

KINGFISHERS

Family ALCEDINIDÆ

BOTH in individuals and in species (eighteen or nineteen forms having a place on our list) kingfishers are very numerous in the Malayan area. In a book of this character it is unnecessary to give at length the technical characters of the family, but, briefly, a kingfisher can always be recognized by its large and heavy bill, large head and stumpy tail.¹ The wings are comparatively short, though most of the family are birds of active and powerful flight. The note of most forms is loud and raucous (the laughing jackass of Australia is a kingfisher), though some of the forest birds are rather silent birds. The nesting habits of all species are very similar, the eggs of most species being laid in chambers at the end of galleries bored in the banks of streams, rivers and wells, though some birds use the nests of ants and termites for the purpose, and others nest in holes in trees. The eggs are white, often with a pinkish tinge.

The following is a key to the species which are at all likely to be found in gardens.

KEY TO THE SPECIES HERE DESCRIBED

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|---|---|---|---|
| 1 | { | Tail shorter than culmen ; wing less than 3'4 in. | 2 |
| | | Tail longer than culmen ; wing more than 4'6 in. | 3 |
| 2 | { | Ear coverts rusty red | <i>Alcedo atthis bengalensis</i> , p. 93 |
| | | Ear coverts blue | <i>Alcedo meninting meninting</i> , p. 95 |
| 3 | { | With no white in plumage | <i>Halcyon coromandus</i> , p. 101 |
| | | With white in the plumage | 4 |
| 4 | { | Head blue | <i>Sauropatis chloris humii</i> , p. 99 |
| | | Head black | <i>Halcyon pileata</i> , p. 97 |
| | | Head chestnut | <i>Halcyon smyrnensis fusca</i> , p. 96 |

Alcedo atthis bengalensis

The Common Kingfisher

Alcedo bengalensis, Gmelin, *Syst. Nat.*, i., 1788, p. 450 (Bengal) ; Oates, in *Hume's Nests and Eggs Ind. Birds* (2nd ed.), 1890, iii., p. 1.

Alcedo ispida, Sharpe, *Monogr. Alced.*, 1870, p. 1, pl. 1 ; id. *Cat. Birds, Brit. Mus.*, xvii., 1892, p. 141 ; Blanford, *Faun. Brit. Ind., Birds*, iii., 1895, p. 122.

¹ One genus from the New Guinea region, *Tanyiptera*, has a much lengthened tail.

Alcedo atthis bengalensis, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 123; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 250.

Malay Names.—Burong raja hudang; pekakak chichit: nok kra-teng bek (*Siamese*).

Description.—*Adult male.*—Crown and nape, transversely barred with blue and black; back, rump and upper tail coverts, silvery blue; tail feathers, greenish blue, below oily brownish black; upper wing coverts and scapulars, greenish blue, the former with a small terminal spot of bright blue. Flight feathers, brownish black, the outer webs greenish blue; axillaries and under wing coverts, ferruginous buff; inner aspect of the wing, oily brown, the feathers narrowly edged on their inner webs with pale fawn; a stripe from the nostrils to the eye, ferruginous, bordered beneath with black; beneath the eye a small patch of blue; beneath this a broad rusty band including the ear coverts, and terminated by a spot of buffy white; a line of blue, broadening posteriorly, from the angle of the gape, the feathers tipped with brighter blue. Chin and upper throat, whitish; a patch of blue on each side of breast; rest of the under surface, including the under tail coverts, rich ferruginous, rather paler on the middle of the abdomen.

Adult females.—Are possibly slightly duller, and differ in the colour of the lower mandible (*cf.* below).

Immature.—Much duller; the lores and ear coverts whitish, only tinged with ferruginous, the white on the chin and breast clearer, and the rest of the under surface very much paler ferruginous, with a dusky gorget across the breast.

Remarks.—The species shows considerable variation, mainly in intensity of the blue and of the ferruginous tint of the under surface, which is correlated with the age of the plumage and, as noted above, of the bird.

Soft Parts.—*Male*: iris, dark; bill, black, reddish at extreme base of lower mandible; tarsi, vermilion; claws, black. *Female*: Iris, dark; upper mandible, black; lower, dull red; feet, vermilion.

Dimensions.—Total length, 6·6 in.; wing, 2·6 to 2·8 in.; tail, 1·3 to 1·5 in.; tarsus, 0·35 in.; bill from gape, 1·7 to 1·85 in.

