October 22, 1839.
James Whishaw, Esq., in the Chair.
A letter from R. J. Bourchier, Esq., Corr. Memb. Z.S., dated Malta, October 2nd, 1839, was read. It stated that Mr. Bourchier had shipped two cases of preserved specimens of Natural History, a box containing some living Gundies (Ctenodactylus Massoni), and an Eagle, for the Society; the Eagle from Sir Thomas Reade, Hon. Memb. Z.S., H. M. Consul-General at Tunis, and the remaining specimen from Col. Warrington, Corr. Memb. Z.S., H. M. Con-sul-General at Tripoli.

A letter from the Society's Corresponding Member, R. Mackay, Esq., H. M. Consul-General at Maracaibo, was also read. It is dated Maracaibo, July 12, 1839, and refers to an insect presented by the writer to the Society, in the body of which a kind of plant had taken root.

Mr. Waterhouse observed, "that the insect in question was apparently the larva of one of the Lamellicornes, and that on one side of the body, springing partly from the thoracic segments, and partly from the foremost segments of the abdomen, were about six sprouts of some vegetable, probably of the genus Clavaria. The longest of these sprouts is about one inch in length; they are cylindrical, bent in an irregular manner, have no branches, and for the most part are joined together near and at the root. He also observed that numerous similar instances of insects having this kind of vegetable production attached to different parts of the body were on record: he might refer to the well-known instance of the caterpillar found in New Zealand, an account of which is published in the Transactions of the Entomological Society *, where will also be found references to several other cases.
"That the dead body of animals constituted a substance fitted to nourish a vegetable is not extraordinary ; but in the letter from Mr. Mackay it is stated that the insect was alive when first found; and this is by no means a solitary instance in which these vegetable productions have made their appearance on living insects. These facts, combined with others, which tend to show that to a slight degree there is an independent existence in the different parts of the same insect,-where life is retained for a considerable time in parts, although they may be separated,-are highly interesting in a physiological point of view."

Dr. Horsfield communicated to the Meeting a " list of Mammalia

[^0]and Birds collected in Assam by John McClelland, Esq., AssistantSurgeon in the service of the East India Company, Bengal Establishment, Member of the late Deputation which was sent into that country for the purpose of investigating the nature of the Tea Plant."
"On the return of the Deputation above-mentioned to Calcutta," says Dr. Horsfield, " Mr. McCleiland delivered his coilection 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 eatalogue 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 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. M. 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 $26^{\circ}$ 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, gastreo artuumque latere interiore canis; capillitio pilis paucis nigris sparso; facie natibusque carneis; caudả 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 $2 \frac{I}{2}$ feet: proportions strong: canine teeth long, and deeply grooved in front; the last of the cheek-teeth in the upper jaw blunt." -McClelland's MS.

## Order II. CHEIROPTERA. <br> Genus Pteropus, Briss., \&c.

3. Pteropus Assamensis. Capite anticè toto ex salurato rufes-

* The names used in this paper, where no authority is given, are those of Mr. McClelland's MS.
cente fusco, posticè zoná pallidiore in aureum vergente cincto; collo omni, nuchâ, interscapulio, pectore abdomineque e xerampelino aureis, plagá laterali saturatiore ; vellere in his elongato sublanuginoso; notroo 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 chest-nut-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 rufousbrown colour. The ears are long and pointed. The entire length 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 dasymallus, 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. FERA.

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."-McClelland's MS.

Genus Rhinoceros, Linn.
9. Rhinoceros Indicus, Cuv.

## Order VI. RUMINANTIA. <br> 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."-McClelland'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.

## 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 Sparmann 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 Mr. McClelland. Schreber's figure also agrees with the same, while 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 Lokriah, 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."-McClelland'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; sil-ver-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."-McClelland's MS.
16. Sciurus McClellandii, Horsfield. Suprà fuscus fulvo tenuissimè irroratus notroo saturatiore; subtùs ex sordido fulvo canescens; dorso summo lineá rectâ atrá; lineá insupèr utrinque laterali fuscâ lato fulvo marginatâ, anticè saturatiore, ad oculo s extensâ, posticè obsoletâ in uropygio utrinsecus approximatâ ; caudâ mediori subcylindrico-attenuatâ nigro fulvoque variegatâ auriculis atris barbá niveâ 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."-McClelland'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." McClelland's MS.

