

YUMA CLAPPER RAIL

Rallus longirostris yumanensis

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Management Status: Federal: Endangered
California: Threatened (CDFG, 1998)

General Distribution:

The Clapper Rail is largely a coastal species, although one subspecies, the Yuma Clapper Rail, does occur inland in the southwestern United States. On the Pacific Coast, the Clapper Rail occurs from San Francisco Bay in central California south to Magdalena Bay in central Baja California. It is found throughout the Gulf of California south to La Paz, Baja California Sur, on the west side and Nayarit, Mexico, on the east side. Part of this population extends northward (mostly in summer) into the interior in the Lower Colorado River Valley and around the Salton Sea. On the Atlantic Coast, this species occurs from Connecticut south through Florida, westward along the Gulf of Mexico to Texas and south through the Yucatan Peninsula and scattered islands in the Caribbean Sea to Peru and Brazil (AOU, 1998).

Distribution in the West Mojave Planning Area:

In the United States, the Yuma Clapper Rail is found only along the Lower Colorado River (from Topock Marsh southward) and around the Salton Sea. There are two records of the Yuma Clapper Rail for the West Mojave: calling birds were present 4-7 June 1977 at Harper (Dry) Lake (San Bernardino County; Henderson, 1977), and 17 May 1978 at East Cronese Lake (San Bernardino County; Garrett and Dunn, 1981). In addition, one was photographed 31 May 1992 just outside the southeastern boundary of the WMPA at Lake Tamarisk, Desert Center (Riverside County; *Am. Birds* 46:480 and 501, 1992). This bird was fairly brightly-colored, and was perhaps a Light-footed Clapper Rail (*R. l. brevipes*), an Endangered subspecies found along the coasts of southern California and Baja California.

Natural History:

The Clapper Rail is the largest rail in western North America. Although it is superficially similar to the more numerous Virginia Rail (*R. limicola*) in having a long neck and a long, orange-toned, decurved bill, it differs from that species in being grayer in overall plumage and in being substantially larger. The Yuma Clapper Rail differs from the Light-footed Clapper Rail in being less richly-colored in plumage (it is paler, with more olive and gray tones) and in having a more slender bill (Dickey, 1923). The Clapper Rail gives a loud, sharp call consisting of a series of "kek" or "clack" notes that are strung together in a cackling fashion. Their calls have an odd ventriloquial quality, and calls of single birds often sound as if multiple birds are calling (Grinnell et al., 1918).

Yuma Clapper Rails breed from March through July. They build their nest on a platform of vegetation raised 3-6 in. (7-15 cm) above the ground and concealed in dense marsh vegetation (Grinnell et al., 1918). Like most rails, this species lays a remarkably variable number of eggs: the typical clutch size is 8-10 eggs, but clutches can range from 5-14 eggs (Bent, 1926). In

marshes along the Colorado River, the Yuma Clapper Rail feeds primarily on crayfish (*Procambarus* spp., *Oropectes* spp.; Ohmart and Tomlinson, 1977). Similar crustaceans are taken at the Salton Sea, and the abundance of animals may be a better predictor of rail population densities than is vegetation (Anderson and Ohmart, 1985). This subspecies is partially migratory, with many birds wintering in brackish marshes along the Gulf of California (Banks and Tomlinson, 1974). Some remain on their breeding grounds throughout the year; for example, the Salton Sea (south) Christmas Bird Count frequently records this species in the fresh-water marshes in and around the Imperial Wildlife Area (Wister Unit).

Habitat Requirements:

The Clapper Rail is generally associated with tidal marshes; however, the Yuma Clapper Rail is unique among the Clapper Rails in being the only one that occupies fresh-water marshes during the breeding seasons yet largely winters in brackish marshes south of the United States (Anderson and Ohmart, 1985). This subspecies breeds in heavily-vegetated fresh-water marshes with cover ranging from moderately dense stands of *Typha domingensis* (cattail) and *Scirpus* spp. (bulrush) along the Colorado River (Smith, 1975; Anderson and Ohmart, 1985) to dense, near-monotypic stands of *Typha* at the Salton Sea (Bennett and Ohmart, 1978). Vegetation density is a more significant factor than the species composition, as some rails occur even in areas supporting dense stands of *Phragmites australis* (reed; Anderson and Ohmart, 1985).

Harper (Dry) Lake provides the only suitable Yuma Clapper Rail habitat in the WMPA, but despite follow-up surveys (LeValley, 1978) and extensive ornithological effort in this area by Eugene A. Cardiff and colleagues since the late 1970s, the 1977 record remains the only one for this location. Presumably because of increased pumping of ground water for irrigation of surrounding alfalfa farms, the water table has now been lowered enough at Harper (Dry) Lake that the once extensive marsh is now mostly dry (as of 1997). Marginally suitable marsh habitat occurs at China Lake (Kern County) and at the Piute Ponds (Los Angeles County) but the Yuma Clapper Rail is unlikely to colonize either location because are far from range of the subspecies.

Population Status:

Hydroelectric dams along the Colorado River have destroyed much of the native riparian forest, but have apparently increased the amount of marsh habitat (Ohmart et al., 1975). Population numbers of the Yuma Clapper Rail along the Lower Colorado River may have increased, expanding its range northward in response to the increase in available habitat (Anderson and Ohmart, 1985). As of the early 1980s, an estimated 750 individuals occupied the Lower Colorado River north of the Mexico border (Anderson and Ohmart, 1985). A recent genetic analysis showed that this subspecies is outbred (Fleischer et al., 1995); thus, unlike in the closely-related Light-footed Clapper Rail, population numbers of the Yuma Clapper Rail have not become so low as to reduce genetic diversity. This rail currently does not occur within the WMPA, and no historical populations are known from within its boundaries.

Threats Analysis:

Coastal populations of Clapper Rails experience predation pressure from some non-native species such as the Red Fox (*Vulpes vulpes*; Zembal, 1993); however, predation effects on the Yuma Clapper Rail are unknown. Draining and alteration of fresh-water marsh habitat is probably

the most serious threat to the Yuma Clapper Rail, and to other rail species that occur in southern California, but information is lacking in this regard.

Biological Standards:

Because the Yuma Clapper Rail is not a component of the wildlife within the WMPA, management of habitat for it within the WMPA will not effect this subspecies. Maintenance of rail habitat at Harper (Dry) Lake is important, however, as this site formerly supported a healthy population of the Virginia Rail (Henderson 1977; LeValley, 1978), and, given the 1977 record, could potentially provide habitat for the Yuma Clapper Rail in the future. Habitat at this site could be maintained or improved by ensuring that a perennial source of water exists for the marsh.

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