

*Report of Curator, Zoological Department, for February to May Meetings, 1859.*

I have first to report on a few more gatherings from the Andamán Islands, additional to those noticed in Vol. XXVII, p. 267 *et seq.*

In the class of mammalia, inhabiting the dry land, we still know only of the human animal and the peculiar *SUS ANDAMANENSIS*; though Bats of different kinds have been observed, which as yet are undetermined; also a species of Rat, which is not of recent introduction.\* A slight notice and very rude figure of the skull of the tiny Hog from the *Little Andamán* are given in Jameson's *Edinburgh New Philosophical Journal*, Vol. XVI. (1826-7);† and to the imperfect description of this animal in my last report, it may be added that the tail is reduced to a mere tubercle (as in Mr. Hodgson's *PORCULA SALVANIA*). The animal is well clad with somewhat shaggy black hair.

1. Capt. Neblett, of the Steamer 'Sydney,' has presented us with some bones of a nearly half-grown Duyong (*HALICORE*), found in an Andamánese hut. They consist of a lower jaw, the two scapulæ, and four ribs; all daubed over in the usual way with stripes of the red pigment with which the islanders besmear their own persons. This is the first instance we know of the Duyong inhabiting the Bay of Bengal; though common in the Straits of Malacca and in the Gulf of Calpentyn in Ceylon, and also found off the Malabar coast, where known to Europeans as a Seal! The lower jaw from the Andamáns exhibits the deciduary præmolars worn by attrition to a flat surface, while the first pair of true molars had not yet pierced the gums, but were about to do so.

In the bird class, the Parrots have not yet been determined. Living specimens of *HÆMATORNIS CHEELA* and of *BLAGRUS LEUCOGASTER* have

\* A Mouse has since been taken from the stomach of a *TRIGONOCEPHALUS* from Port Blair. It appears to be the ordinary house Mouse of India (*MUS MANEI*), and is therefore doubtless an importation. I have also information of a small quadruped from the same locality, which is probably a *TUPAIA*.

† All that is stated, however, occurs in the description of an Andamánese hut:—  
"Ranged in a row round the walls, were the smoked skulls of a diminutive Hog; the canine teeth shorter than in the other species of *SUS* in eastern countries, the jaws fastened together by strips of rattan." I have only seen the tusks of the lower jaw, and they are of full proportionate size. In the larger and older of two lower jaws, the tusks protrude more than  $1\frac{1}{2}$  in. from the bone, measuring anteriorly; in the other they are loose, had protruded more than  $1\frac{1}{4}$  in., as shewn by the colouring, and drawn from the socket they measure  $4\frac{1}{2}$  in. round the curve outside, and 3 in. in a line from base to *ground* tip externally.



been brought from Port Blair; and it appears that the latter species is common, as might be expected. This fine Sea-eagle preys chiefly on Sea-snakes; as the *CIRCAËTUS GALLICUS* does upon Land-snakes, whereas its near ally, the *HÆMATORNIS CHEELA*, subsists almost wholly on Frogs.

2. We are further indebted to our Secretary, Mr. Atkinson, for a few sundries from Port Blair, including perhaps a new species of black-naped Oriole, additional to the five noticed in Vol. XXIV. p. 477; but it requires to be compared with *O. CORONATUS*, Swainson (*O. hippocrepis*, Wagler), of the eastern archipelago, of which we do not possess a specimen. From *O. MACROURUS* of the neighbouring Nicobar Islands, to the southward, it is very conspicuously distinct. Some years ago a Javanese specimen of *O. CORONATUS* was lent to me, from which I took the following note. "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." The Andamán Oriole has no yellow at all on the secondaries and tertiaries, beyond a small yellow spot tipping the latter, and a slight *terminal* yellowish-white margin to the former. Colour of male brilliant yellow, with the nape-mark, wings beyond the coverts of the secondaries, and a portion of the tail, deep black. The female has a duskyish tinge on the mantle, and the exposed portion of the black part of the wings is tinged with green, as also the middle tail-feathers for the greater portion of their length. Middle tail-feathers in both sexes slightly tipped, and the rest successively more so to the outermost, with bright yellow. Bill carneous and legs plumbeous, as usual in the genus. Wing  $5\frac{1}{4}$  in; tail  $9\frac{3}{4}$  in.; bill to gape  $1\frac{3}{8}$  in. *N. B.* In colouring, this species resembles *O. MACROURUS* of the neighbouring group of the Nicobars, but it is smaller with narrower nape-mark and proportionally shorter tail, which last is commonly 5 in. in *O. MACROURUS*.

*EDOLIUS MALAYENSIS*, nobis. The *Bhimráj* of the Andamáns, as was remarked on a former occasion, is identical with the Malayan species, with rudimentary frontal crest. I had then only a young bird to judge from, but have now an adult, with well developed racket-tail, though perhaps a female. It agrees with some specimens from Pinang, having the frontal crest so rudimentary as to be scarcely noticeable unless specially looked for, and therefore accords better than any other with Sonnerat's figure of his *Grand Gobemouche de la côte de Malabar* (so nearly crestless a race being, however, unknown on the western side of the Bay of Bengal). Some Pinang specimens, however (perhaps males), have a slight frontal crest, measuring from  $\frac{3}{8}$  to  $\frac{1}{2}$  in. long, when the feathers are pulled straight, and which is therefore conspicuously noticeable, though small. It is probably longest



in particularly fine old males: yet in one specimen from Pinang with unusually developed racket-tail, the crest is small and inconspicuous. The length of wing, in Pinang specimens, seems rarely to exceed 6 in.: in the example referred to, with particularly fine tail, it is just 6 in. In our adult Andamán specimen, with scarcely a trace of frontal crest, the closed wing measures  $6\frac{1}{2}$  in., and 6 in. in our young Andamán specimen. In three adult examples now brought from the interior of the Tenasserim provinces by Mr. Atkinson, the length of wing varies from 6 to  $6\frac{3}{8}$  in., and the crest is moderately developed, though still rather small, some of the feathers composing it measuring  $1\frac{1}{4}$  in. We have a Tenasserim specimen, however, with the longest crest-feathers  $2\frac{1}{2}$  in. in length; wing  $6\frac{3}{4}$  in.: another from Tippera, with crest-feathers  $2\frac{3}{8}$  in., and wing  $6\frac{7}{8}$  in. But in the ordinary *Bhimráj* of Bengal, Nepal, Asám, Sylhet, and Arakan, the crest-feathers rarely exceed  $1\frac{3}{4}$  in., and are generally less; while the wing in adults is commonly from  $6\frac{1}{2}$  to nearly 7 in. It is probable that the crest is mostly larger in the male than in the female, and longest in particularly fine old males—even to the extent represented by Stephens in his continuation to Shaw's Zoology, which figure may be contrasted with that of Sonnerat.

In an example from Ceylon, the closed wing is but  $5\frac{3}{4}$  in.; and the frontal crest is little larger than in some Pinang specimens, the feathers straightening to  $\frac{5}{8}$  in.: but the bill measures only  $\frac{3}{4}$  in. from nostril to tip; whereas in the adult Andamán bird it is here a full inch, about  $\frac{7}{8}$  in. in the Pinang specimens, and commonly 1 in. in the long-crested specimens from Bengal, &c. Two examples from the peninsula of India agree exactly, so far as I can perceive, with ordinary Tenasserim specimens, which seem to have the crest rather smaller, on the average, than the birds obtained further north. The *Edolius dentirostris* and *D. orissæ* of Dr. Jerdon (*Madr. Journ.* XIII, 121,) are much in need of confirmation. After considerable study of numerous specimens from various localities, I can at present recognise two races only, as sufficiently distinguishable, being the crestless or almost crestless one from the Andamáns and Malayan peninsula, and the conspicuously crested race elsewhere. When better known, each from an adequate series of both sexes and of all ages from whatever locality, it is probable that these will be acknowledged as two species; and then follows the question of nomenclature.

The crested is the *Cuculus* (!) *paradiseus* of Linnæus, founded on the *Cuculus siamensis cristatus viridis* of Brisson, wherein both the existence of the crest and the *habitat* are indicated; *ergo* EDOLIUS PARADISEUS.

The crestless (more or less so) is the *malabaricus* as described by Latham after Sonnerat, but not as figured by Latham and by Stephens;



but the name *malabaricus* is inapplicable, as equally *rangonensis* of Gould ! Wherefore, there seems no help for it but to propose *E. MALAYENSIS* ; unless the name *retifer* of Temminck be adopted, which however refers to either.

*TEMENUCHUS ERYTHROPYGUS* ; *Sturnia erythropygia*, nobis, *passim*. Two more specimens from Port Blair, but still wanting the deep ferruginous colouring on the rump and upper tail-coverts : however, it is faintly indicated, and that intense colouring is probably peculiar to old males. There can be no doubt about the correctness of the identification.\*

*KITTACINCLA ALBIVENTRIS*, nobis. The peculiar *Sháma* of the Andamáns. Three more specimens, all males, and true to the characters described. It is as fine a songster as the Indian bird, by all accounts.

*IRENA PUELLA*, Horsfield ; *I. indica*, A. Hay. Two males and a female. The Indian race, as distinguished from the Malayan, having shorter lower tail-coverts.

*PERICROCOTUS PEREGRINUS*, (L.)

*CARPOPHAGA SYLVATICA*, Tickell, as before.

It appears that *CALÆNAS NICOBARICUS* is common ; † also ‘ Water Wag-tails’ in the cold season, no doubt *MOTACILLA LUZONIENSIS* of the neighbouring countries ; ‡ and that *edible nests* are collected in the islands, where there can be no doubt that the constructors of them, both *COLLOCALIA NIDIFICA* and *C. LINCHI*, occur. Mr. Alexander, in his notice of the Little Andamán, mentions having seen “flocks of Sand-larks, Curlews, &c.,” which may be looked for as a matter of course. We are assured that three or four kinds of Parrot occur, which is probable enough, one being the tiny *LORICULUS VERNALIS* for certain.

