

the native ones, and it seems to me that the cuckoo is living on the eggs and young of these birds; and, as they are more numerous near dwellings and gardens, the cuckoo also comes closer, and is more in evidence than it was. . . . I think that if the matter is gone into it will be found that the cuckoo does the best he can towards combating the sparrow plague."

The long-tailed cuckoo, then, must be considered an enemy of the introduced small birds, against which have been introduced barn-owls and more recently the little owl. The whole question of these introduced small birds will be dealt with fully in the later articles of this series. At the present time it must suffice to state that even if certain species of them are doing more good than harm, many of them are such that an all-round reduction of their numbers would render them less liable to attack crops, and would thereby increase the percentage of good services rendered by them. Such are probably the house-sparrow, the yellowhammer, the skylark, the starling, the mina, and the rook.

THE SHINING CUCKOO (*LAMPROCOCYX LUCIDUS* GM.).

It is probable that many people know the characteristic whistle of the pipiwharauroa and are yet entirely unfamiliar with the appearance of the vocalist. This little bird, with its distinctly barred breast and beautiful bronze-green back, is another of our few migrating birds. In its case, however, according to the recent researches of Mathews and Iredale, the winter home is quite unknown. Formerly it was believed to winter in northern Australia, but now (although proof is lacking) it appears that New Guinea is more probable.

The most frequent foster-parent of the shining cuckoo, or "whistler," is the grey warbler; but cases in which the white-eye, the yellow-breasted tit, and even the house-sparrow acted in this capacity have been recorded. In the case of the grey warbler, with its covered-in nest (see *Journal* for August last, p. 80), it would seem almost impossible that the cuckoo can enter and actually lay her eggs in the nest-cavity. It seems almost certain that she must lay her egg upon the ground and deposit it in the nest with her bill. In this connection Mr. P. Keegan, of Whakatane, writes, under date 27th September, 1922: "When a lad on Banks Peninsula I often watched the shining cuckoo placing an egg in the grey warbler's nest. A cuckoo would approach the nest, and the two warblers would make a fierce attack on it. The cuckoo would lure them away some distance. Then its mate would dash in with an egg in its beak and place it in the nest." Other foster-parents mentioned by Fulton are fantails, robins, tomtits, blackbirds, and sparrows.

The shining cuckoo shares with the well-known English cuckoo and other typical members of the family the ability to eat hairy caterpillars, which are usually believed to be distasteful to other birds. It is true that McAtee considers that hairy caterpillars in general are by no means so objectionable to birds as is usually supposed, and he instances the English house-sparrow destroying large members of the white-marked tussock-moth caterpillars (*Hemerocampa leucostigma* S. and A.); but there cannot be the slightest doubt that cuckoos are better adapted than other birds to this diet, and in actual fact they do make a speciality of hairy larvæ. The same author describes the yellow-