

LEAF-BIRDS

Family ÆGITHINIDÆ

Vol. I., p. 213; Vol. II., p. 171.

THE action of the late H. C. Robinson in regarding the leaf-birds as a separate family is not one which I am, at the moment, prepared to support personally, although willing enough to continue the proposed arrangement in this series of books. Robinson's reasons are given in full in our first volume: "For reasons of practical convenience I have gone a step farther than most ornithologists, and have elevated to family rank this group of birds, which may be said to have their headquarters in Malaya. As noted elsewhere, they are, in many respects, intermediate between the true bulbuls (*Pycnonotidæ*) and certain of the babblers (*Timaliidæ*). From the former they are distinguished by their longer tarsi, and by the fact that the sexes are always more or less different; from the latter by their more arboreal habits and by the more pointed wing and longer tail. Bill more or less straight, slightly curved, usually with a notch on the upper mandible; wing longer than the tail, rather pointed; tail usually square or slightly rounded; tarsi and toes strong. Plumage bright, that of the sexes different; young birds like the female. Nests cup-shaped, rather like those of flycatchers, neater and more compact than those of the bulbuls, built high in trees; eggs spotted. The family consists of three genera, with about twenty-five species confined to the Oriental Region."

The genera are all represented in the Malay Peninsula, where seven species, including a total of ten forms, one of which is restricted in range to the mountains, are known to occur.

KEY TO THE MALAYAN LOWLAND LEAF-BIRDS

1	{	Larger: wing 3 in. or more; plumage mostly bright grass-green	2
		Smaller: wing less than 3 in.; plumage never bright grass-green but sometimes olive-green	7
2	{	Throat, black (males)	3
		Throat, yellow or green (females)	5

3	{	Black throat bordered by yellow; forehead, yellow	} <i>Chloropsis cochinchinensis</i> subssp. (males), p. 270	4
		No yellow on forehead or throat		
4	{	Larger: wing more than 3.8 in.; angle of wing, glossy verditer-green	} <i>Chloropsis viridis zosterops</i> (male), p. 269	6
		Smaller: wing less than 3.5 in.; angle of wing, grass-green like the rest of the plumage		
5	{	Primaries, blue	} <i>Chloropsis cochinchinensis</i> subssp. (females), p. 270	6
		Primaries, green		
6	{	Larger: a yellow ring round the eye	} <i>Chloropsis viridis zosterops</i> (female), p. 269	8
		Smaller: no yellow ring round the eye		
7	{	With no broad, pale bars on the wings	} <i>Æthorhynchus lafresnayei lafresnayei</i> , p. 268	9
		With conspicuous pale bars on the wings		
8	{	Tail, shining black (males)	} 9	10
		Tail, green (females)		
9	{	Under parts, green	} <i>Ægithina viridissima viridissima</i> (male), p. 266	10
		Under parts, deep yellow		
10	{	Wing bars, pale yellow	} <i>Ægithina viridissima viridissima</i> (female), p. 266	10
		Wing bars, white		

*Ægithina viridissima viridissima***The Green Iora**PLATE 17 (*upper figure*)

Vol. II., p. 174.

Iora viridissima Bonaparte, *Consp. Gen. Avium*, i., 1850, p. 397 (Sumatra).*Ægithina viridissima*, Sharpe, *Cat. Birds, Brit. Mus.*, vi., 1881, p. 6; Oates, *Faun. Brit. Ind., Birds*, i., 1889, p. 231; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), i., 1922, p. 343; Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1924, p. 258.*Ægithina viridissima viridissima*, Stuart Baker, *Nid. Birds Ind. Emp.*, i., 1932, p. 320.**Malay Name.**—Unascertained.**Description.**—A small, dark olive-green species with a conspicuous yellow ring round the eye. Males are much darker green than females and have

black wings. Wings with a double, pale bar, white in the male, yellowish white in the female. Female very much like that of the common iora described in Volume I., but greener and less yellow in colour, and the pale wing bars always strongly tinged with yellow, never pure white.