Of reptiles, we know that at least that one *VARANUS* exists upon them ; and Mr. Alexander remarks, of the Little Andamán, that “numerous Snakes were observed sneaking amongst the bushes. From several we had narrow escapes. Those that we succeeded in killing, were all furnished with the poisonous fangs ; and many of them bore a striking resemblance to the *Coluber prester* or Viper, but they were all spotted.” Most probably my *TRIGONOCEPHALUS CANTORI*, described from the Nicobars.§

\* Length of a fresh specimen  $7\frac{1}{4}$  in. by 12 in. ; closed wing  $4\frac{1}{8}$  in. ; tail 3 in. Bill to gape  $1\frac{1}{8}$  in. ; its colour yellow, leaden-blue at base of lower mandible. Legs ochreous-yellow ; the tarse 1 in.

† Colonel Phayre obtained this bird alive, from the Cocos islands N. of the Andamáns, several years ago.

‡ Lately received, both in summer and winter dress, from China (Amoy).

§ Since received, with a Mouse in its stomach ; also the rare *HAMADRYAS VIT-*



Mr. Atkinson has brought one Lizard in spirit, which I take to be the female of a new species of *DILOPHYRUS*, wherein the nuchal crest is very small, and the dorsal crest is reduced to a mere keel,—perhaps a sexual distinction: on each side of the occiput a small white tubercle. As we shall probably soon receive other and male examples, with developed crests, it is not desirable to describe from this first individual.

Of fishes, only a fine species of *BALISTES*, allied in form to *B. BICOLOR*, Shaw; wholly black, except a white line at base of second dorsal and another at base of anal fins, and a narrow white edge to the tail. From the Nicobars we possess *B. BICOLOR*, and another undetermined.

Among the species collected by Dr. Liebig at Port Blair should have been enumerated *SPRATTELLA FIMBRIATA*, Val.\*

Mr. Atkinson has brought a few *Crustacea* and *Radiata*; but as I have reason to expect more extensive collections shortly, I defer noticing them further, and this also from want of space on the present occasion.

In the course of a trip to the mountains of the interior, from Moulmein, Mr. Atkinson collected various specimens, the more remarkable of which I now proceed to notice. The mammalia are—

*MACACUS CARBONARIUS*, F. Cuv.; of which *M. auratus*, Is. Geoffroy, figured in the *Zoologie* of Belanger's *Voyage*, is a *pyrrhous* variety. *M. CARBONARIUS* is the common long-tailed *MACACUS* of the Burmese countries, and is nearly akin to *M. CYNOMOLOGOS*, so abundant in the Malayan peninsula and archipelago; but has no crest on vertex, and a blackish face with white eye-lids, as in the Mangabey Monkeys of Africa. It is a great devourer of *Crustacea*, which it finds during the ebb of the tide.

*TUPAIA FERRUGINEA*, var. *peguensis*. Common from the Kás'hya hills down to Mergui.

*SCIURUS BICOLOR*, Sparrman.

*SC. CHRYSONOTUS*, nobis. Remarkably fine. From the interior.

*SC. PHAYREI*, nobis, *J. A. S. XXIV*, 476. A second example of this well marked species, true to the characters described, and obtained half-way between Amherst and Moulmein.

*TATUS*, obtained at Port Blair by Capt. Eales, commanding the 'Fire Queen,' S. V.; and from Capt. Hodge, commanding the guard-ship 'Sesostris,' at Port Blair, two specimens of *DENDROPHIS PICTUS*, greener or less bronzed than usual; together with a fine example of a fish—*PTEROIS ANTENNARIUS*, some Crabs—*GRAPSUS STRIGOSUS*, and larvæ of an *ACHERONTIA*.

\* Numerous species of fishes have since been received from Capt. Hodge, which will be noticed in a future Report.



SC. ATRODORSALIS, Gray. A fine and instructive series of this variable species, wherein the hue of the under-parts varies from pale buff to dark maronne, and the black patch on the back—greatly developed in some, is entirely wanting in others. The face appears always to be reddish, the ears deep rufous, and the whiskers are conspicuously white, whereas in the last two species they are black. Tail more or less bushy, its long hair tipped either with rufous or whitish, and sometimes a distinct white tip. It would seem that the young are pale rufous-buff underneath, with no black patch on the back; and one without black upon the back has the breast pale and the sides and belly maronne, whereas another has pale under-parts throughout and a large black dorsal patch. A common species at Moulmein.

SC. BARBEI, nobis, *J. A. S.* XVI, 875.

PTEROMYS CINERACEUS, nobis: sent also by Colonel Phayre from Pegu, as formerly from Arakan; together with a SCIUROPTERA from Pegu, received formerly from Mergui, and which I considered to be SC. SAGITTA, but shall now designate SC. PHAYREI.\*

\* The 'Flying Squirrels' are among the most difficult of groups in which to define the species or perhaps local races. Eighteen specimens of PTEROMYS were exhibited at the Meeting, which are referable to six distinguishable races; and sixteen specimens of SCIUROPTERA, which are referable to seven species or distinguishable races, that are better characterized than those of PTEROMYS. The whole are continental, and there are also various races in the archipelago; besides which, we have not yet examples of all of the continental races which have been described, nor of SC. LAYARDI from Ceylon. I will endeavour to elucidate the grand series, distinguishing those of which we possess specimens by prefixing an asterisk.

\*1. PTEROMYS PETAURISTA; *Sciurus petaurista (mas)*, Pallas: *Pt. philippensis*, Gray, apud Elliot; *Pt. oral*, Tickell. Found without variation over the forests of the whole Indian peninsula and also Ceylon. Of a dark maronne; having the fur tipped with white on the head and back: feet, and greater portion of the tail, black, the latter with occasionally a white extreme tip: lower-parts white more or less pure.

\*2. PT. CINERACEUS, nobis; *Pt. petaurista*, var. *cineraceus*, nobis, *J. A. S.* XVI, 865. From the Burmese countries—Arakan, Pegu, Tenasserim. Very like the last, but the fur more uniformly white-tipped, even on the parachute-membrane; paws black; and tail generally white almost to the end, but mostly black at the extreme tip: lower-parts white, more or less pure.

3. PT. PHILIPPENSIS (verus), Gray. Founded (it may be presumed) upon Buffon's description of the *Taguan* from the Philippines, in *Hist. Nat., Supp.* III, 150.



Of birds, an undescribed Kestrel,—

TINNUNCULUS SATURATUS, nobis, n. s. Many years ago, the Society received a specimen from Yé (Tenasserim), presented by the Rev. J. Barbe,

4. PT. ELEGANS, S. Müller; by whom figured. From Java. The white-tipped fur of the back contrasting strongly with the bright rufous-bay sides, limbs, and also paws; tail more blackish to the end; head palish rufous: lower-parts much suffused with rufous.

5. PT. PUNCTATUS, Gray (*A. M. N. H.* XVIII, 211). From Malacca. "Bright bay; back ornamented with white spots [or *splashes*]. The only species of the genus that has any white on its back. Skull much smaller than in the other Asiatic species of PTEROMYS." (Gray.) I saw the specimen described, which was taken to England by Major Charlton.

\*6. PT. INORNATUS, Is. Geoffroy (*Zoologie* of Jacquemont's 'Voyage'). From the N. W. Himalaya. Darker than in Prof. Is. Geoffroy's coloured figure, with slight hoary tips to the fur, and often not any; the paws infuscated; and the tail-tip blackish: under-parts white, with mostly a rufous tinge. So far as I have seen, this and PT. CINERACEUS grow to a larger size than the others.

N. B.—This would appear to be *Pt. albiventer* apud Gray, *P. Z. S.* 1836, p. 88, and *Br. Mus. Catal.*; but not that so named in Hardwicke's Illustrations.

PT. GRISEOVENTER, Gray, *Br. Mus. Catal.*, is thus described (?): "*a.* Beneath dark grey: *b.* Beneath paler grey, back edge of the fore-legs browner than *a.*" *Habitat* not mentioned.

PT. MELANOTIS, Gray, from Java, is not described at all: but *Pt. Diardii*, Temminck, is given as a synonyme, and *Pt. nitidus*, Gray, of Hardwicke's Illustrations, as a doubtful synonyme.

PT. DIARDII, Tem., is unnoticed in Dr. S. Müller and H. Schlegel's monograph of the genus.

\*7. PT. NITIDUS Geoff.: *Sciurus petaurista*, *fœm.*, Pallas. From the Malayan peninsula, Sumatra, Java, and Borneo. Bright rufous-bay, with black paws and tail-tip: under-parts rufescent. According to Dr. Cantor, "the part of the head anterior to the ears, the cheeks, the chest, and the abdomen, are white in some individuals of either sex, one of which is figured in Hardwicke's *Illustrations of Indian Zoology*, under the denomination of *Pt. albiventer*, Gray." The same observer notices, as a doubtful variety, the PT. PUNCTATUS, Gray, having the "back very dark Indian red, with a few dashes of pure white."

\*8. PT. MAGNIFICUS, Hodgson. From the S. E. Himalaya—Nipál, Butan, Asám, and Kás'hya hills. Bay, or maronne, more or less bright, above, and copiously white-tipped: beneath white, sometimes tinged with rufous; the paws rufous in some, infuscated in others; and tail black-tipped to a variable extent.

\**Sciuropterus nobilis*, Gray; *Pt. chrysotryx*, Hodgson. From Nepál and Sikhím. Vide *J. A. S.* XVI, 866; and I adhere to the opinion there expressed that



R. C. M., which is noticed in my Catalogue of Birds (No. 69, I,) as "per-  
this is a mere variety of the last. The series of specimens in our museum demonstrates this beyond further question.

