

*Report of Curator, Zoological Department, for July, 1855.*

1. The first contribution which I have now the pleasure of bringing to notice is that of two fine (and nearly perfect) skeletons of the *Mias Rambi* Orang-utan (*PITHECUS BROOKEI*, nobis, *J. A. S.* XX, 375); presented to the Society by Sir James Brooke, K. C. B., Governor of Sarawak.

The skeletons are those of a fully adult but not aged female, with the epiphyses of the limb-bones well anchylosed, yet with sagittal crest undeveloped,—and of a nearly full-grown male, with incipient sagittal crest, but with the epiphyses of the limb-bones more or less detached and exhibiting other proofs of incomplete growth. In both specimens, the third or last permanent grinders had been brought into wear; the amount of attrition being considerable in the female, and much less so in the male.

As from the structure of the pelvis and certain other characters, no doubt whatever can exist respecting the sexes of these two individuals, we accordingly obtain the requisite data for deciding upon the sex of the skeleton of an adult *Mias Pappan* which was presented on a former occasion to the Society; and can now pronounce, with confidence, that the latter was a male animal, and moreover it appears from accumulating evidence that the *Mias Pappan* is a smaller animal than the *Mias Rambi*, the adult female of the former corresponding in size with the adult male of the latter; the male of the *Rambi* (to judge from its skull) being much larger.

Individuals, however, of each may vary in size; as the skull of the female *Rambi* now sent is considerably larger than that of the much older female *Rambi*, with high sagittal crest, figured in plates 3 and 4 attached to the memoir upon this genus in *J. A. S.* Vol. XXII. A distinguishing sexual feature would appear to exist in the conspicuously greater breadth of the orbital ring exteriorly (especially its malar portion) in the male, and also the greater breadth of muzzle in the adolescent male, and the general appearance of massiveness, indicative of its future growth, as compared with the skull of an adult female. In our huge old Sumatran male, the extent of grinding surface of the series of upper molars (including bicuspids) is  $2\frac{1}{4}$  in.; in the young Bornean male now sent,  $2\frac{5}{8}$  in.: the anterior bicuspid of the latter being somewhat pushed forward outside of the hind margin of the canine, and the interspace between the canine and outer incisor being but half as great as in the fully developed animal. In both females, the same grinding surface is but  $2\frac{1}{8}$  in.; and in the adult male *Pappan*, intermediate, or  $2\frac{1}{4}$  in. This male *Pappan* (as

now determined), to judge both from the degree of attrition of its molars, and that of *anchylosis*, was a somewhat (but not much) younger animal than the female *Rambi*, and considerably more mature than the adolescent male *Rambi*: both of the former, however, had certainly attained their complete growth, and we observe a marked difference in the proportions of the limbs, which alone would go far to remove any doubt of the distinctness of the two species.

The extreme length of humerus of the adult male *Pappan* is  $14\frac{1}{4}$  in., and of ulna  $14\frac{1}{2}$  in.; in the adult female *Rambi*, respectively  $14\frac{1}{2}$  and 15 in.: femur of male *Pappan*  $10\frac{5}{8}$  in.; of female *Rambi*  $11\frac{1}{2}$  in.: tibia of former,  $9\frac{1}{8}$  in.; of latter,  $9\frac{5}{8}$ .

The total length of pelvis in the female *Rambi* is 11 in.; extreme breadth apart of the ilia  $11\frac{7}{8}$  in.; of pelvic aperture (measured behind)  $3\frac{1}{2}$  in.: the corresponding measurements in the male *Pappan* being respectively  $9\frac{5}{8}$  in.,  $10\frac{3}{8}$  in., and  $2\frac{7}{8}$  in.

A more detailed comparison must be deferred until we can get the female *Rambi* skeleton mounted. At present, we may remark that our great Sumatran male *Rambi* skull (Vol. XXII, plates 1 and 2,) about corresponds with Prof. Owen's great Bornean *Rambi* skull, figured in *Tr. Zool. Soc.* Vol. 2, pl. 31; only that the supra-orbital ridges are less flattened back, and the profile consequently is more concave: while the Bornean female *Rambi* now received would correspond with Prof. Owen's Sumatran (♀) female, figured in *Tr. Zool. Soc.* Vol. 1, pl. 53, were it only much older, and had it its sagittal crest developed; its lambdoidal crests are remarkably developed. In the adolescent male *Rambi* skull, it is remarkable that the nasal bones continue distinct (which is unusual in this genus, even in the half-grown animal); the two being but very imperfectly united, and the same is observable in our adolescent female small Orang skeleton with comparatively short fore-arms. In our adolescent male *Rambi*, the nasal bones do not ascend upon the *glabella* as in our other *Rambi* skulls.

