# YUMA CLAPPER RAIL RECOVERY PLAN

Prepared by

Dr. Stanley H. Anderson

Leader, Wyoming Cooperative Research Unit

Laramie, Wyoming

Team Members

Mr. Ron Powell, Team Leader....California Department of Game and Fish, Blythe, California
Mr. David Busch.....U.S. Bureau of Reclamation, Boulder City, Nevada
Mr. Gary Ferrier.....U.S. Bureau of Land Management, Yuma, Arizona
Mr. Jim De Vos.....Arizona Game and Fish Department, Phoenix, Arizona
Mr. Wes Martin.....U.S. Fish and Wildlife Service, Blythe, California

Approved: _____
Acting Director, U.S. Fish and Wildlife Service

Date: 2/4/83

# YUMA CLAPPER RAIL

## RECOVERY PLAN SUMMARY

1. Point or condition when species can be considered for delisting.

   The Yuma clapper rail could be considered for delisting when: (1) its breeding and wintering status in Mexico is clarified and evaluated; (2) surveys for the species and its habitat are established; (3) management plans are developed for important Federal and State controlled breeding areas; and (4) written agreements are effected with agencies having control or responsibility over Yuma clapper rail habitat in the United States and Mexico, to protect sufficient wintering and breeding habitat to support a population of 700-1,000 breeding birds in the United States. Consideration for delisting the Yuma clapper rail will be based on an assessment of the status of the U.S. and Mexican populations.

2. What must be done to reach recovery?

   Steps to reach recovery include surveys throughout the species' range, research into its biological requirements, preservation of habitat on major State and Federal lands, maintain suitable flows throughout the lower Colorado River, and locate and preserve winter habitat.

3. Management needs to keep the species recovered.

   Maintain suitable waterflows in the lower Colorado River, preserve habitat on major State and Federal areas and protect winter habitat.

TABLE OF CONTENTS


PART I

Page

DISCLAIMER . . . . . ii

ACKNOWLEDGEMENTS . . . . . iii

INTRODUCTION . . . . . 1

TAXONOMY . . . . . 2

DISTRIBUTION AND ABUNDANCE . . . . . 2

HABITAT . . . . . 7

BIOLOGY . . . . . 9

Food Habits . . . . . 9
Migration . . . . . 9
Nesting . . . . . 10

LIMITING FACTORS . . . . . 10

PART II

THE ACTION PLAN. . . . . 12

STEPDOWN NARRATIVE . . . . . 15

LITERATURE CITED . . . . . 21

PART III

IMPLEMENTATION SCHEDULE . . . . . 24

APPENDIX A . . . . . 27

LETTERS AND MEMORANDA COMMENTING ON DRAFT PLAN . . . 28

REPLIES TO COMMENTS . . . . . 50

## DISCLAIMER

This is the completed Yuma Clapper Rail Recovery Plan. It has been approved by the U.S. Fish and Wildlife Service. It does not necessarily represent official positions or approvals of cooperating agencies (and it does not necessarily represent the views of all recovery team members/ individuals), who played the key role in preparing the plan. This plan is subject to modification as dictated by new findings and changes in species status and completion of tasks described in the plan. Goals and objectives will be attained and funds will be expended contingent upon appropriations, priorities, and other budgetary constraints.

Literature citations should read as follows:

U.S. Fish and Wildlife Service. 1983. Yuma Clapper Rail Recovery Plan. U.S. Fish and Wildlife Service, Albuquerque, New Mexico 51 pp.

ACKNOWLEDGEMENTS

Appreciation is extended to the following former team members and the consultant, who provided valuable biological and technical information and who were instrumental in writing earlier drafts of this plan.

Previous team members were Robert L. Delaney, Robert A. Karges, Wayne Deason, Howard Leach, Richard Todd, and Herbert Guenther.

Roy Tomlinson, a consultant to the team assisted with early drafts of the plan as well as providing comments on this version.

# YUMA CLAPPER RAIL RECOVERY PLAN

## Part I

## INTRODUCTION

The Yuma clapper rail (Rallus longirostris yumanensis) breeds in marshes along the Colorado River from the Nevada/California border south to the Colorado Delta region of Mexico, (Tomlinson and Todd 1973). It is also found in marsh habitat around the southeastern portion of the Salton Sea (Abbott 1940). The exact area where the subspecies winters is unknown (Phillips et al. 1964).

On March 11, 1967, the Yuma clapper rail was declared endangered by the Secretary of Interior pursuant to the Endangered Species Act of 1966 (U.S. Dept. of Interior 1968). Dr. John W. Aldrich of the U.S. Fish and Wildlife Service was primarily responsible for reviewing bird species nominated for listing. In 1966, Dr. Aldrich had little published information available on the Yuma clapper rail, and so relied heavily on his personal knowledge and on the knowledge and experience of Gale Monson, noted ornithologist who was Refuge Manager of Kofa and Imperial National Wildlife Refuges and coauthor of, "The Birds of Arizona" (Phillips et al. 1964).

In May 1971, the California Fish and Game Commission, under the authority of the California Endangered Species Act of 1970, included the Yuma clapper rail on the state's listing of endangered and rare fish and wildlife (Leach and Fisk 1972).

Arizona classified the Yuma clapper rail under group 3, which is similar to the Federal threatened status; those species whose status is threatened or considered to be in jeopardy in the foreseeable future. This action was taken by the Arizona Game and Fish Commission under their authority to list threatened and unique wildlife of Arizona (Arizona Game and Fish Commission 1978).

Surveys, between 1969 and 1981, produced a body of knowledge on breeding distribution and habitat of the Yuma clapper rail in the United States. Surveys have also been conducted on the delta in Baja California and Sonora, Mexico. These surveys indicate that the population of Yuma clapper rails in the delta is about equal to that in the United States. Results of the surveys in the United States and the Colorado River delta of Mexico since 1969 indicate that the population is fairly stable at about 1,700 to 2,000 birds. Individuals of the species exist in other parts of Mexico.

The purpose of this recovery plan is to provide natural resource management agencies and conservation groups with background information

on the Yuma clapper rail and indicate new or ongoing tasks needed to achieve eventual Federal and State delisting of the species.

## TAXONOMY

Seven subspecies of clapper rails (Rallus longirostris) are presently recognized in the western United States and the Pacific coast of Mexico (Oberholser 1937, Friedman et al. 1950, American Ornithologists' Union 1957) (Fig. 1). The taxonomic status of the Yuma clapper rail was clarified with field work beginning in 1970. Forty-one clapper rails were collected in selected areas of the lower Colorado River and coastal areas of the Gulf of California in Mexico. These birds were examined by Dr. Richard Banks, U.S. Fish and Wildlife Service, Washington, D.C., and Roy Tomlinson of the Patuxent Wildlife Research Center, Field Station, Tucson, Arizona. They identified three separate and distinct subspecies, including R. l. yumanensis, based on plumage and wing configurations and distribution patterns (Banks and Tomlinson 1974).

## DISTRIBUTION AND ABUNDANCE

The Yuma clapper rail breeds in freshwater marshes in the United States as well as brackish marshes of Mexico and probably winters in salt or brackish waters in Mexico (Phillips et al. 1964, Tomlinson and Todd 1973). There is reason to believe the Yuma clapper rails originally were not distributed along the Colorado River; they expanded their range northward with the creation of suitable marsh habitat associated with dam development. Historical information on distribution of the Yuma clapper rail is derived from the logs of Grinnell (1914). From February 15 to May 15, 1910, he and a party of ornithologists floated the Colorado River from Needles, California, to the Mexican border, making at least 29 wildlife surveys along the river. Dr. Grinnell had previously worked with the California clapper rail (R. l. obsoletus), which occurred near the University of California at Berkeley. Thus, he was familiar with vocalization of clapper rails. During the three month survey of vertebrates of the lower Colorado River, Dr. Grinnell and his associates found no evidence that the Yuma clapper rail existed there. Grinnell (1914:72) made the following remarks about the marsh association:

> "The river's habit of overflow would be expected to result in rather extensive tracks of palustrine flora. As a matter of fact, however, marshes were few and of small size. This was probably due to the rapid rate of evaporation of overflow water so that favoring conditions did not last long, and also to the rapid silting-in of such water basins as ox-bow cut-offs. As a result, there were either

FIGURE 1. Distribution of Western Clapper Rails (Wilbur and Tomlinson 1976)

almost lifeless alkali depressions or lagoons, practically identical in biotic features with the main river. But in a few places there were well defined palustrine tracks kept wet throughout the year, chiefly by seepage. These were always located back from the river near the outer edges of the broader valleys where they were least affected during flood times. They were marked by growths of tules, sedge, and salt-grass, sometimes the latter alone, and were usually surrounded by the arrowweed or willow association. The little open water sometimes attracted a few transient ducks and mud-hens, but so far no water birds outside of the Ardeidae remain to breed anywhere along the Colorado River."

Since Yuma clapper rails do not appear on their breeding grounds until early to mid-April and Dr. Grinnell and his party were quite far south in mid-April, the rails could have arrived late that year and Grinnell missed them. However, his description of the area indicated that the habitat was most likely unsuitable for them.

The first specimens of Yuma clapper rail were taken in 1921 on the Colorado River, in the vicinity of Laguna Dam, north of Yuma, Arizona, by Huey and Canfield (Dickey 1923). Laguna Dam was constructed in 1909, a year before Grinnell's trip. Clapper rails appeared north of Laguna Dam a few years after Parker, Imperial, and Headgate Rock Dams were completed in 1938, 1939, and 1942 respectively. Monson was the first to report a rail sighting near Headgate Rock Dam in 1946 (pers. comm.). Imperial and Parker Dams slowed and stopped the overflow allowing the sediment load to precipitate out as sandbars thus forming suitable substrate for cattails (Typha latifolia) and big bulrush or tule (Scirpus acutus). Emergent vegetation stabilized the sandbars and marshes were formed.

First sightings of clapper rails in the Bill Williams River delta occurred 16 years after Park Dam closed (Fig. 2). Formation of Lake Havasu slowed the silt-laden water of the Bill Williams and Colorado Rivers allowing formation of large soil deposits, and eventually, marshes in the Bill Williams arm of Lake Havasu. Monson collected the first adult clapper rail from that area on May 12, 1954, and an immature bird on August 16, 1954. He had visited the area regularly on an annual basis prior to the 1954 collection. Robert Karges conducted a census in May 1973 and reported 17 calling birds in the Bill Williams arm. In 1966, the first Yuma clapper rail in Topock Marsh was reported by Welch (1966). Welch (1966) observed one bird on June 19, 1966, in Topock Marsh, one on June 22 near Beals Lake, and two in Topock Gorge on July 2, 1966 (Ohmart and Smith 1973).

