XLIV.—A List of Mammalia and Birds collected in Assam by John McClelland, Esq., Assistant Surgeon in the service of the East India Company, Bengal Establishment: revised by T. Horsfield, V.P.L.S., &c.*.

"On the return to Calcutta," says Dr. Horsfield, "of the Deputation sent to Assam for the purpose of investigating the nature of the Tea Plant, Mr. McClelland delivered his collection of Mammalia and Birds, accompanied by a Descriptive Catalogue and drawings of many subjects, to the Bengal Government, to be forwarded to the Court of Directors. These subjects arrived safely in England, and are now, with few exceptions, prepared and exhibited in the Company's Museum at the India House.

"In his official correspondence with the Bengal Government, Mr. McClelland explains the object he principally had in view in making the collection in the following terms: 'Having been invited to offer any suggestion I may have to submit, as to how this portion of my labour may be disposed of with most advantage, I shall, in venturing an opinion, keep in view the objects with which my collections were made: these were, to procure as much information as Upper Assam is calculated to afford, in elucidation of the circumstances under which the Tea Plant is found in that country.

"' Next to the relations of the plant in regard to soils, and its association with other vegetable productions, the *zoology* of the province is entitled to careful examination; so that all its productions may be compared with those of the tea districts of China.

""The accompanying Catalogue of animals will be found to display an interesting balance numerically in favour of the extension of species from the eastward, a point that ought to be carefully examined, as bearing upon the main question; for in proportion as the Tea Plant is associated in Assam with the prevalence of Chinese forms, the prospect of its successful cultivation becomes the more certain." —Extract from Mr. Mc Clelland's letter to the Secretary of the Bengal Government.

"Mr. McClelland then expresses his desire that his Descriptive Catalogue, before publication, should be revised in England, in order to prevent the introduction of mere nominal species, and to conform the nomenclature to the latest discoveries in science. In accordance with this desire, the entire collection has been carefully compared with subjects from India contained in the British Museum and in the Museums of the Zoological Society and the East India Company, as well as with the drawings and descriptions lately published in various zoological works to which Mr. McClelland had no access.

"The following catalogue now exhibits Mr. McClelland's collection, with those alterations which the progress of discoveries required, and with a partial modification of the arrangement; and in performing this task the only object has been to secure to Mr. McClelland

* Communicated by Dr. Horsfield to the Zoological Society of London, Oct. 22, 1839, and extracted from the Proceedings of the Society.

of Assam Mammalia and Birds.

the discoveries he has made, and to bring before the public a faithful statement of his zoological observations in Assam, and of the zeal and ability with which he has executed the charge confided to him."

MAMMALIA.

Order I. QUADRUMANA.

Genus Hylobates, Illig.

1. Hylobates Hoolook, Harlan, Trans. Amer. Philos. Soc.

The first authentic account of this animal is contained in the fourth volume of the Transactions of the American Philosophical Society. Dr. Harlan here describes and figures, from a prepared specimen, an adult male, which was brought to Philadelphia in 1832 by Dr.⁴M. Burrough, together with a large collection of rare and valuable skins of quadrupeds and birds, obtained on the plains of the Burhampooter river, near Assam. The specimen described, with another adult and a young subject, was presented to Dr. B. by Capt. Alex. Davidson, of the Hon. East India Company's station at Goalpura, in the latitude of 26° north on the Burhampooter. They were taken on the Garrow Hills, in the vicinity of that station; they soon became tamed, especially the young one; they were docile and affectionate, and rather inclined to melancholy. They lived some time in the possession of Dr. B., but died on his voyage down the river to Rangoon.

A specimen of this species was brought from India by General Hardwicke, and presented to the museum of the Zoological Society, where it is exhibited. Living individuals are at present in the Society's Gardens in the Regent's Park.

"The colour of the Assam animal is uniformly black, except the eye-brows, which are white. Some individuals are grayish-yellow. Its length is not much above two feet. It is possessed of the most wonderful activity, making use of its arms in swinging from tree to tree: nor is the female in any way restrained in her movements by the young, which she carries suspended to her body.

"Inhabits the Cossiah Mountains and valley of Assam."-McClelland's MS.

Genus MACACUS, La Cép.

2. MACACUS ASSAMENSIS*. Fulvo-cinereus, suprà saturatior, gastræo artuumque latere interiore canis; capillitio pilis paucis nigris sparso; facie natibusque carneis; caudá partem tertiam longitudinis totius superante omnino pilis tectá.