2. T. C. Jerdon, Esq., Ságur. Specimen of a new Indian species of Swallow, belonging to the group of 'Republican Swallows' (*PETROCHELIDON* of the Prince of Canino), and having similar habits to the well known *HIRUNDO FULVA* of N. America. The specimen is not a good one to describe from, being not fully mature; but its upper-parts should be glossy black, with white lateral edges to the dorsal feathers more or less seen: the rump brownish; and crown dark rufous: lower-parts white, with black mesial streaks to the feathers of the throat and breast; the under surface of wings pale brown: tail slightly furcate, with a slight whitish spot more or

less developed towards the tip of the inner web of most of its feathers: tertiaries also whitish-tipped. Length about  $4\frac{1}{2}$  in., of which tail,  $1\frac{3}{4}$  in.; wing  $3\frac{1}{2}$  in.—*HIRUNDO FLUVICOLA*, nobis, *n. s.* “This interesting new retort-nest building Swallow,” writes Mr. Jerdon, “I discovered during a late trip, and found it only in two spots, building in company; the nests crowded together on rocks overlying the rivers (Sonar and Kane) in Bundelkund. It was then breeding (April and May), but I could not get at the nests.” A rough sketch of the latter is sent, representing “retort-nests” with short necks, and crowded together, similar to those of the American *H. FULVA*, Vieillot (v. *H. brunifrons*, Say).

3. From Major A. P. Phayre, Commissioner of Pegu. A collection of skins procured in the course of a recent tour through that province.

Of mammalia, are sent the skin of a Jackal, that of a Hare, and those of three species of Squirrel.

The Jackal (*CANIS AUREUS*) was shot at Meaday by Lt. Bosworth of the Bengal Artillery, and (as remarked by Major Phayre)—“has set at rest the question of that animal being found in Burmah or not.”

The Hare is not *LEPUS SINENSIS* (as supposed from the much discoloured fragments of a skin, noticed *J. A. S.* XXI, 359); but is of a peculiar and hitherto undescribed race, which may be designated

*LEPUS PEGUENSIS*, nobis, *n. s.* Very similar to *L. RUFICAUDATUS*, Is. Geoffroy, of Bengal, and all Upper India, Asám, &c.; but at once distinguished by having the tail black above, as in the generality of the genus. The upper-parts are of the same colour as in the Bengal Hare, but contrast directly with the pure white of the belly, instead of passing to it through fulvous as in the other; and the limbs also shew but a slight fulvous tinge, with white hairs intermixed, especially on the hind-limbs where the white predominates: the chin and throat (in fact the fur over the whole lower jaw) are conspicuously white; and the short sparse hairs on the outside of the ears are whitish,—except in front, and also the tip posteriorly, whereon is a large blackish terminal patch. The fur of the upper-parts is pale dusky-grey at base, then black, and finally bright fulvous-brown with black extreme tips: towards the tail above is a strong tinge of ash-colour. Size, proportions, and structure, as in the common Hare of all Upper India.\*

\* Of the Hare from the vicinity of Dacca referred to by the name *L. TYTLERI* in the *Ann. Mag. N. H.* for September, 1854, p. 176, the Society possesses a specimen presented by Capt. Robt. Tytler, of the 38th N. I. (*J. A. S.* XXII, 415); but we can perceive in it no distinction from the common *L. RUFICAUDATUS*, stated also by Capt. Tytler to inhabit the same district.

The three species of Squirrel sent are the large *SCIURUS BICOLOR*,—*SC. KERAUDRENI*,—and *SC. PYGERYTHRUS*. The first abounds throughout the Burmese countries and the Malayan peninsula, and northward to the Asám hills and those of Sikim and Nepal: but its pale variety we have only seen from the Malayan peninsula. Himalayan specimens (*Sc. macrouroides*, Hodgson,) have longer fur on the ears, but present no further difference that we can perceive; and even this may be merely seasonal. *SC. KERAUDRENI* is common in Arakan: and we recognise in *SC. PYGERYTHRUS* a species formerly sent from Rangoon by Dr. Fayer, being the supposed variety of *SC. LOKROIDES* noticed in *J. A. S. XXII*, 414, and distinct from the presumed variety of *SC. PYGERYTHRUS* formerly sent by Major Phayre from Moulmein, which is described *J. A. S. XVII*, 345, and may now stand as *SC. PHAYREI*, nobis, *n. s.*\*

\* The multiplicity of small Squirrels with mostly annulated or grizzled fur, inhabiting the Burmese and neighbouring countries, are most difficult to discriminate. Of the group of gigantic Squirrels, there is only *SC. BICOLOR* (and its pale variety in the Malayan peninsula); and of that of small striped Squirrels, only *SC. BERDMOREI*, nobis (*J. A. S. XVIII*, 603), and *SC. BARBEI*, nobis (*J. A. S. XVI*, 875), that we know of as yet,—though *SC. INSIGNIS*, Horsfield, is likely to inhabit the more elevated interior of the Malayan peninsula: but the other small and medium-sized Squirrels seem almost interminable; and we have the following series in our museum, which may be briefly indicated with advantage, for the benefit of students.

