### Order STRIGIFORMES

Vol. I., p. 77.

The bird population of the mountains of the Malay Peninsula belonging to this order is probably quite considerable, but it is safe to say that the average person might, and indeed does, spend quite long periods in the hill bungalows without catching sight of a single owl, though on still moonlight nights the melancholy whistling hoots of one or more of the smaller species are generally to be heard, and on occasion the uncanny shrieks and yells of larger birds, whose authorship has not been precisely ascertained.

I have here given descriptions of six species, which are all that are certainly known to occur within the limits set for the present volume; three of these are never found at low levels in the southern parts of the Peninsula, and two of them are not found elsewhere than in Malaya. It is possible, indeed probable, that others of the Peninsular species will ultimately be found on the hills. This more especially applies to the migratory hawk-owls (Ninox), and to the larger eagle-owls (Huhua and Bubo). To have included these and other hypothetical denizens of our present area would have unduly increased the size of this volume, and their description must, therefore, be deferred.

### KEY TO THE SPECIES OF OWLS HERE DESCRIBED

| I   | Larger birds, total length not less than 10 in.; wing more than 7.5 in                                     | 2                                       |
|-----|--|---|
|     | wing less than 6 in  | 3                                       |
| 2 < | Smaller, bright chestnut-bay above; plumage never cross-barred; middle claw pectinate or comb-like         | Phodilus badius badius,<br>p. 34        |
|     | Larger, dull chocolate-brown above; plumage partially cross-barred; middle claw not pectinate or comb-like | Bulaca leptogrammica<br>maingayi, p. 35 |
| voi | L. II.—c 33  |   |

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Without ear-tufts; plumage barred or spotted; Glaucidium brodiei
  not mottled or vermiculated
                                                 tubiger, p. 37
With ear tufts; plumage not barred or spotted;
  mottled or vermiculated
Wing more pointed; tarsus not feathered to base)
                                               Otus scops malayanus,
  of toes; plumage ordinary; facial plumes not
  very long
Wing more rounded; tarsus feathered to base
  of toes; plumage very soft and loose; facial
  plumes extremely long
Darker, more heavily vermiculated above and Athenoptera
                                                vulpes, p. 39
Paler, more lightly vermiculated above and Athenoptera
                                                 siamensis, p. 40
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## Phodilus badius badius

## The Lesser Bay Owl

Strix badia, Horsfield, Trans. Linn. Soc., xiii., 1821, p. 139 (Java). Phodilus badius, Sharpe, Cat. Birds, Brit. Mus., ii., 1875, p. 37; Gould, B. Asia, pt. xxii., 1877, pl. 6.

Photodilus badius, Ogilvie-Grant, Fascic. Malay., Zool., iii., 1906, p. 112; id. Journ. Fed. Malay States Mus., iii., 1908, p. 51.

Phodilus badius abbotti, Oberholser, Proc. Acad. Sci. Wash., 14, 1924, p. 302 (Prov. Wellesley).

Malay Name.—Burong punggok api.

Description.—Adult.—Sexes alike. Lores and forehead, pinkish white, a patch of stiff, bristly feathers in front of the eye, rufous; a narrow supercilium, whitish, bordered below by rufous chestnut; ruff feathers, sating white, tipped with dark blackish brown, forming an almost complete narrow collar round the foreneck. General colour above, chestnut-bay; a small patch of pale golden buff feathers, tipped with black, on the occiput; a cervical collar and a longitudinal stripe on the wing coverts more yellow, with rounded subterminal dark spots to the feathers. Bastard wing and outer primary barred with blackish and white on the outer web, the black bars much the narrower, and edged towards the base with reddish. Rest of the primaries and secondaries, uniform chestnutrufous on the outer web, except the second, which is notched with white and black towards the tip. Inner webs of all primaries and secondaries russetchestnut, with narrow white bars; lesser upper wing coverts almost uniform; median and greater series, with small alternating spots of white and black on the shafts. Inner aspect of wing regularly barred black and pale rufous, whitish towards the base and on the inner web of the outer primary; under wing coverts, pale buffy, deeper at the angle of the wing, and with a large, pale chestnut patch near the edge, axillaries, buffy. Tail, chestnut, with numerous narrow black bars, lower aspect paler, the dark bars more regular. Beneath,

chin, whitish, remainder pale buffy pink, with an almost lilac tinge; the breast and flanks suffused with golden buff on the bases of the feathers, most of the feathers with small, quadrate, subterminal spots of black; thighs and tarsal feathering, pale golden buff, lighter towards the toes, which are thinly clad with soft, dirty-white bristles; middle claw, pectinate on the inner edge, in some specimens not very noticeable.