Range in the Malay Peninsula.—Throughout the whole Peninsula and all the adjacent islands, but not ascending the mountains or in very heavy jungle, with the exception of the coastal swamps.

Extralimital Range.—The whole of Southern Asia, Java, Borneo, Sumatra. Various other local races have been described, and the present bird is to be regarded merely as the tropical representative of the European kingfisher, *Alcedo ispida* (auct.), from which it differs in smaller size and less brilliant tints.

Nidification.—There are few actual records of the breeding of this little¹ kingfisher in the Malay Peninsula. In other countries the nest is described as a chamber in a tunnel on the banks of streams, often but little above the

¹ In January 1927 I noticed a pair nesting in a hole on the banks of the lake in the Kuala Lumpur Gardens, only a little above the water-level. The nest was in a narrow tunnel sloping downwards, and the eggs were laid on a small pad composed of fish bones and the chelipeds of a small crab. When two eggs had been laid the nest was destroyed by a squad of antimalarial works coolies.

water-level. The eggs are rounded, white and very glossy, with a tinge of pink when unblown. Clutches number as many as seven, and the dimensions of the eggs of the very closely allied Ceylon race are 0.8 by 0.68 in.

Habits.—The habits of this bird are precisely those of the English kingfisher, and, like it, it is never found far from water; but in the Malay Peninsula it is as partial to the seaside as it is to the rivers and streams. It feeds on small fish, tadpoles and crustacea, and has the habit of selecting some bough or twig as a post of observation, to which it returns time after time. Its note is a discordant grating whistle, which is generally uttered on the wing, and the flight is low and swift.

Though there is little doubt that this bird is resident in the Malay Peninsula, its numbers are greatly increased during the winter months (October to March). During this season it is found on small islands in the Straits and at the lighthouses, from which it is absent at other times. Whence the additional stock is derived from is at present unknown. Migrant birds appear to differ in no particulars from others.

Alcedo meninting meninting

The Deep Blue Malayan Kingfisher

Alcedo meninting, Horsf., *Trans. Linn. Soc.*, xiii., 1921, p. 172 (Java); Sharpe, *Cat. Birds, Brit. Mus.*, xvii., 1892, p. 157; Oates and Reid, *Cat. Birds' Eggs, Brit. Mus.*, iii., 1902, p. 33.

Alcedo asiatica, Sharpe, *Monogr. Alced.*, 1870, p. 25, pl. 5.

Alcedo meninting meninting, Baker, *Bull. Brit. Orn. Club*, xxxix., 1918, p. 37; Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 125; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 254.

Malay Name.—Binti-binti (but not well known in the Malay Peninsula).

Description.—*Adult male.*—Head and nape, barred transversely deep azure and black; back, shining cobalt-blue, darker on the rump and upper tail coverts. Scapulars, dark ultramarine blue; wing coverts, black, with shining ultramarine blue tips. Flight feathers, externally black, with the innermost edged with blue on the outer webs; internally, brownish black, edged with fawn on the inner webs; angle of the wing, inner coverts and axillaries, rich rufous chestnut; feathers immediately behind the nostril, black, remaining space between them and the eye pale rufous, bordered below by a narrow bluish black stripe. Cheeks, stripe from the angle of the jaw, region behind the eye and ear coverts deep blue, with a large buffy white spot behind the ear coverts. Throat, whitish buff, a small blue patch on each side of the breast; remainder of the under surface, including the under tail coverts, deep rufous orange, darker than the under wing coverts. Tail feathers above, black, with a faint blue wash; beneath, black.

Adult females.—Most females have a good deal of rufous orange on the sides of the head and jaw, but very old birds tend to assimilate to the plumage of the male.

Immature.—Duller in colour, with the blues less intense and the under surface paler, and with a variable amount of rufous on the sides of the head.

Soft Parts.—*Male*: iris, dark; bill, blackish brown, with the extreme base of both mandibles red; feet, blood-red. The female has almost the whole of the lower mandible reddish; younger birds often have the extreme tips of both mandibles whitish.

Range in the Malay Peninsula.—Throughout the Peninsula, from the isthmus of Kra southwards, and also in Penang and Singapore, Junk Zeylon and Terutau.

Extralimital Range.—The Bornean form is probably identical with the Peninsular, but Mr Stuart Baker has distinguished other local races from India, Siam, Assam, the Andamans and Nias. The changes of plumage in this bird are not well understood, and it is possible that the number of local races will eventually have to be reduced.