Thus, about 10-15 years were necessary for suitable Yuma clapper rail habitat to develop (probably directly related to sediment load and dam height) following water impoundment. Sedimentation occurred rapidly

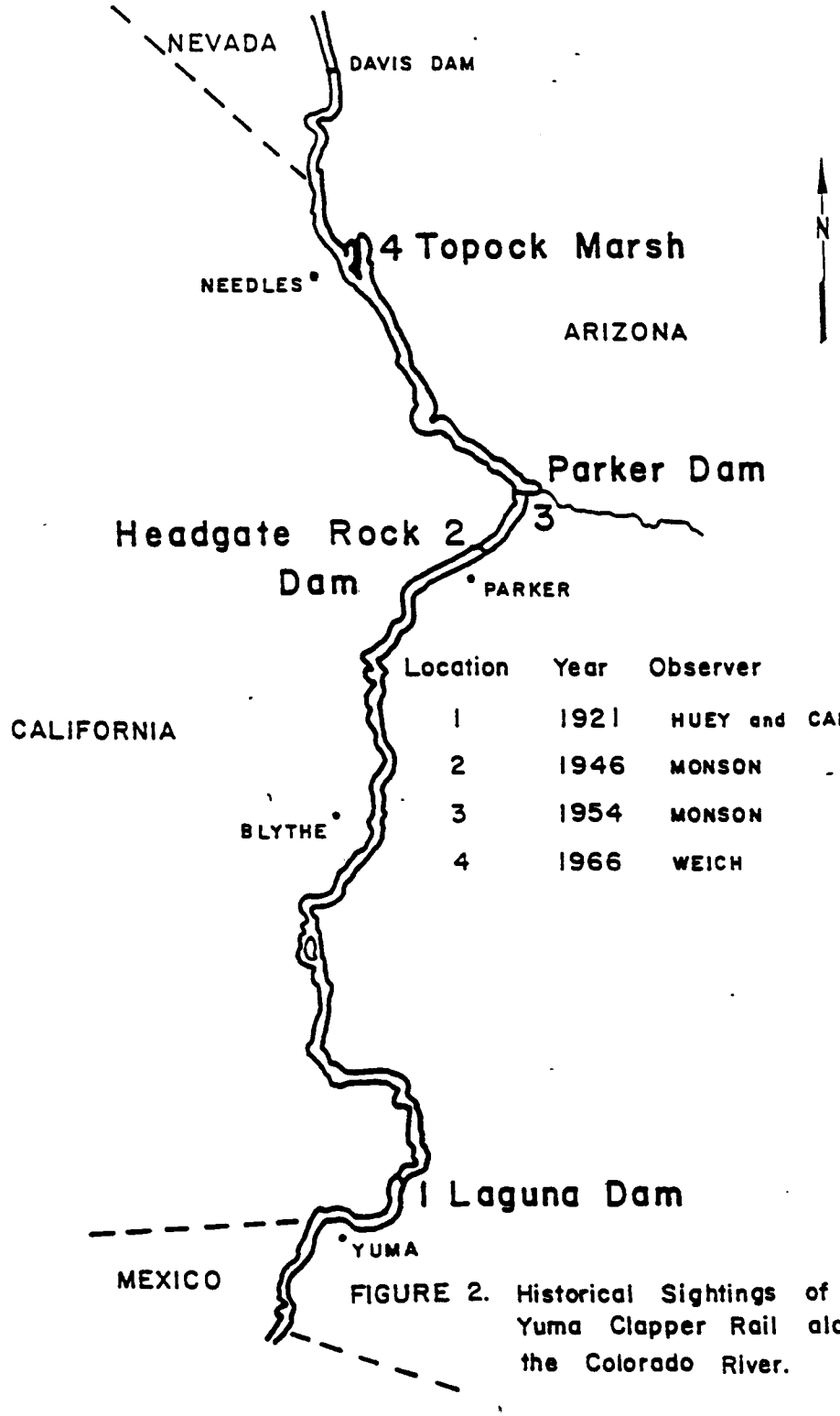


FIGURE 2. Historical Sightings of the Yuma Clapper Rail along the Colorado River.

behind the silt-laden water of Laguna Dam (Grinnell 1914), whereas Parker Dam was much higher and a longer time was required to build up sediments which could support vegetation (Ohmart and Smith 1973).

A survey of calling clapper rails along the Colorado River was initiated in May 1969 and repeated in 1970. All surveys used magnetically-taped clapper calls to elicit responses (Tomlinson and Todd 1973). These first attempts to locate a large number of rails by taped calls were very successful. As Tomlinson and Todd (1973) were not systematic and did not cover all the habitat, a total count was not obtained. Based on their results and those of later surveys, it was estimated that there were probably at least 700 breeding birds in the United States by 1969 and 1970.

A census of the lower Colorado River from Needles, California, to the Gulf of California was conducted in the spring of 1973. A similar survey in 1974 included the Salton Sea area of California. In 1975, approximately 65 percent of the 1973-74 census routes were covered.

A survey also was conducted in 1981 along the lower Colorado River and the Mexican delta. It is thought by some (Tomlinson, pers. comm.) that the 1981 survey did not include the prime habitat in the delta region; however, much good habitat was destroyed in floods of previous years. Furthermore, results were confounded by high water levels, thus data from that survey may not be conclusive. Excluding results from the Colorado River delta in Mexico, the 1973, 1974, and 1981 surveys yielded counts for the United States of 702, 821, and 787 respectively. These counts demonstrated a relatively stable population of more than 700 breeding birds in the United States each year between 1973 and 1981 and indicated by inference that birds were also there in 1969.

In October 1975, the Yuma clapper rail recovery team developed a program to census the Colorado River delta of Mexico. Support was obtained from the Mexican government and censusing of approximately 20 percent of a 24,000 ha area in 1976 yielded a count of 700 birds.

The recovery team estimated that at least for the past 12 years there have been more than 1,700 breeding birds distributed from the Colorado River delta in Mexico north to Topock Marsh, Arizona, west to marshes along the Salton Sea, California, and east from the Colorado River along the Gila River to Tacna, Arizona (Powell, personal communication). The central Arizona population was represented by only a few birds restricted to freshwater marshes on the Salt River near Phoenix, (on the Tonto National Forest and Fort McDowell Indian Reservation) and at Picacho Reservoir. There have been a few additional sightings in Arizona, Nevada and California. All indications point to a stable breeding Yuma clapper rail population in the United States during the past 12 years.

While a breeding population of Yuma clapper rails was confirmed by the 1976 survey in the Colorado River delta, knowledge concerning where the majority of birds winter is still lacking. Five to eight clapper rails were reported to occur at Salton Sea in the month of December (National Audubon Society 1981 and 1982). Rail specimens collected in the winter months from near Mazatlan and Laguna in Mexico were identified in the National Museum, Washington, D.C. as Yuma clapper rail. These results and learned speculation lead to the idea that the subspecies winters along the coast of Mexico (Banks and Tomlinson 1974).

## HABITAT

Yuma clapper rails nest in freshwater marshes in the United States. Habitat occupied by rails along the Colorado River from the Mexican border to Topock Marsh and at the south and east ends of Salton Sea was mapped by the recovery team.

Smith (1974) determined that preferred rail habitat at Topock Marsh was mature cattail-bulrush stands in shallow water near high ground. His study recorded highest rail densities in light cattail stands with lowest rail densities occurring in heavy stands. Dense cattail stands contained 0.9 rails per 10 ha, light cattail stands 1.9, dense bulrush stands 1.7, and light bulrush stands 1.8. A majority of the breeding birds were in the ecotone between emergent vegetation and higher ground, either shoreline or hummocks in the marsh. Gould (1975) used criteria developed by Smith in his evaluation of rail distribution in 1973 and 1974 censuses. Gould concluded that relatively large areas of emergent vegetation were used more frequently than smaller areas. In all habitat areas surveyed, 68 percent of the rails located were in habitat areas larger than 8 ha.

Stands of cattails and tules dissected by narrow channels of flowing water 1.6-7.0 m wide had the densest populations of birds (Tomlinson and Todd 1973). Breeding habitat in less dense stands usually had downed vegetation and was adjacent to dry land (Ohmart and Smith 1973). The small channels of water were often covered with downed vegetation. Generally, there were extensive areas of water where the depth was less than 0.3 m near sandbars or mudflats. Water level fluctuation was minimal during the breeding period. There was usually some high ground in strips or islands nearby. Therefore, the clapper rail could be considered a bird of the cattail-bulrush marsh edge.

Human alteration of the Colorado River through dam construction, water diversion, and channelization changed the nature of this once free-flowing river. Dam construction resulted in the disappearance of historical backwaters and in creation of new marshes and wetlands (Ohmart et al. 1975). Regulated water releases in the lower Colorado River slowed river flow sufficiently to allow sedimentation resulting in development of cattail

and bulrush marshes. This process has continued, interrupted only by dredging and channel manipulation.

In Mexico, freshwater marshes are replaced by brackish water marshes dominated by dense stands of tall salt cedar (Tamarix gallica) and an understory of iodine bush (Allenrolfia occidentalis). While this area encompassed some 936 square kilometers in 1976, actual acreage and suitable habitat for rails was less. In 1980 flood waters destroyed much of this area leaving vast mud flats. Both seasonal and yearly variations in water impounded by agricultural drainage influences wetland area available for nesting rails on the delta.

Various Colorado River water projects in the United States and Mexico have altered the Colorado River delta with its once extensive channels and freshwater marshes, causing a major impact on rail breeding habitat. This habitat has been replaced over time by brackish water habitat existing today. As new habitat developed upstream, it became occupied by rails. Clapper rail presence north of Laguna Dam followed completion of Parker Dam, Imperial Dam, and Headgate Rock Dam (Ohmart and Smith 1973). A bypass canal created Yuma clapper rail habitat at Santa Clara Slough.

Salton Sea was created in 1905 when the Colorado River overflowed its banks and flowed into Imperial Valley (Walker 1961). Importation of Colorado River water by supply and drainage ditches into Imperial Valley led to the development of intensive irrigated agriculture. This, together with protection and development of wetlands for waterfowl management purposes, created habitat for the Yuma clapper rail.

