
Trumpeter Swan

Cygnus buccinator

Aves — Anseriformes — Anatidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide: Apparently secure (G4)
Statewide: Critically imperiled breeding/Imperiled non-breeding (S1B,S2N)
ESA: No status
USFS: Region 1: No status; Region 4: Sensitive
BLM: Regional/State imperiled (Type 3)
IDFG: Game bird

BASIS FOR INCLUSION

Low productivity in Idaho breeding population; regional threats.

TAXONOMY

Trumpeter swans are larger in size than the closely related tundra swan (*C. columbianus*) weighing between 9–13 kg (20–29 lbs). Trumpeter swans lack the typical yellow lore and concave culmen profile of the tundra. Tundra swans winter further south than trumpeters, but the species overlap during migration. Trumpeters can breed with tundra, whooper, mute, and Bewick's swans (Banko and Schorger 1976, Terres 1980). No subspecies recognized (Mitchell 1994).

DISTRIBUTION AND ABUNDANCE

Trumpeter swans found in southeast Idaho are part of the "Tri-State Population." Tri-State birds also are found in southwest Montana and northwest Wyoming. Trumpeter swans in southeast Idaho are found throughout the wetlands and lakes surrounding Island Park and east to the Wyoming line. They also nest at IDFG Wildlife Management Areas located at Market Lake and Sand Creek (L. Hanauska-Brown, IDFG, pers. comm.). The southern most nesting areas are located at Grays Lake National Wildlife Refuge (NWR), Bear Lake NWR (C. Mitchell, USFWS, pers. comm.), and Fort Hall Reservation. Some swans nest as far west as Fairfield, Idaho. There are typically 100 adult birds in southeast and south central Idaho during the breeding season (L. Hanauska-Brown, IDFG, pers. comm.). The population of trumpeters in southeast Idaho swells to 3000 during the winter months after birds from Canada arrive. Birds winter throughout the area concentrating on the Henry's Fork and the South Fork of the Snake River. Bear River is the southern most portion of the Idaho winter habitat. Two hundred cygnets were translocated to the Bear River from 2001 to 2004 in attempts to establish a new wintering population and to ease pressure on the Henry's Fork (L. Hanauska-Brown, IDFG, pers. comm.).

POPULATION TREND

Trumpeter swans were once abundant and widespread throughout North America. By the early 1900s however, the population was nearly extinct with only small flocks remaining in Alaska and remote areas of the Rocky Mountains (Mitchell 1994). Hunting

restrictions and conservation efforts have significantly increased population numbers, however, threats remain (Mitchell 1994). The mid-winter population in southeast Idaho has been steadily and rapidly increasing since the 1990s. Current mid-winter populations in southeast Idaho range from 2500–3000 birds. The majority of this increase comes from the productive Canadian swans that winter in southeast Idaho (Ball et al. 2000). Idaho's local breeding swans are not as productive as the Canadian birds. Fifteen to 25 breeding pairs can be found in southeast Idaho and Fairfield fledging anywhere from 15–40 young. Productivity has remained stable, but variable since the 1990s. There has been no measurable increase in the number of local breeding birds (Shea and Drewien 2003).

HABITAT AND ECOLOGY

Trumpeter swans are predominantly herbivorous, eating submerged and emergent vegetation (Banko 1960). Cygnets in particular also will consume aquatic invertebrates (Banko 1960). Swans need slow, shallow water to effectively reach aquatic vegetation and sediment. Supplemental foods such as grain, potatoes, and corn can be consumed in large quantities when available (Mitchell 1994). Left over potatoes have proven to be an important winter food source in southeast Idaho (L. Hanauska–Brown, IDFG, pers. comm.). Winter habitat must remain ice free and provide adequate forage. Disturbance must be limited as body resources must be conserved for periods of extreme cold and/or freeze up. Concentrations of wintering swans provide watchable wildlife opportunities to Idaho citizens. Nesting swans provide intrinsic value to many of the area's wetlands. Swans nest on islands, muskrat, or beaver houses or exposed hummocks (Banko 1960, Hansen et al. 1971). The nest itself is a mound of vegetation and can reach 3–4 m (9–12 ft) in diameter (Hansen et al. 1971). Average clutch size in Idaho varies from 3–6 eggs (R. Shea, pers. comm.). Cygnet survival is low throughout the Tri-State area (R. Shea, pers. comm.).

