

# Ferruginous Hawk

*Buteo regalis*

## Conservation Profile



Photo by Larry Neel

## Habitat Use Profile

<b>Main Habitats Used in Nevada</b>	Sagebrush Salt Desert Mojave Scrub (winter) Agricultural (winter)
<b>Key Habitat Use Parameters</b>	Most often breeds in shrublands with isolated pinyon pines or junipers available for nesting [EO] Prey availability more important than shrubland composition or structure [p1] Avoids forests, deep canyons, and areas with recent / heavy agricultural activities [p1] In winter, concentrate in areas where prey populations remain active and available [p1]
<b>Minimum Patch Size</b>	Home range 5.9-7.6 km <sup>2</sup> in Utah, Idaho [p1] Across large portion of breeding range, average distance between nests 13.4 km [p1]

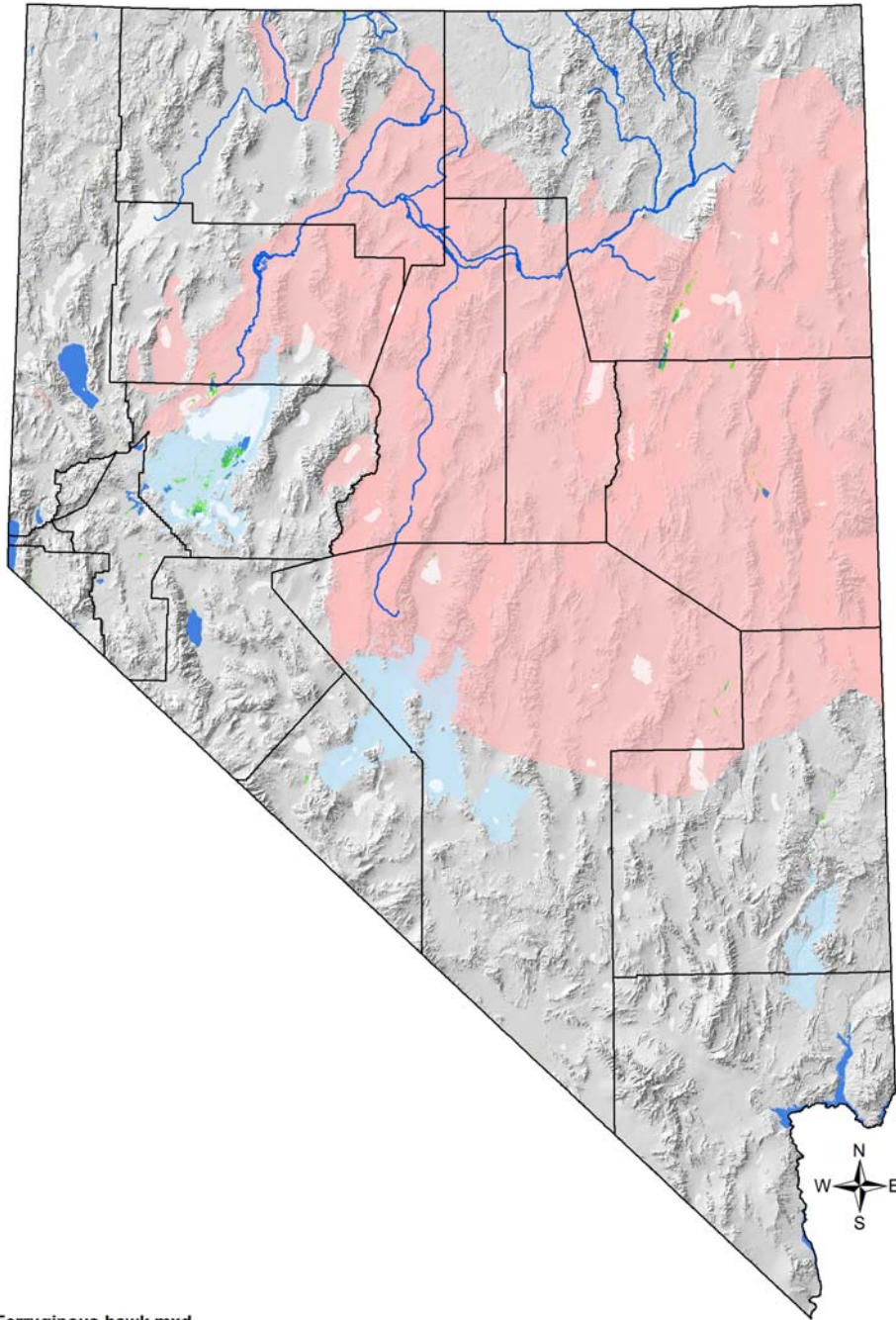
<b>Priority Status</b>	Conservation Target
<b>Reasons for Priority Status</b>	Consensus agency priority within Nevada Possible declines Threats Small population size Moderate stewardship responsibility
<b>Other Rankings</b>	Continental PIF: None Audubon Watchlist: None Natural Heritage: S2 USFWS: Bird of Conservation Concern (Great Basin), Migratory Bird BLM: Sensitive Species NDOW: Conservation Priority
<b>Trends</b>	Historical: Unknown [p1] Recent: Uncertain; reported stable [p3, i1, p8] or probably declining, including in eastern Nevada [p1, p9]
<b>Population Size Estimates</b>	Nevada (NBC): 1,200 Nevada (PIF): 900 Nevada (other): 880 (Herron et al 1985; [p3]) Global: 22,500 [p5]; other estimates considerably lower (6,000 – 11,000, [p1]) Percent of Global: ~ 5 % most likely, but possibly higher
<b>Population Objective</b>	TBD
<b>Monitoring Coverage</b>	Source: NDOW raptor surveys; NBC Coverage and Adequacy: Good
<b>Key Conservation Areas</b>	TBD

