

BOSTON PUBLIC LIBRARY



3 9999 06317 719 8

THE LITERATURE OF THE CALIFORNIA BLACK RAIL

179

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Special Scientific Report—Wildlife No. 179

Library of Congress Cataloging in Publication Data

Wilbur, Sanford R

The literature of the California black rail.

(Special scientific report--wildlife no. 179)

Bibliography: p.

1. Black rail. 2. Birds--The West. I. Title.

II. Series.

SK361.A256 no. 179 [QL696.G876] 639'.9'08s [598.3'1]
74-11315

UNITED STATES DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service

**THE LITERATURE OF
THE CALIFORNIA BLACK RAIL**

By Sanford R. Wilbur

Patuxent Wildlife Research Center
California Field Station, Ojai, California



U.S. Fish and Wildlife Service
Special Scientific Report--Wildlife No. 179
Washington, D. C. • 1974

TABLE OF CONTENTS

	Page
INTRODUCTION	1
DISCOVERY AND NOMENCLATURE	1
DESCRIPTION	2
DISTRIBUTION	3
LIFE HISTORY	3
CURRENT STATUS	7
STUDY AND MANAGEMENT CONSIDERATIONS.	8
RECORDS OF THE CALIFORNIA BLACK RAIL	9
California.	9
Arizona	10
Oregon.	10
Washington.	10
Baja California	11
BIBLIOGRAPHY	12

INTRODUCTION

Few birds have remained so little known as the California black rail (Laterallus jamaicensis coturniculus). Although first collected in 1859 or before and reported in 1874 (Ridgway 1874), its life history, distribution, and status have remained so obscure that even a sight record of the bird is deemed worthy of a report in some ornithological publication. Because degradation and loss of freshwater and saltwater marshlands in California may be detrimentally affecting the black rail, both the U.S. Bureau of Sport Fisheries and Wildlife (1973) and California Department of Fish and Game (1972) have classified it as rare and worthy of further study.

The 84 papers and notes both summarized in this report and included in its bibliography include essentially all that is currently known about the California black rail. Only 11 of these papers consider the life history of this rail in any detail. The rest are distribution notes and some of the more important papers on the closely related eastern black rail (L. j. jamaicensis). The latter are included for comparative purposes, or because they may lend clues to currently unknown facets of the life history of the western race.

DISCOVERY AND NOMENCLATURE

The first known specimen of California black rail was presented to the Smithsonian Institution in 1859 by T. C. Martin. The collecting locality was given as "Farallones, Cal.," apparently referring to the Farallon Islands, about 30 miles west of San Francisco, California. No collecting date or additional data were included with the skin (Ridgway 1890). It became specimen No. 12,862 in the National Museum and was described by Ridgway (1874) as the Farallon Rail (Porzana jamaicensis coturniculus Baird).

Controversy arose over the identity of the bird when black rails were discovered on the nearby California mainland. Bryant (1888), after determining that there was no typical rail habitat on the Farallon Islands and after examining specimens of both eastern and California black rails, concluded that the so called "Farallon rail" was only a slightly abnormally plumaged specimen of the same bird found on the mainland on both East and West Coasts. Ridgway (1890) disagreed, suggesting the Farallon rail was more closely related to rails found on the distant Galapagos Islands than to any mainland birds. He proposed the Farallon rail be considered a separate species, Porzana coturniculus, until relationships were clarified. The second edition of the American Ornithologists Union (AOU) Check-list of North American Birds followed Ridgway's leading.

Brewster (1907) examined a number of black rail specimens collected in California only about 20 miles from the Farallon Islands. Seeing no major differences between these birds and the one specimen of "Farallon rail," he expressed the opinion that all California birds should be classified as the California black rail, a subspecies with the scientific name given to the Farallon bird originally (P. j. coturniculus). The synonym of the Farallon rail and California black rail were used interchangeably for a number of years. However, the full species status of the California black rail was retained; it became Creciscus coturniculus in the third edition of the AOU Check-list. Eventually, Oberholser (1918) pointed out that, although the California rails differed in some features from eastern black rails, no characteristics were pronounced enough to suggest they were different species. The California black rail once again was classified as a subspecies, Creciscus jamaicensis coturniculus. Peter's Check-list of Birds of the World (1934) placed the North American black rails in the genus Laterallus, where they remain to date.

