

Flammulated Owl

Otus flammeolus



Photo by Fred Peterson

Conservation Profile

Priority Status	Conservation Target
Reasons for Priority Status	Probable small population size Possible threats Dependence on limited habitat type
Other Rankings	Continental PIF: Watch List Audubon Watchlist: Yellow Natural Heritage: S4B USFWS: Bird of Conservation Concern (Great Basin and Sierra Nevada), Migratory Bird BLM: Sensitive Species NDOW: None
Trends	Historical: Unknown Recent: Unknown [i1, p1]
Population Size Estimates	Nevada: Unknown Global: 29,000 [p5] Percent of Global: Unknown
Population Objective	TBD
Monitoring Coverage	Not regularly monitored
Key Conservation Areas	TBD

Habitat Use Profile

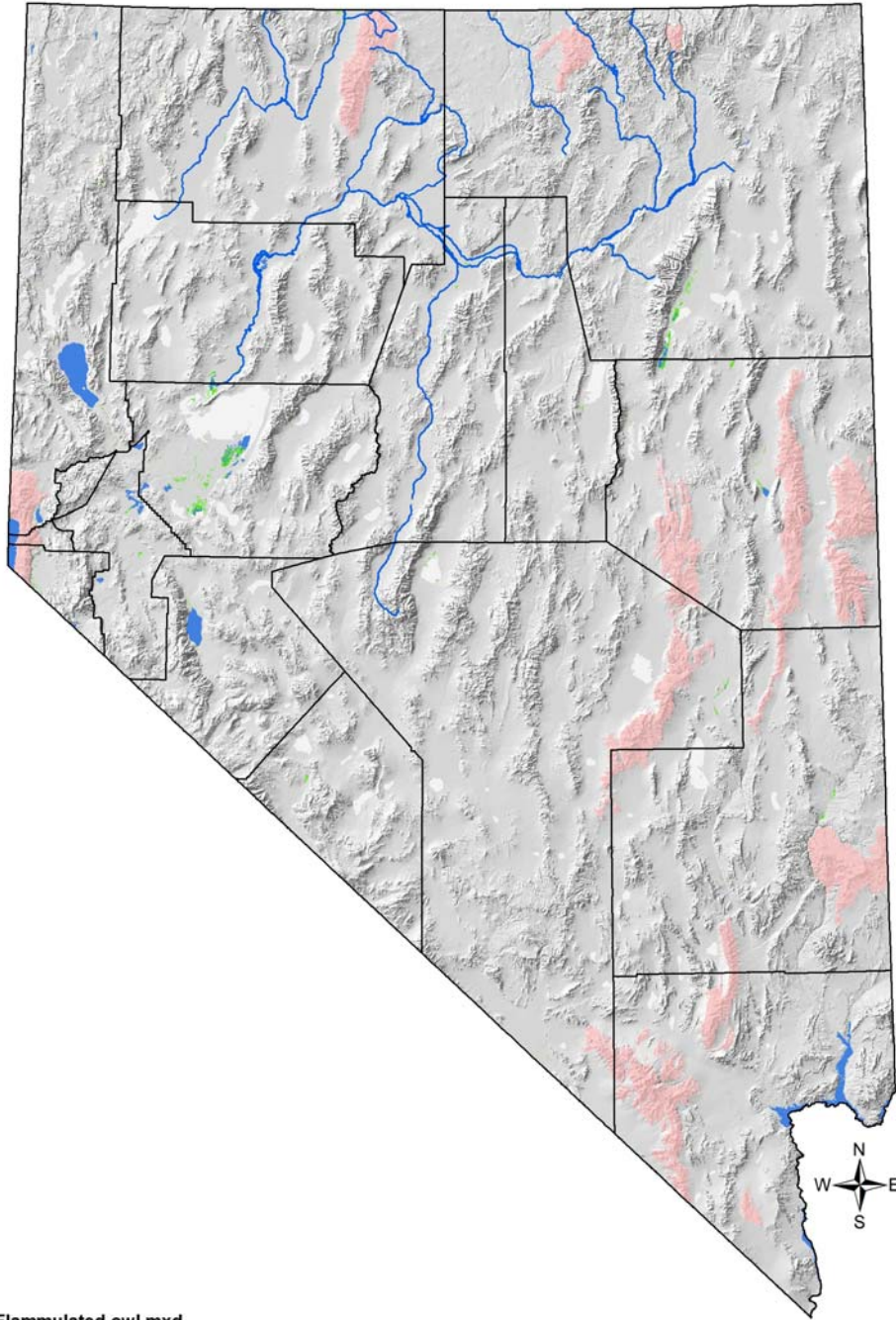
Main Habitats Used in Nevada	Coniferous Forest Aspen
Key Habitat Use Parameters	Prefers forests with mosaic of old-growth conifers, thickets of saplings or shrubs, forest openings, multiple canopy layers, snags, and aspen [p1] In southern Nevada, uses open ponderosa pine / white fir stands (Arsenault et al 2003) Large-diameter snags must be present [p1, EO] Preferred tree density 138 – 1040 trees/ha [p1] Preferred canopy closure 35 – 75% [p1] Preferred shrub density 182 – 776 shrubs/ha [p1] Most often located where slope is 16 – 30 % [p1]
Minimum Patch Size	Home range size estimate: 3-16 ha [p1] Usually 1 territory per 40 ha [p1]