Habitat has been lost through channelization and dredging projects along the Colorado River. Habitat destruction was recorded by Tomlinson (1971), Todd (1973), and Tomlinson and Todd (1973). In addition, habitat loss occurs annually as a result of clearing the 64 km reach of the lower Colorado River below Morales Dam by the International Boundary and Water Commission and the Mexican Government. This clearing is done to fulfill 1964 treaty obligations.

In 1963, California Swamp was eliminated by channelization and deposition of sand fill. Three Fingers Lake and Davis Lake on the Cibola National Wildlife Refuge were lost to river channelization. Cibola Lake experienced marsh destruction when channelization work was completed for that reach of the river. The upper end of Topock Gorge on Havasu National Wildlife Refuge lost habitat in 1967 when 10 ha of marsh vegetation were covered by spoil deposits from dredge work. In 1968, the U.S. Fish and Wildlife Service enclosed 6 ha of marsh with dikes, destroying Japs Slough at the north end of Topock Marsh.

Realignment in 1970 of Gila Sluice south of Imperial Dam eliminated a water source for an abandoned river channel. Abandonment of portions of Imperial National Wildlife Refuge in 1968 (recommended by the Lower Colorado River Use Plan) also reduced habitat. Several hectares of marsh, south of Laguna Dam, along a 9.6 km length of the Colorado River, were destroyed when the river was channelized and marshes were backfilled.

Most of the above projects occurred before effective action was directed to protect wildlife and scenic values of the lower Colorado River. With the formation of the Lower Colorado River Management Program Coordinating Committee and Work Group, there has been a coordinated effort to accomplish water development of the lower Colorado River with a minimum of habitat destruction.

## BIOLOGY

### Food Habits

Ohmart and Tomlinson (1977) described western rails as being selective, opportunistic, or limited in their diet depending upon habitat type. The principle food source along the Colorado River appeared to be crayfish of two or more genera. Other food items were small fish, clams, isopods, snout beetles, water beetles, dragonflies and dragonfly nymphs, other insects, and small seeds (Wilbur and Tomlinson 1976). Other subspecies of clapper rails fed in brackish or salt water. Their diets included small clams, shorecrabs, spiders, snails, and some plant species (Williams 1929, Moffitt 1941).

### Migration

A serious deficiency of the Yuma clapper rail life history is lack of knowledge of its migratory behavior. Yuma clapper rails are on their breeding grounds in the lower Colorado River and Salton Sea from mid-April to mid-September. It is thought by recovery team members that most of the population migrates south during the winter. Tomlinson and Todd (1973) were unable to elicit responses by rails to taped calls along the Colorado River in the United States during winters of 1969-70 and 1970-71. However, clapper rails along the coast of Sonora, Mexico, answered taped calls during all winter months. This led to the belief that no significant numbers of rails overwinter anywhere on the lower Colorado River drainage (Tomlinson and Todd 1973).

A small overwintering population occurs along the Colorado River and Salton Sea. Isolated observations of rails have occurred during winter months in Topock Marsh, Topock Gorge, Bill Williams delta, old river channel in Cibola National Wildlife Refuge, marshes above Imperial Dam, and Salton Sea. Jurek (1975) indicated that rails were found in October

along Coachella Canal in Imperial County, California. However, no information exists to show that they winter there. Exact size of this non-migratory population is unknown, but some biologists feel that a possible evolutionary shift is occurring in the rail population and fewer are migrating.

There is much speculation as to where the birds winter. A logical explanation is that a small proportion of the birds remain in suitable marshes along the southern part of the Colorado River while most migrate south and inhabit coastal mangrove (Avicennia sp. and Rhizophora sp.) areas. This supposition is complicated by the fact that there are other clapper rail subspecies with unknown migrating behavior in coastal Mexico.

Nesting

Duration of the nesting season is mainly unknown (Wilbur and Tomlinson 1976). At Salton Sea, incomplete clutches were found during the first week in May and full clutches by May 11 (Abbott 1940). A full clutch of unhatched eggs was found on May 25. Average clutch size of completed sets was 6.5 eggs.

Two types of nest construction were described (Abbott 1940). One type consisted of sticks with a few dead leaves, while the other type was composed of finer stems with dry blossoms still intact. Nests were found both on dry hummocks and in forks of small shrubs just above water level in dense cattails. The water depth at nests varied from about 5 cm to 1 m.

Hatching data and nesting success are unknown. Two broods of three young each were observed on July 17, 1948 (Phillips et al. 1964), and on June 23, 1969 (Tomlinson 1969).

## LIMITING FACTORS

Ohmart and Smith (1973) suggest that the two factors primarily responsible for controlling the population of Yuma clapper rail are marsh-like habitat and available food. Their preliminary findings indicate that crayfish are the principle item of diet and availability of habitat with crayfish may largely account for rail density. Historical information and literature tends to indicate that construction of dams along the lower Colorado River and deposition of silt resulting in creation of cattail marshes provided rail habitat. As long as this habitat is maintained, the bird is likely to be in the area.

Dredging operations at Topock Marsh have created habitat for the Yuma clapper rail because spoils were deposited to maintain shallow water (Deason and Sharp 1978). These operations were designed to create suitable habitat for the Yuma clapper rail through close planning between the

U.S. Fish and Wildlife Service and Bureau of Reclamation. In this case, a dredging operation to deepen an existing channel and improve water flow resulted in the creation of islands, by the deposition of spoils in the river area. The islands later became vegetated with cattails. If the area of cattails were left untouched for long periods of time, succession would occur as further silt was deposited.

The use of Kenopac and ammonium sulfate can also be used effectively in establishing habitat by providing potholes and channels through dense stands of cattails (Martin, pers. comm. 1982). Silt deposits from the blasting provide excellent areas for cattail growth, while water depths incurred from blasting are usually only 1 to 5 feet. This minimum depth encourages and attracts plant emergents and aquatic organisms, thereby providing excellent food sources for the rails.

Extent of predation by mammalian and avian predators on the rail population is unknown. However, racoons probably are efficient nest predators. Because of their secretive nature and departure to wintering grounds before the onset of the waterfowl hunting season, shooting can be discounted as a major mortality factor affecting the rail. There is no legal hunting season for Yuma clapper rails in the western United States. This subspecies is classified as a protected game bird in Mexico as per Mexican Wildlife Regulations.

Low levels of pesticide residues in tissues of specimens collected by Tomlinson and Todd in 1971 were not cause for concern according to biologists at the Patuxent Wildlife Research Center (Stickel 1972). Possible adverse effects on the rail population resulting from the use of Malathion for mosquito-encephilitis control on Mittry Lake have been questioned by the Maricopa Audubon Society. After consultation with the U.S. Army's Yuma Test Station, the Yuma County Health Department, the U.S. Fish and Wildlife Service, the Arizona Game and Fish Department, and environmental groups, it was determined that the pesticide was applied at safe levels (Wilbur and Tomlinson 1976). Updated information on pesticide residues in this subspecies is not available.

The key to maintaining or expanding the population of breeding Yuma clapper rails is maintenance of early successional stages of cattail marsh by creating shallow water with dredge spoils, channel alteration, and with explosives in the lower Colorado River region of the United States. This allows a mat of dead cattails to form in one to two feet of water. Rails will then use these areas as they have cover and can walk on the dead vegetation.

## PART II - THE ACTION PLAN

Now that a breeding population of 700-1,000 individuals has been stable for 10 years, the Yuma clapper rail should be considered for reclassification to threatened status. The Yuma clapper rail could be considered for delisting when: (1) its breeding and wintering status in Mexico is clarified and evaluated: (2) surveys for the species and its habitat are established; (3) management plans are developed for important Federal and State controlled breeding areas; and (4) written agreements are effected with agencies having control or responsiblity over Yuma clapper rail habitat in the United States and Mexico, to protect sufficient wintering and breeding habitat to support a population of 700-1,000 breeding birds in the United States.

### RECOVERY PLAN STEPDOWN OUTLINE

Primary Objective: To assure the continued survival of a total breeding population of 700-1,000 Yuma clapper rails in the United States. Consideration for delisting the Yuma clapper rail will be based on an assessment of the U.S. and Mexican populations.

1. To maintain a minimum population of 700-1,000 breeding Yuma clapper rails in the United States.

    1.1 To sample every five years all known regions where Yuma clapper rail populations are found using standardized techniques and to develop and implement a plan of local population surveys every year.

        1.11 Conduct local (U.S.) population surveys every year.

        1.12 Conduct survey of breeding rails in Mexico.

    1.2 To determine biological requirements and behavior of the Yuma clapper rail.

        1.21 Investigate behavior parameters during breeding and nesting.

        1.22 Determine life history patterns with emphasis on life span and mortality.

        1.23 Summarize breeding and nesting habitat parameters that support various densities of Yuma clapper rails.

    1.3 To preserve and maintain breeding habitat to support the populations of Yuma clapper rails in the United States.

        1.31 To survey the amount of breeding habitat available to the Yuma clapper rail once every 5 years.

        1.32 To continue to preserve, protect, and manage rail habitat on State and Federal lands.

1.321 Havasu National Wildlife Refuge

1.322 Cibola National Wildlife Refuge

1.323 Imperial National Wildlife Refuge

1.324 Salton Sea National Wildlife Refuge

1.325 Yuma District, Bureau of Land Management

1.326 Mittry Lake (Arizona)

1.327 Imperial Wildlife Management Area (California)

1.328 Disjunct populations

1.33 To assure that dams along the lower Colorado River maintain a constant flow of water at a rate sufficient for the maintenance of Yuma clapper rail breeding habitat.

1.331 Summarize flow information over the past 10 years.

1.332 Establish an agreement to maintain the required flow.

1.34 Determine if other areas exist that could be developed to provide Yuma clapper rail habitat.

2. To preserve winter habitat of the Yuma clapper rail so that population survival is assured.

2.1 To determine, protect and manage winter habitat of the Yuma clapper rail in the United States.

2.11 To determine movement patterns of the Yuma clapper rail.

2.12 To preserve winter habitat.

2.2 To locate, manage, and protect winter habitat of the Yuma clapper rail in Mexico.

2.21 Determine the extent of winter habitat in Mexico and habitat features required for survival of the rails.

2.22 To establish a United States/Mexican agreement for preservation and management of Yuma clapper rail habitat.

2.23 To manage winter habitat of the Yuma clapper rail in Mexico.

3. To carry out a program of public conservation education and planning advice directed towards preservation of rail habitat.

