

Sandhill Crane

Grus canadensis

Conservation Profile



Photo by Bob Goodman

Priority Status	Conservation Target
Reasons for Priority Status	Threats Small population size
Other Rankings	Continental PIF: None Audubon Watchlist: None Natural Heritage: S3B [check] USFWS: Migratory Bird BLM: Sensitive Species NDOW: Conservation Priority IM West Waterbird: High Concern
Trends	Historical: Historic breeding range contractions [p1, p4] Recent: Stable to increasing [p1, p3, p10]
Population Size Estimates	Nevada: 640 [NDOW, p3] Global: 700,000 [p1] Percent of Global: < 1 % overall; ~ 32% of Lower Colorado River Valley population [LN]
Population Objective	Maintain current breeding population size
Monitoring Coverage	Source: NDOW aerial surveys, NBC, Aquatic Bird Count, refuge counts Coverage and Adequacy: Good
Key Conservation Areas	Ruby Valley Jarbridge region

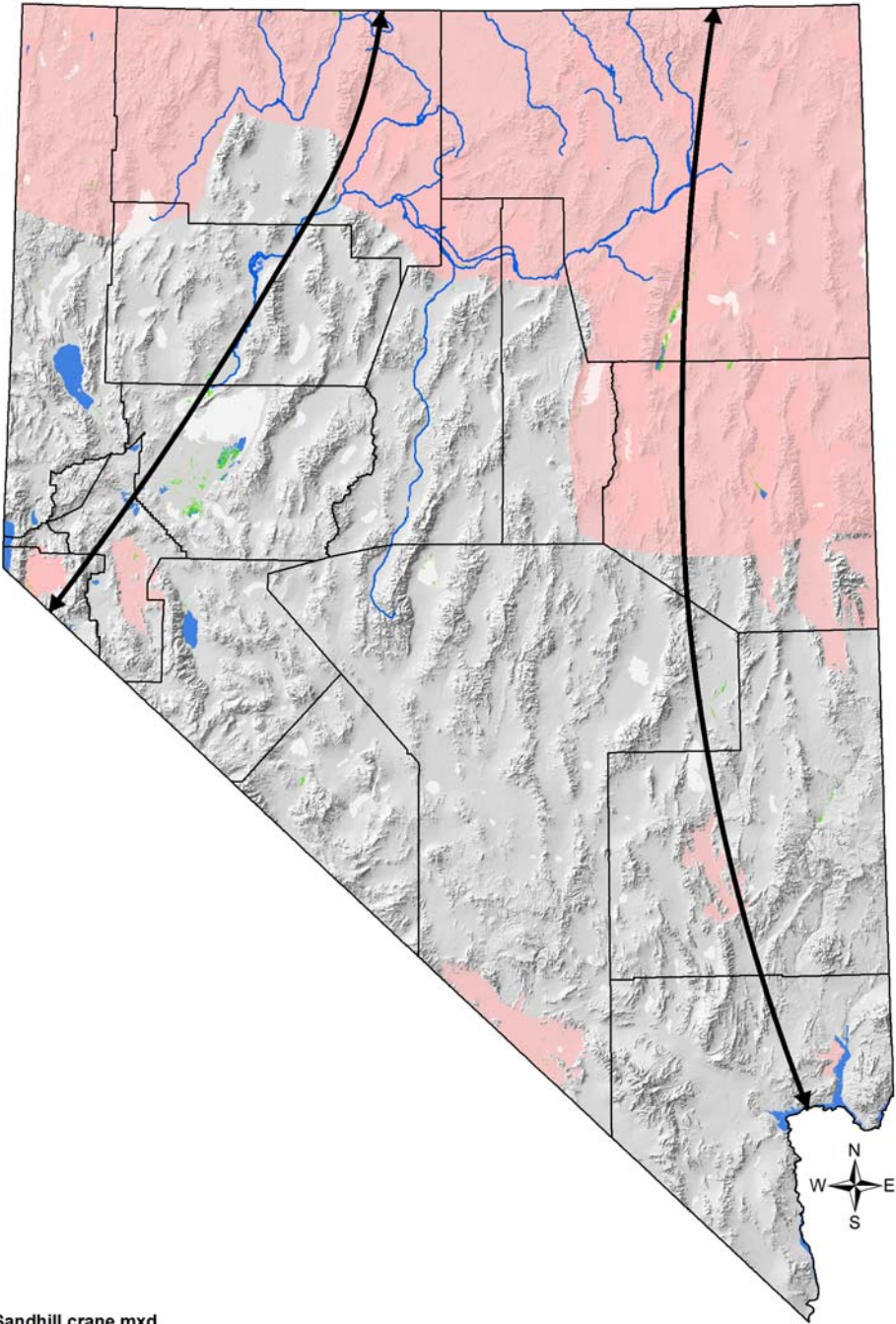
Habitat Use Profile

Main Habitats Used in Nevada	Lowland Riparian, primarily Great Basin Agricultural Wet Meadow Marsh
Key Habitat Use Parameters	Prefers areas with diverse wetland types and structure [p1] Common dominant plant species include sedges, rushes, bulrushes, and saltgrass In agricultural areas, may use fields of alfalfa, other hay plants, or wet pasturelands [p1] Prefers areas with seasonally stable hydrological regimes [p1]
Minimum Patch Size	Average territory size in Idaho 17 ha (CI = 10-23 ha)

Natural History Profile

Seasonal Presence in Nevada	Migration: (Sept – Nov; mid-Feb – early April) [p10] Breeding: Spring – Summer in northern Nevada [p4]
Known Breeding Dates in Nevada	Early May – early August [s4]
Nesting Habits	Nests located in flooded fields or marshes [p1] Nests are placed either over water on attached or floating nests, or on the ground near water's edge [p1] Breeding site fidelity moderate to high [p1]
Food Requirements	Forages on land or in shallow marshes with emergent vegetation [p1] Omnivorous (grains, seeds, roots, tubers, invertebrates, small vertebrates) Obtains subsurface food items by probing or surface food items by gleaning [p1]

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File: Sandhill crane.