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Birds

ILLUSTRATIONS

OF

ORNITHOLOGY

BY

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Aster Albus





Alca - Alca

ASTUR ALBUS.

White Goshawk.

PLATE I.—*Adult Male.*

A. albus, rostro nigro, cerâ pedibusque flavis.

Long. maris 16 pollices; fœminæ, 20½ pollices.—Pond. fœminæ 1 lb 12 oz.

Falco Novæ Hollandiæ, *Gmel.* Linn. Syst. Nat. i. p. 264.—*Lath.* Ind. Ornith. i. p. 16.

Vigors et Horsfield, in Trans. of Linn. Soc. xv. p. 179.

New Holland White Eagle, *Lath.* Gen. Hist. of Birds, i. p. 217.

Falco albus, Australasian White Eagle, *Shaw*, Gen. Zool. vii. p. 92.

Milk-white Hawk, *Mr. Caley's MS.* Notes to Birds in collection of Linn. Soc.

THIS elegant species has been considered by CUVIER, and many other ornithologists, only as a variety of some other; and the very few specimens that were, until lately, brought to this country, assisted in confirming the opinion of its colour being accidental. A more accurate examination of numerous specimens, and the testimony of persons and naturalists whose discrimination can be depended upon, have, however, removed every remaining doubt of its being a species entirely distinct. It is a native of New Holland. Most of the specimens brought to this country, have been taken in the neighbourhood of Port Jackson. It appears to frequent rivers and fresh-water creeks, hunting over the low brushwood that covers their banks.

MR CALEY, who has enriched the Museum of the Linnean Society with a very extensive collection of New Holland birds, and which he has rendered more valuable by his remarks on their habits, attached the following observations to a fine specimen of a female in that collection: "*Milk-white Hawk.*—This bird was shot near Duck river, which is a branch of Port Jackson Harbour, about two miles from Paramatta, on the road to Sydney. I have seen this species very sparingly. The natives tell me it feeds upon fish. Its weight is 1 lb. 12 oz. The irides are light olive, with a shade of yellow.—*Feb.* 1809."

There are two specimens of this bird in the British Museum, and most of the collections upon the Continent also possess specimens, in every way

ASTUR ALBUS.

agreeing with that now described, and the female in the collection of the Linnean Society.

Total length of the male 16 inches; that of the female $20\frac{1}{2}$ inches. The body is entirely of the purest white; the bill is deep bluish-black; the cere is pale yellow, the space between the cere and eyes is sparingly covered with feathers, and has numerous incumbent setæ joining over the base of the bill; the irides are light olive, tinged with yellow. The legs are yellow; the claws are black, and very strong. There appears to be no difference in plumage between the male and female. The young, for the first year at least, are irregularly spotted with pale dusky brown.



Polyborus ochrocephalus





Polyborus ochrocephalus

POLYBORUS OCHROCEPHALUS, (NOBIS).

Yellow-headed Caracara.

PLATE II.—*Adult Male.*

P. capite, nuchâ, pectore abdomineque sordidè ochraceis, strigâ ab oculis supra auriculis nigra; dorso alisque extremitate caudæ nigris.

Long. 14 pollices.

Milvago ochrocephalus, *Spix et Martius*, Nov. Spec. Av. Brasiliensium, Pl. 5.

THE male of this species is figured by SPIX and MARTIUS, in that part of their splendid work entitled "Novæ Species Avium Brasiliensium," under the name of *Milvago ochrocephala*, and forms the type of that genus, being separated by these naturalists from the *Polyborus* of M. VIEILLOT. The chief difference is in the shape of the tail, and in the greater covering of the cheeks and space between the eyes and the bill, or rather in a slight modification of VIEILLOT'S characters, and in a group so very limited, we prefer retaining it in its old station rather than form a new genus upon these discrepancies only.

The length of the male is fourteen inches. The head, neck, breast, and belly, are of a dull ochre-yellow colour, on the head and upper part of the neck mixed with feathers of a darker shade. A broad streak of black passes from the eyes above the auricular feathers. The back, wings, and extremity of the tail, are very deep brownish-black; the base of the quill and tail feathers yellowish-white, barred and spotted with brownish-black; the rump and under tail-coverts are white: the legs and feet are bluish-black.

