

FIVE-YEAR STATUS REPORT

I. COMMON NAME: California Black Rail
SCIENTIFIC NAME: Laterallus jamaicensis coturniculus
CURRENT CLASSIFICATION: Threatened

II. RECOMMENDED ACTION:

Retain Threatened classification

III. SUMMARY OF REASONS FOR RECOMMENDED ACTION:

Retention of the Threatened classification for the California Black Rail (CBR) is warranted, based on the current knowledge of continuing habitat loss and degradation within the known range and based on the need for knowledge of current distribution, population status, breeding biology, and life history requirements. In addition, the isolated and restricted nature of known populations (lower Colorado River, Salton Sea, and San Francisco Bay/Delta) makes the CBR vulnerable to environmental catastrophes.

IV. NATURE AND DEGREE OF THREAT:

The major threat to the continued existence of the CBR in California has been, and currently is, the loss or degradation of its wetland habitat. This is the case in both northern and southern California. The CBR had been in a precarious position along the lower Colorado River prior to the flooding which began in 1983, due to alteration, degradation, and destruction of marsh habitat. The severe flooding of 1983, and the high water flows of 1983, 1984, 1985, and 1986 have inundated marshes, gouged a deeper channel, and altered the course of the river in many areas. This has resulted in a continued degradation of habitat. W. Eddleman (pers. commun.) believes that there may no longer be significant numbers of the CBR above Imperial Dam, the stretch of the river along which most CBR's occurred in the early to mid-1970's. In coastal southern California and in the San Francisco Bay complex of marshes, CBR habitat continues to be lost to filling, subsidence, changes in salinity, and sedimentation. Habitat in the great Delta of the Sacramento and San Joaquin rivers is threatened by decreasing water quality, flooding, and levee maintenance activities. The effects of pesticides on the CBR, as well as on its food supply, in the Delta and San Francisco Bay and in the Imperial Valley are unknown.

In the San Francisco Bay area, the lack of high marsh vegetation as escape cover and nesting habitat in most wetlands surely contributes to an abnormally high rate of predation on the CBR by raptors and ardeids

(herons and their relatives) during extremely high tides (Evens and Page 1986), and to the flooding of nests during such tides. The rising sea level will continue to reduce the extent of tidal marshes in the Bay. In addition, the possibility of increased salinity in the north Bay (due to increased diversion of freshwater flow through the Delta) is cause for concern.

V. HISTORIC AND CURRENT DISTRIBUTION:

The CBR historically was known or thought to occur as a breeder from the San Francisco Bay area (including the Sacramento/San Joaquin Delta) south along the coast to northern Baja California, in the San Bernardino/Riverside area, at the Salton Sea, and along the lower Colorado River north of Yuma in California and Arizona. The coastal populations included ones at Morro Bay and San Diego. Wintering birds were found in the breeding areas and were also found at Tomales Bay. Although there is no typical rail habitat on the Farallon Islands, the CBR has been found there. In fact, the first known specimen came from the Farallons and was known for a time as the Farallon Rail (Wilbur 1974). The Farallon birds may have been dispersing juveniles.

The current distribution, as it is known, of the CBR differs from the historic known range; the breeding range has contracted with the loss of wetlands. The CBR is probably absent as a breeder from coastal southern California and from south San Francisco Bay. It evidently breeds yet at Morro Bay, but its status as a breeder in the Riverside area is unknown. Evens *et al.* (1986) found at least seven territorial birds at Tomales Bay during the breeding season in 1986. These workers also have breeding season records for Bolinas Lagoon, Corte Madera Marsh, Gallinas Creek, Novato Creek, Day Island, Green Point, Midshipman Point, Ryer Island, Roe Island, and San Pablo Creek Marsh. Breeding also has been confirmed in the marshes at China Camp, Black John Slough, Petaluma River, and Sonoma Creek.

VI. HISTORIC AND CURRENT ABUNDANCE:

There is little information on historic abundance, in terms of numbers of CBR's per geographic region. Several studies (including Manolis 1978, Repking and Ohmart 1977, and Evens *et al.* 1986) have documented numbers at individual marshes within the San Francisco Bay/Delta region and the lower Colorado River region. There is some current information on the abundance of the CBR on a regional basis. The major breeding population appears to be in the north San Francisco Bay, marshes of which support at least 3300 CBR's (Evens *et al.* 1986). J. Evens (pers. commun.) believes it is likely that the Petaluma River marsh supports the bulk of the remaining breeding population of the CBR in California.

VII. SPECIES DESCRIPTION AND BIOLOGY:

The CBR is a member of the avian Family Rallidae, which includes rails, gallinules, and coots. The CBR is one of two subspecies of the Black Rail, which also breeds in Kansas and along the Atlantic coast from New

York south to Florida, on the Gulf coast in eastern Texas, and in Central and South America. The Black Rail winters in California, along the Gulf coast and in the Latin American breeding range. It is a bird of "[s]alt marshes, less frequently in wet savanna and fresh-water marshes" (Amer. Ornithol. Union 1983).

The CBR is a tiny blackish rail, about the size of a sparrow, with a small black bill, a back speckled with white, and a nape of deep chestnut. The sexes are apparently similar in appearance, and juveniles apparently differ by having a less distinctive pattern (Wilbur 1974).

The nest of the CBR is described as "loosely made but deeply cupped and almost always completely concealed by surrounding vegetation" (Wilbur 1974, citing other sources). Thirty-one CBR egg collections in museums contain from three to eight eggs.

Little is known about CBR food habits, but apparently the CBR feeds on arthropods. Information on food habits is being obtained (via fecal samples) in a current study on the lower Colorado River.