"Bluish-gray, with dark brownish on the shoulders; beneath light gray: face flesh-coloured, but interspersed with a few black hairs: length $2\frac{1}{2}$ feet: proportions strong: canine teeth long, and deeply grooved in front; the last of the cheek-teeth in the upper jaw blunt." ---Mc Clelland's MS.

* The names used in this paper, where no authority is given, are those of Mr. McClelland's MS.

Order II. CHEIROPTERA.

Genus PTEROPUS, Briss., &c.

3. PTEROPUS ASSAMENSIS. Capite anticè toto ex saturato rufescente fusco, posticè zoná pallidiore in aureum vergente cincto; collo omni, nuchá, interscapulio, pectore abdomineque e xerampelino aureis, plagá laterali saturatiore; vellere in his elongato sublanuginoso; notxo e saturato fusco-nigricante pilis albis commisto; patagio nigro; auriculis elongatis acuminatis; axillis humerisque lanugine fusco vestitis.

The face and the whole anterior part of the head are deep chestnut-brown, with a slight tendency to tawny; the back part of the head is surrounded by a belt of a lighter tint, inclining to orange, which also includes the throat. Around the entire neck, to the origin of the membrane, is a broad collar of rusty-yellow, inclining to orange, diversified with deeper rufous shades; the same colour, with its variation of tints, embraces the interscapulium, and extends to the breast and anterior part of the abdomen; the lower portion of the abdomen and the vent are rufous-brown. The back is deep blackish-brown, with a scanty admixture of white hairs; the fur, though slightly appressed, is more soft and silky than in the other species belonging to this section of *Pteropus*. The membrane is blackish. The flanks, armpits, and the bones of the shoulders and arms, are covered with a soft, silky, lengthened down, of a rufous-The ears are long and pointed. The entire length brown colour. is eight inches.

This species, although it resembles the *Pt. edulis* and *Edwardsii* (or *medius*) in habit, distribution of tint, and in the form of the ears, is nevertheless distinguished from them by the character of the fur on the neck, breast, and adjoining parts. This is not short and rigid, as in the species mentioned, but long, soft, and silky, furnished at the base with a close down, of a dark colour: in this particular it approaches to the second section of this genus, which is characterized by a lengthened, silky, frizzled fur, and of which the *Pteropus dasy-mallus*, Temm., is the type. The toes and claws are proportionably large.

There are in Mr. McClelland's collection two specimens of this species, for which he has proposed the specific name of Assamensis: this, notwithstanding the objection raised to local names, has been retained, in order to direct naturalists in India to the country where it was discovered, and thus to determine, by future search, its rank. as a distinct species, and also the existence of other species of both groups, typified by *Pteropus edulis* and *Pteropus dasymallus*.

Genus VESPERTILIO, Auct.

4. Vespertilio ----?

A single specimen of *Vespertilio* has been received, which is not sufficiently perfect to determine its true character.

Order III. FERÆ.

Genus URSUS, Linn., &c.

No opportunity was afforded to determine the species of Ursus found in Assam.

Genus MANGUSTA, Oliv.

5. Mangusta auropunctata, Hodgs. Journ. Asiat. Soc. V. 1836, p. 235.

Genus FELIS, Linn., &c.

6. Felis Tigris, Linn.

"There are other species of this genus, but their characters I have not had an opportunity of examining."—McClelland's MS.

Order V. PACHYDERMATA.

Genus ELEPHAS, Linn.

7. Elephas Indicus, Linn.

Genus Sus, Linn.

8. Sus Scropha, Linn.

"The size the wild boar attains in Assam may be conceived, from one of the sculls of the animal in my collection, containing a tusk which measures in length twelve inches."—Mc Clelland's MS.

Genus RHINOCEROS, Linn.

9. Rhinoceros Indicus, Cuv.

Order VI. RUMINANTIA.

Genus CERVUS, Linn.

10. Cervus porcinus, Zimmerm.

"The Cervus porcinus is not a rare animal, as has been supposed; I have seen it in the Tarrai, at the foot of the Kemaon mountains, as well as in Assam, where it is the commonest species of the genus. I had in my collection a curious instance of an albino of this species, for which I was indebted to Mr. Hugon of Assam. It was a female, every part of it white; but it was shot and prepared before I had an opportunity of examining the irides. It is an interesting proof that the change of colour in the fur of animals is not dependent on the cold of northern latitudes."—Mc Clelland's MS.