DESCRIPTION

The California black rail differs from the eastern subspecies (L. j. jamaicensis) in that it is slightly smaller, has a shorter and more slender bill, and has a darker overall coloration and a more extended area of chestnut coloration on the nape of the neck. It is a sparrow-sized bird (about 5 inches total length), uniformly slate-gray overall except for variable amounts of white spotting on back and sides, and has the above-mentioned chestnut nape patch. The bill is blackish, legs and toes blackish-brown, and the eyes are reddish-brown. Sexes are apparently similar in appearance, and juvenals apparently differ only in more uniform coloration and less distinctive pattern. Detailed descriptions are found in Grinnell et al. (1918) and Ridgway and Friedmann (1941).

The most commonly heard song of the California black rail is a staccato "clee-cle-clee-ee (Huey 1916) or "kic-kic-kic-kerr" (Kellogg 1962), sometimes shortened to "kic-kic-kerr" (R. E. Tomlinson, personal communication). This call is apparently made only by the male, and is most commonly heard during the early nesting season, although Huey (1916) heard it in late fall and in February and considered it to be a protest response as well as a mating call. A repetitive "brrrr" sound is frequently heard in black rail areas along the Colorado River and is the call most likely to be heard there at times of the year other than the nesting season (Tomlinson, personal communication). A third call, the cuckoo like "who-who-who" or "croo-croo-croo-o," attributed to the eastern black rail (Wayne 1905; Post and Enders 1969), apparently has not been heard in the western United States. The famous "Kicker" call once believed to be the black rail (Brewster 1901) is now thought to be one of the call notes of the Virginia rail (Post and Enders 1969).

DISTRIBUTION

Cooke (1914) delineated the range of the California black rail as central and southern California from Tomales Bay, Marin County, and San Francisco Bay south to San Diego Bay. He knew of one record each from Washington, Oregon, and Baja California. Ridgway and Friedmann (1941) listed one record from Utah, but it has subsequently been questioned (Woodbury et al. 1949). The only known nesting occurred near National City, San Diego County. Most late fall and winter records were from the National City area, and from the San Francisco Bay region.

No additional records are known from Washington and Oregon, and the validity of at least one of those early observations has been questioned (Jewett et al. 1953). Several additional records are now available for Baja California, and California black rails have also been observed in interior California and in Arizona. Representative records are included in a later section of this report and are depicted in Figs. 1 and 2.

California black rails have definitely nested in San Diego, San Bernardino, Los Angeles, and Ventura Counties, in both saltwater and freshwater marshes. The presence of adult birds in the breeding season or juvenal birds in early fall suggests that nesting has also occurred at San Francisco Bay, along the Colorado River near Yuma, Arizona, and in northern Baja California.

At least a portion of the eastern black rail population is considered migratory (AOU 1957), and the number of records of California black rails found some distance from marshes in late summer and fall suggest this race also wanders considerably (Emerson 1904; Grinnell et al. 1918; Orr 1947; Wall 1919). However, Huey (1916) recorded California black rails in San Diego County every month of the year, and Tomlinson (1970, 1971) reports them along the Colorado River at various seasons, also. It may be that California black rail movements are sporadic rather than representing a true north-south migration. The idea that California black rails nest in the South and migrate north in winter (Bent 1926; AOU 1957) originated at the time when only San Diego County was known as a breeding area. While nesting has not yet been confirmed at the northern end of their range, it has become obvious that California black rails are much more widely distributed at all seasons than was formerly believed.

LIFE HISTORY

Information on the life history of California black rails is extremely limited. Although first described as birds of the coastal salt marshes, they have since been found regularly in both saltwater and freshwater marshes. Vegetation inhabited varies from almost pure pickleweed (Salicornia sp.) along the coast to sedges (Carex sp.),