9. *PT. LEUCOGENYS*, Temminck. Japan.

These various races of large 'Flying Squirrels' with long and cylindrical tail bear the same relationship together, as do the numerous races of gigantic Squirrels which inhabit the same geographical region, and which were brought together by the late Prof. Temminck by the name *SCIURUS GIGANTEUS*.

The smaller 'Flying Squirrels' with flat and distichous tail constitute the genus *SCIUROPTERA*, F. Cuv.

\*1. *SC. CANICEPS*, Gray : *Sc. senex*, Hodgson. From Sikhim.

2. *SC. LAYARDI*, Kelaart, nobis, *J. A. S.* XX, 165. Mountains of Ceylon.

3. *SC. BABERI* (?), nobis, *J. A. S.* XVI, 866. Trans-Himalayan ?

\*4. *SC. FUSCOCAPILLA*, Jerdon, nobis, *J. A. S.* XVI, 867. Malabar. Akin to the next. (A good species since added to the museum.)

\*5. *SC. FIMBRIATA*, Gray : *Pteromys Leachii* (?), Gray. N. W. Himalaya.

\*6. *SC. ALBONIGRA*, Hodgson : *Pteromys Turnbullii*, Gray. S. E. Himalaya.

\*7. *SC. VILLOSA*, nobis, *J. A. S.* XVI, 866. Sikhim, Butan, Asamese mountains.

8. *SC. HORSFIELDII* ; *Pteromys Horsfieldii*, Waterhouse : *Pt. aurantiacus*, Wagler. Malayan peninsula.

9. *SC. GENIBARBIS*, (Horsfield.) Java, Malayan peninsula.

10. *SC. LEPIDA*, Horsfield. Java. *N. B.* This and the preceding race or species would appear to hold the same mutual relationship as *SC. VILLOSA* and *SC. ALBONIGRA* of the S. E. Himalaya.

\*11. *SC. PHAYREI*, nobis. *n. s.* : *Sc. sagitta* of Burma, *apud nos, passim*. Rangoon, Mergui. Like *SC. ALBONIGRA*, but considerably smaller, and the tail much less bushy. Length 6 to 6½ inches ; the tail (vertebræ) 5¼ in. ; hind-foot with claws 1¾ in.

\*12. *SC. SPADICEA*, nobis, *J. A. S.* XVI, 867. Size of *SC. VOLUCELLA* ; from Arakan.

13. *SC. MOMOGA*, Temminck and Schlegel. Japan.

14. *SC. VOLANS* ; *Sciurus volans*, L. : *Pteromys sibiricus*, Desmarest ; *Pt. russicus*, Tiedemann. Siberia, Lapland.

15. *SC. VOLUCELLA* ; *Sciurus volucella*, Pallas : *Mus volans*, L. ; *Sciurus acrobates*, Schreber ; *Sciuropterus americanus*, Desm. N. America.(')

16. *SC. SABRINA* ; *Sciurus sabrinus*, Shaw : *Sc. hudsonius*, Forster. N. America.

*N. B.*—The true *SC. SAGITTA* will be a small Javanese species. M. M. Temminck and Schlegel unite under this name Nos. 5, 6, 8, 9 and 10, which can be little more than guess-work. The first three of this series attain to about 2 ft. in total length : No. 12 scarcely exceeding 9 in.

(') Of this we possess a skeleton.



haps the female of a distinct race, remarkable for the great development of the black markings of its plumage." Mr. Atkinson has now brought a young female of the same race, in which the cap is fuscous, with scarcely an indication of rufous margining the feathers, the fuscous colour also predominating over the rufous upon the whole upper plumage, and on the tail the rufous bands are narrower than the black bands. The adult male is still a desideratum.

*PERICROCOTUS ELEGANS* (?), McClelland, as distinguished from *P. FLAMMEUS* of S. India and Ceylon. A female (?), of the size of *P. FLAMMEUS*, but the yellow portion of the plumage much deeper than in that species, and also much more of this colour upon the forehead, where brighter and better defined than in the female of *P. SPECIOSUS*. *P. ELEGANS* is described from Asám.

*PHYLLOSCOPUS TROCHILOIDES*, (Sundevall). Mentioned on account of the locality.

Of reptiles, *ACANTHOSAURA ARMATA*, Gray; and a beautiful Gecko from the interior:—

*NAULTINUS VARIEGATUS*, nobis, n. s. Unguinal and penultimate phalanges of toes long and compressed. Body and sides uniformly studded with large tubercles, which gradually disappear on the tail; the lower-parts covered with large flat scales, bounded by a prominent ridge on each flank: series of femoral pores extending quite across, and behind these, anterior to the vent, four scales larger than the rest: a few small scales posterior to the vent, followed by a series of broad subcaudal plates. Scales upon head and throat minute, those on the face anterior to the eyes larger. Eyes large with vertical pupils. Colour grey, beautifully spotted and marbled with black, set off with subdued white. Lower-parts whitish, freckled on the tail with black, and gradually more of this to the extremity, the terminal third being almost wholly blackish; above, the tail is irregularly banded. A broad dark streak bordered with whitish behind each eye, and continued irregularly round the occiput. On the back the markings appear as irregular bands, paler internally and blackish on their zigzag borders, most difficult to describe intelligibly; the head above is spotted and not banded. Entire length  $6\frac{5}{8}$  in., of which the tail measures  $3\frac{5}{8}$  in.\*

A few fishes will be noticed subsequently; together with Major Berdmore's specimens and others.

\* Since referring the above species to *NAULTINUS*, Gray, I have seen his figure of *N. PACIFICUS* (*Platydictylus Duvaucelii*, D. et B.), of new Zealand, in the Zoology of the Voyage of H. M. S. 'Erebus,' and perceive no reason to alter the arrangement.



3. R. Swinhoe, Esq., of Amoy, has favored us with a collection of bird-skins from Amoy and Formosa, supplying fine examples of several species which have hitherto been poorly represented in the museum.

Among these may be noticed *GRACUPICA NIGRICOLLIS* (*Pastor temporalis*, Tem.), and *TEMENUCHUS SINENSIS* (*Oriolus sinensis*, as distinguished from *chinensis*, Gmelin); and there are also fine specimens of *S. SERICEUS* and of *ACRIDOTHERES CRISTATELLUS*.

Also several species more or less common in Lower Bengal, or hitherto known only or chiefly from the Himalaya; as *HALCYON SMYRNENSIS*, *CERYLE RUDIS*, *ALCEDO BENGALENSIS*, *YUNX TORQUILLA*, *CUCULUS TENUIROSTRIS*, *HIRUNDO RUSTICA* (*gutturalis*), *H. DAURICA*, *DICRURUS MACROCERCUS*, *LANIUS LUCIONENSIS* (*verus*), ; *COPSYCHUS SAULARIS* (fœm.), *IANTHIA RUFILATUS* (fœm.), *PHYLLOSCOPUS FUSCATUS*, *REGULOIDES PROREGULUS*, *R. CHLORONOTUS*, *HEMICHELIDON LATIROSTRIS*, *MOTACILLA LUZONIENSIS* (summer and winter plumage), *CORYDALLA RICHARDI*, *PIPASTES AGILIS*, and some common small waders, as *ACTITIS GLAREOLA* and *A. HYPOLEUCOS*, and *TRINGA SUBARQUATA*.

Of species new to the museum, a fine Bat (undetermined), the handsome Grosbeak—*EOPHONA MELANURA*, (Gm.), and several apparently new species which Mr. Swinhoe will name and describe.

4. J. H. Gurney, Esq., M. P., of Catton Hall, Norwich. Skeletons of *SULA BASSANA* and *GRACULUS CARBO*; and some skins of British birds of species either previously wanting in our museum, or insufficiently represented, and one of *MACRORHAMPHUS GRISEUS* from N. America for comparison with *M. SEMIPALMATUS*, nobis (*J. A. S. XVII*, 252), of India.

The last named species, of rare occurrence unless on the sea-coasts of this country, was not admitted as distinct by the late Prince of Canino, who, had he seen a specimen, would unquestionably have elevated it to the rank of a separate named division. It is a much larger bird than *M. GRISEUS*, with a proportionally longer and still more thoroughly Snipe-like bill, while the semi-palmation of the toes at once distinguishes it. The plumage, too, is very different, and in our Indian bird considerably resembles that of most Ruffs in winter dress: the rump is uniformly coloured with the back; whereas the other has a pure white rump, becoming gradually more mottled to the upper tail-coverts; and the Indian bird is almost wholly white under the wings, where the other has every feather mottled with dusky. The diversity of the two species is accordingly about as obvious as it well can be, while the difference of form is much greater than in very many divisions separated and named by the Prince of Canino. Concurring in the opinion that it should be thus separated, I propose for it the name *PSEUDOSCOLOPAX SEMIPALMATUS*.



A fine adult example of a British Peregrine Falcon (*FALCO PEREGRINUS verus*) quite bears out the opinion of the Prince of Canino, Mr. Gould, and others, that the *Bauri* Falcon of India should be recognised as distinct, by the name *F. CALIDUS*, Latham. A glance suffices to distinguish them. The European Peregrine has more colour on the lower-parts, which, however, do not approach in depth of hue those of the *Sháhin* Falcon (*F. PEREGRINATOR*) of India; and it differs both from the *Bauri* and *Sháhin* by having the lower-parts, thighs, and beneath the wings, much more strongly barred, the breast being also much more conspicuously spotted with large well developed 'drops.' In the *Bauri* the breast is uniformly much whiter, and the spots are almost confined to a narrow black mark on the stem of each feather, even this disappearing on a large proportion of the feathers in some specimens. The *Bauri* has likewise much more and brighter yellow upon the cere and base of bill, than has the European Peregrine. In size and structure they agree; but admitting the *Bauri* and *Sháhin* to be distinct species, as all must admit that know them (and these inhabiting the same country—albeit the former keeps more to the plains and the latter to the hills), there is no alternative but to consider the European Peregrine as also equally distinct, and likewise the Australian *FR. MACROPUS*, Swainson (*v. melanogenys*, Gould).