1. *SC. RAFFLESII*, Vigors and Horsfield: *Sc. Prevostii*, Desmarest. Larger than *Sc. hippurus*. Black above, deep rufo-ferruginous below and on the feet; a very broad white lateral band from mouth to haunch, extending over the outside of the thigh, and more or less greyish from cheek to shoulder (inclusive): tail of a somewhat duller black than the back, and a little rufescent at tip. Inhabits the Malayan peninsula.

*Remark.* A nearly affined race inhabits Borneo, which is the *SC. REDIMITUS*, Van der Boon, and when half-grown—*Sc. rufogularis*, Gray, erroneously (in all probability) supposed from China. This race has blackish cheeks and rufous shoulders; a grizzled band, formed of whitish-tipped hairs, above the white lateral band, and this grizzling is continued over the haunch and hind-limb: the tail also is much grizzled with white, in a specimen presented by the Batavian Society to our museum. Of very numerous examples of *SC. RAFFLESII* (from the Malayan peninsula) examined, we have observed no remarkable variation, nor tendency to assume the distinctive colouring of *SC. REDIMITUS*: but *SC. RUFONIGER*, Gray, is probably a mere individual variety of the former, especially as Malacca is given as its habitat. It is thus briefly described:—"Black; throat, inner side of legs, and beneath, bright red; an indistinct streak along each side, and the outer side of the thigh, white, grizzled." *Ann. Mag. N. H. X*, 263 (1842).

Among the birds, we observe, with surprise, an unmistakeable specimen of the common British Meadow Pipit (*ANTHUS PRATENSIS*) in its summer plumage. We have never seen this bird from any part of India, though Mr. Gould states it to occur in the west (*P. Z. S.* 1835, p. 90).

By Dr. S. Müller and also by Dr. Cantor, the Malacca and Bornean races are considered as mere local varieties of one species: but the application of this principle of classification to many of the following races could only be most arbitrary).

2. *SC. HIPPURUS*, Is. Geoffroy: *Sc. rufogaster*, Gray; *Sc. castaneiventris* (?), Gray, the young? Much larger than the common British Squirrel. Lower-parts and inside of limbs deep rufo-ferruginous; head, shoulders, and sides of limbs, dark grizzled ashy; rest of upper-parts, with base of tail, deeply tinged with rufous, and also grizzled,—contrasting much with the dark leaden-grey of the cheeks and limbs externally: rest of tail dullish black; and feet nigrescent. Common in the Malayan peninsula, Sumatra and Java. We have seen very numerous specimens from the first named region, but *no variation* whatsoever.

3. *SC. ERYTHROGASTER*, nobis, *J. A. S.* XII, 972: *Sc. hippurus* of Asám, *auctorum*. Upper-parts *uniformly* of nearly the same dark grizzled ashy as the head and outside of limbs of the preceding race; this grizzling extending about half-way along the tail, the remainder of which is dull black: feet nigrescent; and lower-parts deep rufo-ferruginous. Inhabits the Munnipur hills, and those E. and S. of Upper Asám.

4. *SC. ERYTHRÆUS*, Pall:s: *Sc. hippurus*, var., McClelland and Horsfield. Colours nearly as in *SC. HIPPURUS*, but duller and more blended; the rufo-ferruginous hue of the belly contrasting abruptly at the sides of the body (whereas in *SC. HIPPURUS* the sides are so rufous that the contrast is much less decided): ears bright rufous; and the terminal two-thirds or more of the tail are nearly of the same colour as the belly, the tip generally being paler. There is also more or less rufous about the muzzle. Inhabits the Khásya hills, and neighbouring mountains of Lower Asám.

(*N. B.* *SC. ERYTHRÆUS* is described to have slightly ciliated ears (*auriculæ sub-barbatæ*), and a blackish stripe running down the tail. The ears of our animal can scarcely be termed ciliated; but two very young specimens from Asám have the basal third of the tail black posteriorly (except at the extreme base), passing more or less upward as a medial line; and it is probable that some adults exhibit the line as described.

It would seem further that the rufous of the muzzle extends sometimes more or less over the crown; and that the tail-end is occasionally blackish, though we have never seen it so (*var. b.* from Butan, of Gray's British Museum Catalogue.

If Nos. 2, 3, and 4, are to be regarded as merely local varieties of the same species, No. 5 should also be so classed: but the difficulty begins with No. 6; and if that be admitted, why not also Nos. 7, 8, and even 9? Wherever drawn, the

ORIOLOUS TENUIROSTRIS, nobis, *J. A. S.* XV, 48. A fine adult specimen. We formerly described this species from the skin of a young bird, not in good plumage, which we found among a lot of skins put away as duplicates; and there can be little doubt now that the specimen referred to

line will be quite arbitrary; and, by the same rule, *Sc. PALMARUM* and *Sc. TRI-STRIATUS* of India should be placed as varieties of one species, although their voice is singularly different, and the latter race keeps everywhere to the jungle, instead of coming much into gardens and about houses like the other).

