

CUCKOOS

Order COCCYGES

THE cuckoos of Malaya, numbering some thirty forms, are a very varied assemblage, and for description in the present volume I have selected such species only as are likely to be met with by the ordinary observer in gardens and open country. It is difficult to give in few words a non-technical diagnosis that will cover all the members of the family. The bill is fairly long and slightly curved, with the nostrils in a swollen membrane near the base. The wings are long, straight and pointed in the migratory forms, but short and rounded in the resident and jungle forms, such as the malkohas. The tarsus is stout, covered with plates in front and with a large slender claw to the hind toes in the ground-cuckoos (*Centropus*). Tarsi and feet slenderer in the more arboreal forms.

Fork-tipped feathers or feathers with glistening shaft stripes are not uncommon in many species, and others have the plumage metallic or glossed with metallic sheen. The orbits are frequently bare and brightly coloured. The sexes are alike in some cases, slightly or markedly different in others, and there is generally a distinct juvenile livery.

Many species are migratory, others strictly resident and sedentary. The migratory species are usually parasitic and lay in the nests of other birds, their eggs being adapted in colour to those of their hosts. Others make nests of their own, in which cases the eggs are usually chalky white, greenish or bluish.

Diet is in the main insectivorous, but some species eat fruit or seeds.

KEY TO THE SPECIES HERE DESCRIBED

- | | | | |
|---|---|--|---|
| 1 | { | With an elongate claw to the hind | |
| | | toe | 2 |
| | | With no such elongated claw | 3 |
| 2 | { | Much larger—wing, 8 in. or more | <i>Centropus sinensis bubutus</i> , p. 134 |
| | | Much smaller—wing, 7 in. or less | <i>Centropus bengalensis javanicus</i> , p. 135 |
| 3 | { | With a pronounced crest | <i>Clamator coromandus</i> , p. 135 |
| | | With no pronounced crest | 4 |
| 4 | { | Larger—wing, 8 in. or more | <i>Eudynamis scolopacea malayana</i> , p. 137 |
| | | Smaller—wing, 5 in. or less | 5 |

5	{	Plumage entirely black	<i>Surniculus lugubris brachyurus</i> , p. 140
		Plumage not entirely black	6
6	{	Wing soft and round, fitted to the body shape	<i>Rhinortha chlorophæa chlorophæa</i> , p. 142
		Wing firm and pointed, not fitted to the body shape	
7	{	Under surface rufous almost to chin	<i>Cacomantis sepulchralis sepulchralis</i> , p. 140
		Chin and throat grey	
8	{	Slighter, smaller, paler coloured above and below	<i>Cacomantis merulinus threnodes</i> , p. 138
		Slightly larger, deeper coloured above and below	

Clamator coromandus

The Red-winged Crested Cuckoo

Cuculus coromandus, Linn., *Syst. Nat.*, i., 1766, p. 171 (Coromandel Coast).

Coccytes coromandus, Oates, in Hume's *Nests and Eggs Indian Birds* (2nd ed.), 1890, ii., p. 391; Shelley, *Cat. Birds, Brit. Mus.*, xix., 1891, p. 214; Blanford, *Faun. Brit. Ind., Birds*, iii., 1895, p. 226.

Clamator coromandus, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 150; Stuart Baker, *Faun. Brit. Ind. Birds* (2nd ed.), iv., 1927, p. 170.

Malay Name.—Unascertained.

Description.—*Adult*—Sexes similar. Head, sides of the head, ear coverts, black, glossed with bluish, a white collar on the hind neck; mantle, scapulars, inner upper wing coverts and tertials, black, strongly glossed with green; upper tail coverts, more bluish; tail feathers, purplish black, the outermost with white tips to their outer webs. Primaries and secondaries and their coverts, chestnut, the two former tipped with dusky; inner aspect of wing, paler, the wing coverts and axillaries, buffy fawn. Chin and throat, pale ferruginous; breast and belly, white; lower abdomen, flanks and thighs, ashy grey; under tail coverts, black, with a purplish gloss and very narrow ferruginous tips.

Immature.—Feathers of the upper surface with ferruginous tips; wing coverts and secondaries, tipped with buff. Tail feathers, dark brown, with buffy tips.

Soft Parts.—Iris, hazel; bill, greenish black, paler beneath; feet, plumbeous.

Dimensions.—Total length, about 16 in.; wing, 6.3 to 6.5 in.; tail, 9.5 in.; tarsus, 1 in.; bill from gape, 1.4 in.