Adult male.—Above and below, dark olive-green, darkening to blackish on the lores and lightening to almost yellowish green on the abdomen. Thighs, mixed yellowish green and black; under tail coverts, yellow. A patch of curiously lengthened, silky, white feathers on the lower flanks, normally concealed. Above and below the eye, a small bright yellow patch, the lower patch the larger. Wings, glossy black, a broad white bar across the median wing coverts. A second bar is formed by broad white tips to the major secondary wing coverts. Inner, concealed edge of wing quills narrowly white; outer edge, except of the two outermost primaries, narrowly green, the edge broader and whitish on the inner secondaries. Under wing coverts, white; edge of wing, yellow; axillaries, yellowish white. Upper tail coverts and tail quills, glossy black.

Adult female.—Rather different; general colour paler. Upper parts, including tail, olive-green, the tail feathers narrowly fringed with paler yellowish green, yellowest on the centre of the abdomen. Under tail coverts, yellow. A narrow yellow ring round the eye. Wings, dull black; wing markings as in the male, but the two pale bars, yellowish white.

Immature.—Like the adult female, but even paler. Under parts, lemon-yellow; upper parts, pale olive-green.

Soft Parts.—Iris, brown; bill, slaty blue, the culmen, broadly, black; feet, plumbeous to slaty blue.

Dimensions.—Total length, 5.3 to 5.5 in.; tail, 1.8 to 1.9 in.; wing, 2.4 to 2.6 in.; tarsus, 0.75 to 0.8 in.; bill from gape, 0.7 to 0.75 in.

Range in the Malay Peninsula.—Both sides of the Peninsula from north to south, including the small islands of Junk Zeylon, Terutau and Penang in the Straits of Malacca and Tioman off the east coast. Singapore Island.

Extralimital Range.—North to South Tenasserim and Koh Lak in South-West Siam. Cochin-China. Sumatra and the Rhio-Lingga Archipelago; Banka and Billiton; Borneo and the North Natuna Islands. Other subspecies have been described from the Anamba Islands in the South China Sea and the Batu Islands off the west coast of Sumatra.

Nidification.—The only Malayan record known to me is Mr Stuart Baker's note of a Perak nest and eggs found by Mr W. A. T. Kellow in a vertical fork of a small tree in jungle on 25th May. Both nest and eggs are said to be exactly like those of the common iora, *A. tiphia*: "The nest is a beautiful little cup made of fine shreds of grass and what looks like jute-fibre, all most strongly and compactly wound together and plastered all over with cobwebs. The lining is of the finest grass-stems." The outside diameter of this nest is given as two inches and the depth (outside) as $1\frac{1}{2}$ inches. The average size of the two eggs is 0.7 by 0.55 in. In colour they are said to be indistinguishable from those of the commoner *A. tiphia* (Vol. I., p. 214).

Habits.—Although widely distributed in the lowlands of the Malay

Peninsula in most places suited to its requirements, this bird is not very common, and unlike its near relative the common iora, it is not usually found in the cultivated areas, gardens and open spaces, but is characteristic of the lowland forests and of the secondary jungle, under which latter conditions it is often met with near villages. It is frequently found in bamboo forests, and certainly ascends the hills to at least about 3000 ft. I have collected it near the summit of Penang Hill. It is usually seen searching for insects in the smaller trees.

The bird figured in the plate is a male from Penang.

Ægithina tiphia tiphia

The Common Iora

Vol. I., p. 214, pl. 17.

In the male the upper parts are yellowish olive-green, much patched with black in the breeding season. Wings, black, with two white cross bars formed by broad white tips to the wing coverts. Tail, glossy black. Under parts, rich yellow, washed with greenish olive on the flanks.

In the female the entire upper parts, including the tail, are always pale yellowish green; under parts, paler yellowish green. The white wing bars are tinged with yellow.

The amount of black in the upper parts in the full plumage of the male is very variable, but it is certain that birds with the entire nape and back black, or relatively heavily marked with black above, become commoner as one proceeds south down the Malay Peninsula. In Singapore, breeding males are usually largely black above, but sometimes they are mixed with green on the mantle, etc. The exact range of this southern race which has been named *A. t. singaporensis* is, at present, not easy to define, but it extends from Singapore Island, at least as far north as Klang in Selangor.

Total length, about 5·7 in.; wing, 2·4 in.

This is a common garden bird in the lowlands of the Peninsula, preferring the orchards, outskirts of cultivation and the secondary growth to the old forest.

The species breeds from May to July.

Æthorhynchus lafresnayei lafresnayei

The Malayan Great Iora

Vol. II., p. 172.