Three specimens of the European *RALLUS AQUATICUS* present the usual distinctions from *R. INDICUS*, nobis, *J. A. S. XVIII*, 820: the Indian Water Rail being larger, with conspicuously thicker bill and legs, the latter obviously of a different colour from those of *R. AQUATICUS*. The ash-colour of the lower-parts is invariably much less pure, being always greatly mingled with brown in *R. INDICUS*. Again, there is a well marked dark streak below the eye of *R. INDICUS*, continued back over the ear-coverts, which does not occur in *R. AQUATICUS*. Length of closed wing, in three specimens of *INDICUS*, exceeding 5 in.; in the three of *AQUATICUS*, under  $4\frac{1}{2}$  in.; vertical depth of bill at base scarcely exceeding  $\frac{1}{4}$  in. in *R. AQUATICUS*, about  $\frac{1}{2}$  in. (and sometimes even more) in *R. INDICUS*.\*

5. Major W. S. Sherwill. Some minute fishes from the Mutla, taken in mid-stream during the height of the tide. Among them I recognise a single individual of a second species of the genus *BOGODA*, Bleeker,

\* The Corn-crake or 'Land-rail' (*ORTYGOMETRA CREX*) is very rare in India, though common in Afghanistan, and Afghan specimens are undistinguishable from British. It should occur therefore about Pesháwur. The well known sportsman PURDY mentions having killed a Land-rail in Oudh, remarking that it was the only one he ever saw in India (*Beng. Sp. Mag. XIX*, 270); and this is the sole instance I know of a Land-rail having been observed in this country.



and several of a remarkable new generic form akin to the ZEUS or 'John Dory.' These are described, for want of space here, in a paper on new species of fishes.

6. Babu Rajendra Mállika. The carcass of a male Ostrich, and of some other animals that had died in his menagerie.\*

7. W. T. Blanford, Esq., of the Geological Survey. Skeletons of GERONTICUS PAPILLOSUS and ANASTOMUS OSCITANS.

8. Mrs. J. H. Ballin. A bottle of Snakes.

9. Mr. E. C. T. Tate, of the Ganges Company's Steamer 'Mirzapore.' A fine example of SQUILLA RAPIDIA.

10. Mr. J. Floyd, Alipore. A four-legged chick, of very singular formation, which died of paralysis when a month old.

11. Dr. Mouat. Some skulls of SUS ANDAMANENSIS, nobis; and the skull of a cow Buffalo of the wide-horned type, the horns of which attain occasionally so enormous a length. (*Vide Proc. Zool. Soc.* 1855, p. 17.) A detached pair in the British Museum are each 6½ ft. round the curvature.

12. H. H. The Máharája of Burdwán. A remarkable bezoar taken from the stomach of a Giraffe. It is shaped like a short lemon, 3 in. in greatest length, encrusted with a soft calcareous substance having a smooth vermiculated surface, beneath which is a layer of the agglutinated hairs of the animal; and the same alternation occurs apparently in successive concentric layers. Among the stuffed mammalia presented by the Máharája, as noticed in Vol. XXVII, p. 273 *et. seq.*, we have since detected specimens of HYLOBATES AGILIS and GAZELLA DORCAS (*verus*).†

13. Capt. Jethro Fairweather. A fine collection of corals from Singapore; and the skull of a DELPHINUS from the Bay of Bengal.

14. Major R. C. Tytler, of the late 38th N. I. Skull of a DELPHINUS (*minus* the lower jaw), procured westward of the Cape of Good Hope: also the skull of a Camel.

\* It may be remarked that there are two very distinct types of Ostrich-eggs. One is the ordinary egg, with numerous very conspicuous pores on the surface of the shell. The other has no trace of these pores, is generally smaller, and has a smooth and highly polished surface. I have heard it confidently stated, that the latter only are found in southern Africa, while both sorts are brought from the northern portion of that continent. Are there, as the Prince of Canino suspected, two species of Ostrich? And does the smooth-shelled egg appertain to the race of Mesopotamia in the days of Xenophon, that yet lingers in the Syrian desert, and may still occur plentifully in the proximate part of Africa?

† I now recognise the Egyptian Gazelle as G. DORCAS; the Arabian (frequently brought to Calcutta from Aden) as G. CORA; and the Indian as G. BENNETTII.



15. The Rev. H. Baker, Junr., of Mundakyum, Alipi, Southern Malabar. A donation of the following specimens from that vicinity.

### MAMMALIA.

*PRESBYTIS CUCULLATUS*; *Semnopithecus cucullatus*, Is. Geoffroy (badly figured in the *Atlas* to Belanger's *Voyage*): *S. jubatus*, Wagner (in Schreber's *Supplement*, a much better figure): *S. Johnii* apud Martin. The great black Monkey of the Nilgiris and Malabar ghâts, which has been much confounded with *PR. JOHNII* (verus), also of the Malabar ghâts, and to which the following synonyms apply:—*Simia Johnii*, Fischer, —*Semnopithecus hypoleucos*, nobis, *J. A. S. X*, 839,—and *S. Dussumieri*, Is. Geoffroy. The latter species, or true *JOHNII*, is described as a variety of the *JOHNII* by Mr. Martin, who erroneously refers the great black species of the Nilgiris and Malabar to the same. "The cry of *woo-woo*," remarks Mr. Baker, "heard in the Malabar jungles, was supposed by Mr. Ogilby to intimate the presence of some Gibbon (*Hylobates*); but it is simply the call of the *PR. CUCULLATUS*. The Lion Monkey (true *SILENUS*)," he adds, "is found up to Goa and all through the hills, but only in the lonely dense forests; the call of the male is precisely the 'cooyeh' of a native who has lost his way and is shouting for help."\*

*LORIS GRACILIS*, (Geoffroy). Imperfect flat skin.

*RHINOLOPHUS AFFINIS* (?), Horsfield (*vide J. A. S. XXI*, 346); a dark-coloured specimen; and *NYCTICEJUS TEMMINCKII*, also dark-coloured—as in fact are most of the skins of mammalia from Malabar and Travancore.

Flat skins also of *VIVERRICULA MALACCENSIS*, *HERPESTES FUSCUS*, *H. GRISEUS*, *FELIS CELIDOGASTER* (*v. viverrina*, &c.), *F. BENGALENSIS*, and *F. CHAUS*; and a skull of *LUTRA NAIR*, undistinguishable from the common Gangetic Otter referred to *L. sinensis*, Gray, *v. tarayensis*, Hodgson.

Of *FELIS CELIDOGASTER*, Mr. Baker remarks—"This wild Cat grows very large and often kills *pariá* Dogs, and I have known instances of slave children (infants) being taken from the huts. I scarcely believed the fact, till a very large one was traced up after badly injuring a child from which it was beaten off, and in the act of killing a young calf. *F. CHAUS* is very common." In Bengal the *F. CELIDOGASTER* is mainly a

\* In a subsequent letter, Mr. Baker writes—the *PR. CUCULLATUS* "is found in all the Travancore and Cochin woods, also the Nilgiris and Pulneys; but the *Vella Munthee*, the other *PRESBYTIS* of S. India, replaces it in the plains of Malabar and Coimbatore, and is called Hunumán by the Hindus here, though they also reverence the Toque, *MACACUS RADIATUS*."



fishing Cat; and its habits were erroneously assigned by Buchanan Hamilton to *F. BENGALENSIS*, for which he mistook the species. A newly caught male, however, in my possession, broke through the partition which separated him from a tame Leopardess considerably larger than himself, and killed her during the night. Of *F. CELIDOGASTER*, I have seen several adults quite tame and gentle, and suffered even to range loose about a room; but I never knew either *F. BENGALENSIS* or *F. CHAUS* to be tameable in the slightest degree, however early in life the attempt had been made. A propensity for dabbling and seeking their prey in water is manifested by the kittens of *F. CELIDOGASTER* at a very early age.

“On the Nilgiris,” remarks Mr. Baker, “I saw two distinct Otters, one the large brown *NAIR*, and the second not half so large, almost black on the back and white underneath, and said to be common in the Pykarra river. I could not procure a specimen.” Probably one of the *AONYX* group of Otters. “The hill people mention also some creature which lives in holes in the banks of streams in the mountains, with a flat tail; some describe it as a smaller Otter, others as a Rat, and as large as a small terrier. They dive in the water, and are said to live on Crabs and Worms.”\*

*SOREX SERPENTARIUS*, Is. Geoffroy. A species which appears to be this, but of a much paler and more delicate grey colour than I have before seen, with hardly a trace of the rufous tips to the fur, is sent as the ordinary ‘Musk Rat’ of Malabar. The specimen is from Tinnevely. “It is not common,” remarks Mr. Baker, “on the Malabar coast, but very much so on the other side; the specimen has lost all smell now [by no means], but is perfectly fœtid when alive.” As compared with the common *S. CÆRULESCENS*, the present species is much smaller, with the limbs only half as large in proportion, and a much more slender tail; the teeth are also much smaller, and the superior *quasi*-incisors much less hooked. *S. HETERODON*, nobis, from the S. E. Himalaya, is nearly affined, but the teeth are considerably larger in proportion and are of a deep buff-yellow colour, whereas in *S. SERPENTARIUS* they are pure white. *S. HETERODON* appears also (on present evidence) to be rather a smaller species, with

\* Mr. Baker since writes—“The small Otter, of which I got a good view in the Ootacamund museum, is not half the size of the other, and is black on the back with a white belly. This must be the animal I told you the natives spoke of in the hill streams.” Seemingly an undescribed species.