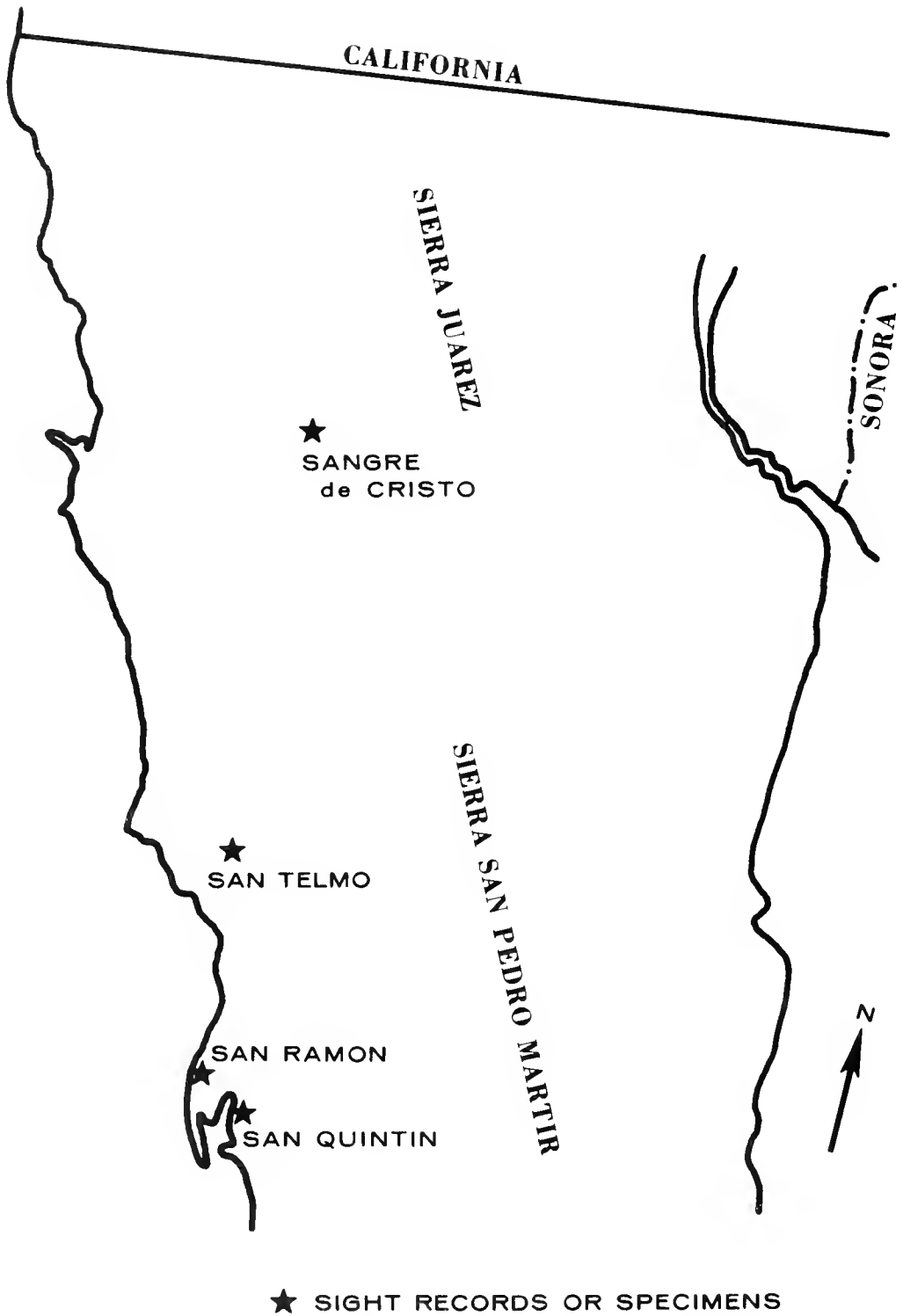


Fig. 1. Locations of black rail records in California.



Fig. 2. Locations of black rail records, Baja California.

saltgrass (Distichlis sp.), and bulrush (Scirpus sp.) in inland areas. Of 31 egg sets in the San Bernardino County Museum and Western Foundation of Vertebrate Zoology collections, 7 were collected in freshwater marshes and 24 in salt marsh. The literature of the better known eastern black rail indicates a similar habitat distribution, and Post and Enders (1969) suggest this species may be quite adaptable to other vegetation types if the food supply is adequate.

Bent (1926) gives egg dates for the California black rail from March 12 to May 23. Seven other egg sets in the museum collections noted above were taken between May 25 and June 4. Bent (1926) records eastern black rail egg dates in New Jersey (26 records) from May 30 to August 12, the majority apparently in mid June. Thirty-one California black rail egg sets in museum collections contain from three to eight eggs, divided as follows:

<u>Number of Eggs</u>	<u>Number of Sets</u>
3	1
4	4
5	6
6	7
7	7
8	6

Bent (1926) gives the eastern black rail average as 6 to 10 eggs, with up to 13 recorded. The eggs of the California birds he describes as white or creamy white, sparingly marked with brown and drab spots; those of the eastern race are buffy or pinkish white, rather evenly spotted with brown and drab markings.

The nest of the California black rail in both freshwater and salt-marsh situations is described as loosely made but deeply cupped and almost always completely concealed by surrounding vegetation (Hanna 1935; Huey 1916; Ingersoll 1909). It may be placed on damp ground (Hanna 1935) or may be elevated in vegetation. Ingersoll (1909) reports nests up to 15 inches above the ground. Most appear to be only slightly above ground or water level and may be greatly disturbed by high spring tides. Huey (1916) observed nests rebuilt several times after high tides, and Ingersoll (1909) reported many black rail eggs floating in the marsh following high tides.