**Soft Parts.**—Iris, sooty black; bill, pinkish horn; tarsi, pale yellow or whitish horn; claws, pinkish horn.

Dimensions.—Total length, 10 to 10.5 in.; wing, 7.4 to 8 in.; tail, 3.3 to 3.8 in.; tarsus, 1.8 to 2.1 in.; bill from gape, 1.2 to 1.4 in.; culmen, 1.1 to 1.2 in. Female slightly larger than male.

Range in the Malay Peninsula.—From Province Wellesley south to Negri Sembilan and Malacca, and in Pahang; also in Penang and Singapore.

**Extralimital Range.**—Aracan (?) and Tenasserim, where, however, neither Davison nor Oates met with the bird. Sumatra, Billiton, Borneo and Java. In Karen-ni and Tonghoo and in West Siam (Raheng), judging by dimensions, intergradation is taking place with the larger Himalayan *P. b. saturatus*.

Nidification.—The nesting habits of the Malayan form are unknown, but are certain not to differ from those of the Himalayan race, which Mr Stuart Baker describes as breeding in holes of trees, with no actual nest. Three or four white, oval eggs are laid, averaging 1 35 by 1 19 in.

Habits.—This owl, though rarely seen, is widely distributed throughout the Peninsula, and has been obtained on Fraser's Hill, at above 4000 ft., and at other localities in dense jungle. It is very strictly nocturnal, and for that reason is comparatively scarce in collections. Its note is unknown, but possibly it is the author of the weird screams and yells sometimes heard in heavy forest at night, as Baker says that its northern congener is a very noisy bird. From the fact that it is so frequently found near water its food is probably in part fish, and in part ground-animals, as it is sometimes caught in snares set for game birds. A Sumatran specimen examined by E. Jacobson had been feeding on grasshoppers.

# Bulaca leptogrammica maingayi

## The Malayan Wood-Owl

Syrnium maingayi, Hume, Stray Feath., vi., 1878, p. 27 (Malacca); Sharpe, P.Z.S., 1887, p. 470; Ogilvie-Grant, Journ. Fed. Malay States Mus., iii., 1908, p. 51; Robinson and Kloss, Ibis, 1911, p. 31; Kloss, Journ. Fed. Malay States Mus., iv., 1911, p. 230.

Syrnium newarense (nee Hodgs.), Sharpe, P.Z.S., 1887, p. 434.

Strix indrance maingayi, Robinson and Kloss, Journ. Nat. Hist. Soc. Siam, v., 1923, p. 108; Stuart Baker, Faun. Brit. Ind., Birds (2nd ed.), iv, 1927, p. 401.

Malay Name.—Burong hantu (vague, the bird being known to few Malays). **Description.**—Adult.—Sexes alike. Head, mantle and back, dark chocolate-

brown, the head distinctly darker; sides of the neck with rufous cross-bars; upper tail coverts with narrower, indistinct pale bars. Primary coverts and lesser coverts at angle of wing, blackish, median and greater ones obscurely barred; outer webs of outer scapulars with broad bars of white, and narrower ones of blackish brown, forming a conspicuous patch on wing. Primaries, blackish brown, becoming successively paler, the two outer ones unbarred, the remainder, with the secondaries, with regular pale bars, not continuous across the shaft; on the edge of the inner webs the bars are much paler and more buffy white; under wing coverts and axillaries, yellowish buff, more or less barred with dark brown. Tail, brown, lighter than the upper surface, with pale cross-bars, narrower and less marked on the centre feathers; beneath, paler, with the bars broader and whiter, a narrow tip grevish white. A pale buff superciliary stripe, narrowly bordered with black beneath; loral bristles, grey, heavily tipped and shafted with black; region behind and below the eye, rufous, becoming paler near the ear coverts. Under surface, chin, black, succeeded by a large white patch; upper breast, chocolate, more or less barred with rufous; remainder, buffy white, with narrow bars of chocolate, the buff ground-colour stronger on the belly and flanks and the dark bars paler. Thighs and tarsi, deeper buff, regularly barred and tipped with chocolate. Under tail coverts, whitish, with dark bars, clearer and more regular than on the rest of the under parts.