   3.1 To prepare public information bulletins for private landowners which address management of land for Yuma clapper rail, size of tracts that support breeding rails and the impact of nearby development on the birds.

   3.2 To assist local ornithological societies by making data available on the rail population status and habitat.

STEPDOWN NARRATIVE

Primary Objective: Now that a breeding population of 700-1,000 individuals has been stable for 10 years, the Yuma clapper rail should be considered for reclassification to threatened status. The Yuma clapper rail could be considered for delisting when: (1) its breeding and wintering status in Mexico is clarified and evaluated; (2) surveys for the species and its habitat are established; (3) management plans are developed for important Federal and State controlled breeding areas; and (4) written agreements are effected with agencies having control or responsiblity over Yuma clapper rail habitat in the United States and Mexico, to protect sufficient wintering and breeding habitat to support a population of 700-1,000 breeding birds in the United States. Consideration for delisting the Yuma clapper rail will be based on an assessment of the status of the U.S. and Mexican populations.

1. To maintain a minimum population of 700-1,000 breeding Yuma clapper rails in the United States.

Currently, most of the breeding Yuma clapper rails in the United States are found along the lower Colorado River from an area slightly north of Needles, California, south to the United States-Mexican border; in addition, there are a number of birds that breed around the Salton Sea. There appears to be adequate habitat at this time to support a population of 700-1,000 birds.

1.1 To sample every 5 years all known regions where Yuma clapper rail populations are found using standardized techniques and to develop and implement a plan of local (U.S.) population surveys each year.

All potential Yuma clapper rail habitat in the United States should be sampled for birds every fifth year. Selected transects should be established on a stratified random basis within these habitats. All areas of the Salton Sea region and the Colorado River should be covered. These transects should be surveyed at least twice during the survey period of May or June when the Yuma clapper rails are breeding. At least two individuals should cover each transect each time, one playing prerecorded tapes to elicit a response and the other tallying responses. Transects

should be surveyed in a standardized method, that is, observers should move from one spot to the next spot at the same distance, stop, play the tape recorder and record the number of rails heard. The same transects should be observed in the same manner every fifth year.

1.11 Conduct local (U.S.) population surveys every year.

Local population surveys should be conducted annually as determined by the recovery team. These surveys should be conducted in areas where immediate threats to the Yuma clapper rail exist.

1.12 Conduct survey of breeding rails in Mexico.

As Yuma clapper rails exist just south of the international boundary in Mexico, a survey should be conducted of those populations simultaneously with the United States survey using the same standardized techniques.

1.2 To determine biological requirements and behavior of the Yuma clapper rail.

There are a number of unanswered questions relating to the biology and behavior of the rail. We know that the primary food during the breeding season is crayfish. The adaptability of the bird to other food items and seasonal variation in its diet are unknown.

1.21 Investigate behavior parameters during breeding and nesting.

Investigators should determine nesting chronology and calling behavior in relation to nesting.

1.22 Determine life history patterns with emphasis on life span and mortality

The length of time the birds lives, reproductive potential and mortality at different times in its life history should be established. The impact of predators, transmission lines and disease on the birds should be known.

1.23 Summarize breeding and nesting habitat parameters that support various densities of Yuma clapper rails.

The data available that indicates the habitat needs of breeding birds should be summarized. A management document should be prepared from these results.

1.3 To preserve and maintain breeding habitat to support populations of Yuma clapper rails in the United States.

Fresh water or brackish stream-sites and marshes are prime breeding habitat of the Yuma clapper rail in the United States. These areas are associated with dense riparian and marsh vegetation. In general, the habitat consists of shallow water marshes containing dense stands of cattail and big bulrush or tule in both brackish and fresh water situations. Shallow water with mud flats available for feeding are preferred. Stands of cattails and tules dissected by narrow channels of water 1.6-7.0 m wide have the densest rail populations.

Prime breeding habitat usually has cattail or tule stands with downed vegetation adjacent to dry land. The characteristics that seem to result in high rail densities are: water flowing through many small channels from 0.5 to 3.0 m wide either covered with vegetation or appearing as small bodies of open water 0.02 to 0.2 ha in size; extensive areas of water where depth is less than 0.3 m with little or no daily fluctuations; high ground (strips or small islands), emergent vegetation of cattail or bulrush with little or no high carrizo cane and few downed stems.

1.31 To survey the amount of breeding habitat available to the Yuma clapper rail once every 5 years.

Habitat surveys should be conducted on federal, state and private land once every five years to assure that the amount of area needed by the breeding rails is maintained. Such surveys should be done using standardized techniques. Habitat should be delineated on aerial photos.

Breeding habitat of the Yuma clapper rail in Mexico should be surveyed simultaneously with the United States survey using the same techniques.

1.32 To continue to preserve, protect, and manage rail habitat on State and Federal lands.

We are aware of a number of habitat improvement techniques including dredging, with deposition of spoils, as well as opening of small channels in cattail marshes that improve Yuma clapper rail habitat. Federal and State wildlife management areas in the lower Colorado River region and Salton Sea should incorporate Yuma clapper rail management using these techniques in their master management plan. Active programs should exist at each of the management units to preserve rail habitat and maintain their population. Public use of habitat should also be restricted. Reducing disturbance in good habitat can be an important means of population maintenance.

1.321 Havasu National Wildlife Refuge

1.322 Cibola National Wildlife Refuge

1.323 Imperial National Wildlife Refuge

1.324 Salton Sea National Wildlife Refuge

1.325 Yuma District, Bureau of Land Management

1.326 Mittry Lake (Arizona)

1.327 Imperial Wildlife Management Area (California)

1.328 Disjunct populations

1.33 To assure that dams along the lower Colorado River maintain a constant flow of water at a rate sufficient for maintenance of Yuma clapper rail breeding habitat.

Currently, an unwritten understanding exists that the Bureau of Reclamation will maintain a flow of water through Parker Dam of at last 2,000 cfs (Powell, pers. comm.). This volume of water appears adequate to maintain the breeding habitat below the dam. There are four other dams (Davis, Headgate Rock, Imperial and Laguna) that potentially influence rail habitat. The minimum and maximum volume of water that could flow through these dams to maintain rail habitat should be assessed.

1.331 Summarize flow information over the past 10 years.

The flow information from each dam should be summarized over the past 10 years in a chronological fashion. These results should be related to the status of the Yuma clapper rail.

1.332 Establish an agreement to maintain the required flow.

A formal agreement should be established between the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, Corps of Engineers, States of Arizona and California to assure that water flow remains within the determined limits. This agreement should coordinate habitat planning with water flow. Monitoring of habitat and mitigation measures should be addressed.

1.34 Determine if other areas exist that could be developed to provide Yuma clapper rail habitat.

Surveys should be conducted along rivers and lakes in California and Arizona adjacent to the lower Colorado River to determine if other areas could also support rails. Management suggestions for rails should be made to the agency that controls wildlife on that land.

2. To preserve winter habitat of the Yuma clapper rail so that population survival is assured.

Currently, the winter location of all Yuma clapper rails is unknown. Some observers have reported rails during the winter in the United States. Experts feel that a sizable proportion of the population breeding in the United States winters in Mexico.

2.1 To determine, protect, and manage winter habitat of the Yuma clapper rail in the United States.

While Yuma clapper rails have been reported in the United States during the winter, the winter distribution and habitat necessary for winter survival are unknown. Projects should be initiated to determine the extent of habitat used, specialty habitat requirements including food, and winter population abundance of the subspecies.

2.11 To determine movement patterns of the Yuma clapper rail.

A telemetry study should be conducted to determine what proportion of the birds winter in the United States and where.

2.12 To preserve winter habitat.

Once the winter habitat of the rails in the United States has been established, these areas should be managed and protected.

2.2 To locate, manage, and protect winter habitat of the Yuma clapper rail in Mexico.

The winter location of the Yuma clapper rail in Mexico is currently unknown. The telemetry study proposed in step 2.11 should be utilized to locate areas in Mexico where the birds winter.

2.21 Determine the extent of winter habitat in Mexico and habitat features required for survival of the rails.

On location, studies should be included to determine the extent of habitat use once winter habitat has been found in Mexico. Special features of the habitat including food, water supply, and cover that might be needed by the wintering rails should be determined.

2.22 To establish a United States/Mexican agreement for preservation and management of Yuma clapper rail habitat.

The U.S. Fish and Wildlife Service (Region 2) should take the lead in implementing a working agreement with Mexico to manage Yuma clapper rail breeding and wintering (once determined) habitat. This could come under the provisions of the United States/Mexico cooperative agreement that currently exists. This agreement should also include sections on population (step 1.12) and habitat (step 1.21) surveys as well as information exchange.

2.23 To manage winter habitat of the Yuma clapper rail in Mexico.

The United States/Mexican agreement should include plans and techniques to manage winter habitat of the Yuma clapper rail.

3. To carry out a program of public conservation and planning advice directed towards preservation of rail habitat.

The research findings from the Yuma clapper rail research should be packaged in such a way that interested local people can understand management efforts needed to protect the Yuma clapper rail. This can include development of brochures, filmstrips, and bulletin boards.

3.1 To prepare public information bulletins for private landowners which address management of land for Yuma clapper rail, size of tracts that support breeding rails and the impact of nearby development on the birds.

Information directed specifically at individual and corporate landowners should be prepared. This information can assist when planning land use changes. It should be particularly useful to corporate biologists who plan to alter rail habitat.

3.2 To assist local ornithological societies by making data available on the rail population status and habitat.

Local ornithological societies and other interest groups should be advised of the status of the Yuma clapper rail. Information should be supplied to them so that they can assist in the preservation of this species.

## LITERATURE CITED

Abbott, C. C. 1940. Notes from the Salton Sea, California. Condor 42(5):264.

American Ornithologists' Union. 1957. Check-list of North American Birds. 5th ed. 691 pp. Port City Press, Inc., Baltimore, MD.

Arizona Game and Fish Commission. 1978. Threatened and unique wildlife of Arizona. Phoenix, AZ.

Banks, R. C., and R. E. Tomlinson. 1974. Taxonomic status of certain clapper rails of southwestern United States and northwestern Mexico. Wilson Bull. 86(4):325-335.

Deason, W. O., and F. P. Sharp. 1978. Development of hydraulic structures for improvement in habitat of the endangered Yuma clapper rail. In: Proceedings of the International Symposium on Environmental Effects of Hydraulic Engineering Work. Knoxville, Tennessee. Sponsored by TVA, ORNL Oakridge Nat. Lab. at U. Tenn.

