

# Swainson's Hawk

*Buteo swainsoni*



Photo by Larry Neel

## Habitat Use Profile

<b>Main Habitats Used in Nevada</b>	Agricultural Lowland Riparian, primarily Great Basin Sagebrush (foraging)
<b>Key Habitat Use Parameters</b>	Open grasslands and meadows, sparse shrublands, and low-growing agricultural lands (especially alfalfa fields) with small woodland patches needed for foraging [p1] Prefers solitary trees or open stands / shelterbelts of old-growth woodland for nesting; old cottonwoods most often used as nest trees in Nevada [s, EO] Dense woodlands largely avoided [p1] Attracted to active flood irrigation and burns that force prey to evacuate area
<b>Minimum Patch Size</b>	Home range size varies with prey abundance; in NE California, 20 pairs/100 km <sup>2</sup> ; in SW Idaho, 0.3 pairs/100 km <sup>2</sup> [p1]; homes ranges of 70 – 8,700 ha also reported [p3] Nests usually spaced at least 1.5 – 2.5 km apart [p1]

## Conservation Profile

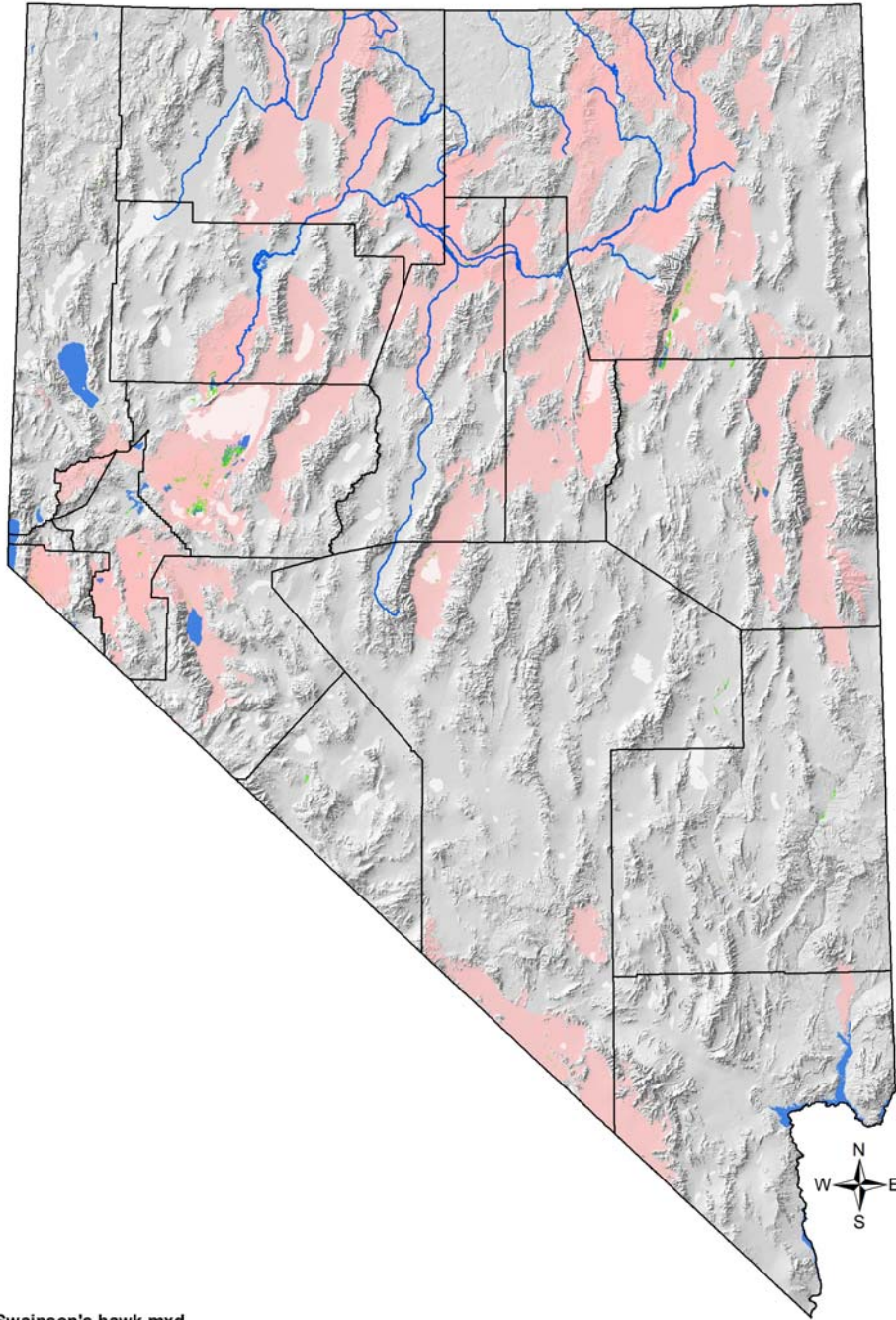
<b>Priority Status</b>	Conservation Target
<b>Reasons for Priority Status</b>	Possible declines Threats
<b>Other Rankings</b>	Continental PIF: Watch List Audubon Watchlist: Yellow Natural Heritage: S2B USFWS: Migratory Bird BLM: Sensitive Species NDOW: Conservation Priority
<b>Trends</b>	Historical: Extirpated in parts of former breeding range, substantial declines elsewhere [p1] Recent: Probable declines in West and/or Nevada [p1,p3, p9], though not reflected in BBS data [i1]
<b>Population Size Estimates</b>	Nevada (NBC): 21,000 Nevada (PIF): 7,700 Nevada (other): < 300 (Herron 1985) Global: 460,000 [p5] Percent of Global: < 1 – 5 %
<b>Population Objective</b>	TBD
<b>Monitoring Coverage</b>	Source: NDOW raptor surveys, Nevada Bird Count Coverage and Adequacy: Good
<b>Key Conservation Areas</b>	TBD