Immature.—Nape, mantle and back much more barred. Very young birds have the head almost white and the barring on the under parts much diminished.

**Soft Parts.**—Iris, dark brown; bill, bluish horn, yellowish at tip; feet, dull bluish lead.

**Dimensions.**—Total length, about 21 in.; wing, 13'2 to 14'7 in.; tail, 7'2 to 8'8 in.; tarsus, 2'3 to 2'5 in.; bill from gape, 1'9 in.; culmen, 1'5 in. Females slightly larger than males, but measurements intergrade.

Range in the Malay Peninsula.—Recorded from Peninsular Siam, south to Malacca, but probably not farther south or on any of the islands.

Extralimital Range.—Probably as far north as Muleyit and the Thoungyeen Valley in Tenasserim. The species in the broad sense, of which the form earliest described is the small, richly coloured B. leptogrammica (Tenm.), from Borneo, is very widely distributed from South India and Ceylon, east to Indo-China, Formosa, Hainan and South China, and south to Sumatra, Java and Borneo. As might be expected, the race from Sumatra, S. l. myrtha (Bp.) is extremely close to the Malayan bird, differing only in rather smaller size, and in having the terminal joints of the toes entirely bare, whereas these are feathered to the insertion of the claws in the Peninsular bird.

**Nidification.**—The nesting habits of the local form are unknown. Oates says that the Himalayan bird, *B. l. newarense*, makes a nest of sticks, and lays three eggs. Baker says, of Assam birds, that the eggs are laid on the ground, either in a cave, a hollow scratched at the foot of a cliff, or in a hollow at the foot of a cliff-growing tree, and that two eggs are the normal number. The eggs are white, very broad ovals, and average 2'2 by 1'8 in.

**Habits.**—Very little is known of this owl. In the Malay Peninsula it is an inhabitant of dense jungle, usually in submontane and mountainous country, having been obtained on the Larut Hills, on the Semangko Pass, and at several localities in Pahang and Selangor, up to a height of over 4000 ft. Neither its food nor its note has been ascertained, but in captivity the closely allied Ceylon form fed on small birds, lizards and fish. Davison states that the call of the South Indian bird, *B. i. indrance*, is a quadruple hoot. Field notes on, and additional specimens of, our Malayan bird are greatly desired.

# Glaucidium brodiei tubiger

#### The Lesser Banded Owlet

Noctua tubiger, Hodgs., Asiat. Res., xix., 1836, p. 175 (Nepal).

Glaucidium brodici (part), Sharpe, Cat. Birds, Brit. Mus., ii., 1875, p. 212; id. P.Z.S., 1887, p. 434; Blanford, Faun. Brit. Ind., Birds, iii., 1895, p. 307; Ogilvie-Grant, Journ. Fcd. Malay States Mus., iii., 1908, p. 52; Robinson and Kloss, Journ. Nat. Hist. Soc. Siam, v., 1923, p. 112.

Glaucidium brodici tubiger, Stuart Baker, Faun. Brit. Ind., Birds (2nd ed.), iv., 1927, p. 451, pl. 7.

Malay Name.—Burong punggok kechil.

**Description.**—Adult.—Sexes alike. Above, greyish brown, greyer on the head; everywhere narrowly banded with white, the bands broader and more buffy on the external aspect of the wing. Scapulars with large white patches on the outer webs. Lores and facial bristles, white, with black tips; a narrow superciliary stripe, white; ear coverts, blackish, tipped with white; a large white patch on the lower cheeks. A pale orange-buff collar on the hind neck, with a dull black patch on each side. Primaries, externally blackish brown, glossed with greenish olive, all except the two outermost, with small buff notches on the outer webs; internally, with broad white bars on the inner webs, towards the base. Under wing coverts, mingled black and white; the axillaries, yellowish white. Tail, blackish brown, glossed with greenish olive, and with seven narrow buff bars at the shaft and a narrow buff tip. Beneath, chin, white, bordered below by a  $\Lambda$ -shaped chevron of brownish feathers, tipped with white; breast centre of the abdomen, and under tail coverts, white; sides of the breast, as the back, but with the pale bars broader; flanks white, with broad longitudinal streaks of rufous, edged with black, which, on the upper flanks, become bars. Thighs and tarsal feathers, greyish brown behind, white in front, the bristles on the toes dirty-white.

