

Eared Grebe (*Podiceps nigricollis*)

NMPIF level: Species Conservation Concern, Level 2 (SC2)

NMPIF assessment score: 14

NM stewardship responsibility: Low

NAWCP status: Moderate Concern

New Mexico BCRs: 16, 18

Primary breeding habitat(s): Emergent Wetlands and Lakes

Summary of Concern

Eared Grebe is a widespread and common grebe species, but is vulnerable to habitat disturbance and resource depletion in wintering and breeding areas. Breeding colonies in northern New Mexico may be threatened by drought or irrigation-related changes in water level and quality.

Associated Species

Clark's Grebe (SC2), Western Grebe (BC2), Gadwall, Mallard, American Coot

Distribution

Eared Grebe breeds across much of the interior West and Midwest, from northern British Columbia and Alberta south to northern Arizona and New Mexico, and from eastern Washington and California east to the Dakotas, Nebraska and eastern Colorado. Scattered winter populations occur across a very large area: along the Pacific coast, and from Arizona, New Mexico and Texas south through most of Mexico. However, the large majority of the population winters around islands in the north and central Gulf of California, with additional tens of thousands at the Salton Sea (Cullen et al. 1999).

In New Mexico, Eared Grebes breed consistently at Burford Lake in Rio Arriba County, and locally elsewhere, depending on conditions, in northern portions of the state (Parmeter et al. 2002).

Ecology and Habitat Requirements

Breeding habitat for Eared Grebes consists of shallow lakes and ponds with emergent vegetation and productive macroinvertebrate communities. This colonial breeding species achieves high densities only in larger wetland areas. It prefers locations with extensive areas of open water (Cullen et al. 1999). Breeding density may also be positively associated with phosphorous levels and negatively associated with calcium and turbidity levels. Eared Grebes can nest in sewage lagoons and in highly alkaline water (Boe 1992). Eared Grebe is among the most abundant grebe species in the world, due in part to its ability to exploit food resources of hypersaline lakes in the Great Basin (Jehl 2001).

Breeding in New Mexico takes place primarily in July and August. Nests are built on platforms of dead or live emergent vegetation or aquatic macrophytes, in areas of shallow water that allow free swimming for escape. Earliest nests serve as a nucleus for subsequent colony development. Distance from shore is variable, depending on size of wetland. Typical clutch size is three (Cullen et al. 1999).

Conservation Status

Species Assessment

DISTRIBUTION	3
THREATS	4
GLOBAL POPULATION SIZE	1
LOCAL POPULATION TREND	4
IMPORTANCE OF NEW MEXICO TO BREEDING	2
COMBINED SCORE	14

Eared Grebe is a Species Conservation Concern, Level 2 species for New Mexico, with a total assessment score of 14. This species receives vulnerability scores of 4 from NAWCP for threats to wintering areas, and from NMPIF for local population trend.

Population Size

Almost the entire North American population stages at Mono Lake and the Great Salt Lake, allowing for aerial censusing. NAWCP estimates a North American population of 3.5-4 million, but numbers decrease dramatically during major El Nino events, and subsequently recover (Jehl et al. 2002). Total population for New Mexico is unknown; over 1,000 nesting individuals may be present at Burford Lake (Kushlan et al. 2002, Parmeter et al. 2002). Breeding population size varies year to year depending on conditions.

Population Trend

Eared Grebe is common and widespread, but negative trends have been reported in some areas. There are no demonstrable long-term trends for the overall North American population (Cullen et al. 1999). The local trend score of 4, signifying a moderate decrease in the state breeding population, was assigned by NMPIF expert opinion.

Threats

The main threats to this species may be habitat loss and resource depletion in wintering areas in the Gulf of California. Because of their colonial nature, Eared Grebes are subject to food shortages on wintering and breeding areas, storm-related die-offs, and disease. Quality of New Mexico breeding habitat is variable due to changing water levels and this can be affected by sudden changes in water levels of lakes used primarily for irrigation water storage during July or August. NMPIF assigns a moderate score of 3 for threats to breeding in the state.

Management Issues and Recommendations

NMPIF Recommendations

- Seek to maintain high quality habitat at Burford Lake and other known breeding locations.
- Ensure that breeding colonies are protected from disturbance.
- Work with local irrigation districts on strategies to avoid sudden changes in water levels during the breeding season on lakes where Eared Grebes are nesting.

Species Conservation Objectives

NMPIF Objectives

- Maintain the current breeding population in New Mexico.

Sources of Information

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