ISSUES

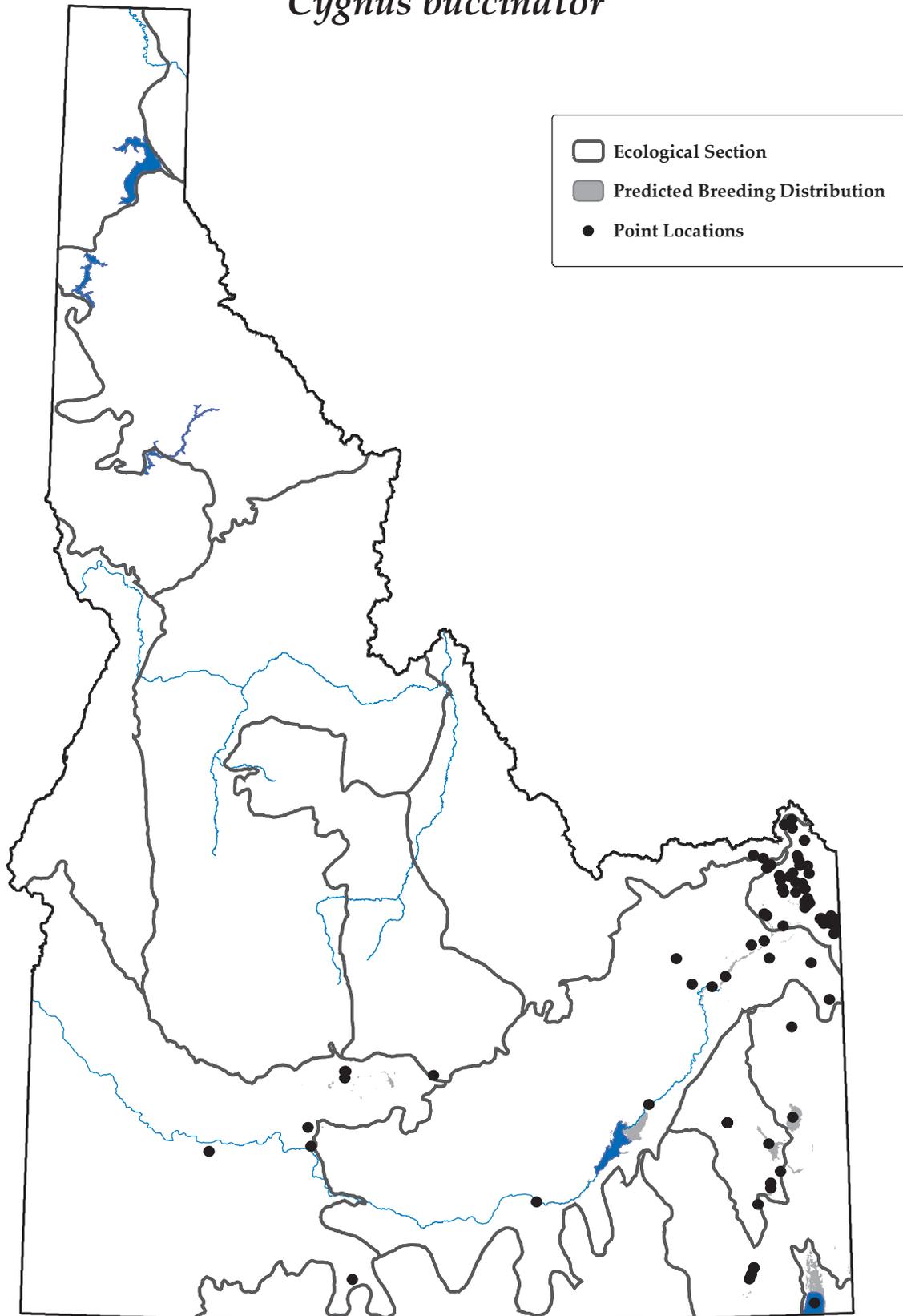
Periodic drought, crowded wintering grounds, and low local productivity threaten Idaho's swan population (Shea 2000). Conflicts in management direction also are challenging. Fisheries management in the world class Henry's Fork challenges swan management as swan overcrowding reduces aquatic vegetation valuable to trout. Periodic drought, as in 2001, can result in low productivity and decrease the suitability of wintering habitat. Supplemental winter feeding as done at Red Rocks Lake NWR until 1992 is counter to the goal of a more natural migratory swan population. Disturbance to swan nesting habitat from fishing, hiking, and off road vehicles threatens overall swan productivity (Mitchell 1994). The loss of nesting habitat to consumptive land uses also is a risk. Power lines over nesting and wintering habitat kills unknown numbers of swans each year and lead poisoning is a risk as swans feed in the sediment layers where lead shot and fishing sinkers are found. To date, the incidence of lead poisoning in Idaho has been low (L. Hanauska–Brown, IDFG, pers. comm.). Poaching has been a problem along the Bear River (M. Wackenhut, IDFG, pers. comm.).

RECOMMENDED ACTIONS

Habitat improvement projects have increased the number of suitable breeding sites within the Caribou–Targhee National Forest by controlling water flow. Habitat improvement projects also are underway at Grays Lake NWR, Bear Lake NWR, and on private lands within the Teton Valley (C. Mitchell, USFWS, pers. comm.). Bird diverters have been placed on power lines in the Teton Valley as well to limit collisions on popular flyways (L. Hanauska–Brown, IDFG, pers. comm.). Investigations into other suitable locations for bird diverters are underway. The translocation of 200 cygnets between 2001 and 2004 has supplemented the wintering population along the Bear River (L. Hanauska–Brown, IDFG, pers. comm.). In addition, the disturbance associated with trapping, the hazing of years past, and altered flow regimes seems to have dispersed birds from the crowded Harriman State Park area (L. Hanauska–Brown, IDFG, pers. comm.). Monitoring of collared birds will continue through 2010 to document winter distribution and habitat use. The IDFG Wildlife Health Laboratory continues to necropsy swans when cause of death is unknown. Investigations into unknown causes of death and illegal shootings are ongoing. Education programs regarding swan identification and swan conservation should continue.

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Map created on September 20, 2005
and prepared by Idaho Conservation Data Center.
Sources: Point data are from Idaho Conservation Data Center,
Idaho Department of Fish and Game (2005). Predicted distribution
is from the Wildlife Habitat Relationships Models (WHR),
A Gap Analysis of Idaho: Final Report. Idaho Cooperative Fish
and Wildlife Research Unit, Moscow, ID (Scott et al. 2002).
Predicted distribution is approximate (for more information, go to
http://www.wildlife.uidaho.edu/idgap/idgap_report.asp).

