

billed cuckoo (*Coccyzus americanus*) and its method of treating the hairy tent-caterpillars (*Clisiocampa americana*). It squeezed out the juices and dropped the hairy skin to the ground. Mr. W. W. Smith, in this country, has watched our shining cuckoos feeding on the dark extremely hairy caterpillars of the common black-and-white moth (*Deilemera annulata* Bois.). It proceeded in exactly the same way as its American cousin, pressing the larvæ between its mandibles and rejecting the empty skins. Among other more or less hairy caterpillars eaten by the shining cuckoo may be mentioned those of the "kowhai-moth," which Mr. G. V. Hudson considers is almost certainly *Mecyna maoralis* Felder.

So far as New Zealand conditions are concerned, it seems clear that the shining cuckoo is practically purely insectivorous, and might therefore have been granted notice in our preceding article. Fulton, however, believes that at times it feeds on the eggs of small birds—at least one of his correspondents having seen it in the act. The same writer mentions moths, daddy-long-legs (Tipulidae), caterpillars, flies, gnats, and "fruit-slugs" as appearing in the cuckoo's menu. He even quotes a correspondent who accused the shining cuckoo of eating Burbank plums; but this is, on the face of it, so utterly at variance with the general food habits of the cuckoo family that it needs confirmation before it can be accepted as true. With regard to the highly injurious fruit-slug, the larva of the pear and cherry sawfly (*Eriocampoides limacina*), the writers know of several cases in which the shining cuckoo has eaten very large numbers, and there can be no doubt that in this direction it performs a good service for the orchardist. Cleland and his associates found a closely related Australian cuckoo with no fewer than twenty-five cutworm larvæ in its stomach. They further state, "All cuckoos are evidently highly useful insectivorous birds, feeding especially on various caterpillars."

#### THE PARROTS.

The parrots of New Zealand include the kaka, the kea, four species of parrakeets, and the now extremely rare kakapo. Of these the kea will form the subject of an entire article at a later date; while the others are among the most exclusively forest-dwelling species of the indigenous birds, and as such have been briefly discussed in the second part of this series. The kaka, the parrakeets, and particularly the kakapo have all decreased to a very great extent under the adverse influence of bush-clearing and settlement, which deprived them of the forest habitat to which they were pre-eminently adapted, and they found it impossible to subsist in settled districts. It is true that the early colonists of the South Island saw vast irruptions both of kakas and of parrakeets, which descended in countless hordes on the cultivated areas, committed extensive depredations on various crops, and proved for a limited period a pest of the greatest magnitude; but, in spite of our ignorance of the abnormal conditions which produced these vast immigrations, it can safely be asserted that such are never likely to occur again.

The kakapo (*Strigops habroptilus* Gray) is now so rare that it need not long detain us here. As one of those especially interesting and anomalous flightless birds of which New Zealand possessed such a