horizon line like the ocean, blown over by the strong fresh wind from far away, it seemed rarely fitting that these great white birds should sail through their sunlit skies. And how they sail! A stirring sight was seen one day, a great wedge of Franklin Gulls like Canada Geese flying high through the sky as if bent on sweeping over and beyond the prairies down to the southern seas.

Washington, D. C., May 23, 1915.

## THE FARALLON RAILS OF SAN DIEGO COUNTY

## By LAURENCE M. HUEY

WITH FOUR PHOTOS BY LAURENCE M. HUEY AND DONALD R. DICKEY

URING the past seven years considerable attention and study have been directed toward the home life of the Farallon Rail (Creciscus coturniculus), and in many cases the results have proved quite interesting. I have felt, however, that, although nest and egg descriptions have been given by other collectors, the following dates and nesting notes might add materially to what is already known.

I have spent hours and even days on the Rail marshes at all times of the year, and find that even as early as February, on clear mornings, the *clee-cle clee'-ee* (accent falling on first syllable of last word) may be heard in many places on the marsh. This is particularly true when one has walked about the



Fig. 23. NEST AND EGGS OF THE FARALION RAIL: THE PRIZE, HIDDEN AWAY IN A DENSE SALICORNIA CLUMP

marsh enough to disturb the birds. This call is chiefly used during the early mating season, and also as a protest against intruders in their domain. Oceasionally, however, I have heard it even in the late fall.

With these birds there is a noticeable lack of uniformity in their nesting dates, as well as a great variation in the nests themselves as constructed by different pairs of birds. Sometimes the nests are raised well off the ground, but this is unusual. The more typical ground nests are greatly affected by the tides. Some that I have seen were fully five inches thick, with as many as three distinct layers, showing how often reconstruction had been necessary.

The earliest nesting date of which I have record was March 24, 1912, when a complete set of five eggs was taken. In this case the nest had been rebuilt

three times on account of recent rains and high tides. The latest date which I have encountered was May 25, 1909. On that day I started on a last casual "hike" through the marsh with nothing more than that undving hope, born in all bird hunters, to offset my slim chance of finding anything so late in the Suddenly, howspring. ever, I flushed a Farallon Rail, and after careful search I found a well elevated nest. some ten inches above the ground, which contained four partly incubated eggs at that time. These eggs are the smallest which I have ever seen, tending, in fact, to be almost runts. They measure, respectively, .87x.69, .94x.74, .95x.72, .95x.73, with an average



Fig. 24. Farallon Rail, photographed in captivity: undecided whether to crouch and hide, or to dive into the dense marsh vegetation

of .92x.72. The normal eggs average about 1.02x.90, these figures denoting inches.

Another set, which is the one shown in the photograph (fig. 23), was found on the late date of May 13, 1914. The eight eggs of this clutch constitute one of the largest authentic sets known. It was situated in the thickest of salicornia, or fleshy marsh weed, and was found after a steady tramp of four hours duration.

The method of search for these rarities may be of some interest to CONDOR readers. Sometimes their discovery is due to sheer good luck, but much more often it is the fruit of hard and persistent work. The thickly matted marsh growth is so dense that it is impossible to see through it, so that one has to turn

it over, inch by inch. This is accomplished by a careful swing of the foot. which at first is exceedingly tiring, but which grows comparatively easy as practice makes it a mechanical action. One thing is interesting as a side light on this bird's shyness, a habit that is a constant aggravation to the collector. This is the astonishing ease with which the birds bring themselves to abandon incomplete sets when they are discovered. Although I have found several incomplete sets, I have in no instance succeeded in collecting a full set from the nest at a later date. In every case the bird had deserted when I went back. Of course, with the method of search employed, one is bound to kick into some of the nests and disturb the surrounding marsh weed before discovering them. That a naturally retiring bird should desert under these conditions is, of course, not surprising. On at least two occasions, however, I have found nests containing incomplete sets by a lucky glimpse of the eggs through an opening in the protecting growth above them, while I was still at a considerable distance from them. In these cases, I have turned aside without apparently notic-



Fig. 25. A FARALLON RAIL IN ITS SALT MARSH HOME; PHOTOGRAPH OF A CAPTIVE

ing the nests, and have left the vegetation absolutely untouched in their vicinity, and yet the result has been the same—desertion!

The nature of the food of these birds remained unknown to collectors for many seasons, until the fall of 1912, when the stomachs of a small series were saved for examination. On close inspection, I found the remains of a species of small "bug" that lives very abundantly on the salt marshes where the birds were taken. I then gathered a number of these animals and sent them to Joseph Grinnell of the Museum of Vertebrate Zoology, to whom I am indebted for forwarding them to the United States National Museum for identification. The reply was as follows: "They are Isopod crustaceans belonging to the species Alloniscus mirabilis (Stuxberg)." Appearances to the contrary notwithstanding, it's really just a small bug! I believe this to be the chief food of the Rails living in the salt marshes of this region, and as nearly all the tidal sloughs abound with these small creatures, the food problem cannot be a serious one for the birds.