Again, he since started a pair of the “small Nilgiri Otter” in the western ghâts; but the eagerness of his companions seems to have occasioned their escape.



proportionately stouter limbs; but I doubt if I have seen a full grown specimen.

S. (?) *VIRIDESCENS*, nobis, *n. s.* A flat skin, tail-less, and with only one hind-foot attached, but nevertheless recognisable as certainly distinct from *S. SONNERATII*, not only by its colouring and quality of fur, but by having the hind-foot to heel  $1\frac{1}{16}$  in. long, whereas that of *SONNERATII* is barely  $\frac{13}{16}$  in. Length to base of tail about  $5\frac{1}{2}$  in. Colour very dark; fuliginous on the face to beyond the ears; and the upper-parts slightly, the lower very conspicuously, tipped with yellowish, which imparts a dingy greenish aspect, whence the name. Fur unusually short and close, approximating the velvety character of that of the Mole. Perhaps a new genus of *Soricidæ*. Mr. Baker remarks that this is "the common species of Southern Malabar, the bite of which the natives dread as poisonous.\*

\* Major Tytler has permitted me to examine four species of *SOREX*, more or less well preserved in spirit, from his collection.

1. *S. SOCCATUS*, Hodgson, nobis, *J. A. S.* XXIV, 30, and *Ann. Mag. N. H.*, 2nd series, XVII, 17. From the Másurí hills. Length of head and body 5 in.; of tail 3 in.; and hind-foot to heel  $\frac{7}{8}$  in. This is larger than hitherto recorded; but I do not hesitate in identifying the species.

2. *S.* ———? Length of head and body 2 in., of tail  $1\frac{7}{8}$  in.; hind-foot to heel  $\frac{7}{8}$  in. Colour slaty-brown throughout, a little canescent below. The *quasi-incisive* teeth particularly large and strong. In bad condition. Másurí.

3. *S.* ———? One of the minute species, from the same locality as *S. MICRONYX*, nobis; but of a much darker and more fuscous brown colour above, dingy canescent below, and the tail longer and more slender, containing 17 or 18 vertebræ: ears smaller and thinner than in *S. MICRONYX*; and the *quasi-incisors* larger. Length of head and body  $1\frac{1}{2}$  in.; tail  $1\frac{5}{16}$  in.; hind-foot to heel nearly  $\frac{3}{8}$  in. Másurí.

4. *S. TYTLERI*, nobis, *n. s.* A remarkable species from the Deyra doon, of a light rufescent sandy-brown colour, unusually well clad, even on the feet and tail, the last being densely covered with a shortish fur, having numerous long hairs intermixed. Fur of the body dusky for the basal two-thirds or more, and tipped with the hue described; the upper-parts being more rufescent, the lower slightly paler: form unusually robust, the basal portion of the tail exceedingly thick. The larger of two specimens, a female, measures—head and body  $4\frac{1}{2}$  in., the tail  $2\frac{3}{4}$  in. Hind-foot to heel  $\frac{7}{8}$  in. I do not think it full-grown, though Major Tytler has not seen any of larger size.

The following new species of typical *SOREX* is from China (Amoy).

*S. SWINHOEI*, nobis. Of an uniform duskyish mouse-colour, tinged below with cinereous; the ear-conch unusually large; and the fur close and velvety, or Mole-like. Length of head and body  $3\frac{3}{4}$  in., of tail 2 in.: hind-foot  $\frac{3}{4}$  in. Presented to the museum by R. Swinhoe, Esq., of H. M. Consulate, Amoy.



Some time ago, Mr. Baker asserted in a communication to a sporting periodical his belief that a real Mole existed in his neighbourhood !\* He now writes :—" I have since had three specimens of the Mole brought me, but all too far gone for preservation ; they were perfectly black with white belly. Moles they certainly were." It is unfortunate that the skulls were not preserved, or even the entire skeletons in spirit ; but I trust ere long to receive examples from Mr. Baker, as a *TALPA* from S. India would be a very unexpected discovery ; though, as stated in the sequel, we possess the *T. LEUCURA*, nobis, from the hilly region bordering on the valley of the Sitang river in British Burma, where co-existing with a *TUPAIA* and a *HYLOMYS* !†

*PTEROMYS PETAURISTA*, (Pallas) ; and *SCIUROPTERA FUSCOCAPILLA*, Jerdon, nobis, *J. A. S.* XVI, 867. " The common Flying-squirrel [*i. e.* the *Pteromys*] grows much larger than the specimen sent, and they are perfect plagues in cocoa-nut gardens. The brown ones are mother and young, and were taken from a hollow tree ; they lived some days, but bit those attempting to feed them so savagely, that they were killed, to my great regret." The latter species has hitherto been only known from the description cited, of a little more than half-grown specimen in rather abraded *pelage*, and the condition of that specimen induced the imposition of a not very appropriate name. Unfortunately, the adult now sent is tail-less, though otherwise in good order ; and the tail of the young corresponds with that described formerly. The species most nearly resembles the *Sc. FIMBRIATA*, Gray, of the Simla and Másuri hills, but has much smaller ears, and the fringe of long hair bordering the hind-foot (from which *Sc. FIMBRIATA* takes its name) does not exist in the present animal. Fur very dense and soft, that of the upper-parts dusky-ash for the basal two-thirds, the rest a rich brown with black tips : towards the tail it inclines to be woolly ; on the crown it is more fuscous, having whiter tips ; and the parachute-membrane is mostly blackish above, with a pale edge : lower-parts

\* " Going through the hills, I often come upon a small black velvet-coated creature, dead, with the head bitten off. The paws are precisely like those of the English Mole, with a similar tail ; the whole a finger's length and about an inch thick. It would be curious to know what kills this animal and whether it be a true Mole, as I think it."

† In a subsequent letter, Mr. Baker remarks—" With the assistance of the hill-people we contrived all kinds of springes, trap-falls, &c., in order to catch the smaller animals ; but we could not manage a common Mole-catcher's trap, and I was fairly beaten by a *digger* whose runs reminded me of those of the Mole at home. He seemed to beat us by his *mining*, perhaps however by the numerous ramifications of his burrow."



rufescent-whitish, inclining to pale ferruginous round the border: feet light brown: moustaches long and black. The young is essentially similar, with tail indistinctly distichous, reaching (*vertebræ*) when reflected to between the ears; brown above, black below medially to near its base, with a slight albescent tip. Length of adult female, to base of tail, 10 in.; of hind-foot (with claws) 2 in.; of ear-conch (posteriorly)  $\frac{1}{2}$  in.: in front of and behind the ears are numerous long fine dusky hairs.

“The Flying-squirrels,” remarks Mr. Baker, “being nocturnal animals, are difficult to procure, except by watching under fruit-trees in moonlight-nights, or, when a forest is cut down, by observing the hollow trunks and securing their tenants. The noise made by these creatures at night in the depths of the old jungles, is sometimes alarming to a stranger to it.”\*

SCIURUS MAXIMUS (?), Schreber, apud Horsfield; but certainly not the *Bombay Squirrel* of Pennant, which seems rather to be *Sc. ELPHINSTONEI*, Sykes; while the corresponding animal of Central India, so abundantly brought alive to Calcutta, is intermediate, and is always black on the upper half of the fore-limbs, but with never any black upon the croup or hind-limbs. The Southern Malabar specimens sent by Mr. Baker have the entire shoulders and upper half of the fore-limbs, and also the entire croup and haunch, black, advancing medially so as almost or quite to meet the black on the shoulders. Of hundreds of the large Squirrels from Central India, I have observed no variation worthy of remark. But these gigantic Squirrels are equally puzzling with the great Flying-squirrels (*PTEROMYS*).

The stuffed skin and skeleton of one in the Calcutta Medical College appears to be of an undescribed race:—

*Sc. ALBIPES*, nobis, *n. s.* Like *Sc. MACROURUS*, Pennant, but of an uniform dull brown colour above and on the outside of the limbs down to the feet, the fur very obscurely grizzled, except with whitish on the anterior half of the head. Paws whitish, with black hairs intermixed upon the toes. Lower-parts uniformly white, abruptly defined. Ears blackish externally, with no pencil-tufts. Tail dusky-brown, with a dull

\* I extract the following notice from some ‘Notes on Shooting in Kashmir,’ descriptive of the haunts of some species either of *PTEROMYS* or *SCIUROPTERA*,—probably the former, and the particular species *Pt. INORNATUS*, Is. Geoff. “There are numbers of Flying-squirrels to be got in the forests about Wurdwán; they live in the tops of the dead fir-trees, where they make a round hole in the bark and hollow out a nest for themselves inside. On scraping with a stick at the bottom of a tree, the animal pops out its head like an Owl,” and is then easily shot. *Indian Sporting Review*, *n. s.* I, 35.



white mesial line below. In other respects like *Sc. MACROURUS* of the southern parts of India and Ceylon. However the latter may vary, the fore-limbs from the elbow are invariably white, and also a corresponding portion of the hind-limbs; the crown is blackish, with white muzzle and white occipital patch; and there is a great admixture of white on the tail, either merely tipping the hairs more or less, or rarely almost the whole tail is white or yellowish-white. There is commonly also much white grizzling the sides of the body. From the dark limbs more especially, I take that now described to be of a particular race, equivalent to many others that are named; but the *habitat* remains to be ascertained.

Fam. *Myoxidæ*, Waterhouse.