Range in the Malay Peninsula.—Throughout the length of the Peninsula but not yet recorded from the eastern side; the Langkawi group of islands, Penang and Singapore.

Extralimital Range.—India (rare), Ceylon; the Indo-Chinese countries

to Southern China; Borneo, Sumatra, Java, Celebes and the Philippine Islands.

Nidification.—Does not breed in the Peninsula. The eggs are said to be laid in the nests of babbler thrushes (*Crateropus* and *Garrulax*) and are broad ovals, uniform bluish green in coloration, measuring 1·05 by 0·92 in.

Habits.—Not uncommon along the coasts of the Straits of Malacca and on small islands from November to March. Rare inland, whence we have seen very few specimens, though we obtained one adult in the grounds of the old museum on Weld's Hill, on 28th February 1905. I know nothing of the habits locally, but Oates (*Birds Burm.*, ii., p. 117) describes the bird as living singly or in pairs in bamboo jungle; entirely arboreal in its habits, and feeding on caterpillars.

Centropus sinensis bubutus

The Southern Coucal, Crow-Pheasant or Lark-heeled Cuckoo

Centropus bubutus, Horsf., *Trans. Linn. Soc.*, xiii., 1821, p. 180 (Java); Shelley, *Cat. Birds, Brit. Mus.*, xix., 1891, p. 343.

Malay Name.—Bubut or but-but: nok poot (*Siamese*).

Description.—*Adult.*—Eyelid with strong black lashes. Head, all round, hind neck, whole under surface, back, rump, upper and under tail coverts and under wing coverts, black; tail with a greenish lustre, head and neck, purplish, with shining black shafts to the feathers; wings, scapulars and upper back, bright chestnut-bay, brightest on the inner upper wing coverts, dullest on the secondaries; secondaries and primaries with fuscous tips.

Immature.—Duller, and with less gloss; under surface mottled with ill-defined and irregular shaft stripes and irregular narrow whitish bars, broadest on the middle of the feather.

Newly hatched young (*C. s. intermedius*).—"The most ugly little things imaginable, as they are coal-black, with thick white hairs, about $1\frac{1}{4}$ in. long, almost like bristles" (Herbert, *Journ. Nat. Hist. Soc. Siam*, vi., 1924, p. 306).

Soft Parts.—Iris, crimson; bill and feet, black.

Dimensions.—*Males*: wing, 8·4 to 8·7 in. *Females*: are rather larger, wing, 9 to 9·6 in. (*vide* Stresemann).

Range in the Malay Peninsula.—From Patani and Lenggong in Upper Perak to the southern extremity; Singapore. No definite records from Penang, but either this race or its northern representative is certain to occur there.

Extralimital Range.—Sumatra, Borneo, Java, Bali and the Natuna Islands.

Nidification.—No records of this subspecies, but certainly precisely similar to *C. sinensis intermedius*.

Habits.—Very common throughout the country in suitable situations—which are spaces covered with lalang grass and *Melastoma*, the overgrown edges of roads and river banks, and especially railway cuttings wherever sufficient cover has grown. Here the birds may always be met with, generally singly, often in pairs. They run with considerable agility, diving into the long grass when disturbed, but the long and heavy tail seems to hamper them

and they take to wing only when hard pressed and with reluctance, and then soon drop to cover. In an emergency, however, their powers of flight must be considerable, as, since the 1883 eruption, the bird has established itself on the island of Krakatoa in the Sunda Straits, involving flight over water of not less than ten miles. The food seems to be large insects, grasshoppers and the like, with an occasional small reptile or scorpion.

The note is a sonorous "boot bu-bu-bu bhut," from which the vernacular name is derived, frequently repeated, often quite late at night and after or during rain.

The bird is much sought after by Eurasians and native-born Chinese of the Straits Settlements, and is said to be quite palatable. It is difficult to convince many Europeans that it is not a true pheasant.

Remarks.—I have here described the southern race, which is that found in the British portions of the Peninsula. Northwards, from about the latitude of Penang, and extending over nearly the whole of India, Siam, Burma, French Indo-China, Southern China and Hainan, another slightly different form is met with, *Centropus sinensis intermedius*. This bird has the chestnut of the upper parts rather brighter in tint, but the principal distinction is in the tail, which is very much shorter but has the feathers very distinctly broader. In habits it is precisely similar.