5. *Sc. KERAUDRENI*, Is. Geoffroy. Entirely of a deep rufo-ferruginous colour, with blackish paws, and whitish tail-tip: the tail, indeed, only differing from that of No. 4 is not being grizzled at base. Common in the hilly parts of Arakan and Pegu.

6. *Sc. HYPERYTHRUS*, nobis, *n. s.*: *Sc. erythraus*, var. A (?). Gray's *Br. Mus. Catal.* A little smaller than the four preceding races: the upper-parts uniformly grizzled throughout, black and golden-fulvous, but a strong ferruginous tinge on the head, and the ears bright rufous: lower-parts deep rufo-ferruginous, fading on the throat: tail coloured like the back, but its terminal half more brightly tinged with ferruginous and distinctly annulated: paws nigrescent. Length 8 or 9 in.; of tail with hair somewhat less; and foot  $1\frac{2}{3}$  in. From Tenasserim (Moulmein?). Presented by Capt. Berdmore.

7. *Sc. GRISEOPECTUS*, nobis, *J. A. S.* XVI, 873. Size of last. The general colour paler, uniformly grizzled throughout on the upper-parts and tail, which has a slight black tip: throat and breast also grizzled, and faintly washed with ferruginous; the belly and inside of limbs much deeper ferruginous: paws not darker than the rest, and no rufous about the face; but a pale ferruginous tinge on the tail. Habitat unknown. Described from a caged animal, in fine condition, which was transferred to the museum at its death.

8. *Sc. CONCOLOR*, nobis, *n. s.* (referred doubtfully to *Sc. MODESTUS*, S. Müller, in *J. A. S.* XX, 166). Size of the two preceding, and much like the non-rufous specimens of *Sc. CHRYSNOTUS*; or like *Sc. NIGROVITTATUS*, but larger and without the lateral stripes and rufous tinge about the head. Lower-parts dull ash-colour: the rest grizzled throughout with black and dull ruddy-ferruginous; the latter somewhat brighter on the middle of the back, croup, and upon the tail, which last is conspicuously ringed with black and dull ferruginous, and has a black tip mingled with hoary-white. From the vicinity of Malacca.

9. *Sc. CHRYSNOTUS*, nobis, *J. A. S.* XVI, 873. Size of the three preceding; and colour variable, but with always a conspicuous black tail-tip. Fur grizzled ash-grey on the limbs and under-parts, and more or less tinged with bright ferruginous on the upper-parts, especially on the nape and fore-part of the back; but in some specimens there is scarcely an obscure wash of this ferruginous, while in others the whole nape, shoulders, and anterior two-thirds of back, are intense

was from Arakan. Its distinctness as a species was obvious; and we now describe a fine adult from Pegu. From the other black-naped Orioles, it is at once distinguished by its much more slender and more distinctly curved bill, of a reddish colour; and by its narrower black nape-band,

bright ferruginous, shading off more or less to grey on the back and haunches: tail grizzled, sometimes a little tinged with ferruginous, and more distinctly annulated towards its black tip. Common in the Tenasserim valley.

(*Qu.* Does this animal vary in colour according to season, or become more deeply tinged with ferruginous as it advances in age? Our specimen least so tinged is from Mergui; and exhibits merely a faint wash of ferruginous, and this chiefly on the sides of the neck and body.)

The next three species are very closely affined, and not always easy to discriminate. They are much smaller than the preceding.

10. *Sc. PYGERYTHRUS*, Is. Geoff. Grizzled above as in non-rufous specimens of *Sc. CHRYSNOTUS*; below weak ferruginous, more or less deep, in some tolerably bright, in others faint and passing to whitish on the throat and sides of face: tail coloured like the back, and more or less distinctly annulated above, with a black extreme tip; below, the rufous of the lower-parts extends more or less up its base, but seldom conspicuously. Length about 7 in.; and tail with hair somewhat more: hind-foot  $1\frac{3}{4}$  in.; fringed internally and all the toes tufted with rufous hairs. From the valley of the Irawadi (Rangoon, Pegu, &c.)

11. *Sc. ASSAMENSIS*, McClelland, Gray: *Sc. Blythii*, Tytler (*Ann. Mag. N. H.*, Sept. 1854, p. 72). Differs from the last in being more fulvescent above, and much less so underneath: tail-tip generally blackish; and commonly a greater development of pale ferruginous underneath the tail than in *Sc. PYGERYTHRUS*: above, the tail is very indistinctly annulated, if at all so: hue of the upper-parts more or less fulvescent; of the lower dingy whitish, with commonly a slight fulvescent tinge. A very abundant species, inhabiting the valley of Asám, and found about Dacca; also in Tippera, Chittagong, and Arakan.

12. *Sc. LOKROIDES*, Hodgson: *Sc. lokriah* apud Gray, *Brit. Mus. Catal.* Upper-parts darker than in the preceding, with never a black tail-tip; and the thighs externally often deeply tinged with rufo-ferruginous, though not a trace of this exists in many specimens. From Nepal and Sikim (*tarai*?).