Several collectors have spoken to me in regard to the migration of these

birds. I, myself, am of the opinion that there is no migration at all in this region. At any rate I have seen or taken birds in every month of the year, so it is certain that these San Diego marshes are at least included in both their breeding and winter ranges. It will be almost impossible to judge as to migration, however, until their breeding presence or absence has been more definitely ascertained at more northern stations. For the present, however, several things give me the strong belief that with us the individuals are resident locally the year around. Within San Diego County itself, they seem fairly well distributed through the coastal salt marshes. They are, of course, more common in some localities than in others, but they have been taken, to my knowledge, both in spring and fall, from each of three different marshes in this general vicinity.

A peculiar experience befell me on November 25, 1912. While hunting these small birds, one flushed near my feet and flew out over the mud flats to a distance of two hundred and fifty yards, and alit. It was low tide and as I started in pursuit, the bird was seen to rise and retrace its course directly toward me. Finally, as it came within range, I took aim at it but did not

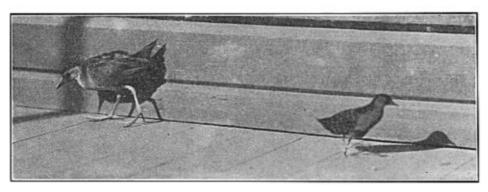


Fig. 26. Sora and Farallon Rails: the bearing of the little Black was always proud, but the Carolina was a typical Rail, head down, tail erect, and forever sneaking off sideways as though ashamed of himself

shoot as I was puzzled by the bird's actions. Closer and closer it came until it was within "aux" range, but still I didn't shoot, and still the bird held steadily to its course. Hastily I decided to try and catch it alive, so I threw down my gun, and when it came within reach, I quickly knocked it to the ground with my hand. Pouncing after it, I tried to grab it, but it was too quick for me and eluded my futile grasp. It was apparently uninjured and arose, flew a few yards, dropped into the thick marsh grass and was seen no more, although my dog and I searched diligently for some time.

On March 16, 1915, while on a tramp through the National City marsh, a live and uninjured Carolina Rail (Porzana carolina) fell my prey, and was taken home and confined to the screen porch until such a time as I could conveniently take photographs of it in captivity. This time came on the 18th, and as I was returning to the salt marsh for natural surroundings for the photograph, a live female Farallon Rail was also captured. The bird was seen running through a thin place in the marsh growth quite close to me, and was pounced upon and seized. It also was confined to the screen porch where the two birds proved quite companionable. They are freely of the food offered

them, which consisted of bread crumbs, "garden bugs", and some of the "marsh bugs" before mentioned.

On March 19, I took both captives again to the marsh for photographs. On the way from the car to the spot selected, a gnat lit on my companion's finger and upon holding the Black Rail near, she grabbed greedily at the insect. She seemed rather vicious at all times, pecking angrily at anything offered her—sticks, fingers and all. A small, round clump of salicornia, perhaps three feet in diameter, was selected for the background effect, and operations began. The little rail proved the more elusive of the two. She would dive into the dense mass, exactly as a duck dives in water, and would then crouch motionless, as if hiding. The walking positions of the two species were noticeably different. The little Black was always proud, with head erect and no jerky movements while walking, but the Carolina was a typical rail, head down, tail erect, and forever sneaking off sideways as though he were ashamed of himself. Finally on March 20, after making what pictures I wanted, I turned the two rails free to roam and search for food and mate at will.

Many times later, I searched in vain for the hidden, speckled beauties which the little black mother probably had hidden away somewhere under a sheltering marsh clump, but I never found them. Let us trust they hatched safely into fuzzy youngsters, and were led by their mother through the protecting marsh growth down to the feeding grounds in the muddy beds of tidal streams. If such was the case you may be sure she warned them to look out, at all times, for that fellow who would poke sticks at them as he once had at her, to arouse the spirits of a crestfallen captive into photographic spright-liness

San Diego, California, December 13, 1915.

## THE NUTCRACKERS OF YELLOWSTONE PARK

## By M. P. SKINNER

THE CLARKE Nuteracker, or Clarke Crow (Nucifraga columbiana), is sometimes known as "Camp Robber", possibly because of the rather superficial resemblance it bears to the true camp robber or Rocky Mountain Jay. But his livery is black and white and gray as against the various tones of gray alone, as shown by the jay. In the Yellowstone Park the nutcrackers are everywhere; but where they occur in the large, open prairies and meadows, it is evident that they are only flying across between the heavy evergreen forests. They are never seen in the large flocks reported elsewhere, but are usually found in one's or two's, or perhaps in small flocks of a half dozen. The largest flock reported was made up loosely of twenty-four individuals. While not migratory birds, strictly speaking, they do move up and down the mountains at the change of the seasons. In summer they are at all elevations, but in winter they are all below 7000 feet. One snowy, stormy day they were observed in numbers passing the top of Mt. Sheridan at an elevation of 10,000 feet. The vicinity of Mammoth Hot Springs and Fort Yellowstone seems to be a center of abundance both winter and summer. A careful estimate gives from twenty to thirty birds as constantly in this neighborhood; but as this bird