

ROLLERS

Family CORACIIDÆ

THE rollers, so called from the curious aerial somersaults performed by certain members of the family, are a group inhabiting Africa, Southern Asia and Australasia to the Solomon Islands, some species visiting Europe and Northern Asia in the summer and breeding there. Though anatomically closely allied to the bee-eaters and kingfishers, their external appearance is very dissimilar, the bill being short, either compressed and corvine in the true rollers (*Coracias*) or broad and flattened in the dollar birds (*Eurystomus*). In both the bill is strongly hooked. The feet have four toes, three directed forward and one backward; the soles are somewhat broadened. The wing is long and pointed, the tail square in some species, with the central tail feathers elongated in others (African species).

Two species are known from the Malay Peninsula; one is a casual migrant to the northern parts and does not enter British territory (*Coracias bengalensis affinis*, the Burmese roller). It is distinguished by its compressed corvine bill, black in colour, with bristles at the gape. The other is described below.

Eurystomus orientalis orientalis

The Broad-billed Roller or Dollar Bird

Coracias orientalis, Linn., *Syst. Nat.*, i., 1766, p. 159 (East Indies).

Eurystomus orientalis, Sharpe, *Cat. Birds, Brit. Mus.*, xvii., 1891, pl. 2, fig. 6; Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 121; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 228.

Malay Names.—Tiong gajah; tong batu.

Description.—*Adult.*—Sexes alike. Head, nape, and sides of the face sooty black, with a brownish tinge; mantle, back and upper tail coverts, dull greenish brown, browner on the mantle; lesser wing coverts, on the mantle, median and greater coverts, brighter greenish; bastard wing, deep blue; primary coverts, black, washed with blue. Primaries, black, the bases, silvery cobalt, edged with ultramarine; outer secondaries, deep black; inner and tertials, greenish. Inner aspect of wing, black, with a large silvery cobalt patch; the inner webs of the primaries and nearly all the secondaries, deep blue; axillaries,

under wing coverts and edge of wing, greenish like the tertials; tail, black above, edged with blue at the base, greenish blue at the extreme base of the centre feathers; tail beneath, black, the inner webs partially deep blue for the basal two-thirds. Under surface, including under tail coverts, greenish, paler and more bluish on the middle of the abdomen; chin, blackish; upper throat, deep blue, the feathers with shining shaft stripes of brighter blue.

Immature.—Generally duller, the outer web of the light patch on the primaries especially so, the streaks of shining blue on the throat dimmed or in very young specimens almost completely absent.

Soft Parts.—Iris, dark; bill, vermilion, tipped with black; feet, vermilion. Immature birds have the bill blackish and the feet much duller, almost maroon.

Dimensions.—Total length, 11 to 12 in.; wing, 7·1 to 7·7 in.; tail, 3·9 to 4·3 in.; bill from gape, 1·5 to 1·7 in.; tarsus, 0·75 to 0·85 in.

Range in the Malay Peninsula.—Over the whole length of the Peninsula; Penang and Singapore, and other islands on both sides of the Peninsula.

Extralimital Range.—The Indo-Burmese countries, east of the head of the Bay of Bengal to Cochin-China; Borneo, Java and Sumatra and the Philippines, intergrading in Celebes with the Australian form and with other subspecies in Ceylon and Travancore.

Nidification.—There are no definite records of nesting in the Malay Peninsula, though I believe I saw breeding birds in dead trees in the railway clearing at Sungkai, South Perak, in February 1902. The species almost certainly *does* breed in the area, as very *young* birds have been obtained in October, but further evidence is much desired. Herbert got the eggs near Ayuthia, Siam, in a branch hole of a very high tree, forty-five feet from the ground, on 12th April. The eggs were broad regular ovals, pure china-white, with a high gloss. Five eggs averaged 1·4 by 1·15 in. = 35·7 by 28·7 mm. (*Journ. Nat. Hist. Soc. Siam*, vi., 1924, p. 301).

Habits.—This roller is found generally in clearings at the edge of heavy jungle, but not as a rule in mountainous country. It is a dull and heavy bird in the middle hours of the day, but, as many observers have noted, wakes up in the late afternoon and then pursues its food, which consists of insects (principally beetles and termites). Its note is a whistle rather like that of the mynah, but not so often uttered.

The species appears to be in part resident and in part migratory, as in the winter months it is found in large numbers on all the islets and lighthouses in the Straits of Malacca. These wandering individuals are largely young birds, partly of this form and partly of the dubious Chinese race, *E. o. calonyx*, which is supposed to breed in China, Korea and the Himalayas, and to winter in the Burmese countries and Malaya. This form is said to be distinguished by having more deep blue on the secondaries and tail feathers, and birds answering to the description certainly occur in the winter months, but intermediate specimens occur, and many ornithologists doubt the existence of the two forms.