13. *Sc. LOKRIAH*, Hodgson (nec apud Gray, *Brit. Mus. Catal.*): *Sc. subflaviventris*, McClelland. Size about that of the three preceding races, or a trifle larger; and the general hue darker and more ruddy above than in *Sc. LOKROIDES*, grizzled as usual, and with the under-parts moderately deep ferruginous, sometimes rather weak: tail coloured nearly as the back, but with whitish tips above, more or less developed; beneath, tinged with ferruginous, and exhibiting distinctly a double border on each side, from every hair having a white tip and black subterminal portion. A mountain species, inhabiting Nepal, Sikim, Asám

and consequent greater extent of yellow upon the crown: upper-parts bright yellowish-green (rather than greenish-yellow), becoming more yellowish on the rump and upper tail-coverts: crown, neck (below the black occipital band), and entire under-parts, intense pure yellow: inner webs

with the Khásya hills, and those of Arakan: but the few specimens we have seen from the Arakan mountains seem to be smaller, and of a weaker ferruginous on the under-parts; perhaps a distinct race, but we have not the requisite data to form an opinion on the subject.

14. *SC. TENUIS*, Horsfield. A Malayan species affined to the last, but considerably smaller, with the under-parts having but a very faint wash of ferruginous, while a stronger tinge of this hue appears on the shoulders and outside of the limbs; tail coloured as in *SC. LOKRIAH*, but the black and white margins (as seen from behind) are hardly so conspicuous. We suspect that it is confined to a certain elevation in the Malayan peninsula and neighbouring great islands.

15. *SC. MODESTUS*, S. Müller: *Sc. affinis*, Raffles, apud Horsfield, *Zool. Res. in Java*; nec *Sc. affinis* (verus), as described by Sir Stamford Raffles, *Lin. Tr.* XIII, 259, which description refers distinctly to the pale variety of *SC. BICOLOR*: assigned dubiously by Dr. Cantor as a synonyme of *SC. TENUIS*. Apparently very like the last, but larger, with the rufous more developed on the outside of the limbs and along the flanks. "Length 9 in., and tail 7 in." (Horsfield). Inhabits the Malayan peninsula, and has been met with on the island of Pulo Penang. We have seen no specimen.

16. *SC. PHAYREI*, nobis, *n. s.*; *Sc. pygerythrus*, var., apud nos, *J. A. S.* XVII, 345. A beautiful species, of the size of *SC. VITTATUS*, and nearly of the same colouring above, but the fur longer, and the tail much more bushy, with a well-defined black tip. Lower-parts bright ferruginous, inclining to maronne on the belly, and continued broadly along the under or hind surface of the tail to its black tip: inside of limbs ferruginous, continued nearly round the hind-limbs, and upon all the feet; the fore-limbs tinged with dusky externally, above the pale rufous foot; and a broad imperfectly defined blackish band upon the flanks, separating the colours of the back and belly. Length 9 or 10 in.; and tail with hair about the same: hind-foot  $1\frac{7}{8}$  in. From some part of the Tenasserim provinces. Presented by Major Phayre.

17. *SC. VITTATUS*, Raffles: *Sc. bivittatus*, Desmarest. This very common Malayan species does not appear to extend northward into the Tenasserim provinces. It is readily distinguished by its two lateral bands, the upper white and lower black, with deep rufous under-parts and tail-tip.

18. *S. NIGROVITTATUS*, Horsfield: *Sc. griseoventer*, Is. Geoffroy. Differs from the last by having the belly ash-grey, no rufous at tip of tail, but a ferruginous tinge on the sides of the head and neck: its upper lateral band is also fulvous, rather than white. Inhabits the Malayan peninsula, where much less common than *SC. VITTATUS*.



of the tertiaries dusky-black: the outer coloured like the back, with a slight yellowish spot at tip, and the secondaries narrowly bordered with yellowish: terminal half or more of the greater coverts of the primaries bright yellow; and a few of the outermost coverts of the secondaries tipped with the same: middle tail-feathers black, the rest successively more broadly tipped with yellow; and the tail conspicuously more even or squared than in the commoner *O. INDICUS* of the same countries.\*

19. *SC. ATRODORSALIS*, Gray. Size of the preceding, with generally a much more bushy tail: upper-parts grizzled black and fulvous, with a great black patch upon the back; head rufescent, with white whiskers: lower-parts varying in hue from weak ferruginous to deep maronne-red: a tinge of the same upon the haunches; and hairs of the tail black with broad fulvous tips. In one specimen before us, with deep rufous ears and dark maronne-red under-parts, the tail is throughout grizzled like the back, and much less bushy than usual: perhaps a distinct race from those with ferruginous under-parts more or less deep, and an extremely bushy tail. Inhabits the Tenasserim provinces.

20. *SC. CANICEPS*, Gray, is thus described. "Pale grey, grizzled: back yellowish: beneath, paler grey: tail long, grey, black-varied, ringed, the hair with three broad black bands." Size—? Inhabits Butan (*Ann. Mag. N. H. X*, 1842, p. 263).