Natural History Profile

Seasonal Presence in Nevada	Spring – summer
Known Breeding Dates in Nevada	Late May – early August [EO, s4]
Nesting Habits	Nests in pre-existing cavity (usually made by larger woodpecker) in large snag [p1] Nest usually located 30 – 100 m from forest opening [p1] Nest tree height / size usually 15 – 39 m; DBH 44 – 87 cm [p1] Fidelity to breeding territories and nest cavities is high [p1]
Food Requirements	Nocturnal arthropods [p1]

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File: Flammulated owl.mxd

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Temporary Map Key

Pink: Breeding range

Hot pink / magenta: For some birds, breeding data was limited, and was supplemented by extrapolation to include likely breeding range. In these cases, hot pink represents known breeding range, and lighter pink the extrapolated breeding range.

Blue: Winter range

Yellow: Important migration stopover areas

Purple: Year-round range

Green: In some maps, wetlands mapped by SWReGAP are shown in green for interpretational purposes

Dot symbols: In cases where breeding records were isolated or very restricted in extent, they are represented by a pink dot symbol rather than a shaded area.

Arrows: Major migration routes. These are shown only for birds for which there are migration-associated conservation issues.

OVERVIEW

Although its habitat needs are relatively well characterized, little is still known about the Flammulated Owl's numbers, distribution, or conservation status in Nevada. Records have come from the Santa Rosa, Jarbidge, Spring, Schell Creek, Quinn Canyon, White Pine, Sheep, Clover, Snake, Highland, and Carson Ranges, but this small owl could potentially may occur in other ranges as well [p4]. Recent inventories in the central Nevada ranges suggest that it may be absent there. Perhaps the key management factor for this bird is managing forests to ensure the presence of large diameter snags. Flammulated Owls often breed in loose clusters comprised of multiple pairs, making targeted protection of nesting areas easier [i6]. The species likely requires a fairly large minimum stand size to accommodate the variety of microhabitat types it needs (see Habitat Use Profile).

ABUNDANCE AND OCCUPANCY BY HABITAT

- No information [Further literature review]

NEVADA-SPECIFIC STUDIES AND ANALYSES

- TBD (Great Basin Birds, etc.)

MAIN THREATS AND CHALLENGES

- Fuels reduction projects that remove snags [EO]
- High-intensity fire

CONSERVATION STRATEGIES

Habitat Strategies

- General Coniferous Forest conservation strategy with special emphasis on:

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- Managing forests to conserve large-diameter snags
- Managing forests for mixed-age mosaic structure, including old-growth patches and forest openings with well developed understory vegetation

Research, Planning, and Monitoring

- Conduct additional study and monitoring to estimate population size and determine occupancy patterns (if any) in central NV ranges

OTHER PRIORITY SPECIES WITH SIMILAR CONSERVATION STRATEGIES

- Spotted Owl
- Hermit Warbler
- Williamson's Sapsucker

FURTHER READING

- Dunham et al 1996
- Arsenault et al 2002

Temporary codes for standard references

[p1] Birds of N. America account for this species

[p2] NV Bird Conservation Plan ver. 1 (Neel 1999)

[p3] NV Wildlife Action Plan

[p4] Nevada Breeding Bird Atlas

[p5] PIF N. American Landbird Conservation Plan (Rich et al 2004) (NOTE:

[p6] Intermountain West Regional Shorebird Plan (Oring et al 2003)

[p7] Pacific Flyway reports

[p8] Shrubsteppe Landscapes in Jeopardy (Dobkin and Sauder 2004)

[p9] Birds in a Sagebrush Sea (Paige and Ritter 1999)

[s1] NBC-based population size estimates

[s2, s3] NBC-based habitat relationship analysis

[s4] Breeding Bird Atlas breeding phenology data

[i1] BBS trends analysis (Sauer et al 2005)

[i2] NV Upland Game Management Plan (Espinosa et al in prep.)

[i3] Western Quail Management Plan (Zornes et al 2008)

[i4] NDOW Shorebird and Waterbird monitoring data (Neel)

[i5] Brad Andres IMJV Shorebird / Waterbird data set

[i6] GBBO Technical Report 08-01 (2008)

[EO] Expert opinion from NVPIF group members

[IWWCP] Intermountain West Waterbird Conservation Plan

[NAWCP] North American Waterbird Conservation Plan

[LBCUSACP] Long-billed Curlew Status Assessment and Conservation Plan

[USSCP] U.S. Shorebird Conservation Plan

[WHSRN] Western Hemispheric Shorebird Regional Network