11. Cervus Pumilio, Hamilt. Smith, Griff. Anim. Kingd. V. No. 788.

"A small portion of the scull of this animal has been procured by me.

"There are other large species of *Cervus* in Assam, and several smaller kinds, but which I have not been able to procure."—*McClelland's MS*.

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Order VII. RODENTIA.

Genus Sciurus, Linn., &c.

12. Sciurus bicolor, Auctor. Sciurus giganteus, McClelland's MS.

"Upper part of the head, the nose, the ears, outer and hinder portion of the fore-legs, the feet, tail, and back, deep glossy-black; beneath yellowish-white; two small spots on the chin; cheeks white; a rudimental thumb, covered by a flat nail. Body fifteen, tail sixteen inches long.

"The above description has been derived from seven or eight specimens procured during the course of three months. Among the various individuals I have seen there appeared to be no difference.

"It differs from the Sciurus maximus by the absence of the marone colour on the head, and from Sciurus Leschenaultii by its greater size, its deep black colour above, without any diminished intensity of shade on the anterior part of the head and nose; and from Sciurus bicolor of Sparrmann by the uniform blackness of the upper parts of the body, extending to the extremity of the tail, which is entirely black."—Mc Clelland's MS.

Individuals of this species, agreeing in all particulars with those collected in Assam by Mr. McClelland, have been observed in other parts of India by Dr. Francis (Buchanan) Hamilton and by Dr. Finlayson. The latter forwarded several specimens to the Museum at the India House. The specific character originally constructed by Sparrmann, and subsequently adopted by all systematic writers, defines accurately the animal as described by Dr. Hamilton and by Schreber's figure also agrees with the same, while Mr. McClelland. the animal from Java (represented in Horsfield's Zoolog. Res.), and indicated as a variety in Fisher's 'Synopsis Mammalium,' appears to differ from the continental species by the variations to which its tint is subject. It remains therefore for further research and observation to determine, whether these two varieties may not be specifically distinct, and whether the name proposed by Mr. McClelland should not henceforth be applied to the species observed in Continental India by himself and by Hamilton and Finlayson.

13. Sciurus hippurus, Isid. Geoff. Guerin. Mag. Zool., Pl. VI.

"Gray above, on the cheeks, on the outside of the limbs, and base of the tail: feet grayish-black: throat and lower part of the body reddish-brown: posterior third of the tail reddish-brown in a single specimen procured by Mr. Griffith in the Cossia mountains, but black in five specimens procured by myself in Upper Assam: tail as long as the body. Entire length of the animal eighteen to twenty inches. Inhabits the Cossia mountains, as well as the eastern parts of Assam."—Mc Clelland's MS.

14. Sciurus Lohriah, Hodg., Journ. Asiat. Soc., Bengal, V. 1836. p. 232.

"Above brown, sprinkled with yellow, the hairs being dark at their bases, but towards their extremities alternately barred with fulvous. A broad irregular yellowish stripe extends from the chin to the tail, and is broadest on the throat. Ears rounded, and nearly naked: tail nearly equal to the body in length: body eight inches long, and of stout proportions."—*Mc Clelland's MS*.

One imperfect specimen sent by Mr. McClelland agrees precisely with Mr. Hodgson's description, referred to above.

15. Sciurus Lokrioides, Hodg., Journ. Asiat. Soc., Bengal, V. p. 232.

"Light gray, with a yellow tinge on the sides of the thorax; silver-gray beneath; hairs above alternately barred with light and dark gray. Tail scarcely so long as the body: ears short, but pointed upwards: length eight inches."—*Mc Clelland's MS*.

16. SCIURUS MCCLELLANDII, Horsfield. Suprà fuscus fulvo tenuissimè irroratus notzeo saturatiore; subtùs ex sordido fulvo canescens; dorso summo lineá rectá atrá; lineá insupèr utrinque laterali fuscá læto fulvo marginatá, anticè saturatiore, ad oculos extensá, posticè obsoletá in uropygio utrinsecus approximatá; caudá mediori subcylindrico-attenuatá nigro fulvoque variegatá; auriculis atris barbá niveá lanuginosá insigni circumscriptis; vibrissis longis nigris.

"A black line extends along the spine, with a double-shaded line of yellow and brown on each side, softly relieved from the remaining upper portion of the body (which is most minutely variegated fulvous and brown); yellowish-gray beneath: tail slightly tapering, shorter than the body and legs, more bulky than in Squirrels in general: length three and a half inches, exclusive of the head, which measures one inch.