Heaton (1937b) describes California black rails as hatching one at a time, with the hatched chicks leaving the nest almost immediately, and one of the adult birds keeping all chicks together until hatching is completed. The same author (Heaton 1937a) notes the rails' tendency "invariably" to desert a nest if disturbed before egg laying begins

and to desert "nine out of ten times" if only one egg has been laid when disturbance occurs. Similarly, Huey (1916) writes of the "astonishing ease" with which these birds abandon incomplete clutches, even if the nest is not actually molested but only approached.

Bent (1926) suggests California black rails probably eat insects and related small animals. However, the only positive record of stomach contents is from a small series of rails collected near San Diego in the fall of 1912. These birds had eaten an isopod crustacean, Alloniscus mirabilis (Stuxberg), a species abundant in the collection area (Huey 1916). In captivity, black rails have eaten earthworms (Cobb 1906; Taylor 1898).

Like other rails, the California black rail seems to prefer running to flying and is seldom reported on the wing. It is described as walking upright, with head erect, and without the usual jerking motions exhibited by other rails (Huey 1916). Its flight is usually described as weak, the birds giving the impression of being barely able to sustain themselves in the air (Griscom 1915). However, Stoddard (1916) flushed an eastern black rail whose flight he considered "fully as strong" as soras and Virginia rails he had seen the same day. At least some black rails migrate long distances, so they must have strength and capability for sustained flight.

Both Ingersoll (1909) and Huey (1916) speak of a boomerang type flight of the California black rail. When flushed, the rail flies off to some distance, then comes directly back past the point from which it took flight. Taylor (1898) may be referring to this same behavior in describing black rails "circling in irregular flight."

The only published records of predation on California black rails or their eggs are of one captured by a house cat (Orr 1947) and one found in the stomach of a short-eared owl (Huey 1926a). Nests and eggs are sometimes destroyed when inundated by high tides (Ingersoll 1909). Also, there are a number of records of black rails found dead under telephone and electric lines and by fences, radio towers, and lighthouses, indicating they regularly fall victim to collisions (Arnold 1960; Gander 1930; Grinnell et al. 1918; Emerson 1904; Wall 1919). One is known to have been hit by an automobile (Orr 1947).

CURRENT STATUS

There is no certain evidence of any change in numbers or distribution of the California black rail. Records, always sporadic and usually associated with winter high tide periods, continue to come from various locations along the California coast. There also continue

to be inland reports, including those of the apparently resident population in freshwater marshes near Yuma, Arizona. No nests have been reported since 1955 (egg set #19147, San Bernardino County Museum), but this may be because, with the passing of the oologist's era, few people are now willing to expend the time and effort required to find them.

Despite the lack of tangible evidence of population change, there is reason for concern for the California black rail. Both freshwater and saltwater wetland acreage has decreased significantly in California; an estimated 67% of southern California's coastal wetlands have been lost to dredging, filling, and other alterations (Speth 1971). As one local example, the marsh acreage of San Diego Bay has decreased 86%, from 2,450 to 360 acres (Speth 1971). San Diego Bay has long been considered a primary California black rail nesting area; Ingersoll (1909) once estimated 30 pairs in one segment of this marsh. Similar habitat modifications are occurring elsewhere.

STUDY AND MANAGEMENT CONSIDERATIONS

The small body size and secretive nature of the California black rail make it extremely difficult to study, and the little information so far accumulated has been the result of determined hard work by egg collectors and incidental observations by birders and field biologists. Further information will come only from further intensive study of known or potential rail habitat.

The egg collectors' technique was to walk the marshes, turning over every likely clump of vegetation, hoping to flush a bird. Rails were seen, and occasionally birds and eggs were collected, but it was time consuming and hard work. For instance, Ingersoll (1909) made 25 special collecting trips to an area where he knew there were a number of California black rails. In these 25 trips, he collected three sets of eggs and one bird and saw a total of 10 birds. Stephens (1909) hunted a likely area on several high tides but found only one California black rail. The researcher of today cannot be expected to be any more efficient using this technique.

California black rails call frequently during the breeding season and will respond to recordings of their song. Listening for calls and trying to elicit responses to recorded calls has potential for locating birds and gaining some insight into local population size.

Post and Enders (1969) captured four eastern black rails in wire shorebird traps, and caught one additional bird in a mist net. A number of records exist of black rails being caught by hand after being run down by people or dogs (Heaton 1937b; Huey 1916; Ingersoll 1909).