## AVES.

Order I. RAPTORES.
Fam. Falconide. Sub-Fam. Aquiline.
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, notao nebulis dilutioribus vario; caudả fusco et cinerescente latè fasciatâ ; 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, múch 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."-McClelland's MS.

## Sub-Fam. Falconinte. <br> Genus Falco, Linn, \&c.

4. Falco interstinctus. Suprà latè ferrugineus nigro fasciatus; subtus dilutior subflavescens ; pectore abdomineque nigro vittatis ; capite nigro lineato ; rectricibus pogoniis singulis nigro fasciatis, fasciá caudali terminali latiore ferrugineo marginalâa; remigibus nigricantibus margine fasciisque interioribus ferrugineis.
"Brown striated Falcon. Upper part of the body and wingcoverts 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."-McClelland'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 $\boldsymbol{F}$. 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 distinet 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. Buteonine.

## 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. <br> 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."-Mc Clelland'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. Strigide. Sub-Fam. Noctuina.
Genus, Athene, Boie : Noctua, Sav.
7. Athene cuculoïdes. Noctua cuculoides, Gould's Cent. Himal. Birds, Tab. IV.

Sub-Fam. Bubonina.
Genus Scops, Sav.
8. Scops Lempiji. Strix Lempiji, Horsf. Trans. Linn. Soc. XIII. p. 140.

## Order II. INSESSORES, Vigors.

Tribus Fissirostres, Cuv.
Fam. Meropide.
Genus Nyctiornis, Swains. Zool. Illust. II. Pl. 56.

## 9. Nyctiornis Athertonii.

"Toes much longer than the tarsi ; outer ones united to the last joint, and the inner to the first joint: beak compressed, arched equally from the forehead, and terminating in a point formed by both mandibles: nostrils concealed with feathers : body seven, tail five inches long."-Mc Clelland's MS.

## Fam. Hirundinide.

## Genus Hirundo, Auct.

10. Hirundo brevirostris. Suprà nigricans nitore olivaceo; subtùs fuscescens, alis elongatis ; caudd mediori subfurcatâ ; rostro brevissimo.

This species agrees with Hirundo fuciphaga in habit, in proportional length of wing, and shortness of beak, and in colour above; but it is darker underneath, and more than one third larger : entire length six inches.
11. Hirundo Jewan, Sykes, Proceed. Zool. Soc. 1832, p. 83.

The specimens of this bird sent from Assam by Mr. McClelland agree in all points with those discovered in Dukhun by Col. Sykes.
12. Hirundo brevicaudata. Suprà fusca; subtùs cana; uropygio albido; caudâ brevissimá subcequali.
This species has the general physiognomy of the Hir. concolor, Sykes, but it is considerably smaller, of a lighter tint, and without the white spots on the tail which mark that species.

Fam. Todide.
Genus Eurylatmus, Horsf.
13. Eurylaimus lunatus, Gould, Trans. Zool. Soc. of London, I. 175.

The specimens forwarded by Mr. McClelland from Assam agree with those preserved in the Museum of the Zoological Society, which have been examined and marked by Mr. Gould.
14. Eurylaimus Dalhousia, Jamieson, Edin. New Phil. Journ., vol. 18, p. 389. Psarisomus Dalhousia, Swainson, Cab. Cyclop. Birds, Vol. II. 261. Royle's Illustr., Part VI. Pl. 7.

Eurylaimus Psittacinus, Tem. Pl. Col. 598.
Eurylaimus (Crossodera) Dalhousia, Gould, 'Icones Avium,' Part I. Aug. 1837.
"Above grass-green, beneath light bluish-green; throat yellow; crown velvet-black, with blue and yellow spots; quills black on their inner margins, but anteriorly light blue in the middle of the wings ; tail slender, light blue above, beneath black ; length nine inches."McClelland's MS.

Fam. Halcyonide.
Genus Alcedo, Linn.
15. Alcedo Bengalensis, Gmel. Linn. I. 450. Little Ind. Kingfisher, Edw.
16. Alcedo rudis, Linn. I. 181. Black and White Kingfisher, Edw. Genus Halcyon, Swains.
17. Halcyon Smyrnensis. Alcedo Smyrnensis, Linn. I. 181.
18. Halcyon leucocephala, Gmel. Linn. I. 456.