The nests and eggs have been described by Oates, from near Pegu, Burma, as follows :

"24th August.—Nest, 4 ft. from the ground, in thick elephant-grass, to several stalks of which the nest was attached. A domed structure, 18 in. in height and 14 in. outside diameter. The bottom, 4 in. thick, and the walls and roof very strong but thin, and allowing everywhere of the fingers being inserted. Composed entirely of the leaves of elephant-grass, the living heads of the supporting stalks being bent down and incorporated with the structure to form the roof. Entrance, oval, about 6 by 4 in., with its lower edge about 2 in. above the egg-chamber. Two eggs quite fresh, but the female incubating. Colour, pure white, the shell very chalky and with very little gloss. Eggs measured 1.4 by 1.18 and 1.36 by 1.15 in."

Darling also obtained three eggs from Kussoom, on the mainland of the Peninsula, near Puket, on 22nd July; and Herbert records the breeding season near Bangkok as from May to August, though fresh eggs were obtained as late as 20th September.

Centropus bengalensis javanicus

The Lesser Coucal, Crow-Pheasant or Lark-heeled Cuckoo

Cuculus javanicus, Dumont, *Dict. Sci. Nat.*, xi., 1818, p. 144 (Java).

Centropus javanicus, Shelley, *Cat. Birds, Brit. Mus.*, xix., 1891, p. 354; Oates and Reid, *Cat. Birds' Eggs, Brit. Mus.*, iii., 1903, p. 126.

Centropus bengalensis javanicus, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 156; Herbert, *op. cit.*, vi., 1924, p. 305 (nesting habits in Eastern Siam).

Malay Name.—Bubut kechil : nok kort (*Siamese*).

Description.—*Adult male.*—Head and neck, all round, and whole under surface, including under tail coverts, black, with a slight greenish gloss; the feathers of the head, neck, throat and breast with shining black shaft stripes. Mantle, upper back and scapulars, dark reddish brown, with white shaft stripes, grading into the black of the hind neck. Upper tail coverts, greenish black; tail feathers, greenish black, with obscure transverse radiations, visible in certain lights; wing coverts, chestnut-rufous; primaries and secondaries the same, with dull fuscous tips; inner lining of wing, pale chestnut, the inner wing coverts, paler still. The fully adult female is similar but the dimensions are considerably larger.

Immature.—The species apparently takes some time to acquire the fully black plumage, and many birds are entirely whitish buff beneath; the upper surface, including the head and mantle, blackish or brownish, with clear, whitish buff shaft stripes; upper tail coverts long, greenish black, with narrow irregular bars of buff brown. All intermediates between this stage and the fully black bird occur.

Quite young birds and nestlings have the upper plumage longitudinally streaked black and pinkish buff; wings and coverts barred with black and chestnut-buff, and the tail feathers with narrow whitish buff bars. Flanks and thighs, dirty-white, barred with blackish, the bars about half the width of the interspaces.

Soft Parts.—*Adults*: in black plumage—iris, crimson; bill, black; base of the mandible, pale; feet, slaty black. *Immature*: in buff plumage—iris, brown; bill, pinkish horn; culmen, brownish black; feet, black.

Dimensions.—*Males*: wing, 5·3 to 5·6 in. Females very much larger; wing, 6·1 to 6·7 in.

Range in the Malay Peninsula.—Through the Malay Peninsula; Penang. Very abundant in Singapore.

Extralimital Range.—Assam, throughout the Indo-Chinese countries to South China. The Philippines and most of the islands of the Malay Archipelago, as far east as the Moluccas, under various subspecific names (*cf.* Stresemann, *Nov. Zool.*, xix., 1912, pp. 336-339).

Nidification.—Seimund shot a female with a fully formed egg in the oviduct on 5th May 1910. It was chalky white, with a faint bluish tinge. Nests are built among high grass, with the stems bent over to form a dome, but I have no details of nesting in Malaya. The eggs are two or three in number, chalky white, measuring, on an average, 1·13 by 0·95 in.

Habits.—Note, etc., as in the larger species, but not heard so frequently in the evening. The bird is more an inhabitant of lalang fields and plains of considerable extent, and is not so much seen among the herbage of river banks and at the edge of scrub as is *Centropus s. bubutus*. Like that bird the present one is much eaten by Tamils and Chinese, and an extract of the whole bird in *samsu* (native rice-spirit) is a drug used by parturient women among the Chinese.