21. *SC. TUPAIOIDES*? A very curious species inhabiting the Malayan peninsula, which, by its lengthened snout and aspect generally, quite simulates the genus *TUPAIA*, Raffles, of the order *Insectivora*. It is doubtless the *RHINOSCIURUS TUPAIOIDES*, Gray (Appendix to *Brit. Mus. Catal.*, p. 195), from Singapore; but we doubt its being correctly referred to *SC. LATICAUDATUS*, Diard (*S. Müller, tab. XV, f. 1, 2, and 3*), by Dr. Cantor (in *J. A. S. XV*, 251). The latter would rather appear to be a second species of the same peculiar type, of much paler and more rufous hue than the Malacca animal, and differing remarkably in the relative proportion of its molars, as noticed by Dr. Cantor (*loc. cit.*), and which inhabits the western coast of Borneo. In a Malacca specimen in our museum, there is even an indication of the pale shoulder-stripe of the *TUPALE*!

\* We are acquainted now with five species of black-naped Orioles; viz.

1. *O. CHINENSIS*, L. (*vide J. A. S. XV*, 46). China (and the Philippines?)
2. *O. MACROURUS*, nobis (*vide loc. cit.*) Nicobar islands only, so far as known at present.
3. *O. INDICUS*, Brisson, Jerdon (*vide loc. cit.*) Common in the Burmese countries; rare in Lower Bengal: found also in S. India and in China.
4. *O. COKONATUS*, Swainson: *O. hippocrepis*, Wagler. Differs from *O. INDICUS* in having a narrower nape-mark, a shorter wing, and by the considerably reduced development of the yellow on the secondaries and tertiaries. Hab. Java, and probably other islands of the great archipelago.
5. *O. TENUIROSTRIS*, nobis, *ut supra*. Burmese countries.

CHATARRHÆA GULARIS, nobis, *n. s.* A handsome species of this group, and the first which we have seen from the eastern side of the Bay of Bengal: though CH. EARLEI, nobis, extends into Tippera. It is affined to CH. EARLEI, but with a still longer tail, which is more distinctly rayed across. Colour ruddy-brown, passing to olivaceous on the hind-part of the back, each feather having a narrow black mesial streak: frontal feathers narrow, stiffish, pointed, and white with black mesial line; these peculiar feathers continued over but not beyond the eye: lores blackish: chin and throat pure white, extending down the front of the neck: ear-coverts and sides of neck unstreaked ruddy: breast and flanks ruddy-brown, paler on belly, and the lower tail-coverts duller brown: tail dull olive-brown, and conspicuously rayed across. Bill dull plumbeous, yellowish towards gape; and legs pale brown, darker on joints. Length about 11 in.; of tail 6 in.: closed wing  $3\frac{3}{8}$  in.; bill to gape 1 in.; and tarse  $1\frac{1}{2}$  in. Pegu.\*

ARACHNOTHERA AURATA, nobis, *n. s.* Like A. MAGNA, (Hodgson), but considerably smaller, with the mesial dark streaks to the feathers much less developed, excepting on the crown, and becoming almost obsolete on the rump: on the lower-parts, they are scarcely broader than the shafts of the feathers, whereas in A. MAGNA they are much broader: the edge of the wing is also of a much brighter yellow than in A. MAGNA. Length

\* Having had occasion to re-examine the series of Indian CRATEROPODINÆ, it was found expedient to subdivide the genus MALACOCERCUS, Swainson, as follows:

1. ACANTHOPTILA, nobis. Type, *Timalia nipalensis*, Hodgson.
2. CHATARRHÆA, nobis. CH. GULARIS, *ut supra*, is about the most typical species. Others exist in CH. CAUDATA (*Timalia chatarrhæa*, Franklin),—*Ch. Huttoni*, nobis, *J. A. S. XVI*, 476, from Kandahar,—and CH. EARLEI, nobis.
3. MALCOLMIA, nobis. Type, M. ALBIFRONS (*v. Garrulus albifrons*, Gray, *Hardw. Ill. Ind. Zool.*, v. *Timalia Malcolmii*, Sykes). A second species would seem to exist in the *Malurus squamiceps*, Rüppell, of Egypt and Nubia; and a third probably in the *M. acaciæ*, Rüppell, of Arabia Petræa.
4. LAYARDIA, nobis. Type, L. SUBRUFÆ (*v. Timalia subrufa*, Jerdon, v. *T. pæcilorhyncha*, Lafresnaye). A second species would seem to exist in the *Crateropus rubiginosus*, Rüppell, of Schoa.
5. MALACOCERCUS, Swainson; as confined to the species with rounded frontal plumes and less elongated and graduated tail, which are affined to the true CRATEROPODES of Africa (as exemplified by the *Ixos plebeius*, *leucocephalus*, and *leucopygius* of Rüppell; the *Crateropus Jardinii*, A. Smith, of S. Africa, illustrating another division of the same group). Of restricted MALACOCERCUS, about ten species (or distinguishable races) exist in all India and Ceylon, to which range of country they appear to be confined exclusively.

of wing 3 in. (instead of  $3\frac{1}{2}$  in. or more), and the rest in proportion. From Pegu.