Tribus Dentirostres, Cuv. Fam. Muscicapide.
Genus Phenicornis, Sw.
19. Phoenicornis princeps. Muscipeta princeps, Gould's Cent. of Himal. Birds, Pl. VII.
20. Phoenicornis brevirostris. Muscipeta brevirostris, Gould's Cent., Pl. VIII. The male.
21. Phemicornis elegans. Capite elongato, sincipite admodum
compresso ; capite, collo, dorso summo, alis, rectricibusque duabus medius nigris; corpore subtùs, dorso imo, fasciả latâ alarum, maculis paucis apud remiges secundarios, rectricibusque lateralibus aurantio-coccineis.

The character given by Mr. Gould of the Phoenicornis (Muscipeta) princeps, as far as regards the nature and distribution of its colours, applies also to the Ph. elegans, but the latter is somewhat less in size, while it is chiefly distinguished by the flatness of the crown, which brings it nearly on a plane with the upper mandible. Mr. MeClelland has given on one sheet a comparative view of the Phoen. elegans, princeps, and brevirostris, in order to illustrate the form of the head in each species, and the depression of the sinciput in Phoen. elegans, in which its essential difference consists.
22. Pheenicornis affinis. Capite colloque suprà cum regione interscapulari griseis; collo subtùs gastrreo, dorso imo, maculis tribus alarum, rectricibus interioribus ad basin exterioribus totis flavis : alis caudâque in medio nigris.
"The male is larger than the female, and distinguished from her by a yellow band on the forehead between the eyes."-McClelland's $M S$.

Mr. Gould has figured this bird as the female of Phoen. brevirostris, but by annexing a mark of interrogation to the specific character, has indicated his doubt respecting the correctness of his determination, or its being really a distinct species. This doubt has now been explained by the researches of Mr. McClelland in its native country.

## Genus Muscicapa, Auct.

23. Muscicapa melanops, Vigors, Proceed. Zool. Soc. 1831, 171 ; Gould's Cent. of Himal. Birds, PI. VI.
24. Muscicapa? capitalis. Capite suprà tectricibus primariis, rectricibusque suprà atris; maculả suboculari utrinque ad occiput productâ albá ; subtùs, dorso lateribusque colli saturatè fuscis; crisso et uropygio canis.
The distinctive character of this species rests on a very concise description of Mr. McClelland, accompanied by a drawing: no perfect specimen was found in the collection. Length five inches.

Genus Rhipidura, Vigors \& Horsf.
25. Rhipidura fuscoventris, Frankl., Proceed. Zool. Soc. 1831, 117, Broad-tailed Fly-catcher, Lath. ?

Genus Cryptolopha, Swains. Nat. Lib. Ornith. Vol. X., Flycatchers.
26. Cryptolopha poiocephala, Sw., loc. cit. p. 200. Pl. XXIII. Platyrhynchus Ceylonensis, Swains. Zool. Illust., I. 13.

Fam. Laniade, Vigors.
Genus Artamus, Vieill.
27. Artamus leucorhynchos, Vieill. Lanius leucorhynchos, Linn. Mantis. (1771) p. 524.

Genus Dicrurus, Vieill.
28. Dicrurus grandis. Edolius grandis, Gould, Proceed. Zool. Soc. 1836, p. 5.

Several specimens of this bird received from Assam agree with the specific character and description given by Mr. Gould (as above cited) in all points excepting the size, being about one-third smaller ; but further observations are required to determine with precision the points by which the long-tailed Edolii are to be discriminated.
29. Dicrurus Rangoonensis. Edolius Rangoonensis, Gould, Proceed. Zool. Soc. 1836, p. 5.

One of our specimens agrees accurately with Mr. Gould's specific character; in two others the crest is less developed, and the lanceolated plumes on the throat are less prominent.
30. Dicrurus Balicassius, Vieill, Enc. Meth. Ornith., 751. Corvus Balicassius, Linn. Syst. I. p. 155. Le Drongo Balicasse.
31. Dicrurus cneus, Vieill, Enc. Meth. Ornith., 751. Le Drongo Bronzè.

