lighter in tone than that of the female—a paradox when compared with other birds—and the lores or cap where grey in the male are black in the female. Does the male with these little birds carry out the task of incubation ?

Observations on the Pilot-Bird (Pycnoptilus floccosus).*

BY F. E. HOWE, ALBERT PARK.

DURING the recent months a "triumvirate," consisting of Messrs. Mattingley, Ross, and myself, spent many hours in the Dandenong Ranges with the object of improving our acquaintance with the Pilot-Bird (*Pycnoptilus floccosus*).

Although the bird is plentiful enough, it is so very shy and retiring in its habits that it is more often heard than seen, and one is led to think it is very rare. The eggs, on the other hand, are exceedingly rare, and the nest is seldom found, on account of the class of country the bird inhabits, and the skill displayed in concealing the nest. Why it is called Pilot-Bird I cannot quite make out, nor have I been able to ascertain, although I have made exhaustive inquiry. One observer says that as the pilot fish is always found in the company of a shark, so the *Pycnoptilus* is always to be found where the *Menura* (Lyre-Bird) is. Certain it is that wherever I met the first-mentioned bird, the *Menura*, though seldom seen, was always to be heard.

The Pilot-Bird is strictly a ground bird, and in the dense scrubs of secluded gullies that it loves so well finds such shelter that the legs have been greatly developed at the expense of the wings. This is, of course, obvious, as it obtains its food on the ground, and covers a lot of country in search of it, and will only fly when forced to—as, for instance, when crossing a track or open part in the scrub or, if alarmed, and even then it will only fly a short distance, trusting rather to its legs for safety. Its dexterity in getting through the sword and wire-grasses is marvellous, and it goes with such pace that it resembles a small-sized rat more than a bird when in motion. It is a near ally of *Sericornis frontalis* (White-browed Scrub-Wren), but is considerably larger. When in quest of food it has the same strange habit of "flicking" the tail in a smart up and down motion. It is insectivorous, and is also very partial to worms, which form the staple part of its food (I saw a male eat half a dozen in as many minutes, besides giving his mate a few), and often uses its feet to turn over the larger pieces of bark in search of some such morsel.

* Supplementary to Pilot-Bird Notes, *Emu*, vol. vi., p. 130.

PLATE XVI.

Pilot-Bird (*Pycnoptilus*) and Nest.

FROM A PHOTO BY A. H. E. MATTINGLEY.

The calls of the birds are sweet and varied. They have at least half a dozen different calls, and at nesting time the female joins in the latter part of the song with a call entirely different from that of the male, just as the female of *Psophodes* (Coach-whip-Bird) does. One note, sounding like "Tui-wit" softly uttered, is often heard when the nest is building, and also when they are feeding. The description of a call given in "Nests and Eggs" (Campbell) as "Guinea-a-week" is easily recognised, but is not heard so frequently as other calls, and appears to be used when the bird is moving rapidly through the scrub. For instance, on the 10th February a bird was heard to utter this call in a gully about 30 yards ahead of our party. The next call was less than 15 yards from us, then came two calls quite close to us, then another about 20 yards past, again two calls about 40 yards distant, and then another rather more than 60 yards in the same direction. We did not move whilst this performance was going on, and there was only a pause of a few seconds between the calls, the longest being that between the last two calls, and the whole did not take more than a minute. I do not think that any bird-note is more beautiful than that of this species ; it comes with such piercing sweetness, and from the volume of it one would think it was made by a much larger bird. When singing the head is thrown rearwards, so much so that the head appears to be resting on the back, and the little throat can be seen working from a fair distance off. It rarely calls when motionless, and rather likes to sing when running along a log or on a fallen bough.

The nest is generally made and finished ready for eggs in a day and a half, or at most two days. This, no doubt, is due to the fact that it has not far to go for material. One example was seen building at 8.30 a.m., there being merely a few leaves noticeable, but on visiting the spot at 4.30 p.m. the nest was nearly finished. Nine days after it contained the usual clutch, two. (I do not think that more than two eggs have yet been observed in a nest.) Example 2, very little more advanced at 7 a.m., was finished same day. A week later this was visited, and contained one egg, but on going again in two days we found the egg broken in the nest. We laid this to the credit—or, rather, discredit—of a bush-rat, as that pest was plentiful in the locality. Example 3, found building, was completed in a day and three-quarters, and a fourth took little over a day.

The clutch as a rule was not completed until eight days after the completion of the nest. A few of the nests were lined with feathers, but most of them were finished with fine grasses. The site chosen was generally in sword-grass (*Lepidosperma*), a few were in wire-grass (*Ehrharta*), two in fallen branches and *débris*, and two were placed flat on the ground without any covering whatever.

At the laying period the bird is exceedingly timid, and if the nest contains eggs and the bird be watched it will not go near the locality unless the eggs are nearly incubated, and then she is loth to leave them ; but I have not yet seen a bird enter or leave a nest. If the nest be touched before an egg is laid, or the birds watched too closely when building, they often desert it and commence operations elsewhere. This they did on three different occasions this year. Incubation takes about 15 or 16 days, and the young leave the nest when three weeks old, at which stage they are almost as agile as the parents. The plumage, too, is identical, but the gape is more yellow in the fledgling.

The breeding season apparently extends over five months—from October to February inclusive—and two broods are reared. The first nest noticed this season was on 17th November, 1906, and on 10th February, 1907, two nests, both containing eggs, were noticed. The eggs of one had been broken only a few hours before, and undoubtedly the blame was again attributable to a bush-rat. The *Pycnoptilus* has no doubt many enemies, among them being the pest just mentioned and that imported curse, the fox. The remains of a Pilot-Bird were found by one of the party littered about the nest, and close handy I found the beautiful bronze feathers of a Pigeon scattered about the scrub. The *Pycnoptilus* is also a foster-parent to the egg of *Cacomantis flabelliformis* (Fantailed-Cuckoo).* On the other hand, the nest is so well hidden, the bird is such a recluse, and the country that it inhabits so dense, that it generally has ample warning of its enemies' approach. All things considered, I do not think there is any immediate fear of its numbers being greatly diminished. But settlement is going on, and the gullies are being cleared so rapidly that shortly only in the mountain fastnesses will its glorious song be heard in thanksgiving to its Maker above—the Almighty.

A Rookery of Storm-Petrels.

BY A. G. CAMPBELL AND A. H. E. MATTINGLEY.

OPPOSITE the entrance of Port Phillip Bay, and some 4 miles in from the actual Heads, lies a long, narrow strip of land known as Mud Island. The name is somewhat of a misnomer, for the island consists mainly of sand. The island, which is perhaps 3 miles around, stands sentinel over the entrance to the harbour of Melbourne, arresting the onrush of sand that would block the opening, piling it up in the shallows and in the banks that form its flanks. Mud Island is unique in being one of the few spots on the south coast of Australia where a species of

* *Emu*, vol. vi., p. 131.