Dickey, D. R. 1923. Description of a new clapper rail from the Colorado River Valley. Auk 40(1):90-94.

Friedmann, H., L. Griscom, and R. T. Moore. 1950. Distributional check-list of the birds of Mexico. Pac. Coast Avifauna 29 (Part I):1-202.

Grinnell, J. 1914. An account of the mammals and birds of the Lower Colorado Valley. Univ. of Calif. Publ. Zool. 12:51-294.

Gould, G. 1975. Yuma clapper rail study - censuses and habitat distribution. Calif. Dept. of Fish and Game, Wildl. Mgmt. Br. Admin. Rpt. No. 75-2. 12 pp.

Jurek, R. 1975. Survey of Yuma clapper rails and California black rails along the Coachella Canal, Imperial County, May 1975. Calif. Dept. of Fish and Game, Nongame Wildl. Investigations, Project Rept., 6 pp.

Leach, H. R., and L. O. Fisk. 1972. At the crossroads - a report on California's endangered and rare fish and wildlife. Calif. Dept. of Fish and Game. 99 pp.

Moffitt, J. 1941. Notes on the food of the California clapper rail. Condor 43:270-273.

National Audubon Society. 1981. Eighty-first Audubon Christmas bird count. American Birds 35(4):351-765.

_____. 1982. The Eight-second Audubon Christmas bird count. American Birds 36(4):369-786.

Oberholser, H. C. 1937. A revision of the clapper rails (Rallus longirostris Boddaert). Proc. U.S. Nat. Mus. 84:313-354.

Ohmart, R. D., and R. W. Smith. 1973. North American clapper rail (Rallus longirostris) literature survey with special consideration being given to the past and current status of yumanensis in fulfillment of Bur. of Recl. contact No. 14-06-300-2409. Yuma, Arizona.

_____, W. O. Deason, and S. J. Freeland. 1975. Dynamics of marsh land formation and succession along the Lower Colorado River and their importance and management problems as related to wildlife in the arid Southwwest. Pages 240-254 in Proceedings 40th North American Wildl. and Nat. Res. Conf.

_____, and R. E. Tomlinson. 1977. Some foods of three western rail populations. Wilson Bull. 89:332-336.

Phillips, A., J. Marshall, and G. Monson. 1964. The Birds of Arizona. University of Arizona Press, Tucson. 212 pp.

Smith, P. M. 1974. Yuma clapper rail study, Mohave County, Arizona. Calif. Dept. Fish & Game, Wildl. Mgmt. Br. Admin. Rpt. No. 75-2. 12 pp. plus appendices.

Todd, R. L. 1971. Nongame wildlife investigations, Arizona Game and Fish Dept., Proj. W-53-21, Prog. Rpt. Work Plan 5, Job I, 11 pp.

_____. 1973. Nongame Wildlife Investigations, Arizona Game and Fish Dept., Proj. W-53-R-23, Prog. Rpt. Work Plan 5, Job I.

Tomlinson, R. E. 1969. Preliminary studies - endangered wildlife of southwestern U.S., unpublished annual progress report. Patuxent Wildlife Research Center, U.S. Bureau of Sports Fisheries and Wildlife, Laurel, Md.

_____. 1971. Report of two clapper rail collecting expeditions. U.S. Fish and Wildlife Service (unpublished).

_____, and R. L. Todd. 1973. Distribution of two western clapper rail races as determined by responses to taped calls. Condor 75(2):177-183.

U.S. Dept. of the Interior. 1968. Rare and endangered fish and wildlife of the United States. Bureau of Sport Fisheries and Wildlife Resource Publ. 34.

Walker, B. W. 1961. The ecology of the Salton Sea, California, in relation to the sportfishery. Calif. Dept. of Fish & Game Fish Bull. No. 113. 204 pp.

Welch, J. M. 1966. Southwest region. Audubon Field Notes 20:590.

Wilbur, S. R., and R. E. Tomlinson. 1976. The literature of the western clapper rails. U.S. Fish and Wildlife Service, Spec. Scientific Rep. Wildlife No. 194, 31 pp.

Williams, L. 1929. Notes on the feeding habitats and behavior of the California clapper rail. Condor 31:52-56.

# PART III

## IMPLEMENTATION SCHEDULE

Priorites in column four of the implementation schedule follow the following guidelines:

Priority one (1) - Those actions absolutely necessary to prevent extinction of the species.

Priority two (2) - Those actions necessary to maintain the species' current population status.

Priority three (3) - All other actions necessary to provide for full recovery of the species.

Part III. IMPLEMENTATION SCHEDULE

| General Category | Plan Task | Task Number | Priority | Task Duration | Responsible Agency | | | Fiscal Year Costs (In thousands of dollars) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FWS | | Other | FY 84 | FY 85 | FY 86 | Other |
| | | | | | Region | Program | | | | | |
| M3 | Maintain minimum breeding population | 1. | 2 | Ongoing | 2 | SE | | | | | |
| I1 | Sample population | 1.1 | 2 | Ongoing | 2 | SE | AZ,CA,BLM,BR | | 22 | | |
| I1 | Local (U.S.) pop. survey | 1.11 | 2 | Ongoing | 2 | SE | AZ,CA,BLM,BR | 2 | 2 | 2 | |
| I1 | Mexican population survey | 1.12 | 2 | Ongoing | 2 | SE | | 7 | | | |
| R6 | Biological requirements | 1.2 | 2 | 3 years | 2 | Research | CA,AZ | 19 | 19 | 21 | |
| R6 | Behavior parameters | 1.21 | 2 | 3 years | 2 | Research | CA,AZ | 21 | 19 | 19 | |
| R6 | Life history | 1.22 | 2 | 3 years | 2 | Research | CA,AZ | 24 | 24 | 24 | |
| I2 | Habitat needs | 1.23 | 2 | 1 year | 2 | SE | | 5 | | | |
| M3 | Breeding habitat | 1.3 | 2 | Ongoing | 2 | SE | AZ,CA,BLM | | | | |
| I2 | Habitat survey | 1.31 | 2 | Ongoing | 2 | SE | AZ,CA,BLM | | 25 | | |
| M3 | Protect habitat, public lands | 1.32 | 2 | Ongoing | 2 | SE | AZ,CA,BLM | | | | |
| M3 | Havasu NWR | 1.321 | 2 | Ongoing | 2 | Refuges | | 5 | 5 | 5 | |
| M3 | Cibola NWR | 1.322 | 2 | Ongoing | 2 | Refuges | | 5 | 5 | 5 | |
| M3 | Imperial NWR | 1.323 | 2 | Ongoing | 2 | Refuges | | 5 | 5 | 5 | |
| M3 | Salton Sea NWR | 1.324 | 2 | Ongoing | 1 | Refuges | | 5 | 5 | 5 | |
| M3 | Yuma District, BLM | 1.325 | 2 | Ongoing | | | BLM | 5 | 5 | 5 | |
| M3 | Mittry Lake, AZ | 1.326 | 2 | Ongoing | | | AZ | 5 | 5 | 5 | |
| M3 | Imperial WMA, CA | 1.327 | 2 | Ongoing | | | CA | 5 | 5 | 5 | |
| M3 | Disjunct populations | 1.328 | 2 | Ongoing | | | FS | 1 | 1 | 1 | |

IMPLEMENTATION SCHEDULE CONTINUED

| General Category | Plan Task | Task Number | Priority | Task Duration | Responsible Agency | | | Fiscal Year Costs (In thousands of dollars) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FWS | | Other | FY 84 | FY 85 | FY 86 | Other |
| | | | | | Region | Program | | | | | |
| M3 | Maintain river flow | 1.33 | 2 | Ongoing | | | BR | | | | |
| I2 | Summarize flow | 1.331 | 3 | 6 months | | | BR | 1 | | | |
| A3 | Establish flow agreement | 1.332 | 3 | Ongoing | 2 | SE | BR,AZ,CA,DOA,CE | | | | |
| I2 | Determine other habitat | 1.34 | 3 | 2 years | 2 | SE | AZ,CA,BLM | | | | |
| M3 | Preserve winter habitat | 2. | 3 | Ongoing | 2 | SE | AZ,CA,BLM | 5 | 5 | 5 | |
| M3 | Winter habitat/United States | 2.1 | 3 | 3 years | 2 | SE | AZ,CA | | | | |
| R8 | Movement patterns | 2.11 | 3 | 3 years | 2 | Research | AZ,CA | 125 | 95 | 51 | |
| M3 | Preserve & manage winter habitat/United States | 2.12 | 3 | Ongoing | 2 | SE, Refuges | AZ,CA,BLM | 5 | 5 | 5 | |
| I2 | Locate winter habitat/ Mexico | 2.2 | 3 | 3 years | 2 | Research | Mexico | 18 | 18 | 18 | |
| I2 | Determine extent of habitat | 2.21 | 3 | 3 years | 2 | Research | Mexico | 21 | 21 | 21 | |
| A3 | United States/Mexican agreement | 2.22 | 3 | Ongoing | 2 | SE | Mexico | | | | |
| M3 | Manage winter habitat/ Mexico | 2.23 | 3 | Ongoing | 2 | SE | Mexico | | | | |
| 01 | Education | 3. | 3 | Ongoing | 2 | SE | AZ,CA | | | | |
| 01 | Public information | 3.1 | 3 | Ongoing | 2 | SE | AZ,CA | 2 | 2 | 2 | |
| 01 | To assist conservation groups | 3.2 | 3 | Ongoing | 2 | SE | AZ,CA | 1 | 1 | 1 | |

# APPENDIX A

## Letters and Memoranda Commenting On the Draft Plan

UNITED STATES GOVERNMENT

# *Memorandum*

FISH AND WILDLIFE SERVICE
PORTLAND, OREGON

SE

TO : Regional Director, Region 2
Albuquerque, NM

DATE: June 15, 1982

FROM : Assistant Regional Director, Federal Assistance
Portland, OR (AFA-SE)

SUBJECT: Agency Draft--Yuma Clapper Rail Recovery Plan

| | |
|---|---|
| | Coordinator |
| | Mgmt. |
| | Sec. T |
| | |
| | |
| | |
| | |

The subject recovery plan has been reviewed by Region 1 SE staff and found to be biologically sound, and except for the following comment, realistic in its approach to species recovery.