## Genus Trichophorus. Temm.

32. Trichophorus flaveolus, Gould, Proceed. Zool. Soc. 1836, p. 6.
"Yellowish-green above, with a tinge of brown on the wings and tail ; beneath bright yellow : crested with narrow feathers, becoming progressively longer from the nostrils to the crown; bill strong, compressed, and slightly hooked; cheeks and nucha scantily covered with feathers. Eight inches long."-Mc Clelland's MS.

The specimens sent from Assam agree with those contained in the Museum of the Zool. Society from the Himalaya, which are the originals of Gould's description.

## Genus Collurio, Vigors.

33. Collurio nigriceps, Frankl., Proceed. Zool. Soc. 1831, p. 117. Indian Shrike, Lath.
"Crown, nape, tail, and wings black; throat and breast white; body and secondaries reddish-gray. Length nine inches."-McClelland's MS.
34. Collurio erythronotus, Vigors, Proceed. Zool. Soc. 1831, p. 42. Gould's Century of Himal. Birds, Pl. XII. fig. 2.
"This species, as found in Assam, compared with the figure in Gould's Century of Himalayan Birds, is considerably smaller, and
the colours more dull in the Assam than in the Himalayan bird. I am therefore disposed to think that the species has here reached its south-eastern geographical limit, as the Irena puella may be supposed in Assam to have reached its northern limit."-McClelland's MS.

Genus Hypsipetes, Vigors, Proceed. Zool. Soc. 1830-1, p. 43.
35. Hypsipetes McClellandii, Horsf. Suprà olivaceo-viridis; capite subcristato vinaceo-fusco, plumis albicante strigatis; subtùs vinacea, abdomine pallidiore ; gulá albidâ, plumis laxis lanceolatis; rostro flavicante.
"Head brown; body and tail above yellowish-green; beneath vinaceous-gray, the tints of the abdomen being lighter. (Plumes of the throat white, lanceolate, and straggling, being bedded in a bluish down.) Inner vanes of the quills brownish-black; tarsi slender, and rather short. Length nine inches."-McClelland's MS.
36. Hypsipetes psaroides, Gould's Century of Himal. Birds, Pl. X.
37. Hypsipetes gracilis. Suprà olivacco-cinerea, crisso pallidiore ; subtùs ex diluto cinnamomeo albicans ; capite summo atro ; remigibus primoribus atris, vexillis exterioribus tenuiter cano marginatis, secundariis canis margine nigro; rectricibus ex diluto olivaceo canescentibus, fasciá latá subterminali nigrá in exterioribus gradatim latiore.
This species deviates slightly from the character of Hyps. psaroides, the type which served for thesdefinition of the genus, and gradually approaches that of Kittacincla of Gould.

## Genus Graucalus, Cuv.

38. Graucalus maculosus. Corulescenti-canus, alis caudaque saturatioribus obscuro olivaceo nitentibus ; rectricibus exterioribus albo apiculatis.
"Olive-black on the wings and tail; body above dark olive-gray, with light gray longitudinal streaks on the feathers under the throat, and light wavy lines on the abdomen and vent; outer tail-feathers with white tips. Length eight and a half inches."-Mc Clelland's MS.

## Fam. Merulide.

Genus Ianthocincla, Gould, Proceed. Zool. Soc. 1835, p. 187.
39. Ianthocincla gularis. Capite suprà pectoreque carulescenti cinereis; notao, abdomine, femoribus, rectricibusque exterioribus latè cinnamomeis in aurantium vergentibus; dorso saturatiore; rectricibus intermediis nigricantibus; striga aterrima a rostri basi sub oculos ad regionem paroticam producta; guld tarsisque flavicantibus; rostro nigro.
"Head ash-gray, with a black band passing along the eyes; throat yellow ; breast gray; rest of the body light olivaceous-brown, incli-
ning to reddish-yellow; beak compressed, arched above a little more than below, depressed at the point; tarsi strong, longer than the middle toe, and yellow; wings rather short and round."-McClelland's MS.