Black rails have been kept in captivity on at least two occasions (Cobb 1906; Taylor 1898), but in neither case did the bird live long.

RECORDS OF THE CALIFORNIA BLACK RAIL

The following records are selected as representative of the distribution of the California black rail. Records labeled SBM (San Bernardino County Museum), SBMNH (Santa Barbara Museum of Natural History), and WFVZ (Western Foundation of Vertebrate Zoology) are taken from collection labels and specimen notes at these institutions.

California

Butte County - March 1962, 1 found dead, Gray Lodge Wildlife Area (Baldrige and Chandik 1969). Marin County - Oct.-Nov. 1897, 22 collected, Point Reyes (Brewster 1907); Aug. 11, 1929, 1 juvenile, Manzanita (Kibbe 1929). Solano County - July 18, 1941, 1, Benicia (Stoner 1945). San Francisco County - 1859?, 1, type specimen, Farallon Islands (Ridgway 1874); June 1905, 1, Farallon Islands (Grinnell and Miller 1944); Dec. 1909, 1, Farallon Islands (Grinnell and Miller 1944); Sept. 20, 1931, 1, Lake Merced (Sibley 1952); Oct. 16, 1932, 1, Lake Merced (Sibley 1952); Oct. 16, 1937, 1, Lake Merced (Sibley 1952); Feb. 14, 1942, 1, Presidio (Sibley 1952); April 2, 1945, 1, Golden Gate Park (Orr 1947); Aug. 9, 1945, 1 immature, San Francisco (Orr 1947). Alameda-Santa Clara-San Mateo Counties - Fall and winter, "many specimens" (Grinnell 1915; Feb. 29, 1892, 1 shot, South San Francisco Bay (Beck 1893); Dec. 1, 1892, 2 shot, South San Francisco Bay (Beck 1893); Nov. 1897, 1 captured and several seen, San Francisco Bay (Taylor 1898); Nov. 1972, 1, Dumbarton Point, Alameda Co. (H. Leach, personal communication). San Joaquin County - date unrecorded, 1, Stockton (Belding 1879); Aug. 26, 1959, 1 found dead, Stockton (Arnold 1960). Santa Cruz County - Sept. 1903, 1 found dead, Santa Cruz (Emerson 1904). San Luis Obispo County - Feb. 1966, 1, Dune Lakes (N. Metcalf, personal communication); Dec. 18, 1972, 1 found dead, location not specified (A. Roest, fide J. Aldrich, personal communication). Santa Barbara County - 1917, 1, Santa Barbara (SBMNH); Nov. 29, 1923, 1, Santa Barbara (SBMNH). Ventura County - March 1898, 1, Hueneme (Willett 1912); May 28, 1936, set of 6 eggs, Hueneme (WFVZ). Los Angeles County - May 16, 1895, 1 Ballona (Willett 1912); Feb. 25, 1928, 1 found dead, Playa del Rey (Ewan 1928); Date unknown, 1 egg found, Playa del Rey (L. B. and L. R. Howsley, fide R. Quigley, personal communication). Orange County - Dec. 12, 1896, 1, Orange (Cooke 1914); Sept. 20, 1970, 1, Upper Newport Bay (Suffel 1970); Feb. 20, 1971, 1, Upper Newport (Suffel 1971a); Sept. 6, 1971, 1, Upper Newport (Suffel 1971b); Dec. 11, 1971, 1, Upper Newport (Suffel 1972a). San Bernardino County - Aug. 3, 1919, 1 found dead, San Bernardino (Wall 1919); May 4, 1931, nest and 1 bird collected, Chino (Hanna 1935). Riverside County - Aug. 1893, 1, Riverside (Wall 1919). San Diego County - Aug. 4, 1876, 1, Point Loma (Grinnell et al. 1918); Dec. 1886, 1 collected, Encinitas (Stephens 1909); Nov. 16, 1902, 1