Nidification.—Nesting habits much as in *A. a. bengalensis*, and eggs as in that species. Four obtained by Sir Hugh Low in Labuan average 0.76 by 0.65 in. In the Malay Peninsula, at any rate in the north, the nesting season is about June.

Habits.—Very similar to those of *A. a. bengalensis*, but this bird is more a forest frequenter and is less seen in the open and on the seashore. It penetrates farther up the rivers than its congener, and does not seem quite so strictly tied to water. It is a strictly sedentary bird and performs no migrations, so far as is known.

Halcyon smyrnensis fusca

The White-breasted Kingfisher

PLATE 6 (*lower figure*).

Alcedo fusca, Bodd., *Tabl. Pl. enl.*, 1783, p. 54 (Malabar).

Halcyon smyrnensis, Sharpe, *Mon. Alced.*, 1870, p. 161, pl. 59; id. *Cat. Birds, Brit. Mus.*, xvii., 1892, p. 222; Blanford, *Faun. Brit. Ind., Birds*, iii., 1895, p. 132; Oates, in Hume's *Nests and Eggs Ind. Birds* (2nd ed.), iii., 1890, p. 15.

Halcyon perpulchra, Madarasz, *Ann. Mus. Hung.*, ii., 1904, p. 85 (Singapore).

Halcyon smyrnensis fusca, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 128; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 268.

Malay Names.—Raja hudang; pekakak.

Description.—*Adult male*.—Head all round, nape, sides of the head, flanks, abdomen and under tail coverts, deep chocolate, lightest on the flanks; chin, throat and middle of the breast, white; scapulars, upper back, tertials, outer webs of secondaries above and tail above, greenish blue; lower back, rump and upper tail coverts, shining blue. Greater wing coverts, blue with a purplish tinge; median wing coverts, velvety black, lesser ones at the angle of the wing, chestnut; edge of the wing, white; inner wing coverts and axillaries, chestnut. Primaries, black, the basal portions white, increasing in extent towards the inner ones; externally the outer webs pale blue on the

basal portion; secondaries, greenish blue, black on their inner webs. Tail, blackish beneath, slightly graduated, the middle tail feathers longest.

Adult female.—The under surface, especially the flanks, slightly paler.

Immature.—Have the under surface very much paler, the white carried farther down the abdomen, and the feathers of the breast with extremely narrow black edgings.

Very old birds have a pale silvery blue sheen over the white of the lower parts, very perceptible in certain lights.

Soft Parts.—Iris, dirty-brown; bill, dark blood-red; feet, dark red, reddish or coral-red.

Dimensions.—Total length, 10.5 to 11 in.; wing, 4.6 to 4.8 in.; tail, 3.2 to 3.5 in.; tarsus, 0.6 in.; bill from gape, 2.55 to 2.8 in.

Range in the Malay Peninsula.—Throughout its entire length and on the adjacent islands.

Extralimital Range.—The species, in the broad sense, is found from Cyprus and Syria to South China and Formosa. The present form occurs all over India proper, Burma, the Indo-Chinese countries and the Malay Peninsula. It is not found in Borneo or in Sumatra, while the race inhabiting Java (*H. cyanoventris*) is so markedly different that its connexion with this species is problematical.

Nidification.—Records are lacking for the Malay Peninsula. Mr Theobald states that in Mergui it "lays in the fourth week in March, eggs five in number; blunt oval; size, 1.20 by 1.03 in.; colour, pure white; gallery, 1½ foot in a stiff bank near a road."

Habits.—An open-country bird found along the lower courses of the rivers in ricefields and in garden and orchard-land, but not as a rule in heavy forest or among the mangroves. The note is a harsh, disagreeable scream, and the bird has a very direct and rapid flight. The diet is largely small crustacea, lizards, large insects, etc., and less purely fish than the smaller members of the family. It is met with singly, or in pairs, and is often seen perched on exposed boughs or even on telegraph wires, with its head hunched on its shoulders and its bill directed downwards.

Note.—The specimen figured (two-thirds natural size) is a male from Pulau Seban, Malacca, 27th May 1878, collected by W. Davison.

Halcyon pileata

The Black-capped Kingfisher

Alcedo pileata, Bodd., *Tabl. Pl. enl.*, 1783, p. 41 (China).

Halcyon pileata, Sharpe, *Monogr. Alced.*, 1868, p. 169, pl. 62.; id. *Cat. Birds, Brit. Mus.*, xvii., 1892, p. 229; Blanford, *Faun. Brit. Ind., Birds*, iii., 1895, p. 133; La Touche, *Ibis*, 1900, p. 44; Oates and Reid, *Cat. Birds' Eggs, Brit. Mus.*, iii., 1903, p. 38; Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 129; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 271.

