

Trumpeter Swan

Cygnus buccinator



Photo by Larry Neel

Conservation Profile

Priority Status	Conservation Target
Reasons for Priority Status	Threats Small population size
Other Rankings	Audubon Watchlist: Yellow Natural Heritage: S1b Pacific Flyway Council: High USFWS: Migratory BIRD BLM: None NDOW: None
Trends	Historical: Drastic declines range-wide; extirpated from original range in eastern NV by 1940 [p1, p4] Recent: Steady recovery range-wide since 1950; reintroduced to Ruby Lake in 40's & 50's; small population there persistent [p1, p4]
Population Size Estimates	Nevada: up to 15 breeding pairs [p4]; winter population may be somewhat higher Global: 16,000 [p1] Percent of Global < 1 %
Population Objective	TBD
Monitoring Coverage	Source: Ruby Lake NWR count Coverage and Adequacy: Excellent
Key Conservation Areas	Ruby Lake only established breeding location [p4], also provides winter habitat

Habitat Use Profile

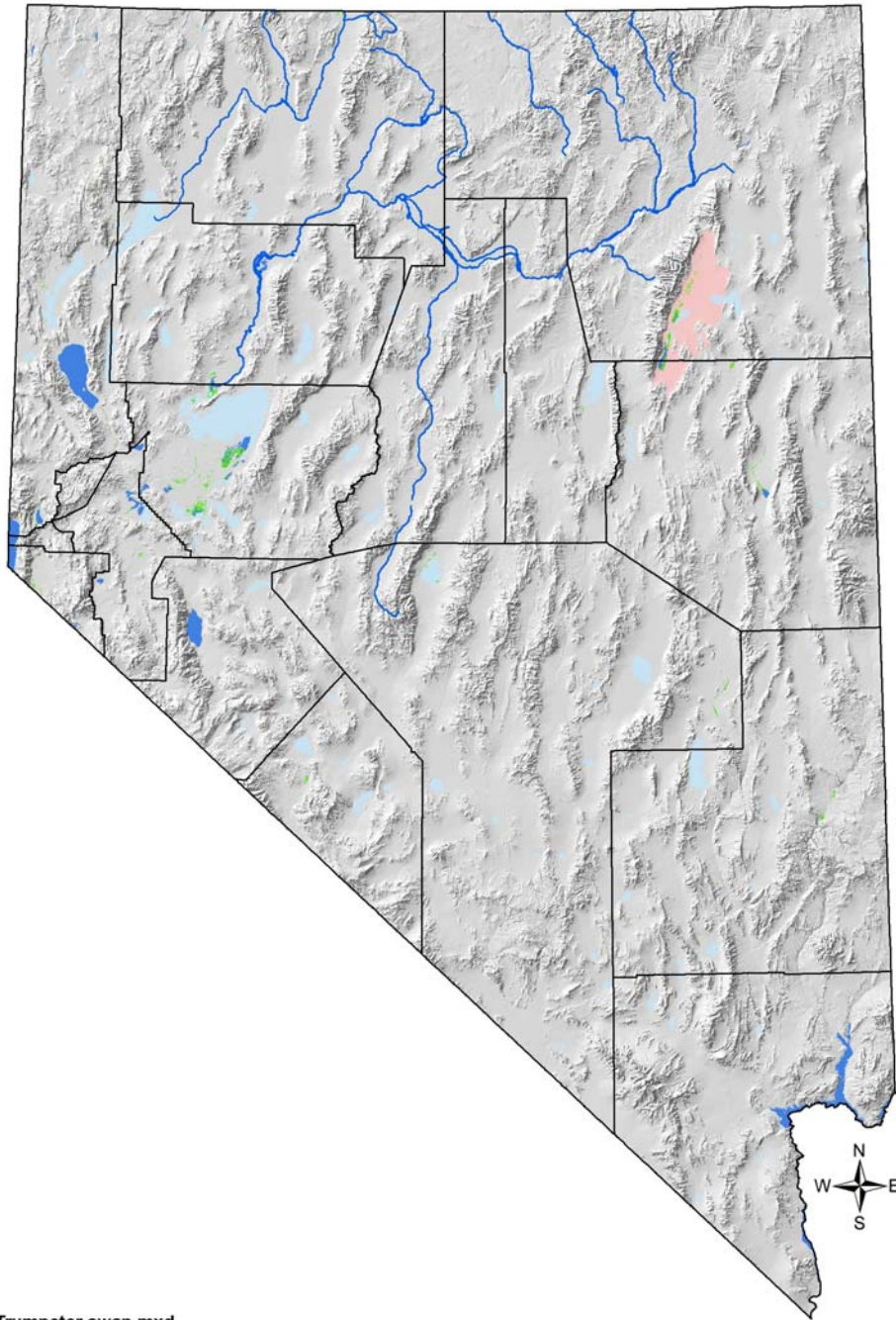
Main Habitats Used in Nevada	Marsh Open Water
Estimated Densities	Up to ~ 15 breeding pairs in Ruby Lake annually [p4, C. Mortimore pers. comm.]
Key Habitat Use Parameters	Marshes with irregular shorelines and aquatic vegetation during breeding season [p1] In winter, shallow ice-free lakes and wetlands with aquatic vegetation [p1] Forages in water depth < 1.3 m in all seasons [p1] High fidelity to breeding territories, nest sites, and wintering location [p1]
Minimum Patch Size	Require > 100m open water surface for takeoff [p1] In winter, need ~ 75% water surface ice-free, [p1]