*PLATACANTHOMYS*, nobis, *n. g.* A most remarkable new genus, having essentially the dentition, form of skull, and also the hirsute tail of a Dormouse (*MYOXUS*, *GRAPHIURUS*), but the upper-parts are densely covered with sharp flat spines, mixed with an exceedingly delicate, thin, and somewhat frizzled under-coat; with spines also on the lower-parts, but these much smaller and finer (more resembling those on the upper-parts of *MUS PLATYTHRIX*), and the soft under-coat there predominating; with no spines on the head and throat, limbs, and hind-portion of the abdomen, but the hair on the forehead and occiput full and tufty, each hair being flattened and the series passing gradually backward into spines. The skull could not be taken out without injury to our only specimen, but on the skin being relaxed and reversed, all doubt was completely removed respecting the affinity of this curious animal. The grinders, however, are only three in number, above and below, of equal size, excepting that the last above is one-third smaller than the rest; each is surrounded with enamel, with three or four transverse folds of the same, comparable to those of the grinders of an Asiatic Elephant, only simple and contiguous or very nearly so. The descending angle of the lower jaw quite resembles that of *SCIURUS*; but the coronoid process is obtuse. From what little remains of the skull, it would seem to resemble very nearly that of *GRAPHIURUS* (vide Waterhouse in *Mag. Nat. Hist.*, *n. s.*, III. 1839, p. 185), but the nasal bones do not contract posteriorly, and the inter-orbital space is also less contracted. Ant-orbital foramen as in *MYOXUS*, but the maxillary process which forms its outer wall is less than half as broad as in *MYOXUS*, or more as in *GRAPHIURUS*. Rodential tusks quite similar to those of *MYOXUS GLIS*. Comparing the feet with those of the latter animal, the structure is seen to resemble, except that in the new genus, the hallux is less developed and is nailless. The tail, too, is less hirsute on its basal third, the hairs becoming gradually longer from the base to the middle and being of equal length for the remainder; they are thinner



and coarser than in *MYOXUS*, straight, and arranged distichously, so that the hairy tail is flat as in *SCIUROPTERA*, and its lower surface is equally well clad with the upper. The whiskers are very long, some of them reaching to the middle of the body; and the soft frizzled fur of the lower-parts resembles that on the under-parts of *MYOXUS GLIS*, only mingled (except towards the throat and vent) with rudimentary spines. I can detect only two pairs of (abdominal) mammæ.

*PL. LASIURUS*, nobis, *n. s.* Size nearly that of *MYOXUS GLIS*; but the head smaller and shorter: a female measuring 6 in. or nearly so to base of tail, the tail (vertebræ)  $3\frac{1}{2}$  in., or to end of hair  $1\frac{1}{2}$  in. more: ear-conch (posteriorly)  $\frac{1}{2}$  in., ovoid, and all but naked: hind-foot to heel 1 in.: longest whiskers  $2\frac{1}{2}$  in., becoming exceedingly fine towards the extremity. General colour above (that of the tips of the spines) a somewhat light rufescent-brown, similar to that of the spines—as distinguished from the quills—of various Porcupines, only less intense; the thin slightly frizzled under-fur being paler. The spines are  $\frac{5}{8}$  in. long, like stiffish thin laminæ of *baleen* or ‘whale-bone;’ they gradually taper to a sharp point from the middle, and abruptly at the extreme base or point of attachment; being white, excepting at the tips which constitute the surface. On the forehead and crown, where the hair is very full (as before described), the colour is more rufescent than otherwise; whiskers chiefly black; and the lower-parts are dull or subdued white. The hairs on the tail are much darker than the body-colour, and may be described as infuscated, except at the tip of the tail where they are dull white throughout their length, forming a conspicuous pale tail-tip.

“I was ignorant of the existence of this animal,” remarks Mr. Baker, “till about a year ago, when I found it in a range of hills about 3000 ft. high. It lives in the clefts of the rocks and hollow trees, is said to hoard ears of grain and roots, seldom comes into the native huts, and in that particular neighbourhood the hill-men tell me they are very numerous. I know they are to be found in the rocky mountains of Travancore, but I never met with them in the plains. I have some hundreds of these hill people baptized Christians, and shall have no difficulty in procuring you specimens, including one preserved in spirit.”\*

\* In a letter received as the above was going to press, Mr. Baker has favored us with a notice of the habits of this species, which helps to confirm the propriety of its allocation among the Dormice. He remarks—“I have been spending the last three weeks in the ghâts, and among other things had a great hunt for the new spiny Dormice. They are most abundant, I find, in the elevated vales and ravines, living *only* in the magnificent old trees there found, in which



Of *Muridæ* two species are sent. A flat skin of the common *Mus FLAVESCENS*, Gray; and two ditto, sent as the 'Black Rat,' but not affined to *M. RATTUS*, L.: so far as can be judged, they resemble *M. INDICUS* in size and proportions, including length of tail; but the coat is different both in texture and colouring. In *M. INDICUS* the *pelage* is coarse and harsh, of an ordinary rat-brown colour, and quite devoid of gloss. In the Malabar animal sent, the *pelage* is soft and glossy, and very dark in colour—almost black on the face. On the back the hairs are ashy-black with slight ruddy-brown tips; on the sides and under-parts those tips are more extended and yellowish. Whiskers black. Perhaps only a dark southern variety of *M. INDICUS*.\*

they hollow out little cavities filling them with leaves and moss. The hill-people called them the 'Pepper Rat,' from their destroying large quantities of ripe pepper (*Piper nigrum*). Angely and jack fruit (*Artocarpus incisa* and *integrifolia*) are much subject to their ravages. Large numbers of the *Shunda* palm [*Borassus*?] are found in the hills and *toddy* is collected from them: these Dormice eat through the covering of the pot as suspended, and enjoy themselves. Two were brought to me in the pots half-drowned. I procured in one morning sixteen specimens. The method employed in obtaining them was to tie long bamboos (with their little branches left on them to climb by) to the trees, and when the hole was reached the man cut the entrance large enough to admit his hand, and took out the nest with the animals rolled up in it, put the whole into a bag made of bark and brought it down. They actually reached the bottom sometimes without being disturbed; it was very wet cold weather, and they may have been somewhat torpid; but I started a large brown Rat at the foot of one of the trees, which ran up the stem into a hole, and four Dormice were out in a minute from it, apparently in terror of their larger friend. There were no traces of any hoarding in any of the holes, but the soft bark of the trees was a good deal gnawed in places. I had two of these Dormice alive for some time, but as they bit and gnawed at everything intended to keep them in durance, I was obliged to kill both. I noticed that when their tails were elevated the hairs were perfectly erect like a bottle-brush. I prepared you twelve skins with the skull in each of them complete, and two complete skeletons; but the latter were lost with the box containing them in crossing a stream, the cooly being carried off his legs. I hope before long to replace this loss. The skins I will send you shortly by banghy."

\* Mr. Baker since writes—"This species replaces on the hills the *Mus providens* or *indicus* of Mr. Elliot (I think), for that is very common on the plains but is not found in the hills, though the habits of both are precisely as described by Mr. Elliot."



Of *Leporidae*, Mr. Baker asserts that the *LEPUS RUFICAUDATUS*, in addition to *L. NIGRICOLLIS*, inhabits his neighbourhood; also the true Hog Deer (*CERVUS PORCINUS*), of which Dr. Kelaart presented a living male from Ceylon, where known as the 'Paddy-field Deer' (his *C. oryzae*).\*

ELEPHAS. "Section of a process taken from the head of a Malabar wild Elephant having perfect tusks." A remarkable concretion of ivory, taken probably from the tusk-socket, 4 in. long by 2 in. across where widest.

KEMAS HYLOCRIUS, Ogilby. *P. Z. S.* 1837, p. 81: *Capra (Ibex) warryato*, Gray, *Ann. Mag. N. H.*, X (1842), 267. "*Warra-ardu* or 'Precipice Goat.' " (Baker.) 'Ibex' of Nilgiri sportsmen. The skull of an adult male, with fine arched horns, measuring 15 in. round the curvature. "The Ibex-skull I send," remarks the donor, "I intended to have sent with his skin. The animal, when alive, was as large as an ordinary [Indian] Donkey, and so heavy that six men could with difficulty bring him in. Back almost black, sides brown, legs grizzled with white. Unfortunately the skin was quite spoiled, though it had been beautifully taken off. The female has only two teats.† They are very numerous, feeding like a flock of Sheep on the hill-tops, and only flee to the precipices when alarmed. They will even hide in jungle and grass. There is a solitary Roman Catholic church on a rock in the jungles, on the borders of Travancore and Cochin, where the wild 'Ibex' are common, and though numbers of people go there on pilgrimage these 'Ibex' walk about among them and eat the sesamum-seed given them, but do not allow themselves to be touched. They are considered holy and belonging to the church." Elsewhere the same observer remarks, writing of the game animals of the western ghâts, that—"If the mountains are at all rocky and precipitous, you will find the wild Goat or 'Ibex' close to the rocks, often in large herds, \* \* \* I have occasionally seen some of these animals much smaller than the usual size, and somewhat shaggy as to their colouring. Sportsmen in the Pulneys and Ghâts near Cape Comorin talk of a wild Sheep. I think it is probable." Scarcely so: though we do read of a "wild Sheep" as abounding in the highlands of Madura;‡ and

\* Vide note to p. 297.

† This also is stated in a *MS.* description which the Hon'ble Walter Elliot favored me with many years ago; whereas the nearly affined *Tehr* and *Goral* of the Himalaya have four developed teats. The Nilgiri animal has commonly two young at a birth, or at least the females are usually seen followed by two kids.

‡ Thornton's *Gazetteer of India*. Art. Madura; which province must not be confounded with the island so named that is close to Java.



I doubt if this refers to the 'Jungle Sheep' of Madras sportsmen (what Mr. Ogilby very naturally concluded the Nilgiri 'Ibex' to be), which is no other than the Muntjac, the *Kákur* or 'Barking Deer' of Himalayan sportsmen, and the 'Red Deer' of those of Ceylon! As an article of provender, Mr. Baker remarks, that "a quarter of 'Ibex,' hung as the country people in the mountains do at home, within a wire or muslin bag and exposed to the air, is equal to Welsh mutton." We have now to ascertain what the reputed 'wild Sheep' of the highlands of Madura is intended to mean: in all probability our present animal, rather than any other.

