

Mountain Quail

Oreortyx pictus

Conservation Profile



Photo by Martin Meyers

Habitat Use Profile

Main Habitats Used in Nevada	Coniferous Forest Montane Shrubland Montane Riparian Aspen Pinyon-Juniper
Key Habitat Use Parameters	Inhabits a variety of montane habitats where shrub cover is dense, typically > 50% [EO, p1] On average, found closer to available cover (0.83m) than random locations [p1] Most often on steep slopes [p1] Mean distance to water < 200m [p1] Moves seasonally up to 25 km from higher-elevation summer range to lower-elevation winter range [p1]
Minimum Patch Size	Average summer home ranges ~ 140 ha [W Quail Mng Plan]

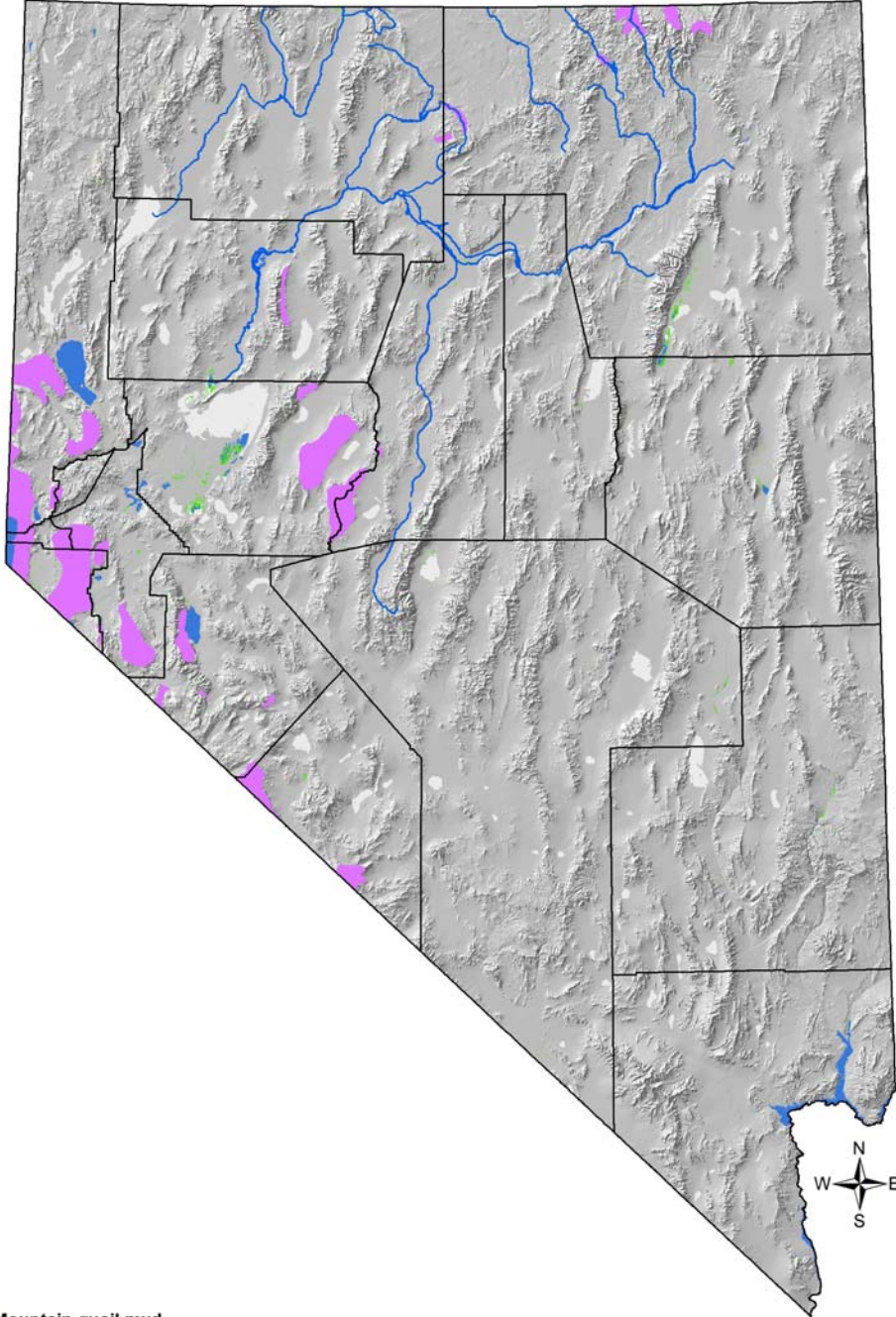
Priority Status	Conservation Target
Reasons for Priority Status	Declines Threats Small fragmented population
Other Rankings	Continental PIF: Watch List Audubon Watchlist: Yellow Natural Heritage: S3 USFWS: None BLM: Sensitive Species NDOW: Conservation Priority; "High" concern in Nevada Upland Game Species Management Plan
Trends	Historical: Significant declines through 20 th century [p1] Recent: Significant declines reported in Nevada [p1], though not reflected in BBS data [i1]
Population Size Estimates	Nevada (NBC): 3,100 (but probably more accurate estimate available from harvest rates - TBD) Nevada (PIF): 840 Global: 160,000 [p5] Percent of Global: < 2 %
Population Objective	TBD
Monitoring Coverage	Source: Nevada Bird Count [other sources TBD from NDOW] Coverage and Adequacy: Fair
Key Conservation Areas	Carson Range and Washoe County montane riparian areas

