

the earth from this place to build the nest. As there was no water in the vicinity, they must have moistened the earth with saliva.

On 13th October we broke camp at the bore, and made a temporary camp at Kow Plains. We left for Melbourne three days later. Our thanks are due to the residents of the district for the kindly manner in which they assisted us in our work. I must also thank Mr. A. J. Campbell for his help in naming a few of the birds with which I was not familiar. All the birds, eggs, and nests collected during the trip are in the collection of Mr. Henry L. White, Belltrees, New South Wales.

Field Notes on Some Rallinæ.

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AN ornithologist passing through this district and viewing it superficially would probably consider it an unprofitable field for investigation. My closer association, however, shows it to be otherwise, its varied bird-life being intensely interesting, but in this paper I shall confine myself to a few remarks upon the Lewin or Slate-breasted Rail and Crakes.

The swampy growth of some of the marshy depressions appears to be a stronghold of these birds, and I have identified the following:—Slate-breasted Rail (*Hypotaenidia brachypus*), Spotted Crake (*Porzana fluminea*), Little Crake (*P. palustris*), and Spotless Crake (*P. immaculata*). Of the first-named my sister and I found many nests, but all nests found of the others were either afterwards deserted by their owners or perhaps robbed by snakes, which haunt these swamps, and add somewhat to the excitement of field-work.

Whilst searching through one of these places, towards the end of October, I came upon a small saucer-shaped nest in the centre of a reed-clump. The nest was composed of tiny pieces of reeds bitten into lengths. It was old, and traces of water-rats were in it. The same day I also discovered two nests under drooping clumps of grass. They resembled miniature Native-Hen (*Tribonyx*) nests. Footprints of birds were visible in the mud, and also tracks or runs through the reeds and cresses. No birds were seen, and subsequent visits showed the nests untouched. On the afternoon of 4th November my sister and I were sitting on the bank watching the swampy creek, which lay some 5 feet below us. A Crake call rung out, and presently a pair of birds was seen quietly feeding on the cresses. I turned the glasses on them, and saw that they were the Spotless Crake, their bright red eyes glancing to and fro. Soon afterwards we heard a "purring" sound, and noticed another bird close under the bank with a black chick following her. We saw her pull a grub from the bank and give it to the little one. After a while another chick came into view. The little ones were

black, with blackish beak, and appeared to have a few white spots on the back. The hen wandered further on, then gave some grunting sounds before she led the baby birds over an open space of shallow water. They crossed this in an attitude of fear, and one little fellow was in such a hurry that he struck a stick, and thus turned a complete somersault in the water. At his cry of alarm the mother rushed back, and the glasses confirmed my opinion that she was a Little Crake (*P. palustris*). After they had gone we searched the swamp, and my sister found a new nest of a Crake, exactly similar to the one of bitten reeds. No eggs were ever seen in it.

Later on, in November, whilst watching for birds in the same creek, though higher up, I saw a Crake with three young. The mother made a noise resembling water pouring from a bottle, whilst the chicks answered "Peep peep," and kept close to cover, only running to their mother when she grunted and apparently fed them. She glanced up at a white moth which settled on a reed, saw me, and the family disappeared. I could not make out whether she gave the chicks insects or pieces of the cress amongst which she was searching. So far I have had no other opportunity for studying the life-history of the Crakes. Several times the Spotless Crake was flushed from a nest it had made, and in which it was fond of sitting towards evening. I never saw eggs in this nest, and I have come to the conclusion that this was a dummy nest, and that perhaps the real one was a little further away. Two other nests were found, but apparently robbed. Bush-rats also frequent these swamps and live in the many logs which intersect the morass. The female of the Spotless Crake whilst running makes a noise like the "puff, puff, puff" of a motor-car. In fact, I have been asked the proper name of the little "motor-car birds." The male answers with a squeaky grunt.

I had more success with the Lewin (Slate-breasted) Rail. These birds begin their sentinel calling early in August, and any intruder near the swamp is warned off by a loud metallic "Tick, tick, tick." I observed that in the early morning and towards evening they generally feed near their nests, and the calls then are a very good guide to its locality. Should the female be on or near the nest when the male calls, she will answer with a noise resembling the deep purring sound of a cat. As soon as the rustling reeds betray the presence of an intruder she slips off her nest and is away. Several times, though, the bird hid at the foot of the nesting clump and once against my sister's boot. I could not discover if both birds assisted with the nest-building, though I gained some idea of the time taken in its construction, unless the birds have been robbed, when they rapidly construct another home, generally only a few yards away.

On the 18th August a partly made nest was found with the slightest attempt at an overhead covering. Near was last year's nest, containing egg-shell fragments, and also the skull of a Rail upon it. A week later more material had been added and the

working tracks were showing plainly in the reeds. By 31st August two eggs were laid, and the clutch completed in two more days. This bird laid her eggs at mid-day; so did another which nested in the school swamp. I took the clutch above, and the birds rebuilt a few feet away and reared their brood.

This swampy creek was a great resort of these Rails, and about a mile further down its course four other nests were found with full clutches. The nests were placed in tussocks, and their heights ranged in position from a foot to 3 feet above the water or mud. One nest was placed 4 feet high in a tangle of reeds and dead branches. Under this nest was another lower down, and a Wren also built in the same clump. Were all inhabited at once?

A swampy creek runs through the play-ground, and, in spite of the noise of the school children, it is a great haunt of the Rail and Spotless Crake. The latter was flushed many times, and three nests were found, but they were either not used or were pillaged. The Rails nested freely, and one was found sitting on five eggs in a clump not 5 feet from the edge of the play-ground, which runs to the swamp. In fact, when playing hide-and-seek, some scholars hid close to the bird, and several times when a cricket ball was lost I have been afraid the searchers would unwittingly destroy the home. I broke one of the eggs, and reckoned the hen had been sitting four days, so, allowing three weeks for incubation, I concluded the chicks would be out by 7th November. This bird was remarkably tame, and would stay on the nest whilst the reeds above her were parted, and twice allowed her back to be touched. All was well until the 3rd of November, when some creature stole two eggs, but she continued sitting. The evening the chicks were due to be hatched I looked at the nest, but the eggs were cold. I left them, and a few days afterwards broke one. It contained a fully-developed chicken with the beak in a position to chip the shell. The tiny creature was clothed in black down; its bill was black, and it had greyish-white legs. I returned to the nest for the other egg, but it had gone. Twenty days afterwards a second nest was found near, and the hen was sitting on five eggs.

Another bird I watched was incubating two eggs, but these were found to be addled. The bird left them of her own accord. Yet another pair successfully hatched a brood in a nest built in a gutter by the wayside, just 3 feet from the road, down which a constant stream of traffic passed.

Occasionally Slate-breasted Rails are met with some distance from water. I presume they are travelling from one swamp to another. The last brood of young ones evidently remain with their parents during the autumn. A pair in the school swamp still (April) have their chicks following them, and warn them should danger threaten. I stood on a log the other evening and was immediately challenged by the male bird; below me in the rushes the hen answered, then the little ones replied, and as I listened I heard the faint splash of water, the rustlings of a few reeds, and the family disappeared.