

Eagle leaving its nest, and within a short time, with the help of a rope ladder, my friend called down from 70 feet up that the nest contained a pair of well-marked eggs.

We had decided to start for home that evening, but on reaching camp Mr. Cook, who was leasing the country, rode up and persuaded us to return on the following day, which we luckily decided to do. In the morning we started off solely in search of *Anellobia* in different directions, and I had not gone far when I heard one gurgling, and saw it chase a Singing Honey-eater from a kaufi thicket; it then sat and preened its feathers, and after a diligent search I found its nest ready for eggs. Hearing some birds farther away, I located the thicket they were in, and was following them up when I ran into Mr. Sandland, who was also after them. I found an old nest, and in the next bush was a new nest, containing the single egg, and not 50 yards away Mr. Sandland called out, and he had another nest (one egg), only 3 feet from the ground, in some red gum suckers. Our luck had changed, and before reaching camp I found in another thicket a nest with one half-incubated egg, which had been deserted. Every nest we found was lined with the dead woolly flower of the banksia, and not large enough to hold two eggs, being about the size of a nest of a Wood-Swallow (*Artamus cinereus*). In the afternoon we started for home, allowing two hours to try to secure a specimen of the *Sericornis* where we had seen them, but we could not see or hear one.

I am sure the vast sand-plains have many rare birds hidden away, as only three years ago, a few miles north, I saw the Lesser Bristle-Bird (*Sphenura littoralis*) in a thick mallee thicket. Although I have made many trips over the sand-plain country and thickets between Wongan Hills and the coast, I have never seen or heard *Psophodes nigrogularis*, yet this is the country where Gilbert first found the bird. We hope at some future date, with more time at our disposal, to make a more thorough search.

Cormorants: Are They Pests or Otherwise?

By W. T. FORSTER, LOCAL SECRETARY TO THE R.A.O.U. IN WESTERN AUSTRALIA.

AFTER reading the article appearing in the April number of *The Emu* * by Captain S. A. White, entitled "Further Notes on Cormorants, Their Food, Temperatures, &c.," it occurred to me that a few observations made by me during a period of nearly sixty years might be of some interest to the readers of *The Emu*, and perhaps throw some additional light on the subject of the dietary of the Cormorant.

Captain White's observations are, no doubt, of great value,

* *Emu*, vol. xvii., page 214.

having been taken with scientific accuracy as to the weight, measurements, and temperatures of these birds, but as to the food consumed by them are not so convincing, because it is unsafe to generalize from a single case, and, although Captain White examined seventeen specimens, yet they were all obtained at the same time and place, and were probably feeding in the same locality, where, no doubt, the fish mentioned as being found in their stomachs were plentiful, while other and marketable fish were correspondingly scarce.

The incidents I have to recall are as follows :—

In about the years 1862 to 1865 a party of lads, of whom I was one, were on a camping and shooting excursion on the head waters of the Lane Cove. This river meets the Parramatta River nearly opposite Cockatoo Island. It is a tidal river for about six miles upwards from its mouth, navigable for small boats at high tide to the very point of its meeting the fresh-water stream above. The party above mentioned had struck the Lane Cove above its junction with the "Falls Creek," and camped in a roomy cave for the first night of their arrival there. The fresh-water portion of the Lane Cove consists of a succession of large water-holes containing deep, permanent water, connected by a small stream, rippling over a rocky bed, confined between high sandstone ridges or hills.

On the morning following their arrival, the little party followed the course of the stream downwards. Before reaching the junction with the salt water they passed a spot where the river spreads out into a beautiful little fairy lakelet. The ranges on the northern side are very lofty, and one in particular has a peculiar formation. It is of conical shape, the summit crowned by a group of hexagonal columns standing perpendicularly, other similar columns lying on the ground beside them. Passing this little beauty spot, the party continued their course down stream, until, when approaching the last fresh-water hole, they noticed that it was full of large Black Cormorants (*Phalacrocorax carbo*), probably 30 to 40 in number. Creeping quietly up to the water-hole, they noticed that one of these birds presented an extraordinary appearance; it was swimming about with its head stretched upwards to the utmost, its mouth wide open as if gasping for breath, and the neck swollen or distended to an enormous size. This bird was shot, and, on examining it, there was found the tail of a fish closely adhering to the roof of its mouth. Extracting the fish with some difficulty, it proved to be a mullet of great size, from 15 to 18 inches in length at the least, and weighing approximately between 3 and 4 lbs. As they lay together, side by side, the bird and the fish, it seemed incredible that the latter could have been contained within the bird; for, while the tail of the fish was in its mouth, as above mentioned, the front part of the head was in a partially digested condition, the remainder of the fish being apparently quite fresh. Lying on the sand, close to the edge of the water, was another large

mullet, exactly similar in dimensions to the one taken from the bird. This was also quite fresh, and had a small wound on the back, close to the head, which might have been made by the beak of a Cormorant; this was still bleeding.

Mullet of such a size are rarely, if ever, found so far from the mouth of a river, and this can only be explained by the supposition that these mullet had ascended to this water-hole at a very early stage of their existence, when quite small fry, and had been imprisoned there until they had grown to their present size. A fish could only pass from the salt to the fresh water on abnormally high tides, as on ordinary occasions the level of the salt water was much below that of the fresh. That these large mullet existed in large quantities in the water-hole was evident, as they could be clearly seen swimming about.

Many years later, on the Darling River, New South Wales, during a high flood, I came upon a large flock of Cormorants (*P. melanoleucus*) in a backwater or creek filled by the flood water from the main river. The water was deep, and the Cormorants were continually diving and re-appearing, while the surface of the water was literally alive with small fish about 6 to 8 inches long, which were continually jumping out of the water in their frantic endeavours to escape from their rapacious pursuers. I could not with any degree of accuracy state what kind of fish these were, but the fish inhabiting the Darling consist of a very few varieties, all of which are delicious food. At other times I have watched Cormorants on the Darling for hours, engaged in fishing, diving and reappearing at intervals of half a minute or more. As the Cormorant catches and devours his prey under water, it is not often possible to see him in the act of eating it; only in cases of the fish being too large does he come to the surface to swallow it. After being thus engaged in diving for an hour or two, he comes out of the water and sits on the bank or on a log, digesting his meal and sunning himself, with his wings spread out to dry. When the process of digestion has been completed, after perhaps a couple of hours, he re-enters the water and resumes his fishing operations.

Clearly, Captain White's investigations, at any rate with regard to the dietary of the Cormorant, are made with the object of deciding whether the Cormorant is to be regarded as a thing of evil or a blessing in disguise; a wholesale destroyer of a staple article of human food or a harmless and discriminating bird, which, although exclusively a fish-eater, devours only fish unfit for human consumption; a noxious pest, against which an unrelenting war of extermination should be waged, or an interesting and ornamental occupant of our lakes and coastal waters. The incidents mentioned above rather tend to show that he belongs to the former category; but, of course, further evidence is necessary before the matter can be finally settled.