Western Grebe
Aechmophorus occidentalis

Aves — Podicipediformes — Podicipedidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide:	Secure (G5)
Statewide:	Imperiled breeding (S2B)
ESA:	No status
USFS:	Region 1: No status; Region 4: No status
BLM:	No status
IDFG:	Protected nongame

BASIS FOR INCLUSION
Low breeding population in Idaho; regional threats.

TAXONOMY
Two subspecies recognized. The nominate *occidentalis* occurs throughout most of the range; the smaller *ephemeralis* breeds on the Mexican plateau. The closely related Clark's grebe was considered a conspecific until 1985, when it was split into a distinct species (Storer and Nuechterlein 1992).

DISTRIBUTION AND ABUNDANCE
Western grebes occur seasonally throughout most of the western half of North America where suitable wetlands occur. Most birds winter along the Pacific coast from British Columbia to Baja California, although some winter records at inland locations of open water have been documented. There are approximately 110,000 individuals in North America (Kushlan et al. 2002), and an estimated 4034 of these breed in Idaho (Ivey and Herziger 2005). In Idaho, this species breeds along the Snake River drainage in the southern and southeastern parts of the state (Trost and Gerstell 1994), at Cascade Reservoir, and at several locations in the Panhandle. More than half of the population breeds at Cascade Reservoir (C. Moulton, IDFG, pers. comm.).

POPULATION TREND
All population trend data available, and presented below, represents information for western and Clark's grebe combined. In the U.S., Breeding Bird Survey (BBS) data indicate no changes or potential slight increases in the U.S. during the period 1966–2004 and 1980–2004, and significant increases (+3.3% per year) during the period 1966–1979 (Sauer et al. 2005). In contrast, BBS data indicate sharp declines in Idaho during the period 1966–2004 (–9.3% per year) and 1980–2004 (–11.8% per year; Sauer et al. 2005). Trend data for Idaho during the period 1966–1979 are not available. However, interpretation of BBS trend data for colonial waterbirds should be done cautiously. Idaho's largest colony on Cascade Reservoir increased three–fold from 1984 to 1994 (Trost 1994). Although overall numbers were similar at this site in 2004, productivity appears to have increased over the last several years, possibly in response to management of the perch fishery.

HABITAT AND ECOLOGY

Western grebes are colonial waterbirds that nest on freshwater lakes or marshes with extensive open water, where they feed primarily on fish (Storer and Nuechterlein 1992). They arrive at Idaho nesting areas in late April to early May. This species is best known for its elaborate courtship displays of rushing across the water's surface. They construct a floating platform nest in emergent vegetation protected from wind and waves (Storer and Nuechterlein 1992). Usually nests are in colonies, where the earliest nests establish the core and subsequent nests radiate outward (Storer and Nuechterlein 1992). Some colonies contain hundreds to thousands of nests. Young leave the nest at hatching on the parents' backs and are raised on the open water. Grebes depart Idaho nesting sites September through October.

ISSUES

Two of the main issues for grebes nesting in Idaho are water quality and water level fluctuations (Trost and Gerstell 1994). For example, nesting at Lake Lowell has become increasingly sporadic as water levels fluctuate drastically and nutrient loads have increased (Trost and Gerstell 1994). Nesting colonies also are sensitive to disturbance by humans approaching the colony on foot or by boat. Adults leave nests approached by humans, exposing eggs to increased risk of depredation by gulls, crows, or ravens (Storer and Nuechterlein 1992). Increased boat traffic through foraging and brood–rearing habitat can elevate chick mortality. Gill nets and oil spills cause mortality on wintering areas (Storer and Nuechterlein 1992). Pesticides have caused localized population declines (Storer and Nuechterlein 1992).

RECOMMENDED ACTIONS

Monitoring water quality and reducing drastic water level fluctuation during the breeding season at key sites is recommended (Ivey and Herziger 2005). However, some water level fluctuation is necessary to provide suitable nesting habitat (40+ cm [16+ in] water depth in emergents; Storer and Nuechterlein 1992). Closing off important breeding areas to recreational activities during the nesting period would help alleviate disturbance pressures. Some of the nests sites at Cascade Reservoir are located within Bureau of Reclamation Wildlife Management Areas, with seasonal closures to protect nesting waterbirds. Nevertheless, increased resort development along the shoreline and its associated increase in recreational boating poses a threat to this population, which should be addressed with a site–specific management plan (D. Evans Mack, IDFG, pers. comm.). Consistent monitoring of existing breeding colonies should be implemented, through the Idaho Bird Inventory and Survey (IBIS) program, such that all colonies are surveyed every 3 years following the monitoring plan outlined in the Intermountain West Waterbird Conservation Plan (Ivey and Herziger 2005).