#### AVES.

Of birds, we are indebted to Mr. Baker for a few specimens, among them being the head of a young *BUCEROS CAVATUS*, and a good skin of *B. GINGALENSIS*. He enumerates the four species of Hornbill that inhabit the peninsula of India, viz. *CAVATUS*, *PICA*, *BIROSTRIS*, and *GINGALENSIS*; and remarks that "in all, the female is shut up with the eggs, and plasters up the entrance to the nest *with its ordure* [?]: the male feeds both mother and young. A few days since I took the mother (*B. GINGALENSIS*) out of its hole; it had stripped most of the feathers off its breast, was very weak, and had three white eggs.\* The roar of the *CAVATUS* I have often noticed strangers to the forest to be so alarmed at, as to fly as if from some terrible enemy.

"The habits of the Hornbills are very similar to those of the South American Toucans. A friend had a large tame *CAVATUS*: it watched a female terrier that had young, and in two days managed to steal and swallow three pups during her absence. Its usual food was rice and plantains." It is curious to see them feed on boiled rice. A large *CAVATUS* will pick it up grain by grain, and successively toss each grain into the air and catch it in its throat. This I have often witnessed.

The other bird-skins sent are *MEGALAIMA VIRIDIS*, *OXYLOPHUS JACOBINUS*, *DENDROCITTA LEUCOGASTRA*, *MYIOPHONUS HORSFIELDI*, *BRACHYURUS TRIOSTEGUS*, *MERULA NIGROPILEUS*, *GEOCICHLA CYANOTUS*, *TCHITREA PARADISI*, *DICRURUS LONGICAUDATUS*, *CHALCOPHAPS INDICUS*, and *GALLUS SONNERATHI*.

Examples also of the gigantic Spider, *MYGALE AVICULARIA*; which, Mr. Baker remarks, is "common in the hills. They live among stones and old bark, and are really savage creatures and poisonous too, being easily excited, when they spring upon an exposed limb and bury the fangs in the flesh in an instant. I have *seen* cases followed by fever and much inflammation. The Tamil name is *Tella mundalum*."

\* *Vide* also Tickell, in *J. A. S.* XXIV, 279; and Dr. Livingstone.



16. From the late Major Berdmore, of Schwe Gyen, in the valley of the Sitang river, Tenasserim provinces.\* Two considerable collections, consisting chiefly of small mammalia, reptiles, and fishes, preserved in spirit, and comprising several species of much interest and many hitherto undescribed.

### MAMMALIA.

*MACROGLOSSUS MINIMUS*, (Geoffroy). The Kiodote. The smallest of *Pteropodine* Bats (or 'Flying Foxes'), hitherto only known from the archipelago, with the exception of an example from Siam noticed by Dr. Horsfield, as "perhaps a distinct species, with a lengthened nose,"—this character being remarkable in the Tenasserim specimen.

*SCOTOPHILUS FULVIDUS*, nobis, *n. s.* A small *SCOTOPHILUS*, (having two pairs of minute upper incisors,) of a pale fulvous colour throughout, with black membranes. Length  $2\frac{3}{4}$  in., of which tail 1 in.; expanse  $7\frac{1}{4}$  in.; fore-arm  $1\frac{1}{16}$  in.; and ear-conch (posteriorly)  $\frac{5}{16}$  in. Four specimens (females).

*SC. COROMANDELIANUS*, (F. Cuv).

*MYOTIS* — ? Resembles *M. PIPISTRELLUS* in size and structure, but is of a dark fuscous hue, the fur slightly tipped with earthy-brown on the upper-parts, and much more largely tipped with a paler (almost whitish) brown below; membranes dusky. Length  $3\frac{1}{4}$  in.; of which tail  $1\frac{1}{2}$  in.;

\* We have to deplore the loss of this most energetic officer, to whom the Society has been very largely indebted for specimens in different branches of zoology for several years past; during which period he has enriched the museum to a far greater extent than any other contributor, and has been remarkably successful in procuring novelties of more than average interest. The present Report will alone amply show how industriously our lamented friend exerted himself to enrich the Society's collections, and how great therefore is the loss sustained by his decease. His friend the Commissioner of Pegu wrote, (May 31st) — "You will be sorry to hear that our friend Berdmore is no more. He was truly an excellent fellow. He had quite worn himself out by hard work. I received news of his death yesterday by telegram." It was at the request of Col. Phayre, many years ago, that Major (then Captain) Berdmore first devoted his attention to collecting specimens for the Society's museum; and whatever he could procure and preserve in spirit, he lost no opportunity of forwarding, and generally in excellent condition. Formerly in the little explored province of Mergui, and since in the valley of the Sitang river and adjacent hills, as little trodden by the naturalist, our deceased friend had better opportunities than fall to the lot of most people of procuring objects of more than ordinary interest.



expanse  $9\frac{3}{4}$  in.; fore-arm  $1\frac{1}{2}$  in.; ear-conch (posteriorly)  $\frac{1}{2}$  in. Three specimens (females).

*RHINOLOPHUS AFFINIS*, Horsfield (*verus*, *apud* Schinz; *nec apud* Cantor?).

*HYLOMYS PEGUENSIS*, nobis, *n. s.* So nearly resembling the *H. SUILLUS* of the archipelago, figured and described by Dr. S. Müller, that I should have considered it identical, were it not for the greater development of tail. Total length 6 in.; of which tail  $\frac{7}{8}$  in.; head  $1\frac{3}{4}$  in.; ear (posteriorly),  $\frac{1}{2}$  in.; and hind-foot with claws, 1 in. Adult male and female. Hitherto this genus was supposed to be peculiar to the archipelago.

*TALPA LEUCURA*, nobis, *J. A. S.* XIX, 217. The Sylhet Mole, now for the first time obtained so far south, and very remarkable as inhabiting together with the *HYLOMYS*.

*SOREX NUDIPES*, nobis, *J. A. S.* XXIV, 34.

*SCIURUS KERAUDRENI*, Lesson.

*SC. BELANGERI*, Lesson.

*RHIZOMYS SUMATRENSIS*, (Raffles).

*MUS ROBUSTULUS*, nobis, *n. s.* A stoutly formed Rat, with tail not quite so long as the head and body, which latter measure together about 6 in. Colour much as in *M. DECUMANUS*, but the feet conspicuously whitish. Tail with short setæ of equal length throughout—not becoming longer towards the tip.

*M. CINNAMOMEUS*, nobis, *n. s.* Like *M. FLAVESCENS* but smaller, with proportionally longer tail, and softer fur of a fine cinnamon-colour (nearly as in *M. OLERACEUS*), with inconspicuous black tips; the under-parts white, which is abruptly divided from the cinnamon hue above. Length of head and body about 6 in., the tail  $7\frac{3}{4}$  in., and hind-foot  $1\frac{1}{4}$  in.

*M. FLAVESCENS*, Gray (?), *var.?* A Rat very like *M. FLAVESCENS*, but of a darker and much less rufescent hue above, would seem to abound in Pegu and the Tenasserim provinces, and probably in the Malayan peninsula; for we have a specimen of what appears to be the young of this race from Malacca. It is probably the *M. FLAVESCENS* of Dr. Cantor's Catalogue of Malayan animals; and the *M. BERDMOREI*, nobis, should perhaps be referred to it, but of this I do not feel confident at present.

*MUS* — ? Very like the young of *M. NEMORALIS*, nobis; but the great development of the *testes* of the male would seem to indicate an adult. Head and body 4 in.; tail  $4\frac{1}{4}$  in.; and hind-foot  $1\frac{5}{8}$  in.

*M. NITIDULUS*, nobis, *n. s.* A house Mouse apparently, with tail equal to the head and body, and uniformly furnished with minute setæ to the end; ears large and ample. Total length  $6\frac{1}{2}$  in.; hind-feet a little exceeding  $\frac{3}{4}$  in.; and ears (posteriorly)  $\frac{9}{16}$  in. Colour nearly that of *M.*



DECUMANUS, with the under-parts subdued white tolerably well defined. Of the same subgroup as *M. MUSCULUS* and *M. MANEI*.

*M. CONCOLOR*, nobis, *n. s.* A house Mouse probably, of an uniform dark greyish 'mouse-colour' above and below; eyes of medium size, and ear-conch moderately ample; feet large, and the tail with close rings of minute setæ throughout. Length 3 in., of tail 4 in., and hind-foot  $\frac{7}{8}$  in. From the large proportional size of the limbs, it is probably not full-grown.

*M. BADIUS*, nobis, *n. s.* Like *M. OLERACEUS*, Sykes, but the eye fully twice as large, and black whiskers; colour of the upper-parts a more rufous chesnut or cinnamon hue; of the lower-parts white almost pure. Length of a female 3 in. to base of tail, the tail  $4\frac{3}{8}$  in., and hind-foot  $\frac{5}{8}$  in.

*M. PEGUENSIS*, nobis, *n. s.* A field Mouse, with tail longer than the head and body, well clad with hairs that become longer to the end. Length to base of tail  $3\frac{1}{8}$  in., of tail  $3\frac{7}{8}$  in.; ear-conch  $\frac{1}{2}$  in.; and hind-foot  $\frac{3}{4}$  in. These are the measurements of a female in spirit. A stuffed male has the tail (vertebræ)  $4\frac{1}{2}$  in. Fur very full and dense, pale yellowish-brown on the upper-parts, slightly yellowish white below: whiskers remarkably long.\*

\* Some other Mice in spirit have been sent by Major Tytler for identification. They are as follow:

*MUS NIVIVENTER*, Hodgson, *Ann. Mag. N. H.* XV. (1845), p. 267. A well marked species, rather larger than as originally described. A male measuring 6 in. long, with tail 7 in.; and hind-foot nearly  $1\frac{1}{2}$  in.: female even larger, or 7 in. long, with tail  $7\frac{1}{2}$  in. From Másuri.

