

BEE-EATERS

Family MEROPIDÆ

THE family of bee-eaters, or *Meropidæ*, found in all the warmer portions of the Old World as residents and in the more temperate regions as summer migrants, is a compact group characterized by very uniform and specialized features.

The habit of body is slender and elongate, and the wings are rather narrow and much pointed, denoting considerable powers of flight. The tail is fairly long, and certain species have the central feathers extended beyond the rest. The bill is long, curved downwards and sharply pointed at the tip, fairly broad, and deep at the base, a structure correlated with the food, which is insects caught on the wing. Oriental species have the plumage mainly green, ornamented with bright colours and plumes.

The nests are chambers at the end of tunnels, sometimes of considerable length, excavated in sandy or earthy cliffs, and the eggs are white, very rounded in shape.

From the whole of the Malay Peninsula proper, four species are known, of which one is strictly a jungle or forest bird. Two are very commonly found in open country—with which this volume deals—while a third may not improbably occur at times.

KEY TO THE MALAYAN SPECIES OF BEE-EATERS

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| 1 | { | Larger birds, with broadened breast plumes | <i>Nyctiornis amicta</i> |
| | | Smaller birds, with no broadened breast plumes | 2 |
| 2 | { | With the central tail feathers elongated | 3 |
| | | With the central tail feathers not so elongated | <i>Melittophagus erythrocephalus</i>
<i>erythrocephalus</i> , p. 114 |
| 3 | { | Head chestnut, throat blue | <i>Merops viridis viridis</i> , p. 111 |
| | | Head green, a brown patch on breast | <i>Merops superciliōsus javanicus</i> , p. 112 |

*Merops viridis viridis***The Malaysian Chestnut-headed Bee-eater**PLATE 7 (*left-hand figure*)*Merops viridis*, Linn. (*nec auct.*), *Syst. Nat.*, i., 1758, p. 117 (Java).*Merops sumatranus*, Raffles, *Trans. Linn. Soc.*, xiii., 1921, p. 294; Dresser, *Mon. Merop.*, p. 23, pl. 6, 1884; Sharpe, *Cat. Birds, Brit. Mus.*, xvii., 1892, p. 61; Oates and Reid, *Cat. Birds' Eggs, Brit. Mus.*, iii., 1903, p. 49.**Malay Name.**—Berek-berek or bēberek.**Description.**—*Adult male.*—Back and scapulars, grass-green, as also the wing coverts; lower back, rump and upper tail coverts, shining pale silvery blue, more greenish on the tail coverts. Primaries and secondaries green on the outer webs, black on the inner webs, the green more extensive on the secondaries, which are clearly tipped with black on both webs. Inner aspect of the wings, blackish, with all the feathers broadly edged with chestnut-buff, more extensive on the secondaries; axillaries, pale chestnut-buff, angle of the wing, grass-green. Head and mantle, deep rich chestnut, the feathers behind the eye and the ear coverts, black. Beneath chin and throat, bright blue, with a verditer cast; rest of the under surface, emerald-green, sometimes tinged with blue on the flanks; under tail coverts, silvery blue, but not so bright as the rump. Tail feathers, greenish blue above, with black shafts, and edged with black on both webs; beneath, uniform blackish, with white shafts. Centre pair of tail feathers much elongated beyond the rest, the elongated portions narrowing to a point, and whitish.*Adult female.*—Does not differ in coloration from the male, but is possibly slightly smaller.*Immature birds.*—When quite young but just able to fly are darker above, the head dark green, with no trace of chestnut, and the middle tail feathers not elongate; the silvery blue of the rump is not so bright and there is little or no trace of the bright blue throat. The chestnut of the head and mantle appears gradually, but birds shot near Kuala Lumpur in January and February, which are presumably about seven months' old, are only just acquiring it.**Soft Parts.**—Iris, carmine or, in younger birds, hazel or greyish brown; culmen, black; feet, greyish or brownish black; bill, black.**Dimensions.**—Total length (including elongated tail feathers), 10.5 to 12 in. (260 to 300 mm.); wing, 4.4 to 4.6 in.; centre tail feathers, 6.6 in.; outer tail feathers, 3.1 in.; tarsus, 0.45 in.; bill from gape, 1.8 in.**Range in the Malay Peninsula.**—Over the whole Malay Peninsula, from the Burmese border and from farther north on the eastern side, and in Singapore, Penang, the Dindings and other adjacent islands. Probably resident throughout the year, though the numbers are augmented and decreased at certain seasons.**Extralimital Range.**—The greater part of Siam and Indo-China, South China, Java, Sumatra and Borneo. A closely allied form (*M. v. bicolor*) is met with in the Philippine Archipelago.