This bird, although greatly resembling the Ianthocincla albogularis of Gould, is clearly distinguished from that species by the yellow colour of its throat, by the absence of the white tips to the exterior tail-feathers, by its yellow tarsi, and by the brighter orange shade of its general tint.
40. Ianthocincla pectoralis, Gould, Proc. Zool. Soc. 1835, p. 186.
"Above greenish-brown, beneath yellow and white, irregularly intermixed. A black band extends over each eye, descending on the sides of the neck, unites (from each side) in front of the neek; throat yellowish-white; lower tail-feathers tipped with white; beak compressed, slightly arched above; upper mandible projecting and slightly depressed at the tip; tarsi high and strong."-McClelland's $M S$.
41. Ianthocincla lunaris. Cinnamomeo-olivacea, capite summo caudaque nigricantibus ; fronte, gutture pectoreque in medio atris; lunulă insigni collari a regione parotica gulam versus extensa crissoque latè ferrugineis.
"Dark olive; throat and lores black, bounded posteriorly by a light brown crescent; vent and a few clouds on the abdomen of the same colour; tail blackish; wings short, and chiefly concealed beneath the downy plumage of the back; tarsus strong, longer than the middle toe ; beak arched beneath, compressed, slightly denticulated, but not hooked. Length nine inches."-Mc Clelland's MS.

Genus Oriolus, Auct.
42. Oriolus melanocephalus, Gmel. Linn. I. 383. Black-headed Oriole, Lath.
43. Oriolus Traillii. Pastor Traillii, Gould's Cent. Himal. Birds, PI. XXXV.

Genus Irena, Horsf.
44. Irena Puella, Horsf., Linn. Trans., XIII. p. 153. Coracias Puella, Lath. Ind. Orn. 171.

Genus Ixos, Temm.
45. Ixos monticola. "Above grayish-brown; crown black and crested; throat and abdomen white; vent scarlet; lower tail-feathers tipped with white; wings short ; body four inches, tail three inches long, and square; a scarlet ring about the eye, but no red tuft beneath this organ ; by the latter circumstance it differs from Ixos jocosus.
"Inhabits the Kossia mountains, and usually seen in numerous flocks, flying from tree to tree in quest of insects. Their note is
shrill and inharmonious, not unlike that of the sparrow."-McClelland's MS.

Further observations are required to determine the rank of this bird as a distinct species, or as a variety of Ixos jocosus.
46. Ixos Cafer. Turdus Cafer, Linn. I. 295. Le Curouge, Le Vaill.

## Genus Timalia, Horsf.

47. Timalia pileata, Horsf., Linn. Trans., XIII. p. 151.
"This is another instance of a species of the Malayan Archipelago having extended itself to Assam, and is more interesting from the smallness of its size, its length being only five and a half inches in Assam, but in Sumatra and Java it is six and a half inches in length. The tail in the Assam variety is marked with obscure bands, which does not appear to be the case with the Java variety ; and the plumes of the belly and thighs are shorter in the former than in the latter." $-M c$ Clelland's MS.

Genus Geocichla, Kuhl.
48. Geocichla Rubecula, Gould, Proceed. Zool. Soc. 1836, p.7.

Fam. Sylviade.
Genus Motacilla, Auct.
49. Motacilla variegata, Steph. Pied Wagtail, Lath. Mot. picata, Frankl.

Genus Saxicola, Bechst.
50. Saxicola Rubicola, Temm.
51. Saxicola? olivea. Suprà olivaceo-viridis, subtùs ex plumbeo carulescens; fronte flavicante.
"A minute species, olive-green above, leaden-blue beneath, and olive-yellow on the forehead; anterior toes short; tarsi elevated. Length three inches."-Mc Clelland's MS.

A single specimen only has been forwarded, which is not sufficiently perfect to determine its true generic character with certainty.

Genus Pheenicura, Jard. \& Selb.
52. Pheenicura Reevesii, Gray, Zool. Misc.

Genus Zosterops, Vigors and Horsf.
53. Zosterops Maderaspatanus? Catal. of Zool. Specim. Append. to Life of Sir T. S. Raffles, p. 661.

The specimen sent home by Mr. McClelland differs from that brought from Sumatra by Sir T. S. Raffles in being a trifle smaller.

## Fam. Pipride.

## Genus Parus, Linn.

54. Parus atriceps, Horsf., Trans. Linn. Soc., XIII. 160.
55. Parus flavocristatus, De Lafresnage. Mésanye à huppe jaune, Guerin, Mag. Zool., Pl. 80. Janvier 1837. Parus Sultaneus, Hodgson, India Review and Journal of Foreign Science, \&c., by F. Corbyn, Esq., April 1837.
"The female is distinguished from the male by the black colour being less intense, and intermixed more with a greenish tint. For the first specimen of this elegant bird I was indebted to Mr. Griffith, who procured it during our descent from the Kossia mountains into Assam, in which place, however, they are more common." Mc Clelland's MS.