## Natural History Profile

<b>Seasonal Presence in Nevada</b>	Spring – summer in central, eastern, northern Nevada Winter in southwestern Nevada [p1, p3] Year-round in southeastern Nevada [p1, p3]
<b>Known Breeding Dates in Nevada</b>	March – August [s4, p1, p3]
<b>Nesting Habits</b>	Nests on isolated trees, cliffs, ledges, poles or on ground [p1] Moderate breeding territory fidelity (P. Bradley, pers. comm..)
<b>Food Requirements</b>	Jackrabbits and cottontails, ground squirrels [p1, p8, EO]

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File: Ferruginous hawk.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

Open, rolling sagebrush country near the Pinyon-Juniper interface appears to be the preferred landscape for breeding Ferruginous Hawks in Nevada. This species is subject to substantial annual variability in numbers and nest success as a function of fluctuating abundance of jackrabbits and cottontails, their preferred prey items. Ferruginous Hawks are known for their extensive post-breeding vagrancy, and they are also a regular wintering raptor throughout Nevada. Based on widespread population declines in the 1980s, Ferruginous Hawks were petitioned for listing under ESA in 1991 [p1] but not subsequently listed. This bird remains a conservation priority among land management agencies in Nevada due to their small numbers and past declines.

### ABUNDANCE AND OCCUPANCY BY HABITAT

- TBD, NBC data insufficient

### NEVADA-SPECIFIC STUDIES AND ANALYSES

- NDOW telemetry data on breeding birds in northeastern Nevada suggest that about 90% of foraging activity occurs within 4 km of an active nest site (P. Bradley, *pers. comm.*).

### MAIN THREATS AND CHALLENGES

- Sensitive to factors negatively affecting prey populations, including invasive plants, habitat degradation, catastrophic fire, or diseases affecting prey species
- More sensitive to nest site disturbances than other *Buteos*, especially during early stages of nesting cycle [p1, p3, p8]. Sources of disturbance may include:

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- Energy development
- Mining exploration and activity
- Residential development
- OHV activity
- Fuels reduction or fuel gathering activities
- Pinyon-Juniper removal

## CONSERVATION STRATEGIES

### Habitat Strategies

- No single umbrella habitat conservation strategy sufficient
- Manage rangelands to promote healthy prey populations
  - Develop and implement fire management plan and priorities to conserve productive sagebrush habitat, especially near the Pinyon-Juniper interface
  - Limit spread of invasive plants
- Pinyon-Juniper management and fuels reduction projects should be designed to maintain a “feathered” ecotone where scattered or isolated trees are present within areas dominated by shrubland

### Research, Planning, and Monitoring

- Continue monitoring to better determine population trends in Nevada, and document important nesting areas and regions
- Where disturbances do occur in proximity to nesting locations, document nesting outcomes to determine necessary buffer areas

### Other

- Through the planning and permitting process, minimize the disturbances listed above near known nesting locations
- Ferruginous Hawks will also use artificial nest platforms [p1], which could be useful in specific management situations

## OTHER PRIORITY SPECIES WITH SIMILAR CONSERVATION STRATEGIES

- TBD

## FURTHER READING

- TBD, HawkWatch stuff

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## 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