

# Yuma Clapper Rail

BY TERRY B. JOHNSON • ILLUSTRATION BY ZACKERY ZDINAK

**Scientific Name:** *Rallus longirostris yumanensis*. From the Latin *rallus*, meaning rail; *longirostris*, meaning long nosed; and *yumanensis*, referring to Yuma, Arizona, where the specimen used to describe the species in 1921 was collected.

**Description:** Overall length 14-15 inches, gangly legs included. Stands 8-9 inches tall. Weight 8-10 ounces. Slightly down-curved bill, short, rounded wings, short tail, and chicken-like posture.

**Distribution:** Year-round resident in Arizona along the lower Colorado River and its tributaries from below Lake Mead to Mexico, including the Bill Williams River and the Gila and Salt rivers upstream to the Verde River. Also reported at Picacho Reservoir, Tavasci Marsh, and other outlier Arizona localities. Significant populations also occur around the Salton Sea in southeastern California and in Mexico at the Cienega de Santa Clara and scattered locations along the Colorado River and the Gulf of California coast south to Nayarit.

**Habitat:** Dense brackish- and fresh-water marshes of reeds, bulrushes, and cattails associated with mudflats and sandbars. Stable water level is crucial. Most frequent in thickly vegetated narrow sloughs and backwaters, generally below 1,500 feet elevation.

**Biology:** Yuma clappers haunt thick emergent marshland vegetation, seldom far from the water's edge. Their distinctive call, the source of the species' common name, is heard more often than they are seen. They swim well but fly poorly. They forage for crayfish, clams, frogs, fish, and other small animals. Like other rails, they are highly territorial while breeding, establishing territories in March-April and

constructing well-concealed nests on platforms of thick vegetation. Average clutch: 6-8 eggs, incubated for 21-23 days. Hatching: April-July. The precocial young leave the nest within 48 hours of hatching, become independent at 35-42 days, and can fly at 60-70 days.

More Yuma clappers are permanent residents of marshes in the United States than was believed in the 1960s to early 1980s, when the Arizona Game and Fish Department's first nongame biologist, Richard E. Todd, conducted work that led to his 1986 report, *A saltwater marsh hen in Arizona: a history of the Yuma clapper rail (Rallus longirostris yumanensis)*. Studies in the late 1980s at Mitty Lake and Topock Marsh, using radiotelemetry, showed that at least 70 percent of the population did not migrate in winter. The extent of movement between the United States and Mexico is unknown, but is likely important.

**Status:** A Species of Special Concern in Arizona. Listed in 1967 by the U.S. Fish and Wildlife Service as endangered, but critical habitat has not been designated. In the 1960s and 1970s, the United States population was believed to be 900-1,000 birds, but annual spring surveys in 1990-2000 ranged from 1,076 (1993) to 467 (2003). The 1990-2003 surveys used standard protocols, but weather conditions and survey effort varied from year to year.

**Management Needs:** Yuma clapper rail population status depends on maintenance of its habitats. Relatively stable water levels are crucial during breeding to avoid flooding nests or drying territories. Major

factors in endangerment were stream channelization, dredging, mosquito abatement, erosion control, and elimination of marshes. River and fire management programs must consider its habitat needs, if it is to be recovered. Pesticides are a concern, due to impacts on prey and the rail. Heavy metals such as selenium are also threats and require additional investigation to determine the extent and source of the problem and possible remedies. A rangewide status survey is needed, as is study of movements between the United States and Mexico. Annual population surveys should be continued, with standardization of effort. 🦶

**Note:** *The Yuma clapper is the only federally listed species for which an Arizona Game and Fish Commissioner, Herb Guenther, has served on a recovery team. Guenther graduated from Arizona State University in 1971, with a degree in wildlife biology, and was on the team long before serving as a commissioner in 1994-1999. He has also been an Arizona legislator (House and Senate), and is now director of the Arizona Department of Water Resources.*