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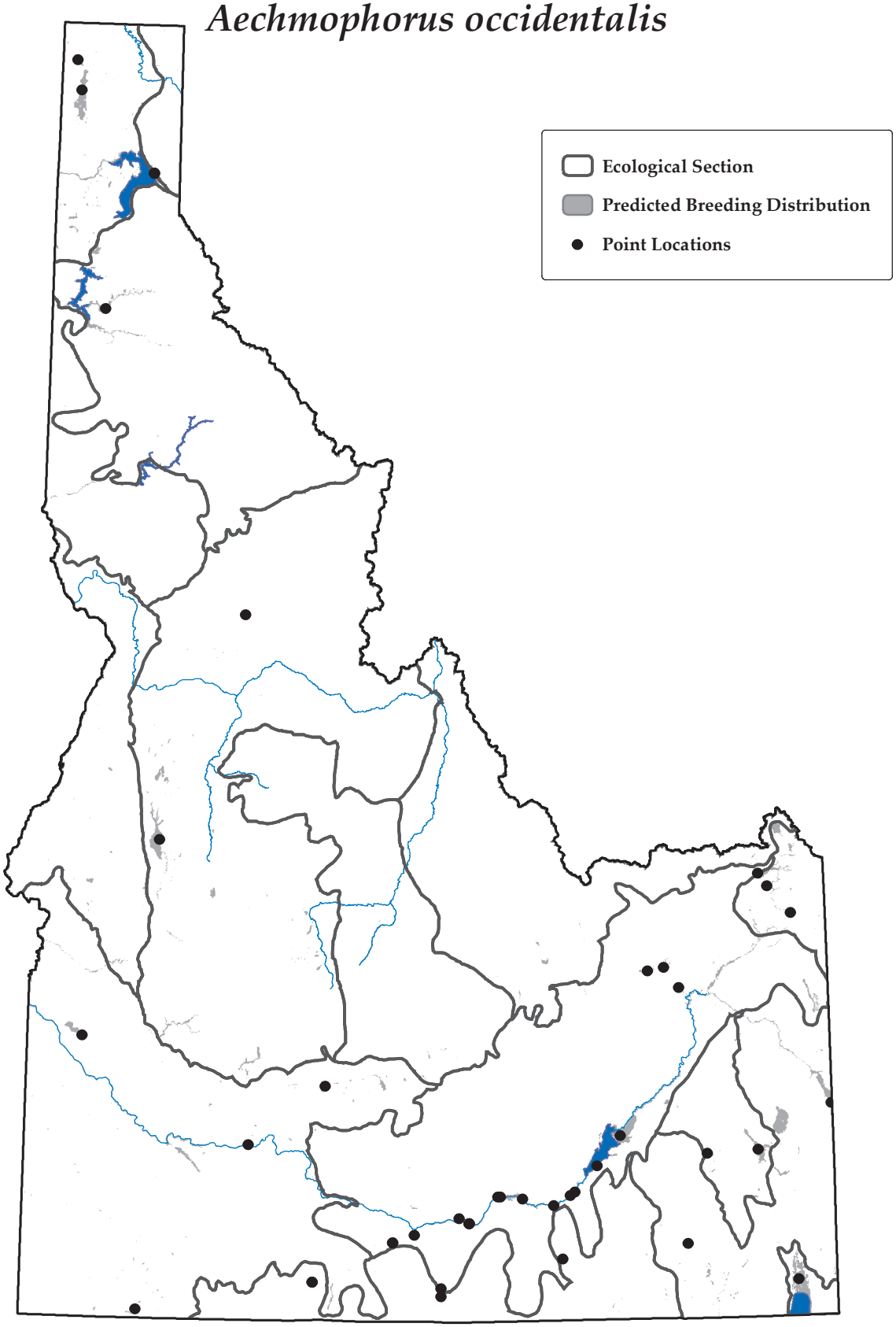

Map created on September 21, 2005
and prepared by Idaho Conservation Data Center.
Sources: Point data are from Idaho Conservation Data Center, Idaho Department of Fish and Game (2005). Predicted distribution is from the Wildlife Habitat Relationships Models (WHR), A Gap Analysis of Idaho: Final Report. 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).

0 20 40 80 Kilometers

0 20 40 80 Miles