

LEAF BIRDS

Family ÆGITHINIDÆ

Vol. I., p. 213.

I HAVE earlier given my reasons for regarding the birds in this group as distinct from the bulbuls, with which they have very generally been associated, and also from the babblers, the connexion with which appears to me to be even more remote. Careful anatomical investigation which must, moreover, cover a wide range of the allied forms, will alone settle the question. Material in spirit, nestlings and moulting birds are special desiderata.

Eight species of the group are fairly common birds in the Malay Peninsula. One is very strictly confined to high altitudes, and four are of frequent occurrence on the lower slopes of the mountains. I have, therefore, thought it well to give a key to *all* the Malayan specie of leaf birds, though only two forms are fully described in the present volume.

KEY TO THE MALAYAN SPECIES OF LEAF BIRDS

1	{	Wing, 3 in. or over; plumage mainly bright grass-green, usually with some blue on the wing	4	
		Wing, under 3 in.; plumage never bright grass-green, never with blue on the wing	2	
2	{	Rather larger, with no white or yellowish bars on the wing coverts		<i>Æthorhynchus lafresnayeri</i>
		Rather smaller, with white bars on the wing coverts	3	<i>lafresnayeri</i> , p. 172
3	{	Body plumage, dark green		<i>Ægithina viridissima</i> , p. 174
		Plumage below, bright or greenish yellow		<i>Ægithina tiphia tiphia</i> (Vol. I., p. 214)
4	{	Throat, black or bluish black (males)	5	
		Throat not black (females and immature)	10	
5	{	Belly mainly ochraceous orange		<i>Chloropsis hardwickii malayana</i> , p. 174
		Belly, green	6	

6	{	Outer webs of primaries, blue ; sides of head, yellow	7
		Outer webs of primaries, green ; sides of head with no yellow	8
7	{	Crown mainly verditer-green	<i>Chloropsis cochinchinensis</i> , subspp., p. 175
		Crown mainly golden yellow	<i>Chloropsis c. icterocephala</i> (Vol. I., p. 215)
8	{	Larger, wing more than 3'8 in. ; angle of wing, shining verditer-green	<i>Chloropsis viridis zosterops</i> , p. 176
		Smaller, wing less than 3'5 in. ; angle of wing not shining green	9
9	{	Black of throat narrowly bordered beneath by yellow	<i>Chloropsis cyanopogon septentrionalis</i> , p. 176
		Black of throat not so bordered	<i>Chloropsis cyanopogon cyanopogon</i> , p. 176
10	{	Belly and under tail coverts, ochraceous orange	<i>Chloropsis hardwickii malayana</i> , p. 174
		Belly and under tail coverts, green	11
11	{	Larger, throat pale yellow, a yellow ocular ring	<i>Chloropsis viridis zosterops</i> , p. 176
		Smaller, throat greenish or bluish ; no yellow ocular ring	12
12	{	Edges of primaries, bluish	<i>Chloropsis cochinchinensis</i> , subspp., p. 175
		Edges of primaries, greenish	<i>Chloropsis cyanopogon</i> , subspp., p. 176

*Æthorhynchus lafresnayei lafresnayei***The Malayan Great Iora**

Iora lafresnayei, Hartlaub, *Rev. Zool.*, 1844, p. 401 (Malacca).

Æthorhynchus lafresnayei, Sharpe, *Cat. Birds, Brit. Mus.*, vi., 1881, p. 14 ; Ogilvie-Grant, *Fascic. Malay., Zool.*, iii., 1906, p. 88 ; Stuart Baker, *Faun. Brit. Ind., Birds* (2nd ed.), i., 1922, p. 338 ; Chasen and Kloss, *Journ. Fed. Malay States Mus.*, xiii., 1927, p. 280.

Phoenicomanes iora, Sharpe, *P.Z.S.*, 1874, p. 427, pl. 54.

Description.—*Adult male.*—General colour above, glossy black ; the bases of the feathers, oily olive-green, always more or less visible, more so on the rump. Wing coverts, primaries and tail coverts, glossy black ; primaries, except the outermost, narrowly edged with whitish on the outer webs ; inner aspect of wing, dark fuscous, the quills edged with white on their inner margins, except at the tips, the axillaries and under wing coverts, white, with a faint yellow tinge. Forehead and an incomplete ring round the eye, bright yellow ; ear coverts, mixed black and dark olive-green. Under surface,

bright chrome-yellow, rather more greenish on the under tail coverts. Flanks, with elongate tufts of silky feathers, greenish yellow at the tips, pure white at the bases.

Adult female.—With no trace of the black either on the back, wing coverts or tail, which are dull olive-green; the primaries not black but brownish. Under surface not nearly so bright or clear a yellow, but much more greenish, the flanks heavily infuscated with dull olive-green; yellow eye ring not so conspicuous as in the male.

Immature males.—Appear to resemble the female, but the eye ring is usually somewhat more conspicuous and the tail feathers darker.