The FY '83 Preliminary Program Advice does not appear to have any SE money in either Region 1 or 2, or in Research, earmarked for Yuma rail work. We do not recall any discussion of Research work on Yuma rail in the '84 Research Needs Conference. Therefore, it would seem at first glance that the timing of activities is not realistic. You may have made some appropriate revisions by this time to correct this sequencing difficulty. A few specific comments follow.

| | | |
|---|---|---|
| A-1 | Page 2 | Line 6-delete comma after Baja. |
| A-2 | Page 2 | Line 4 of Taxonomy-delete checklist in AOU citation; line 9 comma after D.C. |
| A-3 | Page 3 | Line 1-comma after yumanensis. |
| A-4 | Page 3 | Line 9 in Distribution and Abundance-delete n in scientific name, obsoletus. |
| A-5 | Page 13 | Line 6-spelling of raccoons. |
| A-6 | Figure 1 | Following page 13-add source, "From Wilbur and Tomlinson, 1976." |
| A-7 | Figure 2 | Does this figure appear as is in some reference or is it a "new" figure developed from data of the four cited observers? If the former, reference citation is needed. |
| A-8 | Page 14 | Stepdown #11-suggest revision--"To sample every five years all known regions where Yuma clapper rail populations are found and to develop and implement a plan of local population surveys every year." |

RECEIVED
OFFICE OF THE REGIONAL DIRECTOR

FWS REG 2
RECEIVED
JUN 21 '82

JUN 21 1982

SE

Regional Director, R-2 - Agency Draft--Yuma Clapper Rail Recovery Plan

A-9 To accomplish all of #11, need to add "113. Conduct transect counts every five years." The Narrative and Implementation Schedule will require appropriate revision.

Thank you for the opportunity to review this important recovery plan.

E. B. Chamberlain, Jr.

SRWilbur/LESafley:eas

SE

IN REPLY REFER TO
6840 (932)

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
2400 VALLEY BANK CENTER
PHOENIX, ARIZONA 85073

| End. Sec. R- | |
|---|---|
| | Coordinator |
| | Mgmt. |
| | Sec. 7 |
| | |
| | |
| | |
| | |
| | Admin. |
| | ACTION |
| | FILE |

June 22, 1982

Memorandum

To: Regional Director, Region 2, Fish & Wildlife Service, Albuquerque, New Mexico

From: Chief, Division of Resources, Arizona

Subject: Yuma Clapper Rail Recovery Plan

We have reviewed the second draft plan which you sent us on May 17, 1982.

B-1 The plan seems to be comprehensive and we have no additional comments, corrections, or additions to offer.

Thank you for the opportunity to review this draft.

Harold H. Ramsbacher

RECEIVED
REGIONAL DIRECTOR

JUN 24 1982

FWS REG 2
RECEIVED
JUN 25 '82

SE

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P. O. BOX 2711
LOS ANGELES, CALIFORNIA 90053

RD
DRD
CCS
LE
ACTION
FILE

SPLCO-O

1 JUL 1982

Coordinator
Mgmt.
Sec.
Admin.
ACTION
FILE

Mr. Jerry L. Stigman
Regional Director (Acting)
U.S. Fish and Wildlife Service
P.O. Box 1306
Albuquerque, NM 97103

Dear Mr. Stigman:

Inclosed please find our comments on the second draft of the Yuma Clapper Rail Recovery Plan. I hope they will aid you in preparing the final plan.

If we may be of any further assistance, or if there are any questions regarding our comments, please contact Rick Harlacher at (213) 688-5635.

Sincerely,

for PAUL W. TAYLOR
Colonel, CE
District Engineer

Incl
As stated

FWS REG 2
RECEIVED
JUL 7 '82

JUL 6 1982

COMMENTS: DRAFT YUMA CLIPPER RAIL RECOVERY PLAN

The US Army Corps of Engineers, Los Angeles District, controls water levels at two reservoirs located on tributaries of the lower Colorado River; Alamo Dam on the Bill Williams River and Painted Rock Dam on the Gila River. In addition, the Corps prescribes flood control operations for Hoover Dam although the actual dam operation is conducted by the U.S. Bureau of Reclamation. Therefore the Los Angeles District could, through its release schedules, significantly affect the water levels in the lower Colorado system.

Many factors are considered in the development of water release schedules including, but not limited to, the Water Treaty with Mexico, farming interests, and fish and wildlife conservation and enhancement. Proposed release schedules are coordinated with Arizona Game and Fish Department and the U.S. Fish and Wildlife Service, and whenever possible, releases are scheduled so that fish and wildlife resources, including the Yuma Clapper Rail, will be benefited.

In addition to affecting water levels, the Corps controls many activities on the lower Colorado through Section 404 of the Clean Water Act. Some of these activities could potentially affect the maintenance or expansion of existing Clapper Rail habitat.

The proposed recovery plan appears to be a viable means of meeting the recovery objective. We feel it is especially important to determine the Clapper Rail's status in Mexico and to pursue measures to protect winter habitat since any measures taken to protect and enhance breeding habitat in the U.S. will be fruitless if winter habitat is not also secure.

C-1 The Corps will support, to the extent possible, any recommended measures that will lead to the enhancement and eventual delisting of the Yuma Clapper Rail. Accordingly, we wish to cooperate with the Recovery Team in the development of a viable Recovery Plan. The Los Angeles Disrict is anxious to meet with Recovery Team representatives in order to exchange information and establish management objectives. We feel it is critical that the Corps of Engineers be included in any interagency committees or in any agreements developed regarding the Clapper Rail.

UNITED STATES GOVERNMENT

# memorandum

DATE: June 8, 1982

REPLY TO ATTN OF: Richard C. Banks, Museum Section, DWRC

SUBJECT: Yuma Clapper Rail recovery plan

TO: Chief, WER
Thru: Director, DWRC

I have reviewed the Yuma Clapper Rail recovery Plan prepared by Stanley Anderson and believe that it is appropriate to the task. It correctly emphasizes habitat management.

D-1 Paragraph 2 of page 2 discusses distribution in general terms, and suggests that birds occur elsewhere in Mexico beyond the known breeding range there. I think this is not likely to be so, and suggest deletion of the last sentence of that paragraph.

D-2 The quote from Grinnell 1914 on page 3 is not exact; indication of the page no. should be given for those who might want to refer to it.

D-3 Paragraph 2 on page 11 discusses winter records of rails in the range of yumanensis, and impies that they are birds of this subspecies. They seem to be sight records only, and should not be taken as evidence of the winter residence of this race without specimen verification.

D-4 Item 11 of the narrative to the recovery plan, page 16, suggests that two workers should cover a transect line, "one with a tape recorder and the other recording." I assume that this means that one should play prerecorded tapes to elicit response, and the other should tally the responses, but the meaning should be clarified.

D-5 The Implementation Schedule lists all activities as Priority 2 or 3. It would seem that something should take first priority, or there will be no opportunity for lower priority items to get done. I suggest that, since breeding numbers and habitat appear to be stable, work on the winter distribution and habitat would rank as a rather high priority need.

D-6 The plan, page 25, identified SE as the responsible agency for items 22 and 221, related to determination of winter distribution. I suggest that this fits more nearly as a responsibility of Research.

D-7 The draft plan suffers badly, at this stage, from typographical, grammatical, and punctuation errors, some (but probably not all) of which I have flagged on the attached copy.

RCBanks

Richard C. Banks

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

U.S. Government Printing Office: 1977—241-530/3474

OPTIONAL FORM NO. 10
(REV. 7-76)
GSA FPMR (41 CFR) 101-11.6
5010-112

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

# Memorandum

TO : Chief, Division of Wildlife Ecology Research

DATE: June 22, 1982

FROM : Leader, Section of Migratory Nongame Birds, PWRC

SUBJECT: Review of Yuma Clapper Rail Recovery Plan

| | | |
|---|---|---|
| | Mgmt. | |
| | Sec. 7 | |
| | Dave | |
| | | |
| | | |
| | | |
| | Admin. | |
| ACTION | | |
| FILE | | |

Attached is the copy of the subject recovery plan that I have reviewed. Minor comments are on the manuscript.

Overall this manuscript reads fairly well and requires little technical editing. There are several points regarding content that I feel deserve mention and consideration by either the author or OES.

E-1 1. Despite many rail call counts, the number of birds responding bears no known relationship to number of active nests. This is an important point in view of the indication that the number of birds recorded during a dove "coo count" may be more a reflection of the number of unmated birds than to the number of breeders. Several intensive nest searches should be conducted as a form of ground-truthing for the call counts. This is brought out briefly on page 17 but should receive more emphasis. Because the number of calling birds seems to have been fairly stable over the past several years, it is likely that reproductive performance is adequate. I am surprised there is so little information on nesting (p. 11-12). Some mention might be made of reproductive success in other populations.

E-2 2. Some of the objectives of the recovery plan are too general, e.g. 122: Determine life history patterns, with emphasis on life span and mortality. How far does one need to go with such a study and what does "life history patterns" mean? It sounds like a tall order and more than a minimal prerequisite to de-listing. Many of the goals should be worded more specifically so that they are attainable.

E-3 3. The fact that this bird does not represent a relict population but rather a population that has become established as a result of man's habitat destruction calls into question the rationale for listing the bird in the first place. Its taxonomic status is marginal at best. There would be a stronger case if surveys showed that most clapper rail populations on the Pacific side are in some jeopardy and perpetuation of this "artificial" population is insurance against extinction. Perhaps this is the case. But, if not, OES would seem to be better off placing its efforts elsewhere.

RECEIVED
IS FWS REG 2
OFFICE OF THE
REGIONAL DIRECTOR

Marshall A. Howe

Attachment

SE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
WASHINGTON, D.C. 20240

ADDRESS ONLY THE DIRECTOR
FISH AND WILDLIFE SERVICE

RD
DRD
APA
ARW
AEV
CSS
LE

End. Sp. R-2
Coordinator
Dave
Curt

FILE

In Reply Refer To:
FWS/OES

JUL 13 1982

Memorandum

To: Regional Director, Region 2 (ARD/AFF)
Acting Associate
From: Director

Subject: Yuma Clapper Rail Recovery Plan - Comments on Second Agency Review Draft

We have reviewed the subject plan and offer the following comments:

F-1 1. Figures 1 and 2 which are the last pages of Part I should be paginated and follow the pages which first refer to these figures.

F-2 2. Page 13, last paragraph - The importance of maintaining early successional stages of cattail marsh for breeding populations of the Yuma clapper rail is noted. Are the techniques for maintenance of early successional cattail marsh along the lower Colorado River established or well known? If so, it would be helpful if sources of information on management techniques were cited in the plan. If management techniques have not been established then this should be identified as a recovery task in the Step-down Outline and Implementation Schedule.

