the young were successfully taking slow-moving butterflies and other easily obtained insects, they continued eagerly to accept the morsels brought by their parents.

On July 2 both parents were found noisily feeding near the empty nest; they were engaging in numerous mate-chasing flights. Two of the young birds made their appearance from time to time and were fed, whereupon they separately moved away. The other two birds could not be found. The parents continued to be together, loudly voicing their presence, but not following their offspring for more than a hundred feet. Already the young birds ranged independently about the feeding areas.

On July 7 the four young phoebes were together along the Botanical Garden fence. They were actively foraging; their voices could no longer be distinguished from those of the parents, one of which was feeding near-by. At my approach they scattered to various feeding areas within the Garden.

On July 16 three young and one of the parents were again feeding together over a grassy area in the garden. The young birds were tapping their insect food against the perches in the same manner as that already described for their parents. Although they appeared then to be fully grown, an occasional morsel was accepted from the parents.

San Francisco, California, February 6, 1939.

## FALL WANDERINGS OF CLAPPER RAILS

## By ROBERT T. ORR

Records of Clapper Rails (*Rallus obsoletus*) wandering from their normal environs in the fall and early winter are becoming so numerous as hardly to justify the publishing of further instances. Linsdale (Condor, vol. 38, 1936, p. 216) and Wythe (Condor, vol. 39, 1937, p. 44) record several dead individuals of this species found in Berkeley and Oakland in the months of September and October. The Gull for November, 1936, March, 1937, and December, 1938, lists many other records of occurrence of Clapper Rails in unusual localities in the San Francisco Bay region in the fall of the year. However, certain additional information obtained relative to the adaptability of Clapper Rails seems to deserve comment.

We normally look upon the California Clapper Rail as a very restricted race, resident in the salt marshes of San Francisco and Monterey bays. In fact, all four races of *Rallus obsoletus* are extremely restricted in range and habitat. In central California the species is associated with salt marshes and sloughs bordered by extensive growths of pickleweed. When, therefore, members of such a species are observed to survive and carry on their normal activities for a time in environmental surroundings totally different from that to which they are accustomed, such information becomes important from the viewpoint of specific adaptability.

The presence of a Clapper Rail in the immediate vicinity of the California Academy of Sciences in Golden Gate Park, San Francisco, was first called to my attention on November 25, 1938, on which date one of the staff mentioned seeing an individual of this species on the previous day next to the Simpson African Hall. On inquiry I discovered that park gardeners had seen this bird daily, since about November 15, in this immediate vicinity. I was personally able to make almost daily observations upon it until December 5, 1938, after which date it was no longer seen about the Academy buildings. On December 2, one of the gardeners reported seeing two Clapper Rails, one slightly smaller than the other, feeding on a lawn about 300 yards northeast of the area where the first noted individual was still in evidence. Several other observations of individual rails were given me for this general vicinity but these might easily have concerned any of the three birds known to have been present in this region rather than additional individuals.

Certain facts were noted regarding the behavior of the rail that was observed daily from November 24 to December 5. It remained, so far as known, during this period within an area approximately 225 by 100 yards, about one-third of which was occupied by buildings. A definite preference was shown for lawns, particularly the margins of lawns adjacent to shrubbery. Practically no fear of man was exhibited. One could readily approach within 15 feet of the bird in the open without it displaying any sign of wariness. On closer approach it would usually walk sedately away, often feeding as it did so. Earthworms appeared to form the principal item of diet in its new environment. In one instance it was observed to swallow 5 worms during a period of 5 minutes. Most of the time in the open was spent within 15 feet of protective shrubbery into which it would disappear every few minutes for short periods of time. When crossing open spaces of lawns, as it was occasionally forced to do when skirting along the margins was not possible, it progressed somewhat more rapidly, never appearing to run or even hurry but at the same time not delaying to feed. It was seldom seen during midday but regularly appeared during the morning until about 11:00 a.m., and from mid-afternoon until sunset.

We witness here the occasion of a species of extremely restricted habitat leaving the preferred type of territory in what is probably a spreading out movement in search of less populated areas that are suitable to its demands, and arriving in seemingly blind fashion in a habitat very different from that to which it is accustomed. Furthermore, in this new and different territory it would appear that at least certain members of the species are sufficiently adaptable to enable them to survive at least for some time. Might not such an inherent tendency to participate in this dispersal, combined with a certain capacity to adapt itself to habitats other than the so-called normal, ultimately influence a species of specialized requirements to become more generalized? This is, perhaps, contrary to current concepts of the way nature works, but at the same time it looms as a possibility still to be reckoned with.

While such speculation is purely theoretical, certain practical features do suggest themselves. The species under consideration is in ultimate danger of having much of its original habitat about the south arm of San Francisco Bay modified by human interests (see DeGroot, Condor, vol. 29, 1927, pp. 259-270). It is logical that natural increases in the rail population, which is given state and federal protection from hunting, combined with curtailment in available habitat, should result in a tendency for a certain percentage of this population to search for less crowded and, at the same time, suitable territory. In former days this species commonly occurred in the marsh land bordering the Marin shores of San Francisco Bay and also about San Pablo Bay. The virtual extermination of the Clapper Rail from these marshes was probably due in large measure to hunting, both private and for market. These marshes, while changed to a great extent from their original condition, still offer some possibilities for this species that once normally occurred here. If, as a result of these fall wanderings, normal breeding stock accidentally arrives and survives here, we may in course of time witness another instance of reinvasion by a species, partly as a result of protection.

California Academy of Sciences, San Francisco, California, February 15, 1939.