collected, San Diego (Stephens 1909); April 21, 1906, egg set, San Diego (WFVZ); May 3, 1907, egg set, National City (WFVZ); April 8, 1908, egg set, National City (WFVZ); May 28, 1908, 1 collected, San Diego (Stephens 1909); June 22, 1908, 1 collected and 1 seen, False (Mission) Bay (Stephens 1909); Nov. 1908, 1, Tijuana River (Stephens 1909); March 23, 1909, egg set, National City (WFVZ); April 4, 1909, egg set, Chula Vista (WFVZ); April 18, 1909, egg set, National City (WFVZ); May 25, 1909, egg set and 1 bird, National City (WFVZ); March 12, 1911, egg set, National City (WFVZ); March 20, 1911, egg set, National City (WFVZ); March 24, 1912, egg set, La Punta Slough (WFVZ); March 31, 1912, egg set, Sweetwater Slough (SBM); April 4, 1912, egg set, National City (WFVZ); May 13, 1914, egg set, National City (WFVZ); May 21, 1922, egg set, National City (WFVZ); April 18, 1926, egg set, San Diego (WFVZ); May 5, 1929, egg set, San Diego (WFVZ); Aug. 21, 1929, 1 found dead, near San Diego (Gander 1930); May 4, 1932, egg set, National City (WFVZ); May 6, 1932, egg set, San Diego (WFVZ); April 10, 1933, egg set, National City (WFVZ); May 9, 1933, egg set, Chula Vista (SBM); July 6, 1937, egg set, "San Diego County" (SBMNH); April 26, 1941, egg set, San Diego (SBM); May 4, 1941, egg set, San Diego (SBM); May 25, 1942, egg set, National City (WFVZ); June 2, 1942, egg set, Sweetwater Slough (SBM); May 28, 1952, egg set, Sorrento Slough (WFVZ); April 14, 1953, egg set, San Diego (SBMNH); May 21, 1953, egg set, San Diego County (SBM); June 4, 1953, egg set, San Diego County (SBM); May 11, 1954, egg set, freshwater marsh in San Diego County (WFVZ); May 25, 1955, egg set, San Diego County (SBM); Feb. 1970, 1 seen, San Elijo Lagoon (A. Fries personal communication); Jan. 16, 1973, 1 seen, San Elijo Lagoon (A. Fries personal communication). Imperial County - Jan. 5, 1947, 1, Calipatria (Laughlin 1947); June-Aug. 1969, 4-6 heard, near Imperial Dam (Snider 1969); June-July 1970, at least 8 heard, near Imperial Dam (Snider 1970); Feb. 24, 1971, 1, Heise Springs (Suffel 1971a); April 22, 1972, "many heard," West Pond near Winterhaven (Suffel 1972b).

Arizona

Date unknown, 1, Casa Grande (Phillips et al. 1964); 1881, 1, Tucson (Phillips et al. 1964); May 1970, "small population, Mittry Lake (Tomlinson 1970); Oct. 1970, Mittry Lake (Tomlinson 1970); "throughout winter" 1970-71, Mittry Lake (Tomlinson 1971).

Oregon

1870's, 2 seen, Malheur Lake (Bendire 1877).

Washington

Nov. 10, 1900, 2 seen, Tacoma (Bowles 1906); record questioned by Jewett et al., (1953).

Baja California

Aug. 31, 1905, 1, San Quintin (Grinnell 1928); April 3, 1925, 1, San Telmo (Grinnel 1928); April 6, 1925, 1, San Telmo (Grinnell 1928); June 6, 1925, 1 collected, San Ramon (Grinnell 1928; Huey 1926b); June 1927, heard calling, Sangre de Cristo (Huey 1928).

BIBLIOGRAPHY

References preceded by an asterisk (*) refer to the eastern black rail (L. j. jamaicensis).

Allen, J. A.

1900. The little black rail. Auk 17:1-8.

American Ornithologists Union.

1895. Check-list of North American birds, second ed. 372 pp.

American Ornithologists Union.

1910. Check-list of North American birds, third ed. 430 pp.

American Ornithologists Union.

1957. Check-list of North American birds, fifth ed. 691 pp.

Arnold, J. R.

1960. Black rail in San Joaquin Valley of California. Condor 62:405.

Baldrige, A., and T. Chandik.

1969. Middle Pacific coast region. Audubon Field Notes 23:516.

Beck, R. H.

1893. Notes from Berressa, Cal. Ornithol. and Oologist 18:131.

Belding, L.

1879. A partial list of the birds of central California. Proc. U.S. Natl. Mus. 1:388-449.

Bendire, C. E.

1877. Notes on some of the birds found in southeastern Oregon, particularly in the vicinity of Camp Harney, from November 1874 to January 1877. Proc. Boston Soc. Nat. Hist. 19:143.

Bent, A. C.

1926. Life histories of North American marsh birds. U. S. Natl. Mus. Bull. 135. 502 pp.

Bowles, J. H.

1906. A list of the birds of Tacoma, Washington, and vicinity. Auk 23:138-148.

*Brewster, W.

1901. An ornithological mystery. Auk 18:321-328.

Brewster, W.