F-3 3. Page 14, Goal - First sentence, change "the status of the Yuma clapper rail should be changed to threatened." to "the status of the Yuma clapper rail should be considered for reclassification to threatened status." Also, the second sentence, change "the Yuma clapper rail could be delisted when:" to "the Yuma clapper rail should be considered for delisting when:"

F-4 4. Page 14, Goal - The third criteria to be met for consideration of delisting is the development of management plans for important breeding areas. If these areas are already known they should be identified in the recovery plan and the development of management plans incorporated in the Step-down Outline and Implementation Schedule as a recovery task.

F-5 5. Other minor editorial comments and corrections are noted on the attached copy of the plan.

FWS REG 2
RECEIVED

JUL 19 '82

SE

We hope these comments will be helpful in preparation of the final draft. Please submit two copies of the final draft for our review with two approval pages for the Director's signature.

Attachment

Richard W. Parsons

RECEIVED
US FWS REG 2
OFFICE OF THE
REGIONAL DIRECTOR

JUL 16 1982

UNITED STATES GOVERNMENT U.S. FISH & WILDLIFE SERVICE

# Memorandum

TO : Regional Director, Region 2 DATE: July 20, 1982

FROM : Refuge Manager, Cibola NWR

SUBJECT: Comments on Draft Yuma Clapper Rail Recovery Plan

The Yuma Clapper Rail Recovery Plan has been reviewed by this station. Cibola has two comments which may be considered as information only:

G-1 1. Page 12, Limiting Factors, Paragraph 2

The use of Kenopac and ammonium sulfate can also be used effectively in establishing habitat by providing potholes and channels through dense stands of cattails. Silt deposits from the blasting provide excellent areas for cattail growth, while water depths incurred from blasting are usually only one to five feet. This minimum depth encourages and attracts plant emergents and aquatic organisms, thereby providing excellent food sources for the rails.

G-2 2. Page 14, 132. To continue to preserve, protect, and manage rail habitat on state and federal lands

As discussed above, the use of explosives serves as an excellent tool to create channels and potholes for rail habitat. Public use management, however, plays an equally important role. To insure proper protection of habitat, minimum disturbance by the public should be enforced, especially during the mating and nesting season. The foregoing statement is predicated on the comparison between Cibola Lake and the Old River Channel portion of the Colorado River where habitat conditions are very similiar. The Old River Channel, however, has recorded from three to nine times as many birds as Cibola Lake during the last three years. This extreme variation in the number of birds censused,the refuge believes, is the result of moderate to high public use on the lake and very minimal use on the Old River Channel.

FWS REG 2
RECEIVED
JUL 2[illegible] 82

SE

End. Sp. R.
Coordinator
Mgmt.
Spec.
Adm in.
FILE

UNITED STATES GOVERNMENT

U.S. FISH & WILDLIFE SERVICE

# *Memorandum*

**TO** : Assistant Regional Director (SE), Region II
Albuquerque, NM

**DATE:** July 22, 1982

**FROM** : Assistant Area Manager (SE), Phoenix Area Office
Phoenix, AZ

**SUBJECT:** Review of Second Agency Review Draft of the Yuma Clapper Rail Recovery Plan

I have the following comments concerning the subject draft recovery plan:

H-1 1. Page 1, paragraph 1 - Recently, breeding Yuma clapper rails were found north of Topock Marsh just two miles south of the Nevada/California State line.

H-2 2. Page 2, paragraph 1 - High water in the Colorado River delta resulting from the floods of the winters of 1978 and 1980 greatly changed Yuma clapper rail habitat in the delta. Much good habitat was inundated and silted over. There are many areas in Mexico which have never been surveyed for rails but which appear from the air to contain rail habitat. An example of one of these areas is the feeder canals which provide water to Laguna Salada.

H-3 3. Page 5, last paragraph - The 1981 Mexican Delta survey did include the "prime" habitat as it existed in 1981. A flight over the area after the survey confirmed this. Two years of flood flows had completely devastated the delta, turning what was prime rail habitat prior to 1979 into barren mud flats. The plug which existed for many years and prevented the waters of the Rio Hardy and Rio Colorado from reaching the sea was breached and this alone caused substantial changes in the delta habitat.

H-4 4. Page 6, paragraph 1, sentence 2 - Omit the "in" after "yielded."

H-5 5. Page 6, last paragraph - Yuma clapper rails have been found along the Gila River south of Buckeye, Arizona, in an area where cattail marshes are forming in the wake of flood years.

H-6 6. Page 7, last sentence - Yuma clapper rails also nest in Mexico.

H-7 7. Page 8, paragraph 1 - There is evidence the Yuma clapper rail perhaps did very well in habitat created when bends of the river were cut off and became oxbow lakes, these may have historically been the preferred habitat, especially when they became surrounded with cattail and bullrush.

H-8 8. Page 8, paragraph 2 - In 1980, flood waters completely covered the salt cedar and iodine bush habitat. After the water receded, vast mud flats were left. The flood waters completely covered the delta from the Mexicali-San Felipi highway to El Golfo de Santa Clara. The road between Campo Ramona and Las Carapilas was completely washed away.

FWS REG 2
RECD
JUL 26 82

Assistant Regional Director (SE), Region II 2.

H-9 9. Page 8, paragraph 8 - A major cause of the brackish water conditions found in the delta is the return of high saline irrigation return flows from the United States.

What are the construction projects in Mexico? Construction projects in the United States have changed the delta by greatly reducing the flow of water to the delta.

H-10 10. Page 9, paragraph 1 - Is the habitat loss, referred to in this paragraph, in the Salton Sea?

H-11 11. Page 9, paragraph 3 - Jops Slough should read, Japs Slough.

H-12 12. Page 9, last paragraph - Does the realignment in 1970 of the Gila Sluice cause something, or is it a "nice to know" fact?

H-13 13. Page 11, Habitat Section - In this section there is no mention made of Santa Clara Slough which has become a prime Yuma clapper rail breeding and wintering area because of the completion of the by-pass canal.

H-14 14. Page 12, last paragraph - The dredging at Topock Marsh formed rail habitat only becuase of the way the spoil was deposited. The key to good rail habitat is shallow water containing emergent vegetation which surrounds a high ground island. Most dredging results in steep banks where spoil and water meet, this is unsuitable as rail habitat.

H-15 15. Page 13, last paragraph - "Early succession of cattail marsh" is a confusing phrase, does it mean the stands of cattail which develop within one to two years of flooding? If so, this type of habitat is not preferred rail habitat since the new growth cattail does not offer the birds any dead material on which to walk. Quite often, new stands of cattail form over areas where the water is one to two feet deep, the rails will not use these areas until they have existed for several years and a mat of dead cattail forms.

H-16 16. Page 14, Goal - The goal has been changed from the original plan which called for a population of 1700 adult birds to a goal in this plan of 700-1000 birds. Is there a reason for this change?

H-17 17. Page 14, No. 1 - Perhaps, since the heading under the Recovery Objective is, "To maintain a minimum population of breeding Yuma clapper rails in the United States of 700-1000 individuals," it would be more appropriate to have subsection 13, under number one, since it deals with maintaining the habitat we presently have in the United States. If you are to maintain a population you must maintain habitat for that population. Conducting surveys does not maintain the population, it only tells you that you still have a population.

Assistant Regional Director (SE), Region II 3.

I appreciate the opportunity to review and comment upon the draft recovery plan and hope the comments I have provided are helpful. If you have any questions, please don't hesitate to call.

Gerald L. Burton

Gerald L. Burton

STATE OF CALIFORNIA

OFFICE MEMO
STD. 100 (REV. 11-75)

| End. Sp. R-2 | |
|---|---|
| ✓ Coordinator | |
| Mgmt. | |
| Sec. 7 | |

DATE 7-21

TO: USFWS - Albuquerque Ind
Endangered Spp.

ROOM NUMBER
RD
DPD
X ATA
ABW
EEW

FROM: Ron Powell
Yuma Clapper Rail

PHONE NUMBER
CSS
LF

SUBJECT: " Recovery Plan

ACTION
FILE

I-1

I have made a number of comments in the text of the report but the main item I feel needs elaboration is the Telemetry study. This one item will answer a multitude of important questions and give us needed info for mgt. We need to know migration patterns, height of flight and distance covered in migratory hops so we can assess the importance of needing continuity of marsh habitat along the entire Colorado River system. Also

the height factor is needed to allow us to comment intelligently on the increasing number of Power Transmission line crossings proposed along the Colorado River.

If you have any questions don't hesitate to call me

Ron

RECEIVED
JUL 26 1971
REGIONAL DIRECTOR

| End. Sp. R-2 | |
|---|---|
| | Coordinator |
| | Mgmt. |
| | Sec. 7 |
| | Dist. |
| | |
| | |
| | |
| | Admin. |
| | ACTION |
| FILE | |

# United States Department of the Interior

BUREAU OF RECLAMATION
LOWER COLORADO REGIONAL OFFICE
P.O. BOX 427
BOULDER CITY, NEVADA 89005

IN REPLY REFER TO: LC-157A
565.

AUG 10 1982

Memorandum

To: Regional Director, Fish and Wildlife Service, P.O. Box 1306, Albuquerque, NM 87103

From: ACTING Regional Director

Subject: Yuma Clapper Rail Recovery Plan

We have reviewed the Yuma Clapper Rail Recovery Plan and offer the following comments for your use. The comments of David Busch, the Bureau of Reclamation's Recovery Team representative, are included.

General Comments:

We feel that the importance of a study of Yuma clapper rail movement has been underemphasized. This effort would be basic to the realization of several of the Plan's goals (e.g. identification of wintering habitat, management of breeding habitat, etc.)

Also, pending the results of such a study, we feel that migratory habitat should be treated more fully. It is still not certain that preservation of breeding habitat on wildlife refuges is sufficient to ensure Yuma clapper rail survival.

Specific Comments:

J-1 p.1., par. 1: Delete "Laguna Dam near Yuma, Arizona, in".

J-2 p.2., par. 2: Insert "Colorado River" between "the" and "delta".

J-3 p.4., par. 2: Change "do not appear" to "are not detected".

J-4 p.5., par. 2: The formation of rail habitat is more complex than this paragraph indicates. Delete the "10-15 year" figure in line one, since emergent vegetation capable of supporting rails can form much more rapidly under certain conditions.

J-5 p.6., par. 7: The area and portions thereof surveyed in Mexico are not clear here.