*Immature*.—Nearly uniform above, the barring on the head reduced to minute whitish spots.

**Soft Parts.**—Iris, bright lemon-yellow; bill and feet, greenish yellow; soles, brighter yellow.

**Dimensions.**—Total length, 6 in.; wing, 3.5 to 3.7 in.; tail, 2.4 in.; tarsus, 0.75 in.; bill from gape, 0.6 in.; culmen, 0.45 in. Females are rather larger, wing up to 4.1 in.; total length, about 7 in.

Range in the Malay Peninsula.—At low elevations in Peninsular Siam as well as on the hills. From Northern Perak to Central Selangor and in Pahang.

**Extralimital Range.**—Has a very extensive distribution from Nepal, throughout Indo-China to Annam, South China and Formosa. Birds from the north-west Himalayas, Sumatra and Borneo differ subspecifically; the species is not represented in Java.

Nidification.—Not recorded from the Malay Peninsula. In Assam, Baker states that it breeds from March to the end of July, laying either in natural hollows or in holes of barbets and woodpeckers, high up in trees, and usually in branches. The clutch is generally four, of the normal white colour, and rather rounded shape, the average dimensions being given as I'I by 0'9 in.

Habits.—Though in the extreme north of the Peninsula we have obtained this little owl in evergreen forest but little above sea-level, in the more southern districts it is strictly confined to mountain forests, and does not descend below about 3000 ft. Though strictly nocturnal, it is often flushed from dense foliage in thick jungle, and then flies fairly well, and does not appear greatly dazed. Food of the Malayan birds, on the few occasions we have ascertained it, has been large beetles and grubs, and once a tree-lizard (Draco), but in other localities it is said to capture mice and rats and nestling birds. A soft double hoot, twice repeated, often heard in the mountains, must be in part uttered by this bird, and in part by the mountain scops owl, Otus (or Athenoptera) spilocephalus vulpes, or its relative, A. s. siamensis, which is found in precisely similar country.

# Otus scops malayanus

# The Little Malay Scops Owl

Vol. I., p. 80.

This little scops owl is a small species of a total length of slightly under eight inches, but with a relatively long and pointed wing. The ear-tufts are fairly conspicuous, and the feathering of the legs does not extend to the base of the toes.

Like many owls, it has two phases of coloration, in one of which it is chestnut-bay, almost uniform above, with darker streaks and shaft stripes; very similar below, but with more abundant streaking and mottling, the middle of the belly, whitish.

The other phase is much greyer, the general darker markings and vermiculations much more abundant, but all intermediates between the two types of colouring may be met with.

As noted in Volume I., this bird is probably only a winter visitor to the Malay Peninsula, being rarely met with far from the coast, and not, as a rule, a denizen of heavily forested country. Like many migrants, however, it is at times found in the mountains. It was common on Kedah Peak in December 1915, and we obtained one specimen at a height of 3000 ft. near the site of the present bungalow. The bird is therefore included in this volume.

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# Athenoptera spilocephalus vulpes

## The Malayan Mountain Scops Owl

Pisorhina luciæ (nec Sharpe), Hartert, Nov. Zool., ix., 1902, p. 541.

Heteroscops vulpes, Ogilvie-Grant, Bull. Brit. Orn. Club, xix., 1906, p. 11 (Gunong Tahan, Pahang), id. Journ. Fed. Malay States Mus., iii., 1908, p. 51, pl. 3, fig. 1; Robinson, op. cit., ii., 1909, p. 171.

Otus spilocephalus luciæ (part), Stresemann, Mitteil. Zool. Mus., Berlin,

xii., Band 1, 1925, p. 192.