Nidification.—The nesting habits are those common to the majority of bee-eaters. In the Malay Peninsula the species breeds from April to June, usually in colonies, choosing precipitous sandy banks, usually in the vicinity of water. The nest is a slightly enlarged chamber at the end of a cylindrical burrow, which may be from 18 in. to 3 ft. or more in length. The eggs are white when unblown, of a faint pinkish tinge, from two to four in a clutch. Specimens obtained by W. Davison in Singapore, on 17th May, average 0.94 by 0.80 in. I found a considerable colony nesting on the precipitous banks of the river at Kuala Tembeling in May 1920. The eggs were all incubated, and the nearly fully-fledged nestlings were infested by the larvæ of a dipterous fly which was boring into the nasal membranes, but did not seem to greatly incommode the birds.

Habits.—This bee-eater is common throughout the Malay Peninsula, from the coast-line up to the foot of the mountains, but is not found at any height on the hills or in heavy jungle. It is social in its habits, and is sometimes found in flocks of considerable numbers, especially in the narrow salt-water channels intersecting the mangrove forests of the coast. More inland they are a common sight hawking over water for insects, especially towards evening after rain, when termites and winged ants are fighting. Normally the bird is silent, and I do not associate any special note with it, but the click of its mandibles can often be heard when it is fighting to and fro. Individuals have the habit of perching on some projecting bough, to which they repeatedly return on the conclusion of each flight.

Remarks.—I have used the name *M. viridis* for this common species as it has recently been ascertained that the bird described by Linnæus under this name, which has hitherto been assigned to an Indian bird not occurring in the British portion of the Malay Peninsula, is really a young bird of *this* species, as briefly described above.

In all but the most recent literature it will be found referred to as *Merops sumatranus*. The bird figured is a male from Patani town, 13th June 1901.

Merops superciliosus javanicus

The Brown-breasted Bee-eater

PLATE 7 (*right-hand figure*)

Merops javanicus, Horsfield, *Trans. Linn. Soc.*, xiii., 1821, p. 171 (Java).

Merops philippinus (part), Sharpe, *Cat. Birds, Brit. Mus.*, xvii., 1892, p. 71; Oates and Reid, *Cat. Birds' Eggs, Brit. Mus.*, iii., 1903, p. 51; Dresser, *Mon. Merop.*, p. 55, pl. 15, 1884.

Merops superciliosus javanicus, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 137; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 237.

Malay Name.—Bĕrek-berek or bĕberek.

Description.—*Adult male.*—Head, mantle, upper back and scapulars, brownish green, with an oily tinge; lower back, rump and upper tail coverts,

verditer-blue, not so silvery as in *M. viridis*. Primaries, brownish on the outer webs, the secondaries more bluish green, they and the primaries with narrow black tips; the inner secondaries or tertials entirely bluish green. Tail feathers, bluish green, the elongate portion of the central pair black; beneath greyish black, the shafts white. A short stripe above the eye and a broader and longer one beneath it from the angle of the jaw, silvery blue. Lores, the region round the eye and the ear coverts, black. Chin, pale yellow; a large patch on the breast, pale chestnut; rest of the under surface, dull green, browner on the flanks. Inner webs of the primaries and secondaries on the inner aspect and the axillaries, pale chestnut-buff. Under tail coverts, silvery blue.

Adult female.—Does not differ in coloration.

Immature.—Whole plumage much duller, the pale stripes above and below the eye hardly in evidence; chestnut patch on breast not clearly defined from the chin and lower surface. Middle tail feathers not elongate.

Soft Parts.—As in *M. viridis*; iris, crimson; feet, greyish or brownish black; bill, black.

Dimensions.—Total length about 12 in.; wing, 5·3 to 5·5 in.; tail, 6·2 in.; tarsus, 0·45 in.; bill from gape, 1·8 to 2·2 in. The bill varies greatly in length.

Range in the Malay Peninsula.—Over the whole Malay Peninsula, from its northern limit and, doubtless, in Penang, though I have not seen specimens from there. Sparingly in Singapore but very common in the islands of Terutau and Langkawi, north of Penang.

Extralimital Range.—The greater part of India, excluding the Himalayas; Burma, Siam, the Indo-Chinese countries, Java, Sumatra and Borneo. Slightly differentiated races are met with in the Philippines, New Britain, Africa and Madagascar.

