

LITTLE BLUE PENGUINS.

These little penguins are the only other sort in Dusky Sound, and a few of them can be nearly always seen out in the water fishing near the surface, or are to be heard calling to each other in voices like the bark of a little dog. They do not come ashore as much as the big ones, and their breeding season is about two months later. They make their nests in very deep holes under the roots of trees, so that I can never get at one without an axe and spade. The entrance to the nest is often too small for a woodhen to get into; and there is no screaming and squalling about it as there is with the big ones. Yet the little ones can make the most noise when their singing season commences, for they have very loud voices, and quite different from the others. One of them gives a spirited groan with a shiver at the end of it, while its mate answers with a trembling scream, and they repeat this time after time until they are out of breath. There is a wild music in it when heard under the cliffs with the wind and waves; but when they come ashore and hold a concert near our tent on a quiet night it is altogether out of place.

They are not much above quarter the weight of their big cousins, and it is a blessing the latter have not voices as loud in proportion, or there would be no silence on Pigeon Island.

The little ones have no crests; their beautiful voice enables them to dispense with that ornament, while the big ones need it badly to make up for their bad singing. Otherwise their plumage and forms are the same.

The little ones appear to live mostly on very young fish only an inch or two long, with a few of the little *Mysis*.

When we first came to Pigeon Island our unruly dog killed several of them, and one that was bringing food to its young one had its maw distended with over half a pint of those tiny little fish. There may have been a thousand in it; and at that rate a pair of little penguins and their young one would be able to keep up with several fish-hatcheries going at "full steam."

KAKAS (*NESTOR*).

I have often found kakas' nests both in spring and autumn, and do not know which season they prefer, but I think that, like the kakapos, they do not breed every year. The nests are in hollow trees, not far from the ground, and the four pure-white eggs are laid in a hollow in the dry floor, without any other material to form the nest. Though there are generally four eggs I never saw more than two young ones, and did not know what became of the others until April, 1900, when I found a nest with two young ones in it and the other two out of it on the ground. One of the latter was very small and not quite dead, but the other was nearly as good as the ones in the nest and must have only just fallen out, but the dog killed it. This one, which was still in the downy stage, had two pieces of sharp gravel in its gizzard, some lawyer-berry seeds, and an oily white pulp, which may have been a mixture of wood-grubs and miro kernels. The gizzard was also about four times the size of a full-grown bird's.

A large part of their food at all seasons consists of grubs which they cut out of partly decayed timber, of honey from the rata and *Panax* blossoms in summer, and of various berries and miro-nuts in the autumn. The miro has a terribly hard stone to break, and yet the kakas break them crosswise just before they are ripe for the sake of their little oily kernel, which is only the size of a grain of wheat.

The big wood-grubs are often 2 in. long and $\frac{3}{4}$ in. thick, and are no doubt good food, for even men and dogs will eat them when roasted. Though the outsides of the trees may appear to be all decayed, these grubs keep a little way in the solid wood, so that it is hard work for a kaka to cut them out, though its beak and muscles are specially designed for that purpose. The only trees that appear to suit them on this coast are the red-pines and miro, and I think that they need to be twenty or thirty years dead before the big grubs will be found in them; but there are different little grubs that may take seventeen or twenty years to come to maturity, as in the case of some of the *Cicados*.

They say there are seventeen hundred different beetles in New Zealand, and no doubt the kakas will eat all their young ones they can get. There is one sort that bores in the pith of the living *Panax* and makes its leaves wither, and the kaka shows that he plainly understands what is the matter by locating and cutting out the grub in one act. With all my supposed reasoning-powers I cannot locate the grub as readily as the kaka, and I do not think he can smell it through the wood. Instinct is all very well, but it would be as well to apply that term to the tricks of a card-sharper. "Instinct" may do for explaining what we do not understand, and the term is probably kept for that purpose.

When the parents saw me leaving the nest they went to it at once, and, understanding that I had taken the young ones, followed me down to the boat, all the time screaming for assistance, which attracted all the kakas within hearing, and they made a great demonstration of sympathy and willingness to assist. They often do the same in response to the call of a wounded one, and then the pot-hunter can make an easy bag of kakas. This may be considered a silly trait in their character, but it also indicates courage, of which I think the kakas have the greatest stock of any creatures I know. They have a greater variety of notes and calls than any other birds in this bush, and I would not be surprised if they had what might be called a language, and could discuss a simple subject as well as a parish council. All the other kakas knew what the parents were saying when I took their young ones; and we will all admit a part of a language, but most people draw an arbitrary line somewhere, though they do not know exactly where.

For sanitary reasons the nest has to be on a level with the door, and the young ones soon learn to keep order. This may be the reason that no sticks or straws are brought in to tangle their feet. It may have been in this direction that the intelligence of the other two little ones failed