## Natural History Profile

<b>Seasonal Presence in Nevada</b>	Spring – summer
<b>Known Breeding Dates in Nevada</b>	April – August [p1, s4]
<b>Nesting Habits</b>	Builds platform nests on solitary old trees or within small woodland patches; primarily nest in cottonwood, with some overhead cover by foliage [p1] Occasionally builds nest on cliffs or in Juniper trees in Nevada [p3, p9] High fidelity to breeding sites / territories [p1]
<b>Food Requirements</b>	Rodents, rabbits, reptiles during nesting period [p1] Insects, primarily grasshoppers, post-breeding [p1]

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File: Swainson's 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

Several aspects of the Swainson's Hawk's biology are particularly interesting, including their long-distance migrations to wintering grounds in Argentina where they primarily feed on insects, and their relative gregariousness even during the breeding season. Historical and recent declines have been relatively well documented in this species, and threats may occur on the breeding grounds, wintering grounds, and along the migration routes [p1, p9]. In large measure, Swainson's Hawks have adopted agricultural landscapes as their primary breeding habitat in Nevada, and the greatest threat to the species in this state is probably the loss of appropriate nesting trees or groves in areas suitable for foraging. Estimates of Nevada's breeding population are highly variable, and further efforts to determine true population size are needed. Provisionally, the lower population estimates are probably more realistic.

## ABUNDANCE AND OCCUPANCY BY HABITAT

- Typical densities in Nevada < 0.4 pairs km<sup>2</sup> [p2]

## NEVADA-SPECIFIC STUDIES AND ANALYSES

- TBD (Herron refs)

## MAIN THREATS AND CHALLENGES

- Loss of traditional agricultural landscapes, including large trees and tree groves
- Residential development
- Pesticides may be a possible threat where heavily applied

## CONSERVATION STRATEGIES

### **Habitat Strategies**

- General Agricultural and Lowland Riparian habitat conservation strategies

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## Public Outreach

- Using private landowner outreach partnerships as needed, encourage retention of appropriate nesting trees and groves in agricultural lands suitable for nesting Swainson's Hawks

## Research, Planning, and Monitoring

- Continue and expand monitoring efforts to better determine population size and current trends
- Conduct further research on habitat and prey use, including effects of pesticides

## OTHER PRIORITY SPECIES WITH SIMILAR CONSERVATION STRATEGIES

- Bald Eagle

## 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