## Genus Leiothrix, Swains.

56. Leiothrix lepida. Capite subcristato suprà nucháque cinereis in carulescentem vergentibus; dorso tectricibusque alarum ex olivaceo cinnamomeis ; alis caudaque suprà ex parte caruleis; remigum pogoniis internis latè nigris, apicibus albis; rectricibus exterioribus pogoniis internis, omnibus apicibus albis : subtùs ex diluto cinnamomeo canescens.
"Gray; bluish on the crown, brownish on the back, and light bluish-gray beneath; wings and tail blue (inclining to black), with minute white tips and light blue outer margins. Length five inches." -Mc Clelland's MS.
57. Leiothrix signata. Olivaceo-fusca abdomine pallidiore; alis, cauddque subcastaneis ; guld obsoletè flavicante ; fascid collari ex latè-cyaneo nitente.
"Olive-brown above, lighter beneath; a Prussian-blue streak on each side of the neck ; tail short and square. Length five inches."McClelland's MS.
58. Leiothrix ornata. Capite colloque suprà nigricantibus; subtùs teniaque ad latera colli per oculos ad rostrum ducta albis; noteo cinnamomeo, crisso pallidiore ; alis cauddque niyris, remigibus secundariis albo marginatis, primoribus rectricibusque ad apices albo limbatis, omnibus nitore cruento inductis.
"Head black, with a white streak passing over each eye; back brown; wings and tail black, variegated with scarlet and white; beneath white."-McClelland's MS.

Tribus Conirostres, Cuv.
Fam. Fringillide, Vigors.
Genus Mirafra, Horsf.
59. Mirafra Assamica. Corpore cinereo-brunneo variegato, uropygio pallidiore ; remigum pogoniis internis caudcque basi rufis;
subtùs ex rufescente cana, plumis pectoris nigro maculatis; lunuld obsoletè fuscd temporibus.
This species appears to be intermediate between Mirafra Javanica, Horsf., and Mirafra phoenicura, Frankl., but its characters are sufficiently marked to distinguish it from both.
60. Mirafra flavicollis. Suprà olivaceo-brunnea, vertice saturatiore, tectricibus secundariis albicante marginatis; subtùs flava, fasciis paucis obsoletè fuscis; crisso caudaque subtùs albicantibus.
Length five inches.

## Genus Ploceus, Cuv.

61. Ploceus Manyar. Fringilla Manyar, Horsf., Trans. Linn. Soc., XIII. p. 160.

Genus Lonchura, Sykes, Proceed. Zool. Soc., 1832, p. 94.
62. Lonchura melanocephala. Capite, collo, pectoreque atris; corpore, alis caudaque saturatè badiis.
Length four inches.
63. Lonchura Cheet, Sykes, Proceed. Zool. Soc., 1832, p. 95.

## Fam. Sturnide.

Genus Pastor, Temm.
64. Pastor tristis, Temm. Gracula tristis, Lath., Ind. Orn., I. 190.
65. Pastor Pagodarum, Temm. Turdus Pagodarum, Gmel. Linn.

Genus Lamprotornis.
66. Lamprotornis spilopterus, Gould's Cent. of Himal. Birds.

Fam. Corvide.
Genus Corvus, Linn.
"The Raven, the Carrion Crow, and the Rook, are inhabitants of Assam, but are seldom found in the depths of the forests. They rather follow the footsteps of man, and establish themselves in small numbers in the vicinity of villages and such places on the banks of rivers as are frequented by travellers as halting-places. The Hooded Crow is very common, but I did not perceive anything peculiar about it to induce me to add it to my collection."-Mc Clelland's MS.

Genus Dendrocitta, Gould, Proceed. Zool. Soc., 1833, p. 57.
67. Dendrocitta frontalis. Facie aterrima, conterminio exactè circumscripto, alis cauddque nigris ; occipite, vertice, collo, pectoreque albis, diluto canescente lavatis; humeris, notco, hypochondriis, femoribusque badiis in ferrugineum vergentibus ; tectricibus secundariis saturato carulescenti-canis.
Length of the body seven, of the tail ten inches.
68. Dendrocitta vagabunda, Gould's Cent. Himal. Birds. Pica vagabunda, Vieill, Encyclop. Method. Ornitholog., p. 888. Coracias vagabunda, Lath., Ind., I. 171.