VIII. HABITAT REQUIREMENTS:

Although the CBR was first described as a bird of coastal salt marshes, it is now known to inhabit saltwater, brackish, and freshwater marshes. In California, the San Francisco Bay/Delta region has all three types of marshes, and the lower Colorado River/Imperial Valley region has brackish (around the Salton Sea) and freshwater marshes. Vegetation of CBR marshes varies from almost pure pickleweed (Salicornia sp.) to sedges (Carex sp.) and saltgrass (Distichlis sp.) to bulrush (Scirpus sp.) and cattails (Typha sp.). The types of bulrush frequented by the CBR are low-growing forms. In San Francisco Bay marshes the presence of the CBR is associated with relatively high values for vegetation height, Frankenia (alkali-heath) abundance, and insect abundance, but with low values of amphipod abundance (Evens et al. 1986).

Manolis (1978) believed that the lack of high marsh habitat around San Francisco Bay might account for the apparently low population status for the CBR in that area. However, Evens et al. (1986) have found high numbers of the CBR in the marshes bordering the Petaluma River, marshes which generally lack the high marsh component. Many areas of salt-marsh in the south Bay have subsided because of human ground-water pumping. Many other areas of marsh "abut abruptly against salt pond dikes, instead of gradually merging into upland habitats as they formerly did" (Manolis 1978). Nearly all of the marsh habitat in the south Bay is inundated by peak high tides and often by moderate tides. Thus, "suitable high marsh vegetation for nesting...appears to be the most limiting factor in determining the current distribution of breeding [CBR] in the San Francisco Bay Area" (Manolis 1978). The high marsh habitat also provides escape cover for the CBR during high tides (see Evens and Page 1986).

A relationship between CBR distribution and marsh elevation also exists in marshes of the lower Colorado River. There the CBR is found in high, shallow-water marshes with little annual and/or daily fluctuations in

water level. The CBR is not in low, deep-water marshes or marshes with considerable fluctuations in water level (Repking and Ohmart 1977). Preliminary information from a study on the lower Colorado River is that the CBR is using areas with shallow water (a few cm deep) alternated with saturated ground (W. Eddleman pers. commun.).

IX. CURRENT AND RECOMMENDED MANAGEMENT:

Protection of existing marshes which have the CBR is the most important management task in the conservation of the CBR. Marshes especially in the San Francisco Bay/Delta region, at Morro Bay, and in the Imperial Valley need to be acquired and managed for the CBR, protected through specific measures other than acquisition (such as easements), or otherwise restored from degraded status. Because the largest populations of the CBR are in the north San Francisco Bay, the emphasis must be placed there.

There is a great need for a cooperative program among the DFG, Arizona Department of Game and Fish, and the U.S. Bureau of Reclamation (USBR) to identify existing CBR habitat and populations along the lower Colorado River, and subsequently to take steps to protect and create habitat. Because of its authority, the USBR bears a major responsibility for the maintenance in perpetuity of CBR and other wildlife populations along the river.

In the Imperial Valley the DFG can cooperate with the Imperial Valley Irrigation District and the U.S. Bureau of Land Management to protect and preserve marshes along the various sloughs and drains which provide CBR habitat.

The Department of Fish and Game (DFG) has attempted to obtain federal Endangered Species Act grant-in-aid funds (popularly known as Section 6 funds) for a statewide survey to determine the current distribution and population status of the CBR. Because the CBR is not classified as a federal Endangered or Threatened species, the priority for funds is low within the U.S. Fish and Wildlife Service (FWS). However, the CBR is designated as a Category 2 federal candidate for such classification. This designation provides encouragement to the DFG that the FWS may give attention to the CBR.

The state endangered species tax check-off program is a possible source of funds for some of the needed CBR work, which also includes studies of food habits, nesting habitat requirements and other life history requirements. Indeed, funds from this program are available for studies in FY 87-88.

Certain life history studies on the CBR are needed. T. Manolis (pers. commun.) believes that the presence or absence of the CBR as a breeder in a particular marsh can be predicted fairly accurately, based on knowledge of marsh elevation, the degree of inundation of the marsh during the highest tides, and the extent of tidal flows within the marsh. However, he points out that biologists don't have complete knowledge of such life history factors as prey availability, prey

abundance, avoidance of predators, and availability of nest sites above the highest high tides in these marshes.

The DFG has learned (David Harlow pers. commun.) that the Albuquerque office of the FWS may be considering the development of a listing package for the CBR. The FWS evidently believes that enough information is available to support a listing package.

The advantage of a federal classification of Endangered or Threatened for the CBR is that federal agencies which permit, finance, or undertake projects would be required to avoid or compensate for impacts to the CBR and its habitat. In addition, the habitat on non-federal lands would have a measure of protection under the federal Endangered Species Act, if an action to destroy or alter CBR habitat on these lands required federal approval, funding, or a permit. No such habitat protection exists under the California Endangered Species Act.

A recovery plan which would incorporate elements of the management needs discussed herein should be prepared.

In summary, the management needs of the CBR in priority are as follows:

1. Cooperation of various federal, state, and local agencies in the development of programs to study the CBR and protect habitat.
2. Protection of wetlands through acquisition, easement, or other means.
3. Surveys in northern California, in coastal southern California, and in inland southern California to initially determine the population status on a marsh-by-marsh basis, and surveys at least every five years thereafter.
4. Classification, if warranted after studies are done, as Endangered or Threatened by the federal government.
5. Studies of life history requirements, especially those of nesting habitat and food habits.
6. Restoration of degraded wetlands, including establishment of a high marsh component on those marshes which otherwise have suitable CBR habitat.
7. Preparation of a recovery plan which would incorporate the elements of protection and restoration of habitat, cooperative programs, and surveys and studies.
8. Reclassification, if warranted after studies are done, to Endangered from Threatened by the Fish and Game Commission.

X. SOURCES OF INFORMATION:

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