"It inhabits Bengal as well as Assam, and is the only one of the foregoing species possessed of pencilated tufts on the ears. They have each long black beards."—McClelland's MS.

Genus LEPUS, Linn.

17. Lepus timidus, Linn.

"This Hare is found in Assam, but its size is degenerate, measuring only from seventeen to nineteen inches in length. It is not esteemed as an article of food. The ears are more uniformly gray than in the European variety."—McClelland's MS.

18. Lepus hispidus, Pearson.

This species is admitted by Mr. McClelland, on the authority of J. T. Pearson, Esq., late Cur. Mus. As. Soc., who described it in the Calcutta Sporting Magazine.

"Its hair is harsh and bristly; ears very short, not projecting beyond the fur: length eighteen inches: colour more dusky-gray than that of the Hare. Inhabits Assam, especially the northern parts of the valley along the base of the Boutan mountains.

"I am indebted to Lieutenant Vetch of Assam for the skin of this animal, but unfortunately the scull is wanting; but according to Mr. Pearson it is the same as the scull of the common Hare."—Mc Clelland's MS.

Order VIII. EDENTATA.

Genus MANIS, Linn.

19. Manis brachyura, Erxl.

"This animal has fifteen rows of scales, extending longitudinally over the body; those on the back are longest, and are rounded posteriorly, but they are narrow below, and carinose; while on the back they are simply striated at the base. Bristly hairs pass out between the scales.

"Lower parts of the head, the throat, and a line extending along the lower portion of the body to the tail, and the inner sides of the legs, without scales, but covered with a scanty coarse white hair."— *Mc Clelland's MS*.

AVES.

Order I. RAPTORES.

Fam. FALCONIDÆ. Sub-Fam. AQUILINÆ.

Genus HALIAËTUS, Sav.

1. Hal. Macei. Falco Macei, Temm. Pl. Col. Pl. 8.

"A Fisher Eagle. Throat and nape yellowish-white, covered with long pointed feathers; crown and base of the neck grayish-yellow (feathers of the latter obtusely pointed), all other parts of the bird brown, except a broad band across the tail, which is white. The tarsi are naked two-thirds of their length: wings long, extending nearly to the extremity of the tail: length thirty-three inches.

"This eagle preys on fish, and is particularly active during a storm, when it is found soaring over the lee-shore, descending on such fishes as are driven into shallow water. During fine weather it spends the principal portion of its time on some high solitary bank, quite motionless."—Mc Clelland's MS.

2. Hal. Pondicerianus. Aquila Ponticeriana, Briss. Pl. enlum. 416. Falco Pondicerianus, Gmel. Linn. I. 265. Lath. Ind. Orn. I. p. 23.

Genus Spizaëtus, Vieill.

3. SPIZ. RUFITINCTUS. Suprà fuscus capite saturatiore, notæo nebulis dilutioribus vario; caudá fusco et cinerescente latè fasciatá; subtùs albo fuscoque varius, collo pectoreque vittatis, abdomine femoribusque fasciatis; tarsi ultra medium plumosi.

"Upper part of the body dark brown, with slight undulations of a deeper tint: breast and throat longitudinally striped with brown: belly and under surface of the wings white, transversely barred with brown: tarsi feathered to the lower third, each feather marked with five transverse bars: tarsi shielded: the beak short, much hooked, and sharp: claws and toes strong and formidable.

"It inhabits the banks of the Burhampooter and other rivers in Assam, where it conceals itself in bushes and grass, along the verge of the water, seizing such fishes as approach the surface within its reach."—Mc Clelland's MS.

Sub-Fam. FALCONINÆ.

Genus FALCO, Linn., &c.

4. FALCO INTERSTINCTUS. Suprà læté ferrugineus nigro fasciatus; subtus dilutior subflavescens; pectore abdomineque nigro vittatis; capite nigro lineato; rectricibus pogoniis singulis nigro fasciatis, fasciá caudali terminali latiore ferrugineo marginatá; remigibus nigricantibus margine fasciisque interioribus ferrugineis.

"Brown striated Falcon. Upper part of the body and wing coverts brown, with blackish bars across the feathers, but on the head the stripes are longitudinal; quill-feathers blackish; inner margin barred with pale ferrugineous; tail-feathers transversely barred with black; below paler, inclining to dusky-yellow, except the breast and sides, which are marked with longitudinal brown spots. Entire length fourteen inches."— Mc Clelland's MS.