Remarks.—I have described the pale-plumaged birds as an immature stage,

following Blanford, but many writers consider that this plumage in the present race and *C. bengalensis bengalensis*, which is only the Indian form, is an adult plumage assumed in winter. There is no evidence that this is the case in Malayan birds and I think that the black plumage, once assumed, is always retained. Birds, however, are probably two or more years old before they become entirely black.

Eudynamis scolopacea malayana

The Malayan Koel

Eudynamis malayana, Cab. and Heine, *Mus. Hein.*, iv., 1862, p. 52 (Sumatra).

Eudynamis honorata, Shelley, *Cat. Birds, Brit. Mus.*, xix., 1891, p. 317; Blanford, *Faun. Brit. Ind., Birds*, iii., 1895, p. 229.

Eudynamis scolopacea malayana, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 154; Herbert, *op. cit.*, vi., 1924, p. 304; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 174.

Malay Name.—Tahu (*Kelantan*): nok a wow (*Siamese*).

Description.—*Adult male.*—Whole plumage above and beneath, black, with a bluish green gloss, purplish in some lights. General appearance somewhat squamate, owing to duller edges to the feathers.

Adult female.—Very different from the male. General ground-colour above, blackish, with a greenish gloss, abundantly marked with pure white, taking the form of median streaks on the head, a series of guttate spots on each web of the other feathers and irregular narrow bars, never continuous across the feathers on the wings and tail. Under surface, including the thighs and under tail coverts, barred black and white, the black predominating on the throat, and having a more guttate appearance. Inner aspect of primaries, barred greyish black and white, the white bars broadest on the inner feathers and on the inner webs. Under wing coverts and axillaries regularly barred black and white, with a faint fawn tinge.

Immature.—Nestlings are uniform black, and then acquire a plumage like that of the adult female, except that the white markings are strongly tinged with buff; the pale bars on the wings and tail much broader and the feathers of the crown with broad rusty edges. Males apparently pass through a stage resembling the adult female, nearly adult birds having the tips of the wing coverts, primaries and tail feathers with light markings.

Soft Parts.—Iris, red; bill, greenish or bluish slate; feet, plumbeous green.

Dimensions.—Total length, 16 to 17 in.; wing, 7·8 to 8·5 in.; tail, 7·7 to 8·4 in.; tarsus, 1·3 to 1·5 in.; bill from gape, 1·5 to 1·7 in.

Range in the Malay Peninsula.—Throughout the length of the Peninsula on both coasts. Penang, Langkawi group, Singapore, Great Redang Island and the islands of the Bandon Bight.

Extralimital Range.—Borneo, Sumatra, Java, and a little way into Southern Tenasserim. The status of birds from Central Siam and Indo-China is

uncertain. They are probably intermediate between this form and *E. scolopacea scolopacea*.

Nidification.—Eggs were secured by Mr A. R. Coope at Pasir Puteh, Kelantan, in February 1923. Two eggs were obtained in a crow's nest (*Corvus macrorhynchus*), which contained in addition four crows' eggs and a young bird. Attention was attracted to the nest by continual fights between the crows and the tahu (*Eudynamis*), which are stated by the Malays to suck the crows' eggs.

The two eggs obtained were hard set and much damaged in blowing. The less-damaged egg is a somewhat blunt oval, more pointed at one end and only moderately glossy. The ground-colour is a dull olive-green, with uneven spots and blotches of olive-brown, larger and more thickly congregated at the larger end. Measurements, 1.29 by 1.08 in., which is a little large for a koel, so that the egg sent is possibly that of one of the hosts and not the parasite. Herbert, however, in his account of the breeding of the bird near Bangkok, gives the average size of eighteen eggs as 1.22 by 0.94 in. The eggs have also been obtained by Mr Aagaard at Bangnara, Patani, on April 24th.

Habits.—In the southern portion of the Malay Peninsula at any rate, and in Singapore, the koel is a very rare bird, but on all the small islands of the Straits of Malacca and on the coast of Peninsular Siam, east and west, it is very abundant from October to March. Possibly a bird or two remains on those islands that are well wooded throughout the year, but the numbers are immensely increased at the migration season. The note is a melodious dissyllabic whistle, frequently repeated, and ascending in scale, and is well denoted by the English and vernacular names. The food is in the main insectivorous. Flight rather ungainly and not very strong.

