# EARED GREBE (*Podiceps nigricollis*) at Mono Lake

## **About Eared Grebes**

The most abundant grebe in the world, the Eared Grebe has four subspecies ranging over western North America, Central America, Eurasia, and Africa. Its common name comes from the golden tufts of plumage it develops behind the eye during breeding season, though its species name, *nigricollis*, means "black neck" in Latin, and in the British Isles the Eared Grebe is known instead as the Black-necked Grebe. It is a sociable grebe that breeds in shallow wetlands in western North America. It occurs in greatest numbers on Mono Lake and the Great Salt Lake in fall, where it doubles its weight in preparation for a nonstop flight to its wintering grounds in the southwestern United States and Mexico.



Alison N. Young Eared Grebe in breeding plumage.

#### **Eared Grebes and Mono Lake**

Approximately 1.6 million Eared Grebes stop at Mono Lake during their migration south. Starting in late summer, the grebes leave their breeding grounds in the northern United States and southern Canada and head for warmer climates in the far southern US and into Mexico. Mono Lake and the Great Salt Lake are staging areas along the migration route where the Eared Grebes stop to eat and molt. The diet of the Eared Grebe consists mainly of aquatic insects and small crustaceans, making Mono Lake the perfect grebe buffet! Eared Grebes feast mainly on the brine shrimp (90% of their diet while at the lake) by using their large tongues to squeeze out the salty water, similar to the way baleen whales strain plankton from the ocean. Brine shrimp also provide all the fresh water the grebes need while at Mono Lake. While feeding at the lake, the Eared Grebes more than double their weight. The pectoral (chest) muscles shrink to the point of flightlessness, the digestive organs grow significantly, and large fat deposits accumulate. Before the grebes can continue on their migration, they need to fast to allow the digestive organs to shrink back to about one-fourth their peak size, and they exercise their wings to allow the flight muscles and heart to grow.

# An Amazing Diving Bird

Eared Grebes are almost entirely aquatic birds, swimming below the surface of the water to find food. It is estimated that the grebes spend as much as 15% of their time under water while at Mono Lake! They have numerous physical adaptations that make them excellent divers. The Eared Grebe's plumage is thickly covered with feathers, which they can compress along with their internal air reservoirs, allowing them to sink easily without diving and to reduce their buoyancy to capture prey and escape predators. Like loons, they have sleek bodies and dense bones for diving plus reduced tails and flattened lower leg bones to cut down on drag. Instead of webbed feet, Eared Grebes have lobed toes like a coot, for propulsion and steering through the water. The legs are situated far back on their bodies, and the wings are small, which aids in propelling the Eared Grebe through the water but makes it difficult to maneuver on land and engage in flight. They must take off and land in water.

# **Fun Facts**

- The loss of flight/weight-gain cycle of the fall staging areas occurs three to six times a year for the Eared Grebe. For up to nine to ten months each year, the species does not fly; this is the longest flightless period of any bird in the world capable of flight.
- Eared Grebes only migrate at night, in large flocks. Because of the length of the staging, their southward fall migration is the latest of any bird species in North America.
- ∉ Eared Grebes are also known as "hell-divers" and "water-witches."
- To adapt to life in the arid west, Eared Grebes are flexible in their distribution, quickly taking advantage of manmade or temporary new bodies of water.
- On cold, sunny mornings, the Eared Grebe sunbathes by facing away from the sun and raising its rump, exposing dark underlying skin to the warm sunlight.
- ✔ An amazing communication occurs between the unhatched chicks and the incubating adults by what's called the "care-soliciting signal": the peeping of the embryo prompts the adult Eared Grebes to turn the eggs more, to build up the nest mound, to bring food to the nest, and to spend more time incubating.
- Once the chicks have hatched, they ride on the backs of their parents for the first week. After about 10 days each adult grebe will take half the brood and part ways.

### **Identifying Characteristics**



*Alison N. Young* Eared Grebe in non-breeding plumage.

Eared Grebes are small waterbirds (12–14 inches in length), with a thin, dark bill, often appearing tilted slightly upward. They have a crest at the top of their head not always visible during molting and winter plumage, and red eyes. On the

water, the rump is raised well above the surface. During the breeding season, Eared Grebes have black backs and reddish underparts. Their head and neck are also black with a yellow spray of feathers radiating from the eye and across the check. While at Mono Lake, Eared Grebes are in their non-breeding plumage, which is dark above with a light gravwhite belly and gray neck. The top half of their head is dark, with a white chin and throat and some white extending up as a crescent behind the eye. The voice of the Eared Grebe is varied: a soft, frog-like *poo-eek-chk* in courtship; a squeaky, rising, whistled *ooEEK* on the breeding grounds; the alarm call is a single sharp chirp.

### Eared Grebe (Podiceps nigricollis) Sources

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