1907. Notes on the black rail of California. Auk 24:205-210.

Bryant, W. E.

1888. Birds and eggs from the Farallon Islands. Proc. Calif. Acad. Sci., Series 2, 1:25-50.

California Department of Fish and Game.

1972. At the crossroads. A report on California's endangered and rare fish and wildlife. 99 pp.

*Clark, J. N.

1884. Nesting of the little black rail in Connecticut. Auk 1:393-394.

*Clark, J. N.

1897. The little black rail. Nidologist 4:86-88.

*Cobb, S.

1906. A little black rail in Massachusetts. Bird-Lore 8:136-137.

Cooke, W. W.

1914. Distribution and migration of North American rails and their allies. U. S. Dep. Agric., Bull. No. 128. 50 pp.

Cooper, J. G.

1868. Some recent additions to the avifauna of California. Proc. Calif. Acad. Sci. 4:3-13.

Dawson, W. L.

1924. Birds of California. San Diego, South Moulton Co. 2,162 pp.

Dawson, W. L., and J. H. Bowles.

1909. The birds of Washington. Seattle, Occidental Publishing Co. 997 pp.

Emerson, W. O.

1904. Destruction of birds by wires. Condor 6:37-38.

Ewan, J.

1928. California black rail in Los Angeles County. Condor 30:247.

Friedmann, H., L. Griscom, and R. T. Moore.

1950. Distributional check-list of the birds of Mexico. Pac. Coast Avifauna 29. 202 pp.

Gabrielson, I. N., and S. G. Jewett.

1940. Birds of Oregon. Corvallis, Oregon State College. 680 pp.

Gander, F. F.

1930. A black rail leaves the salt marsh. Condor 32:211.

Grinnell, J.

1915. A distributional list of the birds of California. Pac. Coast Avifauna 11. 217 pp.

Grinnell, J.

1928. A distributional summation of the ornithology of Lower California. Univ. Calif. Publ. Zool. 32:1-300.

- Grinnell, J.
1932. Type localities of birds described from California. Univ. Calif. Publ. Zool. 38(3):243-324.
- Grinnell, J., H. C. Bryant, and T. I. Storer.
1918. The game birds of California. Berkeley, University of California Press. 642 pp.
- Grinnell, J., and A. H. Miller.
1944. The distribution of the birds of California. Pac. Coast Avifauna 27. 608 pp.
- Grinnell, J., and M. W. Wythe.
1927. Director of the bird-life of the San Francisco Bay region. Pac. Coast Avifauna 18. 160 pp.
- *Griscom, L.
1915. The little black rail on Long Island, N. Y. Auk 32:227-228.
- Hanna, W. C.
1935. Farallon rail nesting inland. Condor 37:81-82.
- *Harlow, R. C.
1913. Nesting of the black rail (Creciscus jamaicensis) in New Jersey. Auk 30:269.
- Heaton, H. L.
1937a. Disproving the rule: the Farallon rail. Oologist 54:30-31.
- Heaton, H. L.
1937b. Baby Farallon rails. Oologist 54:102-103.
- Heaton, H. L.
1938. Rare rails eggs. Oologist 55:130.
- Henshaw, H. W.
1876. Report on the ornithology of the portions of California visited during the field season of 1875. Annu. Rep. upon the Geogr. Surv. west of the 100th Meridian. ...Appendix H8 of Appendix JJ, 224-278.
- *Howell, A. H.
1932. Florida bird life. New York, Coward-McCann, Inc. 579 pp.
- Huey, L. M.
1916. The Farallon rails of San Diego County. Condor 18:58-62.
- Huey, L. M.
1926a. Bats eaten by short-eared owl. Auk 43:96-97.
- Huey, L. M.
1926b. Notes from northwestern Lower California, with the description of an apparently new race of screech owl. Auk 43:347-362.