Malay Names.—Pekakak ; burong buaya (crocodile bird).

Description.—*Adult.*—The sexes do not differ. Head, sides of the face and ear coverts black, a broad buffy white collar on the hind neck, faintly edged with blackish. The mantle, back, rump, upper tail coverts, upper aspect of the tail, tertials and outer webs of the secondaries, purplish blue, brightest on the rump ; primary coverts, glossy blue ; remainder, velvety black, the edge of the wing, white. Primaries, black, their basal portions white, the outer webs lilac-blue, white increasing on extent inwardly, forming a broad oblique bar on the inner aspect of the wing ; axillaries and inner wing coverts, orange-chestnut. Chin and throat, white, the white extending as a wedge to the middle of the abdomen ; rest of under surface, rufous orange, richest on the flanks ; under tail coverts the same. Under aspect of the tail, which is somewhat graduated, black, the shafts of the feathers white towards their bases.

Immature.—Immaturity is denoted by narrow black edgings to the feathers of the breast and by black streaks on the feathers of the sides of the throat. It is only in quite old birds that the former markings entirely disappear. The intensity of the orange-buff on the under surfaces varies greatly over a series, but this character is not due to age.

Soft Parts.—Iris, dark ; bill, blood-red ; feet, dark red, the scales edged with black.

Dimensions.—Total length, 11·7 to 12·2 in. ; wing, 5·2 to 5·5 in. ; tail, 3·5 to 3·9 in. ; tarsus, 0·7 in. ; bill from gape, 2·7 to 3·1 in.

Range in the Malay Peninsula.—Throughout its entire length and on the adjacent islands, but not common in Singapore or Penang ; abundant in Langkawi.

Extralimital Range.—Sparingly in India, Burma and the Indo-Chinese countries to China and Korea. Andamans and Nicobars, Borneo, Sumatra, Java, Celebes and the Philippines.

Nidification.—Though so common and widespread a bird, but little is known of the nesting habits, and there are no records for the Malay Peninsula. La Touche records it as breeding near Foochow, in May 1897. The nest was in a bank near a ricefield ; the eggs were nearly spherical and very smooth, measuring 1·21 by 1·10 in.

Mr Herbert took one egg of this bird on the river, near Bangkok, in the middle of July. The nest was in the branch hole of a tree, at about six feet from the ground. The egg was a moderately broad oval, slightly compressed towards one end, with the ends blunt. The shell was china-white and very glossy. Measurements, 1·18 by 0·97 in. (*Journ. Nat. Hist. Soc. Siam*, vi., 1924, p. 309).

Habits.—More of a salt-water bird than *H. smyrnensis fusca*, but extending a long way up the larger rivers, and fairly common in the ricefields. The flight is much the same as in *H. s. fusca*, but it is a less noisy bird. It would appear to perform migrations of limited extent, as it is found in large numbers on the small islands and lighthouses in the Straits of Malacca in October, November and December. The food is largely crabs and, in the ricefields, frogs and tadpoles.