The bird here described, to which Mr. McClelland has given the specific name of *interstinctus*, agrees in many points with the female of F. Tinnunculus; but from the observations hitherto made, it would appear that it is entitled to distinction by the fact that the sexes have not the same difference in markings and external character which belongs to the European and Asiatic Kestrils. The researches made by Col. Sykes in the Dukhun confirm the determination of Mr. McClelland. Col. S. mentions, in the Catalogue of Birds from Dukhun, "his being in possession of a male bird exactly like the female Kestril in plumage and size, and consequently larger than the male Kestril; and as this was shot from a party of five or six perched on the same tree, and without a male Kestril in company, he is induced to believe that there is a distinct species, in which both sexes have the plumage of the female European Kestril."

The museum of the East India Company has received specimens from Madras agreeing accurately with those collected by Mr. McClelland, but further observations are required to determine whether Mr. McClelland's bird deserves to be ranked as a distinct species.

Sub-Fam. BUTEONINÆ.

Genus CIRCUS, Auct.

5. Circ. melanoleucus. Falco melanoleucus, Gmel. Linn. I. 274. Black and White Indian Falcon, Penn. Ind. Zool., Pl. 2. Engl. Ed.

"This bird is a fisher, like the *Brown Spizaëtus* above described; but instead of inhabiting the banks of rivers, it is found in low inundated places, where it feeds, with Waders, on Reptiles and Mollusca, as well as on Fishes."—*McClelland's MS*.

Sub-Fam. MILVINA.

Genus MILVUS, Auct.

6. Milvus Govinda, Sykes?

"The primary quill-feathers are blackish-brown at their tips; every other part of their plumage is brown. It is a common Kite in Assam, as in every other part of India."—McClelland's MS. *Note.*—A single specimen of this bird, not well preserved, was found in the collection: some uncertainty respecting the species to which it really belongs still remains.

Fam. STRIGIDÆ. Sub-Fam. NOCTUINA.

Genus, ATHENE, Boie: NOCTUA, Sav.

7. Athene cuculoïdes. Noctua cuculoïdes, Gould's Cent. Himal. Birds, Tab. IV.

Sub-Fam. BUBONINA.

Genus Scops, Sav.

8. Scops Lempiji. p. 140.

Strix Lempiji, Horsf. Trans. Linn. Soc. XIII.

[To be continued.]

BIBLIOGRAPHICAL NOTICES.

Preparing for publication :

Dr. Johnston's History of British Sponges and Corallines.

To be printed and illustrated in the same style as the 'History of the British Zoophytes,' to which this new work may be considered a Supplement. It will contain a very full account of all that has been hitherto written on the subject, and an original figure of every species and remarkable variety will be given. Dr. Johnston intends at the same time to avail himself of this opportunity of adding many new figures of Zoophytes, contributed by his friends and acquired by himself, since the volume on British Zoophytes was published. The wood-cuts are already far advanced.

Memorie di Matematica e di Fisica della Societa Italiana delle Scienze residente in Modena. Tomo xxi. Parte I.

This part contains the following articles of botanical interest. 1. Descrizione di un nuovo genere e di una nova specie di pianta Gigliacea; del Prof. A. Bertolini.—Strangweja (in honour of the Hon. W. T. H. Fox Strangways, secretary to the British embassy at Vienna). "Perigonium simplex, campanulatum, sexfidum, laciniis apice recurvis. Androphorum sexantheriferum, inferne hinc connatum cum perigonio, inde tegens ovarium, superne in teniolas sex sectum, quarum unaquæque apice emarginata, ferens in emarginaturæ medio filamentum brevissimum, antheriferum. Antheræ oblongæ, incumbentes, biloculares. Ovarium liberum, trigonum, tectum. Stylus staminibus brevior. Stigma simplex, obtusum. Capsula trilocularis, trivalvis.—Bulbus simplex. Folia linearia, radicalia, flaccida. Scapus simplex, nudus. Flores spicati.—Sp. Strangweja hyacinthoides.—Patria ignota."—(With a coloured illustration.)

2. Descrizione d'una specie d'Elæagnus.

3. Sulla Cornacchinia fragiformis.

4. Catalogo di Piante Egiziane raccolte dal Naturalista G. Raddi. Three articles from the pen of the meritorious Prof. Savi (senior).—