# BIRD OF THE MONTH At Mono Lake



#### WATERFOWL (Anatid spp.): (tag line)

Waterfowl at Mono Lake ... While Mono Lake supports a few breeding waterfowl, including Mallard, Gadwall, and Canada Goose, its greatest importance to waterfowl comes during their southward migration every fall. Beginning in September, thousands of ducks, including Ruddy Duck, Cinnamon Teal, Green-winged Teal, Mallard, Northern Pintail, Gadwall, and American Widgeon, come to Mono Lake to rest and store fat for their migration. Shoreline wetlands and creek deltas provide shelter and freshwater in close proximity to the great food resources of Mono Lake—brine shrimp by the trillions and alkali flies by the millions. But today's thousands of ducks are a mere shadow of the estimated 1 million waterfowl which historically stopped at the lake each fall.

**About wetlands at Mono Lake ...** Several types of wetland habitats can occur in a wide variety of situations around the lake. At a number of points around the lake, springs create marsh or meadow habitats as they flow

toward the lake. Creek deltas support ponds and marshlands, and the large input of water creates a layer of fresh water on top of the salty lake water where waterfowl can easily forage for shrimp and flies without venturing too far into Mono's saline depths. Shoreline depressions create brackish lagoons with the rising and falling of the lake.

Threats to the health of Mono's wetlands ... In 1941, the City of Los Angeles began diverting the water from four of Mono Lake's five major tributary streams. By 1982 the lake had dropped 45 vertical feet, doubling its salinity. One of the most visible effects of this drop in lake level was the stranding and subsequent drying of large lagoon areas around the lake. With the creeks dry most years, the creekside plants died off, and the absence of healthy vegetation to anchor stream banks allowed occasional floods to cut the stream channels down below their historic levels. The dry creeks meant less freshwater for the lake, and the incised channels left ponds and marshland high and dry. This was particularly true for the Rush Creek delta and the open water surrounding it, which historically supported about 45% of the million waterfowl that stopped at the lake.

Mono Lake: once and future bastion of a habitat in decline... Wetland habitats like those supported by Mono Lake are critical for the survival of waterfowl species. Waterfowl populations in California's Central Valley have declined 40-60% since the mid-60's, while populations at Mono Lake have declined 97%, suggesting that the decrease in waterfowl visiting Mono Lake over the last 60 years is due both to the widespread loss of waterfowl habitat, and to the great loss of habitat specifically at Mono. As a historically significant migration staging ground, it is important that Mono be restored as much as possible to help stem the tide of waterfowl decline.

Where we stand today ... Thankfully, in 1994 the California State Water Resources Control Board mandated that Los Angeles raise Mono's water level, and work to restore the wetland resources which once graced Mono Lake. The re-watering of old stream channels and creek deltas promises to restore some of the historic marsh habitats, while the rising lake will begin to recreate brackish lagoons on the east and south sides of the lake and ponds at the creek deltas. A few ponds have been restored on the north side of the lake to help make up for lost freshwater marsh. These efforts have led to increased wetland extent and quality, and today the lake supports 10,000-15,000 migrating waterfowl annually. But human efforts can never completely repair the damage that was done to creek channels and deltas. Only Mother Nature can heal those wounds—in time beyond the scale of human generations. Information visit www.monolake.org



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### **Interesting Tidbits**

Most ducks seem to tolerate the alkaline and saline waters of Mono Lake fairly well by spending time the areas of freshwater near creek deltas and spring-fed marshes. Gadwalls breeding at Mono Lake, however, often develop a foot rot that makes holes in the webbing between their toes. It is especially prevalent in young birds.

Traditional models of waterfowl migration have shown them moving within four North-South flyways (Atlantic, Mississippi, Central, and Pacific) with little cross-over between, but recent studies have shown much more variability, with some waterfowl moving as much East-West as North-South.

More than half of the wetlands that existed in what would be the United States when Europeans arrived in the Americas have been drained, filled in, or otherwise destroyed. Most of those that remain are under constant threat. The waterfowl we love to see will only remain as long as these wetlands are protected.

#### WHERE TO SEE WATERFOWL AT MONO LAKE & WHAT TO LOOK FOR

Mallard, Gadwall, Ruddy Duck, and Canada Goose can be found reliably throughout the summer at Mono Lake. Throughout the summer and during the fall migration, a great place to see these and other waterfowl is at Mono County Park, 5 miles north of Lee Vining. A boardwalk leads down to the lakeshore over wet meadow and marsh, where ducks can be seen along with other marsh birds like rails and snipe. The mudflats along the shore are a likely place for preening and resting ducks and geese.

The ducks that use Mono Lake are of several types. Some are "dabblers," searching for food with their tails turned up in the air and their heads underwater. Others are divers, venturing deeper into Mono's briny waters in search of shrimp and other invertebrates. They vary in color from brilliant male Mallards, with their bright green heads and chestnut breasts, to the more subtly elegant Gadwall, with his gray body, white wing patch, and reddish-brown breeding plumes.