J-6 p.14, (Goal): Define "operational" surveys.

J-7 p.16, (11): Stratification of randomly selected transects should be clarified. Are they to be stratified by habitat type, river division, or both?

FWS REG 2
RECEIVED

J-8 p.17 (13): Breeding rails have been located in areas with carrizo in the Yuma Division. We question inclusion of this particular criterion under prime breeding habitat characteristics.

J-9 p.18 (133): Consideration of flows can only realistically fall within a range based on system-wide water allocations that the Bureau of Reclamation must meet.

J-10 p.24: Implementation schedule needs explanations for "General Category", "Priority" and Program".

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

# *Memorandum*

TO : SE - Reg. 2
ATTN.: DAVE LANGOWSKI

DATE: 7/30/82

FROM : SOUTHWEST DOVE COORDINATOR
MBMO, ABQ, NM

SUBJECT: YUMA CLAPPER RAIL RECOVERY PLAN

K-1 I HAVE REVIEWED THE LATEST Y.C.R. RECOVERY PLAN DRAFT AND PENCILLED MY COMMENTS ON THE MARGINS OF THE DRAFT. I THINK IT BASICALLY HAS ALL THE NECESSARY FACETS BUT IT'S ROUGH YET.

HOPE I HELPED.

DOY

5010-109

*Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan*

STATE OF CALIFORNIA—RESOURCES AGENCY

DEPARTMENT OF FISH AND GAME
1416 NINTH STREET
SACRAMENTO, CALIFORNIA 95814
(916) 445-3531

EDMUND G. BROWN JR., Governor

Coordinator
Harmt.
Sec. 7
Admin.
ACTION
FILE

RD
DD
LEV
CES
LE
ACTION
FILE

September 8, 1982

Mr. Jerry L. Stegman
Acting Regional Director
U. S. Fish and Wildlife Service
P. O. Box 1306
Albuquerque, NM 87103

Dear Mr. Stegman:

Please find herein the Department of Fish and Game comments on the agency review draft of the Yuma Clapper Rail Recovery Plan. We appreciate your agreeing to our delay in providing comments, so that we might have an opportunity to solicit comment from our field personnel. Many of our comments are of a minor nature and address misspelling, misuse, or omission of words. However, we do have several substantive suggestions for improvement of the plan.

L-1 Page 1, paragraph 3, line 4: The correct citation is for Leach and Fisk 1972.

L-2 Page 2, first paragraph under TAXONOMY, line 1: Genus name should be Rallus.

L-3 Page 3, first line: Scientific name should be R. l. yumanensis.

L-4 Page 3, paragraph under DISTRIBUTION AND ABUNDANCE, line 9: Subspecific name should be obsoletus.

L-5 Page 3, in quotation of Grinnell, line 7: "such water basins as ox-bow cut-offs."

L-6 Page 4, last paragraph, line 8: The last word on this line should be sighting.

L-7 Page 6, second paragraph, line 4: Omit "in".

L-8 Page 7, second paragraph under HABITAT, lines 4-6: Use commas and the conjunction "and" to make coherent the sentence which begins "Dense cattails had 0.9 rails per 10 ha...."

L-9 Page 9, last paragraph, line 3: "Imperial National Wildlife Refuge."

L-10 Page 13, second paragraph, third sentence: The reader is led to believe that the reason rails (clapper only, or all rails?) are not hunted in the western United States is that they depart for their wintering grounds

FWS REG 2 RECEIVED SEP 17 1982
SEP 20 '82

cc

before the onset of the waterfowl hunting season. Clapper Rails are not hunted in the west because all three subspecies are protected by provisions of federal and state endangered species acts.

-11 Page 13, same paragraph, line 6: "mortality" is misspelled.

-12 Figures 1 and 2, following page 13: These figures should be on numbered pages.

-13 Figure 2: There is no text reference to Monson's 1946 sighting indicated in the figure.

-14 Page 14, GOAL paragraph: Here we find the most serious deficiency of the draft plan. It has not been demonstrated to the Department of Fish and Game that a breeding population of 700-1,000 Yuma Clapper Rails has been stable for 10 years. A minor emphasis has been placed on surveys in the past several years, and a major survey is needed. Once such a survey is conducted and an actual (not extrapolated) count is certified, then we can be confident that a certain number of rails exist in the breeding population. At that point, if we find 700-1,000 rails, then the Department could support an upgrading from endangered to threatened. We agree that the rail could be delisted if all of the four points under GOAL are met and enforced. We recommend that the GOAL paragraph be rewritten to begin as follows: "As soon as it can be shown that a stable breeding population of 700-1,000 individuals exists, then the official classification of the Yuma Clapper Rail can be changed to threatened." This comment also applies to the GOAL paragraph on page 16, under NARRATIVE TO RECOVERY OUTLINE.

-15 Page 14, RECOVERY OBJECTIVE: We find three problems with the plan objective. First, there is no statement of the size of the total population that we wish to survive. It is conceivable that we could maintain 50 rails in one marsh only. The rails would survive as a subspecies, but recovery would not be achieved. Secondly, what are "normal" management procedures? It appears to us that proposed recovery measures such as maintenance of Colorado River flows and agreements with Mexico are not usual methods in wildlife management. Thirdly recovery plan objectives usually include a statement of an expected change in classification. We suggest that the recovery objective be rewritten as follows: "To assure the survival of a total breeding population of 700-1,000 Yuma Clapper Rails, so that the subspecies can be delisted."

-16 Page 14, Item 112: How often would a survey of breeding rails in Mexico be conducted? Would the survey be a one-time affair, or would it be conducted annually (as in the U. S., per item 111) or every five years (as in the U. S., per item 11)? We recommend that the Mexico survey be conducted every five years, in the same year as the U.S. survey.

L-17 Page 17, item 13, line 3: Perhaps the word "marsh" could be substituted for "swamp."

L-18 Page 19, item 211: This task should be expanded to provide for determining movements of rails in the U. S. and Mexico; and for determining the importance of continuity of marsh habitat, i.e., what is the importance, if any, of a continuous strip of marsh along the Colorado River.

L-19 Page 22, LITERATURE CITED: The eleventh citation is for "Leach, H. R., and L. O. Fisk."

L-20 Pages 24-25, IMPLEMENTATION SCHEDULE: We note that there are no Priority 1 tasks here! We believe that first priority tasks are those critical to protecting winter habitat in Mexico and to maintaining breeding habitat. Therefore, we suggest that Priority 1 be given to the following tasks: 13, 131, 132, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 133, 1332, 2, 22, 221, 222, and 223.

L-21 Pages 24-25, IMPLEMENTATION SCHEDULE: Agency responsibility for tasks 12, 121, 122, 131, 21, 211, and 212 should include the Department of Fish and Game, which has lead responsibility for implementing research on federally-listed endangered species in California, under terms of the cooperative agreement with the U. S. Fish and Wildlife Service. Tasks 3, 31, and 32 are also within the jurisdiction of the Department.

Thank you for the opportunity to review the agency draft of this recovery plan. We believe that the document is well-written and well-thought-out. Our disagreement occurs in the statements of the goal and recovery objective, and in the establishment of priorities. We recognize the urgency of implementing a recovery plan for the Yuma Clapper Rail. Funding is not likely to be available to the Department of Fish and Game in the next several fiscal years to fully implement the assigned tasks. As you know, the grant-in-aid (Section 6) funding to the states for endangered species management has been eliminated. Under that condition, and until the financial climate improves, we can conduct only a minimal program.

When a final plan is approved, please send a half dozen copies to the Department. The copies, and any questions about our comments and concerns with the plan, should be directed to John R. Gustafson, Endangered Bird and Mammal Program, at the letterhead address. Mr. Gustafson's telephone number is 916-322-1260 (FTS 552-1260).

Sincerely,

EC Fullerton

Director

cc: R. Powell, Team Leader

## Replies to Comments

A-1 Corrected
A-2 Corrected
A-3 Corrected
A-4 Corrected
A-5 Can be spelled both ways
A-6 Added
A-7 Corrected
A-8 Corrected
A-9 Already covered
B-1 No comment
C-1 Incorporated DOA-CE in agencies responsible for Colorado River flow
D-1 Other experts feel differently, e.g., Tomlinson.
D-2 Corrected quote
D-3 There is a difference of opinion between a field biologist and a museum expert.
D-4 Clarified
D-5 Priorities based on guidelines. Note page 23.
D-6 Changed
D-7 Corrections made
E-1 No comment
E-2 No changes made. Proposals will better define research goals. Further elaboration is beyond scope of recovery plan.
E-3 No comment
F-1 Figures are revised
F-2 Methods have been inserted
F-3 Change made
F-4 The Federal and State areas are included
F-5 Corrections made
G-1 Paragraph inserted into plan
G-2 Included in plan
H-1 Included in plan
H-2 Included in plan
H-3 Included in plan
H-4 Corrected
H-5 Already included in general reference
H-6 Noted
H-7 Already stated in plan
H-8 Included in plan
H-9 Included
H-10 Clarified
H-11 Corrected
H-12 No change made
H-13 Included in plan
H-14 Clarified
H-15 Clarified

H-16 Goal specified for U.S. only
H-17 Covered in plan
I-1 Comments included in plan. Specifics will be part of research proposal since they exceed scope of plan.
J-1 Corrected
J-2 Corrected
J-3 No change
J-4 No change. Agree that suitable habitat can form more rapidly.
J-5 No change
J-6 Deleted operational
J-7 No change, by habitat areas
J-8 Statement modified
J-9 This is understood
J-10 Explanations are contained in the recovery plan guidelines developed by the U.S. Fish & Wildlife Service, also page 23.
K-1 Appropriate corrections and changes made
L-1 Corrected
L-2 Corrected
L-3 Corrected
L-4 Corrected
L-5 Corrected
L-6 Corrected
L-7 Not changed
L-8 Corrected
L-9 Corrected
L-10 Statement referencing no legal hunting season included
L-11 Corrected
L-12 Figures have page numbers
L-13 Statement added
L-14 Estimate of 700-1,000 rails is based on actual numbers of birds responding to recorded calls. Suitable habitat was not covered completely in all survey years; however, data was not corrected for this factor.
L-15 Objective reworded
L-16 Mexico should be surveyed every 5 years along with an intensive United States survey.
L-17 Changed
L-18 This will be included in proposal for telemetry work.
L-19 Corrected
L-20 Priority system explained on page 23. Agree that items listed are of high importance.
L-21 Add CA to those items from which they were omitted.