Tundra Swan

Cygnus columbianus

Photo by Fred Petersen

Habitat Use Profile

Habitats Used in Nevada	
Marsh Open Water	
Key Habitat Parameters ●	
Plant Composition	Cattail, bulrush, sedges, sago pondweed; and other aquatic vegetation; agricultural crops
Plant Density	Mostly open water with scattered emergent vegetation; dense aquatic (submerged) vegetation preferred[2, 4]
Mosaic	Mostly open, relatively shallow water, fringed by patches of emergent vegetation[2]
Water Depth	< 100 cm [39 in] for foraging[2]
Water Quality	Tolerates variety of salinities [EO]
Response to Vegetation Removal	Probably neutral for emergent vegetation, but negative for submerged vegetation [EO]
Area Requirements ◑	
Minimum Patch Size	130 ha [320 ac] for migration stopover water bodies[2]
Recommended Patch Size	> 150 ha [370 ac] [EO]
Home Range / Territory Size	Unknown

Conservation Profile

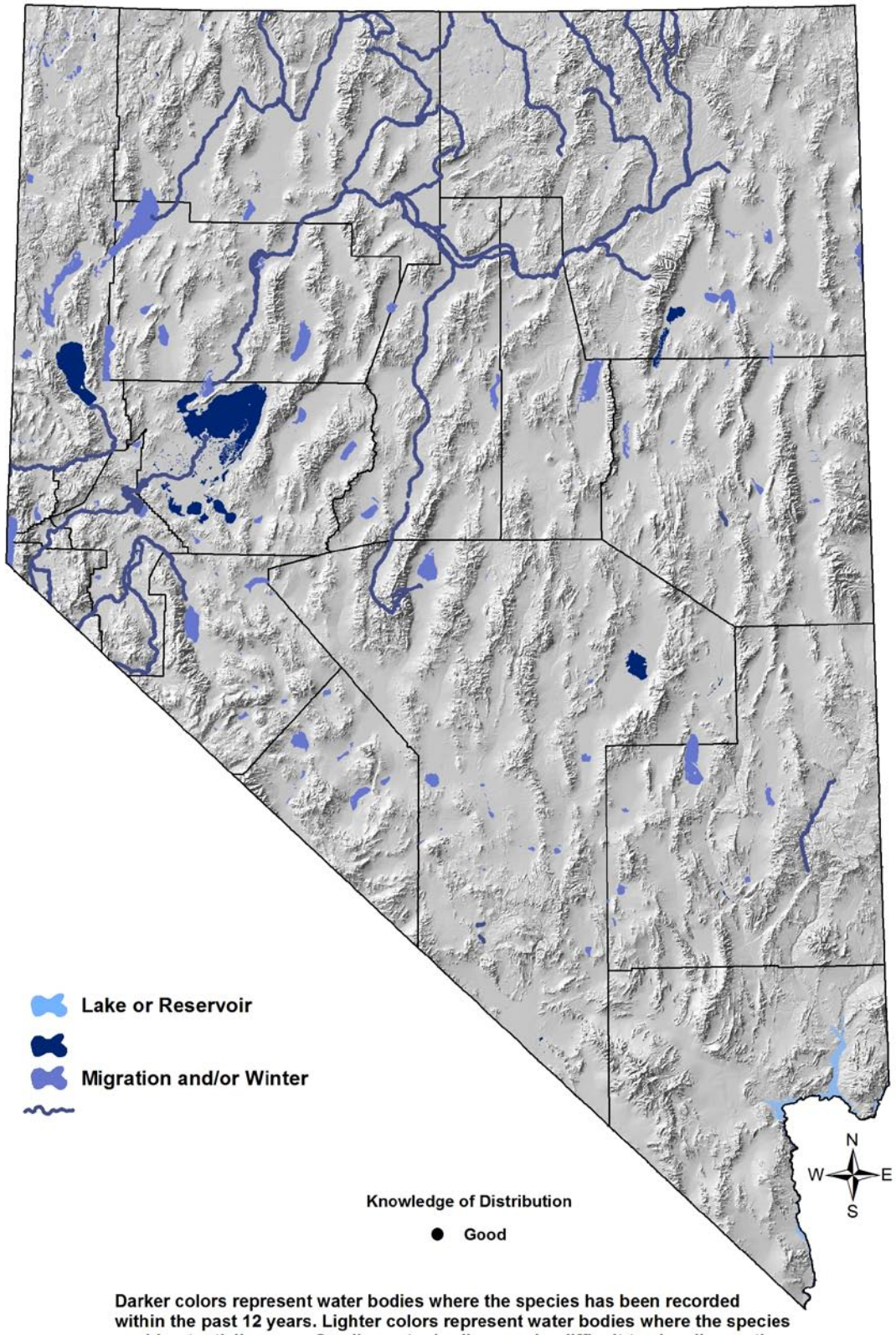
Priority Status	
Conservation Priority Species	
Species Concerns	
Historical declines Habitat threats Moderate stewardship responsibility (wintering)	
Other Rankings	
Continental PIF	None
Audubon Watchlist	None
NV Natural Heritage	None
USFWS	Migratory Bird
BLM	None
USFS	None
NDOW	None; Gamebird
Pacific Flyway Council	High/Medium
Trends	
Historical ●	Rangewide declines[2]
Recent ○	Stable to increasing[2, EO]
Population Size Estimates	
Nevada ◑	1,000 –10,000 (wintering), possibly more[4, EO]
Global ◑	150,000 [2]
Percent of Global	~ 4% of global population; ~ 8% of Western population[2]
Population Objective	
Maintain [EO]	
Monitoring Coverage	
Source	USWFS winter surveys, NDOW aerial surveys, NWR and WMA counts
Coverage in NV	Good
Key Conservation Areas	
Protection	Lahontan Valley, Ruby Valley
Restoration	All open water and marsh complexes