**Description.**—Adult male.—Above, dark foxy brown, vermiculated with blackish; the head heavily striped with black; a broad, pale buff superciliary, the feathers tipped with black, separated from the eye by a narrow black line. Ocular region, rufous, darker near the eye, the loral bristles barred with black, and with black tips. A patch on sides of neck, buffy, the feathers with black tips; in front of it a few stiff, silky buff feathers indicative of the ruff. Ear-tufts, short and ill-defined, brownish buff, notched with darker buff. A very ill-defined cervical collar, formed of subterminal buff spots to the feathers; scapulars with a broad, pale buff spot on the outer web, heavily bordered with black above. Primary coverts, blackish brown; bastard wing, heavily barred with buffy white. Primaries, dark brown, barred with buffy; secondaries brown, vermiculated with rufous buff on the outer webs. Inner aspect of wing, silky brown; the inner primaries and secondaries barred with whitish on the inner webs, and the primaries barred with white on the outer webs also. Edge of wing, white, the lesser under wing coverts mingled black and brownish, the greater ones white, with the terminal halves black. Tail, dark brown, with narrow incomplete bars of paler brown. Beneath, foxy red, lighter than the upper surface, mottled with blackish and buff, more uniform on the flanks and paler on the middle of the belly; tibial feathering buffy; tarsi only thinly clad, the feathers falling short of the base of the toes, which are almost naked.

*Immature.*—As a rule darker, and much more marked below; the feathers of the crown with dark cross-bars, not longitudinal streaks.

Soft Parts.—Iris, pale yellow; bill, pinkish horn; feet, pale pinky white.

**Dimensions.**—Total length, about 7 in.; wing, 5 3 to 5 6 in.; tail, 2.8 in.; tarsus, 0.95 to 1.05 in.; bill from gape, 0.7 to 0.8 in. Females do not appear to be materially larger than males.

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

Pahang.

**Extralimital Range.**—Closely allied forms occur in the mountains of Borneo (H. s. luciæ), Sumatra (H. s. stresemanni), and in the Himalayas (H. s. spilocephalus), while we regard that from Peninsular Siam (cf. below) as distinct also.

**Nidification.**—Unknown. The allied Indian bird lays three to five white eggs of the usual rounded shape, in a hole in a tree, without any nest. In dimensions they average 1'26 by 1'09 in. (Oates).

Habits.—This little owl is probably not uncommon on all the higher mountains of the Peninsula which harbour a true montane fauna. It occurs normally from about 4000 to 5000 ft., sometimes higher, though occasionally a good deal lower, but never in foothills or in country distant from the higher mountain ranges. It frequents deep and shady gullies and ravines, from which it is occasionally flushed, but is far less diurnal in its habits, and more sensitive to and confused by light, than *Glaucidium brodiei tubiger*, which is found in much the same situations; its note has not been differentiated from the whistling quadruple hoot of that bird. Its food is probably almost entirely insects, moths and large beetles.

Note.—The use of the recently resuscitated genus, named Athenoptera, Hume, ex Hutton, of which Heteroscops, Sharpe, is a pure synonym, will be deprecated by many. The genus Otus, in which this very natural group would otherwise be included, is, however, a very large and composite assemblage which can advantageously be reduced in numbers.

# Athenoptera spilocephalus siamensis

### The Siamese Mountain Scops Owl

Otus luciæ siamensis, Robinson and Kloss, Journ. Fed. Malay States Mus., x., 1922, p. 261 (Kao Nawng, Bandon); id. op. cit. xi., 1923, p. 59.

Otus spilocephalus siamensis, Stresemann, Mitteil. Zool. Mus., Berlin, xii., Band 1, 1925, p. 192.

Athenoptera spilocephala siamensis, Delacour, Jabouille and Lowe, Ibis, 1928, p. 42.

**Description.**—Adult female.—Almost immaculate above, lightly freckled with black, and with faint indications of black stripes on the crown; a buff collar formed by the bases of the feathers is also just in evidence. Wings and tail strongly marked with rufous; the outer webs of the primaries scarcely blackened. The under surface much paler than in A. s. vulpes; the flanks and abdomen almost white. Spots and vermiculations obsolete; the breast only lightly freckled.

Adult male.—Differs only in having the black markings on the head a little more pronounced, and in being a trifle darker beneath.

Soft Parts and Dimensions.—As in A. s. vulpes.

Range in the Malay Peninsula.—Known at present only from two local specimens, the female type from Kao Nawng, Bandon, 3500 ft., and a male from Kao Luang, a peak in the same range farther to the south.

**Extralimital Range.**—A single specimen of what is probably this bird has been obtained at Djiring, in the mountains of South Annam.

Nidification.—Unknown.

**Habits.**—Probably the same as those of A. s. vulpes. The two Siamese specimens were flushed by our Dyak collectors in low, but extremely dense and thorny, jungle; the Annamese bird is recorded as living in primeval jungle, near the ground, amongst large buttress roots and fallen timber.