Nidification.—This bee-eater has not been recorded as breeding in the Malay Peninsula. The nesting habits as described by Oates are very similar to those of *M. viridis*. On the Sittang river, Burma, it was found breeding in April in colonies at the end of galleries, 5 to 7 ft. long, in nesting chambers without any lining whatever. Most clutches consisted of five eggs, white, spherical and glossy, averaging in dimensions, 0·88 by 0·76 in.

Habits.—There is little to be said about the habits of this bird which does not equally apply to *M. viridis*, but in the Malay Peninsula it does not appear to be resident, being common only from October to April, and even then much less so than *M. viridis*. It is more abundant in the coastal mangrove belt, and on one occasion near Klang I found it feeding on the large tabanid flies (*Mal. pikat*), which are such a nuisance in these forests, the rejected wings falling in large numbers on the awning of our launch. The flight is stronger than that of *M. viridis*.

We have no knowledge of the migratory habits or routes of this bird. It has not been met with on any of the islands or lighthouses of the Straits of Malacca during the migration season.

Note.—The bird figured is a male from Klang, Selangor, 11th January 1901.

*Melittophagus erythrocephalus erythrocephalus***The Bay-headed Bee-eater**

Merops erythrocephalus, Gmelin, *Syst. Nat.*, i., 1788, p. 463 (India).

Melittophagus quinticolor, Dresser, *Mon. Merop.*, p. 115, pl. 26., 1884 ; Oates, in Hume's *Nests and Eggs Ind. Birds* (2nd ed.), 1890, iii., p. 67.

Melittophagus swinhoii, Sharpe, *Cat. Birds, Brit. Mus.*, xvii., 1892, p. 55 ; Oates and Reid, *Cat. Birds' Eggs, Brit. Mus.*, iii., 1903, p. 49.

Melittophagus erythrocephalus erythrocephalus, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 138 ; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 240.

Malay Name.—Berek-berek or bëberek.

Description.—*Adult male.*—Head, neck and mantle, chestnut-bay ; a line from the lores, under the eye to the ear coverts, black. Interscapulars, upper back wing coverts and outer aspect of the primaries and secondaries, green, the tertials more bluish ; primaries and secondaries with a narrow black tip. Lower back, rump and upper tail coverts, silvery blue ; tail above, green, with a bluish cast, the outer tail feathers slightly the longest ; below, greyish black, the shafts white. Throat, pale yellow, succeeded by a pale chestnut gorget, not quite continuous with the chestnut of the neck above. This is bordered posteriorly by a narrow black patch, and this again by an ill-defined sulphur-yellow band ; breast, apple-green, the lower abdomen and under tail coverts, bluish green.

Adult female.—Similar.

Immature.—Generally duller, the anterior portion of the crown, greenish, the markings on the throat reduced in extent, and much duller, and the bill straighter.

Soft Parts.—As in other species ; iris, crimson ; feet, greyish black ; bill, black.

Dimensions.—Total length, about 8 in. ; wing, 4'1 in. ; tail, 3'6 in. ; tarsus, 0'45 in. ; bill from gape, 1'6 in.

Range in the Malay Peninsula.—Common in Peninsular Siam and on the island of Puket, and also on Terutau, Langkawi and Penang. Less common in Perlis and Province Wellesley, and scarce in Perak, whence I have specimens from Lenggong and Parit, on the Perak river.

Kelham, *Ibis*, 1881, p. 377, states that he obtained specimens both of this and *M. viridis* at Malacca and Singapore, but it is almost certain that some mistake has arisen.

Extralimital Range.—Widely distributed in the Indian Peninsula, Ceylon, Burma, the Andaman Islands, Siam and French Indo-China. Not found in Borneo. Rare in Sumatra. A closely allied race, *M. e. leschenaulti* (Vieill), comes from Java, which differs in lacking the chestnut-bay chevron on the foreneck.

Nidification.—The bird is not known to breed in British Malaya. Numerous eggs from Salanga Island (Junk Zeylon or Puket), collected by Mr Darling

in the middle of March, are in the British Museum. They are of the usual bee-eater type, four to six in a clutch, and average 0·87 by 0·76 in.

Habits.—The occurrences of this bird in British Malaya, south of Penang, are possibly sporadic, though large numbers were obtained at Parit in September 1911, and I have seen it on one or two occasions in Taiping, while Kelham records it from Kuala Kangsar, in February. In Terutau and Langkawi we found it singly and in small parties hawking for insects on the beach and perching on dead twigs of mangrove and other trees growing isolated on the foreshore. It appears to be comparatively common on Penang Island, and for this reason I have inserted it in this section. In India and Ceylon it is largely a forest or semi-forest bird.