- Huey, L. M.
1928. Some bird records from northern Lower California. Condor
30:158-159.
- Ingersoll, A. M.
1909. The only known breeding ground of Creciscus coturniculus.
Condor 11:123-127.
- Jewett, S. G., W. P. Taylor, W. T. Shaw, and J. W. Aldrich.
1953. Birds of Washington State. Seattle, University of Washington
Press. 767 pp.
- *Kellogg, P. P.
1962. Vocalizations of the black rail (Laterallus jamaicensis) and the
yellow rail (Coturnicops noveboracensis). Auk 79:698-701.
- Kibbe, B. W.
1929. California black rail in Marin County, California, in August.
Condor 31:252.
- Laughlin, J.
1947. Black rail at Salton Sea, California. Condor 49:132.
- *Meanley, B., and R. E. Stewart.
1960. Color of the tarsi and toes of the black rail. Auk 77:83-84.
- Oberholser, H. C.
1918. Notes on North American birds. Auk 35:62-65.
- Orr, R. T.
1947. Occurrence of black rail in San Francisco. Condor 49:41.
- Peters, J. L.
1934. Checklist of birds of the world. Volume 2. Cambridge, Harvard
University Press. 401 pp.
- Phillips, A., J. Marshall, and G. Monson.
1964. The birds of Arizona. Tucson, University of Arizona Press. 220 pp.
- *Post, W., and F. Enders.
1969. Reappearance of the black rail on Long Island. Kingbird 19:189-191.
- Ridgway, R.
1874. Notes upon American water birds. Am. Nat. 8:108-111.
- Ridgway, R.
1890. Observations on the Farallon rail (Porzana jamaicensis coturniculus
Baird). Proc. U.S. Natl. Mus. 13:309-311.
- Ridgway, R., and H. Friedmann.
1941. The birds of North and Middle America. Part IX. U.S. Natl. Mus.
Bull. 50. 263 pp.

- Robbins, C. S.
1949. Distribution of North American birds. Audubon Field Notes 3(6):
262-264.
- Sams, J. R., and K. Stott, Jr.
1959. Birds of San Diego County, California. Occas. Pap., San Diego Soc.
Nat. Hist. No. 10. 49 pp.
- San Diego, County of.
1972. Natural resources inventory of San Diego County. Section 5, coastal
environment. Section 5A, coastal zone ornithology. Environmental
Development Agency. 59 pp.
- Sibley, C. G.
1952. The birds of the South San Francisco Bay region. 44 pp. mimeo.
Copy at Oakland (California) Public Library.
- Snider, P. R.
1969. Southwest region. Audubon Field Notes 23:681.
- Snider, P. R.
1970. Southwest region. Audubon Field Notes 24:704.
- Speth, J. W.
1971. The status of coastal wetlands in Southern California. Paper
presented at Annual Meeting, California-Nevada Section, The Wildlife
Society. 19 pp.
- Stephens, F.
1909. Notes on the California black rail. Condor 11:47-49.
- Stephens, F.
1919. Random notes. Condor 21:123-124.
- *Stoddard, H. L.
1916. The black rail (Creciscus jamaicensis) at Chicago, Ill.
Auk 33:433-434.
- Stoner, E. A.
1945. The black rail at Benicia, California. Condor 47:81.
- Suffel, S.
1970. Southern California birds. West. Tanager 37(4):9-10.
- Suffel, S.
1971a. Southern California birds. West. Tanager 37(8):10.
- Suffel, S.
1971b. Southern California birds. West. Tanager 38(2):10.
- Suffel, S.
1972a. Southern California birds. West. Tanager 38(5):9-10.

Suffel, S.

1972b. Southern California birds. West. Tanager 38(10):10.

Taylor, H. R.

1898. The black rail in captivity. Osprey 2:79-80.

Tomlinson, R. E.

1970. Preliminary studies - endangered wildlife of Southwestern U. S.
Unpublished Annual Progress Report, Patuxent Wildlife Research Center,
U.S. Bureau of Sport Fisheries and Wildlife.

Tomlinson, R. E.

1971. Preliminary studies - endangered wildlife of Southwestern U. S.
Unpublished Annual Progress Report. Patuxent Wildlife Research Center,
U.S. Bureau of Sport Fisheries and Wildlife.

U.S. Bureau of Sport Fisheries and Wildlife.

1973. Threatened wildlife of the United States. Resour. Publ. 114.

Walker, L. W.

1941. Young California black rails. Condor 43:246.

Wall, E.

1919. California black rail at San Bernardino, California. Condor 21:238.

*Wayne, A. T.

1905. Breeding of the little black rail, Porzana jamaicensis, in South
Carolina. Warbler (Second Series) 1:33-35.

Willet, G.

1912. Birds of the Pacific Slope of Southern California. Pac. Coast
Avifauna 7.

Woodbury, A. M., C. Cottam, and J. W. Sugden.

1949. Annotated check-list of the birds of Utah. Bull. Univ. Utah
39(16):1-40.

As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park, and recreational resources. Indian and Territorial affairs are other major concerns of this department of natural resources.

The Department works to assure the wisest choice in managing all our resources so that each shall make its full contribution to a better United States now and in the future.



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
WASHINGTON, D. C. 20240

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTERIOR
INT 423

