Coverage	
Source Coverage in NV	Nevada Bird Count Good
Key Conservation Areas	
Protection Restoration	Carson, Ruby, Jarbidge, East Humboldt, Independence, Bull Run, and Monitor Ranges Montane Riparian and Aspen habitat in northern 2/3 of Nevada

Natural History Profile

Seasonal Presence in Nevada	
Spring – Summer; possibly Winter in Mojave region	
Known Breeding Dates in Nevada	
Mid-May – early September ²	
Nest and Nesting Habits	
Nest Placement	Cavity excavator or re-user; requires large trunk or branch on snag ⁷
Site Fidelity	Low ⁷
Food Habits	
Basic Primary Diet Secondary Diet	Arboreal / terrestrial gleaner and fly-catcher ⁷ Ants, flying insects ⁷ Nuts and fruits in non-breeding season ⁷

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Overview

Throughout most of its geographical range, the Lewis's Woodpecker is regarded as a specialist on open forests of ponderosa pine, burned pine forests, oak woodlands, and cottonwood galleries. In Nevada, however, this species is most strongly associated with deciduous riparian woodlands dominated by aspen or cottonwood.³ Nomadic movements often extend its activities into other habitat types, mainly Coniferous Forest, and in the far-western Carson Range, this habitat type is also used for breeding. Lewis's Woodpecker is no longer known to breed in the valley-bottom riparian woodlands where they are thought to have historically occurred.

As a weak excavator, the Lewis's Woodpecker is even more dependent on dead trees than other woodpeckers. Key habitat factors include the presence of large, partly-decayed snags, an open forest structure for aerial foraging, and a well-developed shrub or native herbaceous layer that promotes healthy populations of flying insects.¹ Annual variation in Lewis's Woodpecker numbers and their very patchy breeding distribution within the state make it hard to pinpoint current trends in Nevada, but the species is a conservation concern because of historic rangewide declines and Nevada's moderately high global stewardship responsibility.

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		
Aspen	33 % (6/18)	2.7 (0.6 – 4.8)
Montane Riparian	7% (6/88)	1.5 (0.3 – 2.7)
Mojave		
Aspen	14% (1/7)	0.3 (n/a)
Montane Riparian	22% (2/9)	1.0 (n/a)

Nevada-Specific Studies and Analyses

- Analysis of NBC data indicates that Lewis's Woodpecker has a significant ($p=0.01$) statistical association with the Aspen and Montane Riparian habitat types

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Main Threats and Challenges

Habitat Threats

- Loss or degradation of aspen stands and associated understory due to improper livestock grazing, conifer invasion, and aspen decline (due to pathogens, drought, reductions in stream flows, climate change, and other factors)
- Degradation of deciduous Montane Riparian habitat and associated understory due to grazing pressure from domestic livestock and wild horses and burros

Research, Planning, and Monitoring Challenges

- The most beneficial fire regime (scale, return interval, etc.) is unclear
- Home range, patch size requirements, and preferred landscape structure is not sufficiently well understood

Conservation Strategies

Habitat Strategies

- Aspen (p. Hab-3-1) and Montane Riparian (p. Hab-13-1) habitat conservation strategies benefit this species
- Manage grazing in Aspen and Montane Riparian habitats to protect the integrity of understory vegetation and allow sufficient tree regeneration⁴
- Retain large snags in Aspen and Montane Riparian habitats
- Conduct restoration / exclosure efforts to in Aspen and Montane Riparian habitats to re-establish understory vegetation and tree regeneration
- Pending further information, manage for small-scale stand-rejuvenating fire

Research, Planning, and Monitoring Strategies

- Continue monitoring to better determine current population trends
- Conduct further research to determine area requirements and most beneficial fire regime

Public Outreach Strategies

- None identified

References: ¹Abele et al. (2004); ²GBBO unpublished Atlas data; ³GBBO unpublished NBC data; ⁴Newlon (2005); ⁵Rich et al. (2004); ⁶Sauer et al. (2008); ⁷Tobalske (1997); ^{EO} Expert opinion