Male: upper parts, black, sometimes mixed with a little olive-green; rump, blackish green; forehead, olive-green; under parts, deep yellow.

Female: upper parts, olive-green, the wing quills edged with paler green. Under parts, greenish yellow.

Total length, about 6·25 in.; wing, about 2·8 in.

A bird of the lowland forests, and commonest in the north of the Peninsula. The nest has been found in high bushes in jungle (Perak).

*Chloropsis viridis zosterops***The Malachite-shouldered Leaf-Bird**

Vol. II., p. 176.

Chloropsis zosterops Vigors, *Mem. Life Raffles*, 1830, p. 674 (Sumatra); Sharpe, *Cat. Birds, Brit. Mus.*, vi., 1881, p. 24; Oates, *Faun. Brit. Ind., Birds*, i., 1889, p. 238.

Chloropsis viridis zosterops, Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), i., 1922, p. 351; Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1924, p. 261.

Malay Name.—Burong daun (generic).

Description.—Bright green, with a very small blue moustachial streak. Males have the face and throat black. Females have no black in the plumage. The throat is yellow.

Adult male.—Above and below, bright green, darkest on the upper parts, palest on the under parts and on a narrow ill-defined zone bordering the black parts. Lores, sides of the head to the eyes, chin and throat, velvety black, sharply defined against the green. A very short, bright cobalt moustachial streak. Concealed parts of wing quills and inner edge of tail quills, blackish. A concealed patch on the inner marginal and lesser wing coverts, bright malachite-green.

Adult female.—Like the male, but with no black on the head and throat. Chin, throat and a ring round the eye, yellow, often tinged with green. Moustachial stripe, pale blue.

Immature.—Like the adult female, but without the blue moustachial stripe, and with the yellow throat more washed with green. Young males changing from immature to adult plumage have the yellow throat spotted with black feathers.

Note.—It is possible that the moustachial stripe is not developed by all adult females and again that it is, sometimes, even in fully adult birds, represented by a few blue feathers only.

Soft Parts.—Iris, brown to chestnut; bill, black, sometimes slaty at the base of the lower mandible; feet, plumbeous, blue-grey or greenish grey. In some females the bill is dark brown, sometimes lighter on the lower mandible. According to Davison, the iris is sometimes red.

Dimensions.—Total length, 7.9 to 8.65 in.; tail, 2.9 to 3.1 in.; wing, 3.75 to 4.1 in. in males and 3.6 to 3.8 in. in females; tarsus, 0.8 in.; bill from gape, 1 to 1.1 in.

Range in the Malay Peninsula.—Both sides of the Peninsula from north to south, including Junk Zeylon and other small islands off the west coast of Peninsular Siam. Singapore and the small islands in the Straits of Johore.

Extralimital Range.—North to Yea, in Tenasserim, but on the Siamese side of the Peninsula it does not seem to go much higher than the Isthmus of Kra. Sumatra; the Rhio Archipelago and Billiton. Borneo and the North Natuna Islands. The typical race is found in Java.

Nidification.—The only information I have is a note given to me by

Mr A. T. Edgar of Perak, who found a nest with young birds eighteen feet from the ground at the end of a small branch. The nest was cup-shaped and "roughly like that of a bulbul."

Habits.—A very common bird in the Malay Peninsula. It avoids gardens, open spaces and cultivated areas, but is otherwise very catholic in its tastes, for it is found in forests of all kinds, from the mangrove belt facing the open sea to the dry old jungle on the lower slopes of the main range of mountains in the interior, which it ascends to an altitude of just over 3000 ft. If it has any choice it would seem to be for the coastal forest. It is also particularly numerous on the low hills in the extreme south of the Peninsula and again at the other extremity of its range in Peninsular Siam. It is usually seen in small parties in the lower trees, and berries form a large part of the food.

Chloropsis cochinchinensis icterocephala

The Malay Green Leaf-Bird

Vol. I., p. 215; Vol. II., p. 175.

The male has the throat black, bordered by a yellow zone; the wings largely blue; the forehead, yellow; the nape, bronzy yellow, and the remainder of the plumage bright green, paler on the under parts.

The female is green, with bluish wing quills and washed with bronzy yellow on the nape. Throat tinged with blue-green. There is no black on the throat.

Total length, about 6.7 in.; wing, 3.2 in.