*M. OLERACEUS*, Sykes: Syn.? *M. (Vandileuria) dumeticola*, Hodgson, *ibid.* p. 268. I cannot perceive in what these differ. A specimen from Asám is very slightly deeper-coloured, but I can detect no further difference. A Deyra doon example measures  $2\frac{7}{8}$  in. long, with tail  $4\frac{1}{2}$  in.

*M. HOMOURUS*, Hodgson, *ibid.* p. 268. Accords with the description, except that the largest of several specimens does not quite come up to the dimensions stated. The males measure  $3\frac{1}{8}$  in. to base of tail, and tail the same (having about 24 vertebræ); hind-foot plus  $\frac{5}{8}$  in. I have been unable to satisfy myself of the number of teats. Mr. Hodgson states—"It has eight teats only in the females. The other Mice have ten, and the Rats have twelve." As compared with the European *M. MUSCULUS*, the fur is much more Gerbille-like in character, the piles less dense and sinuous.

*M. CRASSIPES*, nobis, *n. s.* Like the preceding, but with the tail rather longer than the head and body. Length  $2\frac{3}{4}$  in.; tail  $3\frac{1}{4}$  in.; hind-foot  $\frac{3}{4}$  in. The feet particularly large, and, like the tail, well furnished with coarse short setæ. From Másuri.



*HAPALOMYS*, nobis, *n. g.* A very distinct new genus of *Muridæ*, with long and delicately fine *pelage*, and exceedingly long tail, the terminal fourth of which is remarkably flattened and furnished with hair more developed than in perhaps any other truly *Murine* form. Limbs short, with the toes remarkably corrugated underneath, the balls of the ungual phalanges greatly developed, protruding beyond the minute claws of the fore-feet, and equally with the more developed claws of the hind-feet. Head short; the ears small and inconspicuous. The skull approaches in form that of *MUS INDICUS*; but the rodential tusks are broader and flatter to the front: molars as in the *Muridæ* generally, but much worn in the specimen under examination; they are considerably less directed outward than usual, and the bony palate has therefore the appearance of being narrow: the super-orbital ridges project much outward, in form of a thin bony plate; and there is a considerable process at base of the zygoma anteriorly, and posterior to the ant-orbital foramen: zygomata broad and compressed about the middle.

*H. LONGICAUDATUS*, nobis, *n. s.* Length of male  $5\frac{3}{4}$  in. to base of tail, of tail  $7\frac{1}{4}$  in.; of female  $5\frac{1}{4}$  in., with tail  $7\frac{1}{2}$  in.: sole  $1\frac{1}{8}$  in.: ears posteriorly  $\frac{1}{4}$  in., rounded, and scantily fringed with fine long hairs. Fur long and soft, measuring about  $\frac{5}{8}$  in. on the upper-parts, slaty for the basal two-thirds, then glistening brown with black tips, and a few long hairs of very fine texture interspersed: lower-parts dull white. Whiskers black, long and fine; and there is a tuft of fine blackish hair anterior to the ears.

Specimens of adult male and female, with a young one, were forwarded by Major Berdmore.

*CERVUS* (*PANOLIA*) — ? *C. frontalis* apud Cantor. The *T'hámine* Stag, found also in the Malayan peninsula: an exceedingly fine head; the horns differing as usual from *Mánipur* specimens by being shorter,

*M. TYTLERI*, nobis, *n. s.* Length  $2\frac{3}{4}$  in., tail the same, having about 24 vertebræ; hind-foot  $\frac{5}{8}$  in. Fur unusually long and full, of a pale sandy 'mouse-colour' above, isabelline below, and pale on the well clad limbs and also on the tail laterally and underneath. Whiskers exceedingly fine in texture, and of a whitish colour. Male. From the Deyra doon.

*M. MUSCULUS*, L.; from England. On comparing fine specimens of the common English Mouse in spirit with equally fine examples of the Indian house Mouse (*M. MANEI*), it is seen that *M. MUSCULUS* has conspicuously larger ears, much smaller eyes, broader paws, and the tail is one-fourth shorter,—measuring 3 in. in *MUSCULUS* and 4 in. in *MANEI*. The fur again is of very different texture. Accordingly the two species are obviously distinct.



especially the brow-antler, with greater tendency to subdivide at the crown. When series of horns of both races are seen together, the difference is very manifest.\*

Of birds are sent skins of *EURYSTOMUS ORIENTALIS*, *HARPACTES ERYTHROCEPHALUS*, and *LYNCORNIS CERVINICEPS*.

Of reptiles, many interesting specimens, comprising *DRACO LINEATUS*, *ACANTHOSAURA ARMATA*, *CALOTES EMMA* (very fine), *C. VERSICOLOR*, *LEIOLEPIS REEVESII*, *ASPRIS BERMOREI*, nobis (fine), *LISSONOTA MACULATA*, *XENOPELTIS CONCOLOR*, *PYTHONIA* (*n. g.*) *SEMIZONATA* (*Homolopsis semizonata*, nobis, *J. A. S.* XXIV, 187), *PARIAS* (D. and B., *nec* Gray) *MACULARIUS*, *n. s.*, *CORONELLA NOTATA*, *n. s.*, *XENODON PURPURASCENS* (several varieties), *LEPTOPHIS ORNATA*, *DIPSAS FERRUGINEA*, D. (v. *AMBLYCEPHALUS*) *BOA*, *HOMOLOPSIS SIEBOLDII* (!), *H. LEUCOBALIA*, *NAJA TRIPUDIENS* (dark var.), *HAMADRYAS VITTATUS*, and others unnecessary to mention. Also some *Batrachia*, including an *ICTHYOPHIS*, which I am necessitated to leave undetermined for the present.

Of fishes, a very large collection, including numerous new fresh-water species, some of Himalayan types, others akin to those of the plains of India and Lower Bengal. Descriptions of all of them are awaiting publication, but they are far too numerous for introduction in this place. The group of *Cobitidæ* (or Loches), in particular, exhibits an extraordinary

\* Since the decease of Major Berdmore, we have received two more packets from him, one of them containing two flat skins of probably does of the *PANOLIA*. They are of a pale chesnut-brown colour, paler on the sides, white below; spotless with a dark mesial list which in one of the two specimens is scarcely discernible: face and limbs more or less infuscated: the tail, if (as it appears) perfect, very short. Evidently in summer coat. Not unlike *C. DUVAUCELII* in corresponding garb; but the latter is mostly more or less spotted or *menilled*, with especially a row of pale spots along each side of the dorsal list; and there is no infuscation of the face and limbs. Among the Hardwicke collection of drawings in the British Museum is a coloured figure designated as the "Spotted *Bára Sing'ha* of the Sundarbáns." This represents an unusually spotted buck, though I have seen a doe equally spotted; and the species does inhabit parts of the Sundarbáns. As with the Hog Deer, some individuals of the *Bára Sing'ha* are much more spotted than others in the summer costume, and the does are generally more so than the bucks. The most spotted buck of the Hog Deer which I have seen was sent alive from Ceylon by Dr. Kelaart. I think, however, it will be found that the Cinghalese Hog Deer (with which the Malabar species is probably identical) has longer and more *Axis*-like horns than true *C. PORCINUS*, the inner prong of the terminal fork being given off at an acuter angle; the figure of the animal being also somewhat less *Porcine*.



development of species and of well marked generic forms in the mountain streams of Burma.

Also various *Crustacea* and shells, for the most part determined, but an elaborate notice of which cannot be conveniently introduced here.

It remains only to add, that a magnificent pair of horns were exhibited at one of the Meetings, of the great Wapiti Stag (*CERVUS CANADENSIS*), or so-called 'Elk' of the Anglo-Americans, having been lent for the purpose by J. W. Linzee, Esq. The length of the skull, from vertex to tips of intermaxillaries, is  $21\frac{3}{4}$  in.; and breadth of orbits posteriorly  $8\frac{3}{4}$  in. Length of horn, measuring round the outside,  $4\frac{3}{4}$  ft.; circumference of base, immediately about the 'burr' or basal ring,  $12\frac{3}{4}$  in.; and length of brow-antler, 17 in. Greatest width of the horns apart, 3 ft.  $1\frac{1}{4}$  in.; and the tips are 2 ft.  $3\frac{1}{4}$  in. apart. This fine specimen was brought from California.

E. BLYTH.

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FOR AUGUST, 1859.

The Monthly General Meeting of the Asiatic Society was held on the 3rd Instant.

A. Grote, Esq., President, in the chair.

The Proceedings of the last meeting were read and confirmed.

Presentations were received.

1. From the Officiating Junior Secretary to the Government of Bengal, a set of Photographic Drawings of the ancient buildings at Beejapore, sent out by the late Hon'ble the Court of Directors.

2. From the same, two copies of Selections from the records of the Bengal Government, No. 30, containing Reports of the Districts of Pooree and Balasore by Henry Ricketts, Esq.

3. From the Royal Society of London, the Proceedings of that Society.

4. From the Imperial Academy of Sciences in Vienna, several vols. of the Transactions of the Academy.

5. From the Royal Geographical Society of London, the Proceedings of that Society.

6. From the Royal Society of Sciences, Stockholm, Parts 1 to 5, of a Voyage round the world of the Royal Swedish Frigate *Eugenie*.

7. From Major H. B. Lumsden, 60th N. I., late in charge of the Kandahar Mission, the skull and incomplete skin of a *Ghor-Khur*,





Blyth, Edward. 1859. "Report of Curator, Zoological Department, for February to May meetings, 1859." *The journal of the Asiatic Society of Bengal* 28, 271–298.

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