Note.—In the case of this species, at any rate in the Malayan race, I do not think that there is any question of breeding or non-breeding plumages, and the male, once the black upper surface is acquired, always retains it. As Kloss and Chasen (*loc. cit.*) have shown, male birds in the north of the Peninsula, as far north as Rangoon, very rarely, if ever, assume a black upper surface. On the other hand, adult females are rather brighter yellow below.

Soft Parts.—Iris, brown, sometimes a good deal paler, almost whitish; bill, plumbeous, darker on the culmen; feet, bluish grey.

Dimensions.—Total length, 6 to 6.5 in.; wing, 2.75 to 2.9 in.; tail, 2.3 to 2.5 in.; tarsus, 0.95 to 1.1 in.; bill from gape, 1 to 1.1 in.; culmen, 0.7 in.

Range in the Malay Peninsula.—From the more southern parts of Peninsular Siam, south as far as Malacca. Common on Junk Zeylon, but not, apparently, on other islands.

Extralimital Range.—The race described is peculiar to the Malay Peninsula. A very closely allied form extends from Aracan to the South of Tenasserim (*Æ. l. innotata*, Blyth), and another is found in East Siam and French Indo-China (*Æ. l. xanthotis*). The genus is not represented in the Indo-Malayan Islands.

Nidification.—Mr W. A. T. Kellow seems to be the only naturalist who has obtained nests and eggs of this species. He found the nests in high bushes in evergreen jungle near Simpang, Taiping, Perak, in January and the end of March. Baker (*loc. cit.*) describes the nests as small, rather deep cups of the softest grasses, lined with the same, bound round and about with spiders' webs and their egg-bags. The eggs, one and three in number, were greyish white in ground-colour, marked longitudinally with grey streaks and an occasional reddish one. Dimensions, 0.68 to 0.79 in. by 0.56 to 0.6 in.

Habits.—The Great Iora is widely distributed, though nowhere very common, throughout the Malay Peninsula, but commonest in the northern districts. It is found only rarely as high as 3500 ft., but is numerous at about 2000 ft. It frequents, as a rule, high trees, in somewhat heavy jungle, where it is apt to escape notice, living in pairs or in parties of three or four, never more. The food consists of caterpillars and insects of various families, mainly ants or bugs. Davison states that the northern form has a loud, whistling call, richer and more powerful than that of the common iora. There seems to be no other recorded information on the subject.

*Ægithina viridissima***The Green Iora**

Males of this species are dark olive-green above and below, with a double white bar on the wing coverts, and with a conspicuous yellow patch above and below the eye. The female is paler, and more yellowish than the male, more closely resembling the common iora. Size, about the same as that species—viz. about 5½ in. in total length.

This bird has much the same distribution in the Malay Peninsula as the common iora, but is more of a scrub and jungle species, and is rarely seen in open country. It will probably be found in the montane tracts as high as 2500 to 3000 ft. Mr Chasen secured a male near the summit of Penang Hill, 2700 ft., in December 1927.

*Chloropsis hardwickii malayana***The Malayan Orange-bellied Leaf Bird**

PLATE 14 (*upper figure, juv. ; middle, female ; lower, male*)

Chloropsis hardwickii malayana, Robinson and Kloss, *Journ. Fed. Malay States Mus.*, xi., 1923, p. 55.

Chloropsis hardwickii, Ogilvie-Grant, *Fascic. Malay., Zool.*, iii., 1906, p. 89; Robinson, *Journ. Fed. Malay States Mus.*, ii., 1909, p. 193.

Description.—*Adult male.*—Above, including the inner secondaries, bright grass-green; forehead, a narrow stripe over the eye, and down the side of the neck, yellowish; feathers bordering the inner margin of wing, bright, turquoise-blue; median, greater and primary coverts and the outer aspect of the primaries, deep purplish blue; inner aspect of wing, ashy grey; the inner margins of the quills, white; under wing coverts, greyish, tinged with blue; axillaries, yellowish orange, tipped with green; tail feathers, deep purplish blue, edged with brownish black on the inner webs. Beneath, with a broad, cobalt-blue moustachial stripe; chin, throat and upper breast, black, with a purplish gloss; rest of the under surface, ochraceous orange; the flanks, and the feathers bordering the black of the breast, greenish.

Adult female.—Whole upper surface, green; the head not yellowish; inner margin of wing, turquoise-blue, but not so bright as in the male; wing coverts, bluish green, the edge of the wing pale blue. Primaries, brownish black, edged with green on the outer webs, the two outermost more bluish. Tail feathers, dark green, edged with brown, the outer feathers much more bluish green. Beneath, chin, throat and upper breast, green, a broad, pale blue stripe on each side of the throat; remaining parts as in the male.

Immature male.—As in the adult female, changing the lower plumage gradually; the primaries and tail feathers like those of the female seem, however, to be retained after the adult lower plumage is fully acquired.

Juvenile.—Uniform green, with no orange at all on the lower surface; no blue stripe on the sides of the throat, which is replaced by greenish yellow. The turquoise-blue margin to the inner wing, however, appears very early.

Soft Parts.—Iris, dark or reddish brown; bill, black; feet, French grey, paler in young birds.