In the north of the Peninsula the typical race replaces the present form. It differs mainly in that the crown is green, not golden yellow. There is an intermediate zone between the two races, in Perlis and Kedah, where the birds are difficult to allocate to subspecies. A common bird in low-country forest, where it is usually seen in the tops of trees. I know of no Malayan records of the nidification, although a bare description of eggs from "Malacca" has been published.

Chloropsis cyanopogon cyanopogon

The Southern Blue-whiskered Leaf-Bird

PLATE 17 (*lower figure*)

Vol. II., p. 176.

Phyllornis cyanopogon Temminck, *Pl. Col.*, 512, 1832 (Sumatra).

Chloropsis cyanopogon (pt.), Sharpe, *Cat. Birds, Brit. Mus.*, vi., 1881, p. 32; Oates, *Faun. Brit. Ind., Birds*, i., 1889, p. 239; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), i., 1922, p. 253.

Chloropsis cyanopogon cyanopogon, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1924, p. 262.

Malay Name.—Burong daun (generic).

Description.—Bright green with a blue moustachial streak. Males with the face and throat black. Males of this species are very like those of *Chloropsis viridis zosterops* in colour, but they are much smaller.

Adult male.—Above and below, bright green, darkest on the upper parts, palest on the under parts and on a narrow ill-defined zone bordering the black parts. Lores, sides of the head to the eyes, chin and throat, velvety black, sharply defined against the green. A bright cobalt moustachial streak, relatively slightly longer and brighter than in *C. v. zosterops*. Concealed parts of wing quills and inner edge of tail quills, blackish. No concealed malachite-green wing patch as in *C. v. zosterops*.

Adult female.—Like the male, but without the black on the head and throat. Moustachial streak, pale blue. Lores and a ring round the eye rather brighter green than the adjacent parts.

Immature.—At first entirely green except for a yellow ring round the eye. The moustachial stripe appears later. Young males changing from immature to adult plumage have the green throat spotted with black feathers.

Soft Parts.—Iris, brown; upper mandible, black; lower mandible, grey with a black tip; feet, plumbeous or bluish slate.

Dimensions.—Total length, 6.4 to 7 in.; tail, 2.5 to 2.65 in.; wing, 3.2 to 3.4 in. in males and 2.95 to 3.2 in. in females; tarsus, 0.8 in.; bill from gape, 0.8 in.

Range in the Malay Peninsula.—Johore northwards to Penang Island on the west coast and Patani on the east coast. Some specimens from Upper Perak are intermediate between this southern race and the northern race next to be described. Singapore Island.

Extralimital Range.—Sumatra; Borneo and Banguey Island, North Borneo.

Nidification.—Unknown.

Habits.—Common in the lowland forests and areas of secondary growth, this leaf-bird is also found as high as 3000 ft. on the mountains. It is especially abundant on the hills of Negri Sembilan, but in most localities it is less numerous than the allied species, *Chloropsis cochinchinensis icterocephala*, together with which it is often found in trees, usually near the tops, in the more open parts of the old forest. In Pahang I have shot the two species from the same tree.

The bird figured in the plate is a male from Perak.

Chloropsis cyanopogon septentrionalis

The Northern Blue-whiskered Leaf-Bird

Chloropsis cyanopogon septentrionalis Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, iii., 1918, p. 107 (Ghirbi, Peninsular Siam).

Chloropsis cyanopogon (pt.), Sharpe, *Cat. Birds, Brit. Mus.*, vi., 1881, p. 32; Oates, *Faun. Brit. Ind., Birds*, i., 1889, p. 239; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), i., 1922, p. 253.

Chloropsis cyanopogon septentrionalis, Robinson and Kloss, *Journ. Nat. Hist. Soc. Siam*, v., 1924, p. 262.

Malay Name.—Burong daun (generic).

Description.—Very like the southern race described above, but the

forehead yellowish in both sexes, and in males the black of the throat surrounded by a narrow, but distinct, yellow line.

Range in the Malay Peninsula.—Replaces the southern form north of Penang to the northern boundary of our area at the Pakchan estuary. Junk Zeylon.

Extralimital Range.—The species reaches its northern limit in the extreme south of Tenasserim.

Nidification.—Unknown.

Habits.—Not known to differ from those of the southern race. The bird is numerous on Kedah Peak and in Peninsular Siam.