*Sauropatis chloris humii***The White-collared Kingfisher**PLATE 6 (*upper figure*)*Halcyon humii*, Sharpe, *Cat. Birds, Brit. Mus.*, xvii., 1892, p. 281, pl. 8.*Halcyon chloris*, Hume and Davison, *Stray Feath.*, vi., 1878, p. 78.*Halcyon chloris humii*, Kloss, *Journ. Fed. Malay States Mus.*, x., 1921, p. 207; Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 130.*Sauropatis chloris chloris* (Bodd.) (part), Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 275.**Malay Names.**—Raja hudang; pekakak: nok poh piu (*Siamese*).**Description.**—*Adult male.*—Top of the head, greenish blue, a small concealed white patch on the back of the head, formed by the bases of the feathers; lores white, continued as a narrow almost invisible line over the eye, a black patch in front of the eye and a white patch beneath it; ear coverts, bluish black, washed with greenish. A broad white collar on the hind neck, continuous with the white under surface, separated from the head by a narrow blackish band, formed of the tips of the feathers, continuous with the ear coverts. Interscapulars, greenish blue; back, rump, upper tail coverts and lesser wing coverts, shining cobalt-blue, brightest on the rump; greater wing coverts, outer webs of the primaries, secondaries and upper aspect of tail, ultramarine blue, more greenish on the secondaries. Inner aspect of wing and under surface of tail, blackish brown; axillaries, edge of wing and under wing coverts, white, except the greatest, which are black; whole under surface, white, washed with buff on the flanks and middle of the abdomen; under tail coverts, white.*Adult female.*—Perhaps a little more greenish, but the individual variation is so great as to obscure any possible sexual differences, and I doubt if the females can with any certainty be distinguished from the males.*Immature.*—Differ in being consistently duller, in having the black band bordering the nuchal collar broader, and with the feathers of the breast narrowly edged with black.**Remarks.**—Variation in this species is very great, especially in the colour of the upper parts, which may range from greenish blue to the brightest cobalt and ultramarine, and in the ear coverts, which range from almost black to greenish blue. On the whole, the birds from more southern localities are the brightest blue, while those from Lower Tenasserim and the extreme north of the Malay Peninsula are the duller, and may be named, *A. chloris armstrongi*; but, as has been noted by most authors, typical examples of one race may occur in the territory of the other and the naming of an individual specimen without knowledge of the locality is quite frequently wrong.**Soft Parts.**—Iris, dark; upper mandible, black; basal two-thirds of lower mandible, pinkish white; tarsi, powdered greyish or brownish black.**Dimensions.**—Total length, about 9 in.; wing, 3'9 to 4'2 in.; tail, 2'7 in.; tarsus, 0'6 to 0'7 in.; bill from gape, 1'9 to 2'1 in.

Range in the Malay Peninsula.—On all the coasts and islands of the Peninsula, from the extreme north, where it intergrades with *A. chloris armstrongi*.

Extralimal Range.—This race is also found in North-East Sumatra. *H. chloris* in the broad sense extends from the Red Sea to the Pacific, and very many local races have been established, notably by Mr H. C. Oberholser (*Proc. U.S. Nat. Mus.*, 55, 1919, pp. 351-395).

Nidification.—Singularly little that is definite is on record. I have had accounts from a reliable observer of its breeding in holes excavated in large termites' nests on the Selangor coast, near Morib, but have not seen eggs.

Mr E. C. Herbert gives the following singularly interesting account of the nesting habits of the Siamese bird which I should prefer to call *Halcyon chloris armstrongi* under the heading, *Sauropatis chloris chloris*:

“The nest is nearly always made in a black-ants' nest which is situated in a hollow tree at a height of about twenty feet from the ground. The ants will often block a big hole of a foot or more in diameter in a growing tree, though at times the hole will not measure more than a few inches. The birds bore a neat circular hole in the 'live' ants' nest, and excavate a cavity just inside for the egg-chamber. Occasionally the nest may be found in a dead stump of a tree, where the wood is comparatively soft and can be easily worked. I have seen two instances of this, one at a height of twelve feet, and the other within a foot of the ground. Another situation was in a white-ants' hill, which was about three feet high, and it may be of interest to give an account of this.

“The white-ants' hill was close to a native house in a fruit garden near Paḡlat, and the first time I visited the place was on 16th May 1913. On this occasion the young had left the nest and were sitting on a tree close by. The owner of the house offered to show me the nest, and chipped a line around the side of the ant-hill at the level of the entrance hole, so that the top could be lifted off complete. This he did, exposing to view the nest and entrance tunnel. He said that he had taken the top off in this way on several occasions and that the birds had not deserted. He also stated that the birds nested there every year at about the same time. The following year I again visited the spot, and the man opened the nest in the same way, showing me on this occasion three half-fledged birds. The parents were exceedingly noisy, and kept very close whilst this was going on, but shortly after we had finished one of them entered the nest, so there was no fear of them deserting. The ants' nest was 'alive,' and the ants set to work at once to join up the top with the main block. The base of this ant-hill, below the entrance to the nest, was littered with pieces of the shells and claws of the small land-crabs, showing that this is the principal food of these birds. It is from the eating of these crabs that this kingfisher derives its local name. The fruit gardens appear to be the favourite nesting-place for these birds, although nests may also be found in other places. May is the best month for eggs, as that is the time when most of the nests are made, but I have found eggs as early as the 10th of March, and young birds in the nest as late as 22nd August.

“The eggs are moderately broad ovals, generally slightly compressed

towards one end, the end being obtuse, but rather long ovals with a tendency to a point at each end may be found. They are china-white in colour, with a shell that is fine in texture, moderately glossy and, like that of all the kingfishers, is translucent. Four eggs are laid, and the size averages 29.6 by 24.3 mm."