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 hosts some of the Sandhill Crane’s southernmost breeding populations, which are disjunct from the species’ main breeding range in Canada and Alaska. Nevada birds all belong to the subspecies *G.c. tabida*, the Greater Sandhill Crane. Furthermore, they are part of the “Lower Colorado River Valley (LCRV) population”, which is one of four distinct wintering populations of this subspecies [p1, p3]. Sandhill Cranes nest in flat river valleys and basins, often in areas where there is a mix of agricultural, wetland, riparian, and wet meadows habitats. Cranes are currently doing relatively well in Nevada, and their reliance of privately-owned lands is pronounced. Additional study is needed to determine whether or not conservation threats exist along this bird’s migration routes within Nevada.

ABUNDANCE AND OCCUPANCY BY HABITAT TYPE

From NBC

Sandhill Crane						
	Primary Habitat Type Present at Transect	No. Transects with Sightings	Nevada Bird Count Sightings per 40 ha			
			average	95% confidence interval**	% transects occupied	
Great Basin	Agriculture	1	1.3	n/a	0.33 (1/3)	
	Lowland Riparian	5	1.8	0.4 - 3.1	0.08 (5/66)	
	Salt Desert	n/a	n/a	n/a	0.04 (1/23)	
	Wetland	2	1.3	-4.1 - 6.7	0.07 (2/30)	

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NEVADA-SPECIFIC STUDIES AND ANALYSES

- In addition to the standard aerial surveys, NDOW conducted a Sandhill Crane nesting survey in northeastern Nevada in 2008 (P. Bradley, unpubl. data). This survey tallied 39 nesting pairs, and 45 sub-adults or unmated adults.

MAIN THREATS AND CHALLENGES

- Most Sandhill Cranes in Nevada breed on private lands with no land protection status [p4]
- Early haying or other nest disturbances
- Heavy livestock grazing
- Invasive plants
- Loss of traditional crop agriculture in migration stopover sites [EO]

CONSERVATION STRATEGIES

Habitat Strategies

- General Wet Meadows and Agricultural conservation strategies

Public Outreach

- Work with landowners to defer haying or grazing activity past the breeding season (July 15), where possible
- Encourage the use of flushing bars on harvest equipment
- Encourage traditional agricultural practices in crane nesting areas or important migration stopover areas

Research, Planning, and Monitoring

- In areas of intensive groundwater pumping, monitor effects on wet meadows, wetland, and riparian habitats
- Conduct additional study of migration stopover habitat use, and identification of any associated threats

OTHER PRIORITY SPECIES WITH SIMILAR CONSERVATION STRATEGIES

- Long-billed Curlew
- White-faced Ibis
- Willet

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FURTHER READING

- Rawlings 1988
- Subcommittee on Lower Colorado River Valley Cranes 1995
- TBD with literature review

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