Natural History Profile

Seasonal Presence in Nevada	
Fall – Winter	
Known Breeding Dates in Nevada	
N/A	
Nest and Nesting Habits	
Nest Placement	N/A
Site Fidelity	High for wintering sites[2]
Food Habits	
Basic	Dabbler
Primary Diet	Aquatic and emergent vegetation[2]
Secondary Diet	Agricultural crops, aquatic invertebrates[2]

Tundra Swan

Cygnus columbianus



Darker colors represent water bodies where the species has been recorded within the past 12 years. Lighter colors represent water bodies where the species could potentially occur. Smaller water bodies may be difficult to visualize on the map.

Tundra Swan

Cygnus columbianus

Overview

The Tundra Swan breeds in the Arctic, and occurs in Nevada only through the winter and during migration. The species is divided into a "Western population" and "Eastern population" based on the location of wintering grounds.[2] The western population of Tundra Swans nests in western and northwestern Alaska and winters in the Western United States and coastal British Columbia. The number of swans in the western population has been increasing since the 1950s. Managers intend to maintain a western population of at least 60,000 swans.[3]

Nevada hosts nearly 10% of the Western population's wintering swans. About 35,000 – 40,000 Tundra Swans migrate through the entire Great Basin, which represents about half of the swans using the Pacific Flyway.[1] Variations in weather substantially affect the distribution of swans during fall migration and winter. The abundance of fall and winter water in the west has a marked effect on annual distribution of swans. The distribution of snow- and ice-free habitats also can significantly alter the phenology of migration and winter distribution of swans among Pacific Flyway states.[3] Current management appears sufficient to maintain Nevada's wintering populations, but their water-dependent habitats are potentially subject to a variety of threats that merit further investigation.

Abundance and Occupancy by Habitat

No information

Nevada-Specific Studies and Analyses

No information

Main Threats and Challenges

Habitat Threats

- No threats specific to Tundra Swans were identified, but more general threats to Open Water (p. Hab-15-1) and Marsh (p. Hab-10-1) habitat are potential concerns

Research, Planning, and Monitoring Challenges

- Additional research is needed to determine if significant habitat threats exist
- Emphasis should be directed towards detecting avian cholera and applying methods to minimize losses from this disease.[3]

Tundra Swan

Cygnus columbianus

Conservation Strategies

Established Strategies

- Pacific Flyway Council oversees the monitoring of regional and continental populations, and sets or recommends policies and regulations related to harvest, management, and conservation (http://www.pacificflyway.gov/)[3]

Habitat Strategies

- Open water (p. Hab-15-1) and Marsh (p. Hab-9-1) habitat conservation strategies benefit this species
- Manage wintering and migration habitat to encourage healthy growth of sago pond-weed[4]

Research, Planning, and Monitoring Strategies

- Conduct additional research on Tundra Swan distribution, abundance, and habitat use to better determine the nature and severity of any habitat threats

Public Outreach Strategies

- None identified

References: [1]Kadlec and Smith (1989); [2]Limpert and Earnst (1994); [3]Pacific Flyway Council. (2001); [4](C. Mortimore, *pers. comm.*); [EO] Expert opinion