Remarks.—It is not improbable that two very closely allied races are present at the same time in the Malay Peninsula during the winter, but they can with difficulty be distinguished. The Indian form, *E. s. scolopacea*, is rather smaller, wing not exceeding 8.1 in., with a more rufous-tinged female. *E. s. malayana* has a slightly longer wing and the spots on the female whiter. If both forms do occur, the latter is certainly in the large majority.

Cacomantis merulinus threnodes

The Brain-fever Bird

Cacomantis threnodes, Cab. and Heine, *Mus. Hein.*, iv., 1862, p. 19 (Malacca).

Cacomantis merulinus (part), Shelley, *Cat. Birds, Brit. Mus.*, xix., 1891, p. 268.

Malay Name.—Uncertain.

Description.—*Adult.*—Head, neck and throat, ashy grey, darker above; back, mantle, wing coverts and wings, bronzy brown; upper tail coverts, darker towards the tips, with paler edges; under surface, pale rusty, darker, and more cinnamon on the under tail coverts; tail, blackish, the feathers tipped with whitish, and all except the central pair with oblique bars of whitish on the inner webs. Angle of the wing, whitish; under wing coverts and

axillaries, cinnamon-buff, a dirty-white patch on the inner webs of the inner primaries towards the base.

Immature.—Barred with dark brown and pale rufous above, whitish and black beneath. Tail feathers, brownish black, with oblique bars of rufous on both webs, not reaching the shaft; under wing coverts and edge of wing, white, oblique white bar on under surface of wing, produced by the white bases of the primaries, more conspicuous than in the adult.

Note.—Very young birds have the throat and head longitudinally striped with black and pale rufous and the tail more regularly barred.

Soft Parts.—"Iris and inside of the mouth, red; beak, dusky, reddish at its base; legs, yellow." (Kelham, from a Singapore specimen.)

Dimensions.—Length, 8 to 8.2 in.; wing, 3.9 to 4.2 in.; tail, 4.4 in.; tarsus, 0.7 in.; bill from gape, 0.85 in.

Range in the Malay Peninsula.—Southwards, from about the latitude of Penang. In North and Central Perak this race inosculates with *C. m. querulus*, which is the dominant form northwards; Singapore Island.

Extralimital Range.—Sumatra, at least in the south and west. North-east specimens, Deli, etc., require further comparison.

Nidification.—Nothing very definite is known; the members of the genus are said to deposit their eggs in the nests of tailor-birds; the following interesting account by Mr H. C. Abraham certainly applies to the northern race of this species, *C. merulinus querulus*:

"At about 3.45 P.M., on 24th August 1924, the loud screaming of a bird was heard in my compound at Taiping. On investigation it was at first thought to be caused by a small hawk attacking a much smaller bird, but, on getting field-glasses to bear, the commotion was seen to be due to a young cuckoo being fed by a small bird, apparently its foster-mother.

"The cuckoo was about the size of a 'tekukur' (*Streptopelia tigrina*) and appeared to be in its first plumage, which was, on the head, back and tail, rich rufous brown, with numerous black spots, the breast being paler and shading into grey (with black spots) on the belly; the beak and legs were brown and the eyes black.

"The foster-mother was a tailor-bird (*Orthotomus atrigularis*).

"The performance was observed continuously until 4.40 P.M. (*i.e.* for fifty-five minutes), during which time the cuckoo was fed ten times by the foster-mother. On one occasion the feeding was done by two birds (possibly the mate was helping in the enormous task). Each time of feeding, it was noticed that the cuckoo did not appear satisfied with the amount given it and pecked viciously at the foster-mother, at the same time screaming angrily; this was the noise which first attracted attention. In between feeds the cuckoo several times flew to another place (some of the flights were of twenty to thirty yards), and it was observed that the foster-mother always returned to the spot where she had last left her 'baby' and that the latter then attracted her attention by bawling, at the same time ruffling out its feathers, drooping its wings, and shivering. It was further noticed that the cuckoo did not bawl out on the approach of birds other than its foster-parent, although several of about the

same size and general appearance were seen to come quite close to it. In the intervals between feeds the cuckoo occupied itself by preening its feathers, at the same time chirping almost continuously.

"At 5.30 P.M. the bawling of the cuckoo could still be heard, so that, as it was fed about once every five minutes during the time of actual observation, it would seem perfectly certain that it would be quite impossible for the foster-mother to rear any of her own brood, even supposing they managed to survive babyhood, with such a voracious foster-brother in the nest" (*Singapore Naturalist*, No. 5, 1925, p. 97).