Baker (*loc. cit.*) notes that Kellow took eggs in similar situations near Taiping, Perak, in January.

Habits.—In the Malay Peninsula exclusively an inhabitant of the seashore, and never found inland, as are allied races in Java and Sumatra. It is a noisy bird, less powerful in flight than other species. Its food is crabs and other crustacea, and it is not infrequently seen on the ground.

It is very common near many of the seaside bungalows of the Straits Settlements and Federated Malay States, and more detailed information on its nesting habits will be acceptable.

Note.—The bird figured (two-thirds natural size) is a male from Jeram, Selangor coast, collected on 28th February 1878 by W. Davison.

Halcyon coromanda coromanda

The Ruddy Kingfisher

Alcedo coromanda, Lath., *Ind. Orn.*, i., 1790, p. 252 (Rangoon *vide* Oberholser, 1915).

Halcyon coromanda, Sharpe, *Monogr. Alced.*, 1870, p. 155, pl. 57; *id. Cat. Birds, Brit. Mus.*, xvii., 1892, p. 218.

Halcyon coromanda coromanda, Kloss, *Journ. Fed. Malay States Mus.*, x., 1921, p. 215; Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1923, p. 127.

Entomothera coromanda coromanda, Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), iv., 1927, p. 273.

Malay Name.—Pekakak.

Description.—*Adult male.*—Above, rufous orange, strongly washed with a lilac gloss; lower back and rump, but not the upper tail covert, light silvery blue. Primaries, orange-brown, lighter on the inner webs. Below, orange-buff, paler on the middle of the abdomen and on the throat and chin, which is almost white. Axillaries and wing coverts, rich orange.

Adult female.—Slightly duller and lighter beneath, but any real differences are doubtful.

Immature.—Somewhat doubtfully of this race. Dull chocolate-brown above, with no lilac gloss; feathers of the breast with obscure dark edges; bill, horn-brown, with a whitish tip (described from a female from Juara Bay, Pulau Tioman, 13th July 1915).

Soft Parts.—Iris, dark; bill, coral; tarsi, paler coral.

Dimensions.—Total length, about 10 in.; wing, 4.3 to 4.8 in.; tail, 2.6 to 2.9 in.; tarsus, 0.7 in.; bill from gape, 2.6 to 2.8 in.

Range in the Malay Peninsula.—From the extreme north down to

North Johore, Penang Island, Langkawi and Terutau, and probably Tioman. Replaced in South Johore and Singapore Island by the following race.

Extralimital Range.—Through Southern Asia, to Southern China, Burma, Siam, French Indo-China and North-East Sumatra.

Nidification.—Almost nothing on record. I obtained a very young bird, almost a nestling, on Tioman Island, on 13th July 1915, so that it is probable that the breeding season commences about the end of May. It is uncertain, however, whether this young bird belongs to the present or succeeding race, or to a distinct insular form.

Habits.—Contrary to most kingfishers, reported as a rather shy and skulking bird. In the Malay Peninsula not recorded from any but the coastal districts, where it affects the mangroves and, on the east coast especially, Casuarina groves. In the autumn months, October to December, it has been obtained in large numbers on small islets and lighthouses and lightships in the Straits of Malacca, so that it is probable that at this season, like so many other birds, it performs local migrations or is joined by others of its species from the north. It is probable, however, that there is a local resident population.

Halcyon coromanda minor

The Lesser Ruddy Kingfisher

Halcyon coromanda minor, Temm. and Schleg., *Faun. Japon.*, 1846, p. 76 (Borneo); Oberholser, *Proc. U.S. Nat. Mus.*, 48, 1915, p. 649; Kloss, *Journ. Fed. Malay States Mus.*, x., 1921, p. 216; Chasen, *Singapore Naturalist*, No. 2, 1923, p. 98; *id.*, *op. cit.*, No. 3, 1924, p. 28.

Malay Name.—As other kingfishers, pekaka.

Description.—*Adult.*—As in the preceding race, but much darker, the lilac wash stronger, and extending over the breast and flanks.

Soft Parts.—As in the northern race.

Dimensions.—Slightly smaller than the northern race, the wing not exceeding 4.2 in.

Range in the Malay Peninsula.—The southern portion of Johore, Singapore and the surrounding islets and, possibly, Tioman Island.

Extralimital Range.—Borneo and West Sumatra if, as is not impossible, the form described by Oberholser as *Entomophora coromanda neophora* (*loc. cit.*), p. 646, proves identical.