Natural History Profile

Seasonal Presence in Nevada	Breed regularly in Ruby Lake Most Ruby Lake breeders are sedentary, some may migrate (Engler 1990) Winter residents of Ruby Lake may include migrants
Known Breeding Dates in Nevada	Early May – mid-August [s4]
Nesting Habits	Nests on islands, hummocks, or floating vegetation in permanent, unpolluted wetlands and ponds Water depth surrounding nesting island must be > 0.5 m [p1] High fidelity to breeding sites [p1]
Food Requirements	Submerged and emergent vegetation Cygnet primarily aquatic invertebrates [p1]

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File: Trumpeter swan.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

Nevada's small population of Trumpeter Swans at Ruby Lake is the result of a successful reintroduction of the species in the 1940's – 50's following its earlier extirpation from the state. While persistent, this breeding population is very small and highly disjunct from other breeding populations farther to the north and east. Establishment of breeding flocks elsewhere in the state is possible, but not a current priority for management agencies (C. Mortimore, pers. comm.). There is limited information and speculation that wintering swans are found more widely in Nevada (Ivey 1990), but no definitive confirmation exists.

ABUNDANCE AND OCCUPANCY BY HABITAT

- TBD

NEVADA-SPECIFIC STUDIES AND ANALYSES

- TBD

MAJOR THREATS AND CHALLENGES

- Nevada population is small, disjunct, and probably has abandoned migration (p1, p4]
- Cygnets at Ruby Lake suffer high predation rates (C. Mortimore, pers. comm.)
- Trumpeter Swans are sensitive to water pollution, nest-site disturbances [p1]

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EXISTING MANAGEMENT GUIDELINES

- Ruby Lake NWR management plan and monitoring program
- North American Waterfowl Management Plan

CONSERVATION STRATEGIES

Proscribed Strategies

- Ruby Lake NWR management plan and monitoring program [TBD further]
- Pacific Flyway Council monitors populations

Habitat Strategies

- Most general Marsh and Open Water conservation strategies are already in place in Ruby Lake NWR; implement these more widely if additional breeding populations are found
- Protecting water quality and limiting human disturbance of nest sites appear to be especially important

Research, Planning, and Monitoring

- Continue monitoring of Ruby Lake population by Ruby Lake NWR
- Determine more fully whether Ruby Lake breeders are sedentary or migratory
- Determine whether sites other than Ruby Lake are regularly used by wintering swans

OTHER PRIORITY SPECIES WITH SIMILAR CONSERVATION STRATEGIES

- Tundra Swan
- Northern Pintail
- Lesser Scaup

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)

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[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