Habits.—Like *Surniculus*, birds of this genus are inhabitants of gardens, orchards and scrub jungle, and do not much affect primeval forest, nor do they ascend the mountains to any considerable altitude. With us the species appear to be resident throughout the year, though they are more in evidence in the winter months than in summer. In collections, curiously enough, males are always much commoner than females, though it is not known whether there is any real disparity in the relative numbers of the sexes. The note is a whistle, endlessly repeated, and often heard at night, and is a cause of great annoyance to many Europeans—whence one of the popular names of the species, "the brain-fever bird," which, however, should properly be shared by *Surniculus*.

Remarks.—We have described here only one form of this bird; north of Central Perak it is replaced by another race, *Cacomantis merulinus querulus*, which differs only in having the rufous under parts somewhat richer in colour, the upper parts darker, the head and neck less differentiated from the mantle and back. The size, also, as is usual with the more northern races, is slightly larger, the wing being about a quarter of an inch longer.

Occurring throughout the range of both these forms is yet another bird, which must be regarded as belonging to a distinct species. This is *Cacomantis sepulchralis sepulchralis*; it may be separated from both the other races by the fact that the under surface is uniform reddish brown to the chin, without a clear grey throat. The upper surface is darker and the bars on the tail are not continuous to the shafts, being little more than denticulations on the edge. The size is slightly smaller than either of the other forms. This species is more of a coastal bird and is occasionally found among the mangroves.

Surniculus lugubris brachyurus

The Short-tailed Black Drongo-Cuckoo

Surniculus lugubris brachyurus, Stresemann, *Nov. Zool.*, xx., 1913, p. 340 (Pahang); Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 164.

Malay Name.—This cuckoo is not recognized by Malays as distinct from the small drongos, which have many names—burong hamba kĕra and burong sawai being the most usual for the small species.

Description.—*Adult.*—The sexes do not differ. Glossy black, more so

above, with a greenish tinge, most marked on the wing coverts ; a small concealed white patch at the back of the head ; feathers of the backs of the thighs, white ; under tail coverts with narrow white bars ; outer tail feathers with narrow diagonal white bars running right across the feather, next pair with imperfect bars extending over only about one quarter of the inner web. A large white spot on the inner web of the outer primaries and an oblique white bar on the inner aspect of the wing formed by white spots on the inner webs of the primaries, increasing in extent inwardly ; under wing coverts, black, usually more or less banded and tipped with white.

Immature.—With less gloss, and irregularly spotted, over the whole plumage, with white ; the white bars on the tail feathers broader ; feathers at the edge of the wing barred black and white. The rounded white spots on the upper wing coverts are edged on their lower margins with deep lustreless black, making them more conspicuous. The white on the plumage is more abundant, the younger the bird.

Fledgeling.—Black, with broad white tips to all the feathers ; abdomen and vent almost pure white.

Soft Parts.—Iris, dark hazel, sometimes crimson ; skin beneath the eye, dull greenish ; bill, black ; feet, dullish slate or purplish grey. In adults the gape is whitish and in quite young birds, orange.

Dimensions.—Length, 9·5 to 10 in. ; wing, 4·7 to 5·3 in. ; tail, 4·4 to 5 in. ; tarsus, 0·6 to 0·65 in. ; bill from gape, 0·9 in.

Range in the Malay Peninsula.—From about the latitude of Penang or a little north thereof to the southern extremity ; Penang. Rather rare on Singapore Island.

Extralimital Range.—Borneo and Sumatra and other intervening islands.

Nidification.—This cuckoo is very generally stated to lay its eggs in the nests of drongos (*Dicrurus sp.*), to which it bears a very close mimetic resemblance. In the Malay Peninsula I found a fledgeling of either this form or an intermediate between it and the migratory, *S. l. dicruroides*, at the Semangko Pass, Selangor, Pahang boundary, on 24th February 1908, in the nest of a flycatcher, *Cryptolopha butleri* (Hart.), attended by both the foster-parents.

An egg of the Javan form is associated with those of a bulbul (*Pycnonotus aurigaster*) and is described as a blunt oval in shape, moderately glossy, pinkish white in colour, markings chiefly in the form of a zone round the broad end, with pale lilac-brown and lavender. Measurements, 0·79 by 0·54 in.