## Genus Kitta,

69. Kitta venatorius, Gray, Illustrations of Indian Zoology, I. PI. XXIV.

## Genus Coracias, Linn.

70. Coracias affinis. Capite suprà aruginoso, nucha dorsoque olivaceis, «neo subnitentibus; fascid alarum latd, tectricibus utrinque, rectricibus ad basin, salvis intermediis glaucis, saturatissimè cyaneis; fascid remigum primorum subterminali, secundariarum basali, uropygio, fascia lata terminali rectricum, crissoque latè thalassinis: subtùs et lateribus colli vinaceis; guld plumis laxis, in medio violaceo-vittatis, ornata.

## Genus Gracula.

71. Gracula religiosa, Linn. Syst., I. p. 164.

Fam. Buceride.
Genus Buceros, Linn.
72. Buceros Malabaricus, Gmel. Linn., I. 359. Pied Horn-Bill, Lath.
73. Buceros Homrâi, Hodgson, Journ. As. Soc. Bengal, Vol. I. p. 251.

Mr. Hodgson's description of the Buceros Homrâi applies closely to Mr. McClelland's specimens, and also to the bird figured in the 44th plate of Gould's Century of Himalayan Birds, and to specimens from Sumatra in the East India Company's Museum; while the Calao à casque concave of Le Vaillant, according to Dr. Shaw's description and specific character, differs in various particulars.

Fam. Loxiade, Vigors.
Genus Paradoxornis, Gould, Proceed. Zool. Soc., 1836, p. 17.
74. Paradoxornis Alavirostris, Gould, loc. cit., figured in Gould's 'Icones Avium,' Part I. Bathyrhynchus brevirostris, McClelland, Quarterly Journal of the Calcutta Med. and Phys. Society, Dec. 1837. With a figure.
"Brown, beneath yellowish-brown; head brown, with a black circle under each eye, the interior feathers of which have white tips; wings short; beak much compressed, strong, shorter than its depth, and thrice the depth of its breadth at the base; mandibles equally arched, and meeting in front, without a hook, in an obtuse point; nostrils small, round, and concealed by recurved feathers."-McClelland's MS.

Tribus Scansores.
Fam. Psittacide.
Genus Paleornis, Vigors.
75. Palcornis torquatus, Vigors. Psittacus torquatus, Auct.
76. Paleornis Pondicerianus, Vigors. Psittacus Pondicerianus, Auct.

Fam. Picide.
Genus Bucco, Auct.
77. Bucco corvinus, Temm. Pl. Col. DXXII.
78. Bucco cyanops, Cuv. Capito cyanocollis, Vieill. Gal. des Ois. XXXV.

## Genus Picus, Linn.

79. Picus strenuus, Gould.
80. Picus occipitalis, Gould's Cent. of Himal. Birds, PI. XLVII.
81. Picus Nepalensis, Gray and Hardw. Ind. Zool., Pl. XXXI. Fig. 1.
82. Picus Macei, Temm. Pl. Col. LIX.
83. Picus (Chrysonotus, Swainson) Grantia. Fronte, alis, caudaque suprà ex sordidè aurantio rufescentibus; collo suprà et ad latera ex viridi flavicante; subtùs fuscus; rectricibus flavicante fasciatis; remigibus primoribus fuscescentibus, vexillis alternis flavo-guttatis vel fasciatis.
Length nine inches.
This bird belongs to Mr. Swainson's subgenus Chrysonotus, Lard. Cab. Cycl. Birds, II. p. 309, of which Picus Tiga, Linn. Tr., XIII. 177 , is given as the type.

> Genus Yunx, Linn.
84. Yunx torquilla, Linn.

The specimens collected by Mr. McClelland agree in all points with the bird as found in Europe.

Fam. Certhiade.
Genus Sitta, Linn.
85. Sitta frontalis, Horsf., Linn. Trans., Vol. XIII. p. 162.

Genus Upupa, Linn.
86. Upupa Epops, Linn.