Dimensions.—Total length, 6 to 6·5 in.; wing, 3·3 to 3·5 in.; tail, 2·7 to 2·9 in.; tarsus, 0·7 in.; bill from gape, 0·9 in.; culmen, 0·7 in.

Range in the Malay Peninsula.—From North Perak to Southern Selangor.

Extralimital Range.—The race described above differs from the typical bird only in its rather smaller size, and more bluish tail in the female. The range is from the Western Himalayas to Eastern Assam, south, through Manipur, Burma and the Shan States to Northern Siam, and the mountains east of Tavoy in Tenasserim. The species is not represented in the Indo-Malayan Islands.

Nidification.—Unknown. The typical form breeds in May, and makes shallow cup-shaped nests of twigs and moss, lined with grass, placed on the outer branches of high trees, but sometimes lower. The eggs are two or three in number, like those of *C. aurifrons*, which are described as glossless, long ovals in shape, a cream or reddish cream in ground-colour, with profuse, faint, pale reddish brown markings, equally numerous over the whole surface. The dimensions are given as 0·9 by 0·6 in. Those of the Malayan race will probably be slightly smaller. The breeding season is probably about February.

Habits.—This brilliant leaf bird is found throughout the main range and also in the Larut Hills, but has not yet been recorded from Pahang. It is strictly confined to the zone above about 3500 ft., and is usually found in heavy forest, but not infrequently on the edges of clearings. It occurs in pairs or small parties of seven or eight, which usually includes only one or two adult birds, and it is evident that nearly two years are required to attain full plumage. The birds are incessantly in motion, and feed mainly on insects and soft berries, but small jungle figs are also eaten. They are quarrelsome and at times noisy birds, but possess a very pleasant trisyllabic whistle, which is often uttered in the early morning and late evening, from high trees, where often enough the bird is very difficult to discern.

I have seen caged birds both in Penang and in Singapore, but they cannot, I think, have been local specimens.

The male adult figured is from Telôm (Cameron's Highlands), shot in December, the female from between the Semangko Pass and Fraser's Hill, shot in February, and the juvenile from Gunong Ijau, Larut Hills, dated August.

Chloropsis cochinchinensis, subsp.

The Malay Green Leaf Birds

Malay Name.—All birds of this genus are known to Malays as *burong daun* (leaf birds). They are not distinguished specifically, except rather vaguely by the epithet *besar* or *kechil* (big or small).

The southern race of this bird, *Ch. c. icterocephala*, has been fully described in Volume I., and it is unnecessary to allude to it further here, except to state that it may at once be recognized by its pale sulphur-yellow forehead and region surrounding the throat. It is very common throughout the southern

parts of the Peninsula, and ascends the hills to a height of about 3000 ft., but never trespasses on the domain of the orange-bellied leaf bird, *Ch. hardwickii malayana*, which extends above that limit. The bird is very common towards the summit of Kedah Peak, and Mr Seimund found it numerous on Gunong Kledang, near Ipoh, 2600 ft., in December 1927. The northern race, *Ch. c. cochinchinensis*, more generally known as *Ch. chlorocephala*, only just enters the British sphere at Perlis, but is extremely common in Peninsular Siam. From the preceding race it is distinguished by the verditer-green, not golden yellow, crown, and the reduced amount of golden yellow on the nape and mantle. In the female also the throat is more tinged with blue. The differences, however, are not very conspicuous and, as has frequently been remarked, there is a wide transitional area, in which the birds share the characters of both forms.

Chloropsis viridis zosterops

The Malayan Malachite-shouldered Leaf Bird

The comparatively large size, the shining *green* patch on the angle of the wing and green-edged wings in the male, with the yellow throat and yellow eye ring in the female, at once separate this leaf bird from the other Malayan species of the genus. Total length, about 8 in.

The bird is widely distributed from the northern border to the southern extremity of the Peninsula, chiefly in forested country from sea-level to about 2500 ft., though it has been met with on Gunong Kledang, near Ipoh, 2600 ft., at over 3000 ft., on Gunong Tahan in Pahang, and on Bukit Kutu in Selangor, and is therefore mentioned in this volume. On the hills of Negri Sembilan, and on Mount Ophir and Pulau in Johore, it is one of the commonest of jungle birds. On hills in the southern parts of Peninsular Siam it is also very numerous.

Chloropsis cyanopogon cyanopogon

The Southern Blue-whiskered Leaf Bird

This bird and its northern representative, *C. c. septentrionalis*, are the smallest of the genus occurring in the Malay Peninsula. The distinctive characters are the green-edged wings and the complete absence of a bright shoulder spot. The females have no black throat, but have the blue jaw-stripe indicated. Length, about 6 in. The southern form is a common lowland bird, ranging as far north as Penang and Patani, occasionally ascending the mountains to about 3000 ft. It is very abundant on the lower hills of Negri Sembilan.

North of Penang the race *C. c. septentrionalis* is found, extending as far as South Tenasserim. It differs only in having the forehead rather more yellowish, and in having the black of the throat surrounded by a narrow, but well marked, yellow line. The bird is not uncommon on Kedah Peak and at numerous places in Peninsular Siam.