Habits.—A bird of gardens, secondary jungles and the edge of forest. Flight weak and rather undulating. The food is in the main caterpillars and insects generally, but fruit, notably small figs, is certainly eaten. The note is a whistle of six notes, with a pause after the third, the second series being higher in the scale than the first.

Remarks.—As with so many Malayan birds this species can apparently be divided into two series, a resident form and a migrant from the north, occurring from October to March. This migrant is to be found in large numbers on the

islands and coasts of the Straits of Malacca,¹ and differs from the resident birds in its rather larger size and in having the tail consistently longer than the wings. The colour on the lower surface is also rather more greyish.

This bird is the same as that inhabiting Tenasserim and Peninsular Siam and also the highlands of the Malay Peninsula, where, as noted above, it breeds. It is intermediate in its characters between the Himalayan form, *S. l. dicruroides*, and the present bird, *S. l. brachyurus*, and is quite distinct from the typical Javan race, *S. l. lugubris*.

Rhinortha chlorophæa chlorophæa

Raffles's Green-billed Malkoha

Caculus chlorophæus, Raffles, *Trans. Linn. Soc.*, xiii., 1822, p. 288 (Sumatra).

Rhinortha chlorophæa, Shelley, *Cat. Birds, Brit. Mus.*, xix., 1891, p. 303.

Rhinortha chlorophæa chlorophæa, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam.*, v., 1923, p. 156; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 184.

Malay Name.—Burong chènok. (A generic term applied to all malkohas but not widely known.)

Description.—*Adult male.*—Head, mantle and wings, chestnut, darker on the mantle, the flight feathers tipped with dusky; lower back, upper tail coverts and tail, dusky black, with annulated cross bars, seen only in certain lights; tail feathers with broad white tips, the region preceding the white tips blacker than the rest of the tail and wanting the cross bars. Beneath, pale chestnut, deeper on the sides of the neck, becoming brownish black on the abdomen and blackish on the under tail coverts. Feathers of the thighs more greyish. Inner aspect of wing, rich chestnut; under wing coverts paler.

Adult female.—Different from the male. Head and neck, pearl-grey; rest of upper surface, wings and tail, deep chestnut-maroon, the wing feathers tipped with dusky and the upper tail coverts with blackish. Tail with a sub-terminal black bar, about half-an-inch broad, and a white tip of equal width. Beneath, grey, washed with salmon-buff on the abdomen; flanks, deep chestnut; thighs, greyish, mixed with chestnut; under tail coverts, blackish. The tail on the female shows no traces of the annulations visible in that of the male.

Immature.—I have seen no young specimens; they seem rare in collections.

Soft Parts.—Iris, dark brown; bare orbits, verditer; bill, sea-green; feet, slaty.

Dimensions.—Total length, about 13 in.; wing, 4.6 in.; tail, 7.4 in.; tarsus, 1.1 in.; bill from gape, 1.3 in.

Nidification.—The nest is said by Baker to be a platform of twigs mixed with a good deal of grass. Mr Kellow collected one with three eggs near Taiping,

¹ It is probably a migratory bird of this form that has been described by Mr Oberholser, from a specimen shot on January in the Siak River, East Sumatra, by Dr W. L. Abbott, as *Surniculus lugubris passorhinus* (Oberholser, *Journ. Wash. Acad. Sci.*, 14, 1924, p. 300).

Perak, in January, and there are two eggs in the Singapore Museum obtained by Mr Aagaard at Bangnara, Patani. The eggs are dirty-white, rather dull and chalky and (*vide* Baker) measure 1.32 by 0.98 in.

Range in the Malay Peninsula.—Throughout its length on both coasts; very doubtfully in either Penang or Singapore, and not on other islands.

Extralimital Range.—North to Central Tenasserim and Sumatra. The race from Borneo (*R. c. fuscigularis*, Stuart Baker) is apparently distinct.

Habits.—Widely spread in the Malay Peninsula in lowland scrub and jungle, not ascending the mountains to more than 1500 ft. and not in mangroves. Food, insects—largely phasmids and stick-insects. It is generally met with singly or in pairs, usually on trees covered with climbers, amongst which it dodges in and out with considerable agility, looking more like a squirrel than a bird. The powers of flight are weak, as denoted by the soft and rounded wing. I have not heard it utter any call, but Davison, whose account of its habits is excellent, gives its note as a peculiar cat-like “*mew*” (*Stray Feath.*, vi., 1878, p. 166).