Natural History Profile

Seasonal Presence in Nevada	Year-round, with significant seasonal movements [W. Quail Management Plan – p1] Forms coveys in winter [p1]
Known Breeding Dates in Nevada	April – July [s4, p3]
Nesting Habits	Nests on ground under dense shrub or tree cover [p1]
Food Requirements	Mainly seeds, fruits, and flowers of forbs; also some insects [p1]

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File: Mountain quail.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

Mountain Quail are patchily distributed in montane areas in western Nevada. The species is known to be native to the Carson Range, but other populations may be the result of undocumented introductions (Nevada Upland Game Species Management Plan, [____]). Regardless, several of Nevada's fragmented populations were likely extirpated since 1940s [p3], and declines have apparently continued through much of the 20th century and after. Mountain Quail are not closely tied to any particular habitat type, but rather are strongly associated with high shrub and forb densities. Steep landscapes, where intact coniferous and deciduous woodlands form a mosaic along with nearby water, probably represent ideal conditions. Degradation of habitat due to heavy livestock grazing is a known threat to the species. The role of fire in Mountain Quail management is complicated; fire may be beneficial by maintaining a landscape mosaic of different seral stages, but large, intense fires may also threaten isolated populations.

ABUNDANCE AND OCCUPANCY BY HABITAT

- 3.6 – 12 individuals / 40 ha across range, but not directly measured in Nevada [p1]

NEVADA-SPECIFIC STUDIES AND ANALYSES

- TBD

MAIN THREATS AND CHALLENGES

- Degradation of Montane Riparian and Montane Shrubland habitats due to [p1]:
 - Livestock grazing

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- Altered fire regimes
- Water developments
- Fuel reduction projects
- Invasive plants

CONSERVATION STRATEGIES

Proscribed Strategies

- As a managed game bird, the Nevada Department of Wildlife has developed detailed conservation priorities for the Mountain Quail in the Nevada Upland Game Species Management Plan (NDOW [____]). Key elements of that strategy include:
 - Improving existing monitoring protocols for Mountain Quail
 - Better inventory and mapping of existing populations
 - Introducing Mountain Quail unoccupied areas of suitable habitat, where appropriate
 - Possibly modifying dates of hunting season to improve winter survival
 - Managing montane riparian habitats to ensure availability of early-successional shrub-dominated habitat, and to maintain a patchy landscape mosaic that includes various successional stages of montane habitats
 - Identifying existing water sources in Mountain Quail habitat that require additional protection or restoration
 - Developing additional artificial water sources where appropriate

Habitat Strategies

- General Montane Riparian and Montane Shrubland conservation strategies
- Preventing heavy livestock grazing
- In general, landscapes that contain a mix of different montane habitat types (both coniferous and deciduous), representing different seral stages with the presence of significant shrub and forb cover, are beneficial for Mountain Quail

Research, Planning, and Monitoring

- More study is needed to better identify suitable fire regimes
- More study is needed to pinpoint the cause(s) of declines

OTHER SPECIES WITH SIMILAR STRATEGIES

- Green-tailed Towhee

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FURTHER READING

- TBD

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