From comparison with European specimens, it appears that this bird, as occurring in Assam, can scarcely be considered a variety of the $U$. Epops of Linnæus; although Mr. McClelland's specimens
are rather smaller, they do not agree with the $U$. minor of Shaw, which is found in Africa.

> Genus Pomatorhinus, Horsf.
87. Pomatorhinus montanus, Horsf., Linn. Trans., XIII. p. 165.

No essential difference is apparent between a specimen of this bird sent from Assam and the specimens obtained in the Island of Java, from which the original description was made.

## Fam. Cuculide. <br> Genus Phenicophaus, Vieill.

## 88. Phoenicophaus tristis, Lesson?

"Bottle-green above; dark greenish-gray beneath; throat light greenish-gray, with black streaks; naked space around the eyes; superciliary streak white; tail with white tip; beak green. Thirteen inches long."-Mc Clelland's MS.

No specimen having been found of this species, it will require further observations to determine its true character.

> Genus Centropus, Ill.

## 89. Centropus Philippensis, Cuv.

" This species is very common in villages and cultivated rice-fields in Assam, and in low inundated lands along the banks of rivers, It is tame even in the most deserted places in which it is found, and seldom flies; but if pressed too closely, it rather forces its way into a thick hedge. It delights in moist humid climates, as is proved by the vast numbers of them which occur in the Sunderbunds, the only part of India except Assam in which I have seen them; but I believe they are also seen in the vicinity of Calcutta. I am informed that they are common at Maulmain on the Tenasserim coast, but I question if they are to be found in India further north-west than Bengal. They have a very peculiar suppressed note, resembling whono, uttered with such a degree of ventriloquism, that although you see the individual from which the sound escapes, you do not expect it as the cause. In passing through the Sunderbunds in April last, this whono was almost the only sound I heard, and I was at first induced to suppose that it proceeded from some concealed animal in my boat."-Mc Clelland's MS.
90. Centropus lepidus, Horsf., Linn. Trans., XIII. p. 180.

Mr. McClelland's specimen is comparatively of a large size, but agrees in all particulars with the Cent. lepidus from Java.

## Genus Trogon.

91. Trogon Hodgsonii, Gould, 'Monograph of Trogonidæ.'

Tribus Tenuirostres, Cuv.
Fam. Cinnyride.
Genus Cinnyris, Cuv.
92. Cinnyris Assamensis. Cinn. nigrescens, capite suprà gulaque metallicè purpureis ; dorso et colli lateribus intensè fusce-scenti-rubris ; plumis ad partem dorsi posteriorem flavido terminatis; uropygio, tectricibus cauda superioribus, rectricibusque cauda duabus intermediis metallicè purpureis; his elongatis ; abdomine et crisso flavido lavatis : rostro valdè incurvo, et quàm caput puululùm longiore.
This species is closely allied to Cinnyris Gouldia.
93. Cinnyris labecula. Punicea ; guld pectoreque nitidissimis ; capite, plumis scapularibus, caudaque metallicè aureo viridibus; alis fuscis viridi nitentibus; subtùs cana.
Body three inches, tail two inches long.

## Genus Arachnothera, Temm.

94. Arachnothera inornata, Temm., Pl. Col. LXXXIV.

Fig. 2.
Fam. Meliphagide.
Genus Chloropsis, Jard. \& Selby.
95. Chlorofsis chrysogaster. Suprà viridis, nitens; pectore abdomineque ex aurantio luteis; guld, jugulo, lateribus colli, arcuque per oculos ducto atris, conterminio arctè circumscriptis; genis violaceis, macula scapulari aruginosa ; tectricibus, remigibus primoribus, rectricibusque nigris, nitore violaceo ; pileo aureo subnitente.
In the specimens of the female the black mark on the throat and neighbouring parts is not apparent; the spots on the chin and shoulders are obscure; but the general colour of the upper and lower parts is the same as in the male.

Genus Diceum, Cuv.
96. Diccum erythronotum. Certhia erythronotos, Ind. Orn., I. 290. Red-backed Creeper, Lath., Gen. Hist. of Birds, IV. 241. 'Souimanga à dos rouge,' Ois. dor., II. 57. Pl. XXXV.


[^0]:    * Vol. II. Part 1, Journal of the Proceedings, p. vi.

