the Willie Wagtail. Though by no means confined to the town, it is less plentiful outside.

Cayley, N. W. What Bird is That?

Cayley, N. w. What Down Sand Book.

Leach, J. A. An Australian Bird Book.

McGill A R and Keast, J. A. 'The Mongolian Sand-Dotterel in McGill, A. R., and Keast, J. A. 'The Mongolian Sand-Dotterel in Australia,' Emu, vol. 44, part 3.

McGilp, J. N. 'The Hawks of South Australia,' South Australian Ornithologist, vol. 12, parts 7 and 8.

Serventy, D. L. 'A Guide to the Field Identification of the Waders,'

Emu, vol. 38, part 1.

Destruction of Nestlings by Kookaburras

By ROY P. COOPER, Willoughby, N.S.W.

The small tree-nesting birds face many hazards each year in rearing their families. Domestic cats that have gone wild and predatory birds cause untold damage in the destruction of brooding birds, eggs and nestlings.

After many years of observation of the nesting of birds, I have come to the conclusion that Kookaburras and Grey Butcher-birds constitute the greatest danger that the small birds have to face in the rearing of their young. When either of these species occurs in any number in a district, successful nesting is reduced to a minimum.

The natural shyness of birds in the presence of human beings renders it difficult to detect these predators in their acts of aggression. Butcher-birds, from the habit of hanging their prey in a small fork of a tree, leave some evidence of their destruction, but Kookaburras consume their food immediately or feed it to their young. With this latter species, it is therefore difficult to assess the actual damage caused by them.

In October 1947, I spent a holiday at Bundanoon, a small township 100 miles south of Sydney, on the main Sydney-Melbourne railway. No owls or butcher-birds were observed or heard, and only two birds of prey. Two snakes were seen, one of which was 'domiciled' in a hole at the base of a tree stump, only ten yards from the nest of a Speckled Warbler (Chthonicola sagittata). As the nest contained well-grown young, they evidently had not suffered any interference from the snake. The local cats were too well fed and lazy to go far away from the house and large lizards were unrecorded.

By contrast Kookaburras (Dacelo gigas) were unusually common and could be seen in any part of the forest at any time. They were always surrounded by a number of small birds, which showed great agitation at their presence.

The destruction of the nests, eggs and young of small birds was enormous, no less than eighty-four per centum of nests under observation being destroyed during my visit. Nests of Grey Fantails (Rhipidura flabellifera) and Striated Thornbills (Acanthiza lineata) entirely disappeared and some of these were built in positions that could only be reached by another bird. Scarlet Robins (Petroica multicolor), Grey Thrushes (Colluricincla harmonica) and Yellow Robins (Eopsaltria australis) lost the contents of

their nests with monotonous regularity.

Everything pointed to Kookaburras being the culprits, and although I was convinced that they were responsible, I could not witness any acts of destruction by them. Towards the end of my stay, however, I was watching a male Scarlet Robin that was nesting nearby. Previously I had photographed the birds and had spent several hours daily in observation. The young had just been examined in the nest and I had moved about fifty yards away to watch the The Robin was leisurely flying down, from a selected perch, to capture an insect that he had seen moving in the grass, when suddenly he let out a cry of alarm and flew rapidly towards the nest. Looking in that direction I noticed a Kookaburra flying away with both Robins in hot pursuit. The nest was completely broken off and lying about ten feet away, and both young birds were gone. There was no doubt as to what was responsible for their destruction.

During November 1947 a pair of Golden Whistlers (Pachycephala pectoralis) had constructed their nest in a small bush at a height of four feet. The camera was set up and, as the final adjustments were being made, a Kookaburra, despite my presence, swooped down and, in almost a continuous motion, snatched both young out of the nest and flew up into a nearby tree. So quick was the bird that, for a moment, it was hard to realize what had happened. It did not seem possible for both young ones to be taken, and the ground was searched in an endeavour to find them. It appeared that they must have been jarred out of the nest by the impact of the larger bird.

The adult Whistlers had followed the Kookaburra and were angrily flying around as it sat, unperturbed, on a limb. Directing my field-glasses on the Kookaburra it was possible to see the two young birds grasped in its bill.

possible to see the two young birds grasped in its bill. In *The Emu*, vol. 47, p. 123, K. A. Hindwood tabulates the food remains that had accumulated in the nest of a Kookaburra. Although bird skeletons were not present, that does not mean that birds are not consumed. Unfortunately, two small Scarlet Robins or Golden Whistlers would only represent a minute portion of the food necessary to feed the young Kookaburras.