*RYCNONOTUS HÆMORRHOUS*, (Gm.) Specimen rather large, with closed wing  $3\frac{3}{4}$  in.; but otherwise resembling examples from Arakan, S. India and Ceylon, Orissa, Agra, &c.; one from Wuzirabád being even larger, with wing  $3\frac{7}{8}$  in.; the ordinary length being from  $3\frac{3}{8}$  to  $3\frac{5}{8}$  in. In *P. CAFER*, (L.), of Bengal, Nepal, Asám, Tippera, Deyra Doon, &c., the length of closed wing of the male is generally 4 in. The latter species has always a black nape; whereas the other has merely a black cap, the nape being coloured like the back, though generally with whiter margins to the feathers. In *P. CAFER*, also, the black of the lower-parts descends much further over the breast than in *P. HÆMORRHOUS*. *P. NIGROPILEUS*, nobis, of the Tenasserim provinces is a third nearly affined race, which differs from *P. HÆMORRHOUS* in having the black of the lower-parts confined to the chin, or even wanting altogether; and that of the cap well defined and contrasting sharply with the more or less whitish-edged feathers of the nape.

Genus *CORVUS*, L. Two species of Crow are sent, one being the common black Crow (*C. CULMINATUS*, Sykes,) of all India, and which we have received from Pinang and Malacca, where it occurs together with another black species, the *C. ENCA* (?), Horsfield (v. *macrorhynchos*, Wagler); and the other being the *melanoid* variety of our ordinary Indian Crow (*C. SPLENDENS*, Vieillot), which appears to be the common Crow of the Tenasserim provinces. In the Pegu specimen now received, and another from Mergui (all that we have seen as yet from that range of country), the *melanism* is more pronounced than in Cinghalese specimens, which exhibit a more decidedly ashy tinge on the nape and breast. In the Pegu specimen this is by no means conspicuously observable: yet Major Phayre remarks of it, that—"this is the common Crow of the branches of the Irawádi; but away from the river in the hills there is a Crow of the same size, but not with the same tinge on the neck, being of an uniform black throughout."

A fine specimen of our Indian *MACROPTERYX CORONATUS*, (Tickell), is the first example of this species which we have seen from the eastern side of the Bay of Bengal. In the Malayan peninsula, it is replaced by *M. KLECHO*, (Horsfield), and also (it would appear) by the very beautiful *M. CORONATUS*, (Tem.)

Of Pigeons, are sent *TRERON VIRIDIFRONS*, nobis: *TR. MALABARICA*, Jerdon;\* *CARPOPHAGA GÆNEA*; and a pair of Turtle-doves, which are just

\* A Ceylon species which we consider to be *TR. POMPADORA*, auct., differs from *TR. MALABARICA* in being rather smaller, with bright yellowish-green forehead,

intermediate to *T. SURATENSIS* of India and *T. TIGRINUS* of the Malay countries, or which at least is the race inhabiting the Malayan peninsula. In the *Comptes Rendus*, tom. XI, 17 (January, 1855, No. 2), the Prince of Canino states that the Chinese *T. SINENSIS* extends its range to the Philippines and all Malasia; but we have never seen it from the Malayan peninsula, where a distinct race abounds, resembling *T. SURATENSIS* except in wanting the pale vinaceous spots on the scapularies and wings, while retaining the black mesial streaks which are wanting in *T. CHINENSIS*: there is also much less ash-colour on the wings than in *T. SURATENSIS*: but it is of the same size as the latter, or much smaller than *T. CHINENSIS* (which last has also deep ash-coloured lower tail-coverts). Of the two Peguan specimens now sent by Major Phayre, one differs little from the Malayan peninsula Dove, except that the spotting begins to appear upon the wings; while in the other the spots spread over the back, but are of a dull rusty colour and less defined than in the common Indian race. The Prince of Canino remarks, that *T. SURATENSIS* is particularly abundant in Ceylon: but it can scarcely be anywhere more so than in Lower Bengal.

*FRANCOLINUS PHAYREI*, nobis (*J. A. S.* XII, 1011), et *FR. SINENSIS*, (*Tetrao sinensis*, Osbeck; *T. pintadeus*, Scopoli: *T. perlatus* et *T. madagascariensis*, Gmelin, nec Scopoli). We have compared the 'Pintado Partridge' of the Mauritius with a Chinese specimen, and can detect not the slightest difference; wherefore it may be inferred that the species was probably introduced into the Mauritius direct from China.\* We now hesitate to consider *FR. PHAYREI* as distinct from *FR. SINENSIS*: the difference between them being even less than between *CACCABIS GRÆCA* (v. *saxatilis*) and *C. CHUKAR*! As compared with *FR. SINENSIS*, the Peguan bird would seem to have the long black supercilium broader, and extending more across the forehead, and the rufous supercilium above it narrower, and paler; also to have more developed spurs, and a somewhat

the throat yellow, and breast unsullied green (or having no ruddy patch): lower tail-coverts also white mixed with green, in both sexes; as in the female (not the male) of *TR. MALABARICA*. Closed wing of male  $5\frac{1}{2}$  in.; in the other  $5\frac{3}{4}$  to 6 in.

\* The Stag of the Mauritius seems, in like manner, to be the *C. RUSA* apud S. Müller, of Java, but with antlers certainly more flexuous in the beam. The Mauritian Hare is *LEPUS NIGRICOLLIS* of S. India and Ceylon, v. *L. melanauchen*, Tem., of Java, where also it has probably been introduced. The *GALLOPERDIX SPADICEUS* of S. India (a thorough Indian type) is common in the Mauritius, and (it is said) also in Madagascar, which latter surely requires confirmation! A common Malayan Monkey (*MACACUS CYNOMOLGOS*) is said to have gone wild on the island; and perhaps one or two of the small Passerine birds may have been introduced, as *ESTRELLA ASTRILD* from S. Africa, and certainly *ACRIDOTHERES TRISTIS* from India (the latter for the purpose of keeping down the locusts).

smaller bill. In FR. PHAYREI the spurs seem generally to be  $\frac{3}{8}$  in. length : and it remains to ascertain if they ever exceed  $\frac{1}{8}$  in. in the species inhabiting China and the Mauritius. In plumage we can detect no further difference than has been mentioned ; and have never seen females of either.

The rest of Major Phayre's Peguan birds are as follow :—PALÆORNIS TORQUATUS, P. SCHISTICEPS (!), P. CYANOCEPHALUS, BUCEROS ALBIROSTRIS, HALCYON GURIAL, ALCEDO BENGALENSIS, CORACIAS AFFINIS, EURYSTOMUS ORIENTALIS, MEGALAIMA LINEATA, CHRYSOCOLAPTES SULTANEUS, TIGA INTERMEDIA, PHŒNICOPHAUS TRISTIS, HARPACTES ERYTHROCEPHALUS, DENDROCITTA RUFA, GRACULA INTERMEDIA, GARRULAX BELANGERI, PARUS FLAVOCRISTATUS, PASSER FLAVEOLUS, EMBERIZA AUREOLA, PIPASTES AGILIS, PRINIA RUFESCENS, POMATORHINUS LEUCOGASTER, TEPHRODORNIS PONTICERIANA, PETROCOSSYPHUS PANDOO, COPSYCHUS SAULARIS (*nec MINDANENSIS*), CERCOTRICHAS MACROURUS, CYORNIS RUBECULOIDES, ERYTHROSTERNA LEUCURA, PRATINCOLA CAPRATA, PERICROCOTUS SPECIOSUS, CHAPTIA GŒNA, EDOLIUS PARADISEUS (var. GRANDIS, Gould), DICRURUS LONGICAUDATUS, MYIAGRA AZUREA, PYCNONOTUS MELANOCEPHALUS, IOLE VIRESCENS, PHYLLORNIS COCHINCHINENSIS, IRENA PUELLA, ORIOULUS MELANOCEPHALUS, TURNIX OCELLATUS, HOPLOPTERUS VENTRALIS, and BUTORIDES JAVANICUS.

Also, of REPTILIA, a small Box terrapin, which heretofore has only been satisfactorily known to inhabit Java. It is the CISTUDO DENTATA, (Gray), *C. Diardii* of Dumeril and Bibron, *Emys Hasseltii*, Boie, and *Cyclemys orbicularis*, Bell : remarkable among the CISTUDINES for its flattened form and notched hind-margin of sternum.\*

E. BLYTH.

\* Capt. Berdmore has since sent a living specimen, from Schwe Gyen on the Sitang river, Pegu : colour of naked parts olive-grey, with longitudinal dull orange streaks on the neck, and a broader sincipital streak of the same. It is unusually quick in its movements, for a Tortoise ! He has also sent the curious lizard-tailed and large-headed Terrapin (PLATYSTERNON MEGACEPHALUM, Gray), heretofore only known from China ; and several living specimens of EMYD OCELLATA, Dumeril and Bibron ; and the very young of EMYDA PUNCTATA, Gray, (*Cryptopus granosus*, D. and B). EMYD OCELLATA would appear to be the commonest species in the Burmese rivers ; and its naked parts are olive-grey, the crown blackish, with a yellowish-white v-like mark over the snout, continued as a supercilium over each eye and back upon the neck ; another similar line behind the eye, and both are often more or less broken into spots. Carapax dusky, mottled with yellowish ; a great black spot surrounded with a pale *areola* upon each discoidal plate ; dorsal ridges blackish with pale border : and lower-parts wholly yellowish-white. Some are brighter-coloured than others ; and the *ocelli* become proportionally smaller as they increase in size. The carapax of our largest specimen measures 9 by  $6\frac{1}{4}$  in. ; but it probably is not nearly full grown.