The female is about an inch and a quarter longer than the male; the black streak over the eyes is very indistinctly marked, but there is no difference in the other parts of the plumage.

The specimen from which the accompanying drawing and description were taken, was brought in 1825 from the Brazils by Dr SUCH, and, together with the female, is now in the museum of the Zoological Society of London.





Pitylus atro-chalybeus.



Pitipus atrichalybina

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PITYLUS ATRO-CHALYBEUS, (NOBIS).

Steel-grey Kernel-eater.

PLATE III.

P. corpore toto atro-chalybeo, genis juguloque nigris.

WE are indebted to the researches of Dr SUCH, who has enriched our cabinets with many new and rare birds from South America, for the species now first figured and described. It appears to possess all the prominent characters of that group of the *Loxiadæ* to which CUVIER has given the generic appellation of *Pitylus*, and whose station appears to be intermediate between that of which the Hawfinch (*G. coccothraustes*, BRISS.) is the type, and the other powerful billed species arranged under the genera *Loxia*, *Strobilophaga*, &c. It is a native of the Brazils, but little or no information has reached us of its peculiar habits. The great strength and form of its bill, however, seem to indicate, that it is only by the powerful exertion of that member that it procures its food, which, in all probability, consists of the kernels of the hardest fruits, or the indurated seeds of different vegetables and grasses. It measures upwards of nine inches in length. The bill is of an orange-red colour, very thick and strong, the upper mandible considerably arched, and hooked at the tip, the margins forming towards its middle a prominent angle or tooth. The whole of the body is of a blackish or steel grey colour, with the exception of the cheeks and throat, which are black. The tail is long, and slightly wedge-shaped; its colour, as well as that of the greater quills, brownish-black. Legs and toes black.

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GENUS PHYTOTOMA, MOLINA.

PHYTOTOMA, *Molina, Gmelin, Illiger, Temminck.*

Ord. II. INSESSORES ; Tribus III. Conirostres.—Fam. V. Loxiadæ, *Vigors.*—
Ord. VI. PASSERES, *Linnæus.*—Ord. II. AMBULATOIRES ; 12^{ma} Fam. Passerini, *Illiger.*

CHAR. GEN.—*Rostrum* basi latum, sub-breve, subincurvum, culmine subdepresso, rotundato, retrorsum inter frontis plumulas extendente ; *mandibulis*, margine sulcato, superioris tomii serratis, inferioris tomii intimis serratis, externis integris ; *nares* basales, laterales, subovati, setis plumulisque partim tectis. *Lingua* brevis, apice integro. *Alæ* mediocres, remige primo sub-brevi, secundo longiore, tertio, quarto, quinto, longissimis. *Pedes* fortes, mediocres, tetradactyli, vel tridactyli ; *acrotarsia*, *acrodactyla*que scutellata ; *paratarsia* reticulata, digitis unguibusque mediocribus, his fortibus incurvis ; *cauda* subelongata, subæqualis, rectricibus duodecim.

Typus genericus, PHYTOTOMA *rara*, Molina.

THE genus *Phytotoma* was established by MOLINA*, and adopted by GMELIN in his edition of the Systema Naturæ, published in 1788. At first, the genus included only one species, *P. rara*, MOLINA and GMELIN, to which DAUDIN afterwards added, with the appellation of *Phytotome d'Abyssinie*, the *Loxia tridactyla* of GMELIN (the *Guipso balito* of BRUCE and BUFFON †) ; and his example has been followed by LATHAM ‡. Mr STEPHENS, in his Continuation of SHAW'S General Zoology ||, has created out of this species his genus

* Natural History of Chili, p. 234.

† “ Le nom entier de cet oiseau, tel qu'il se trouve sur les figures de M. le Chevalier BRUCE, est *Guipso balito dimmo won jerek.*”—BUFF. *Oiseaux*, 4to edit. iii. p. 471. (note.)

‡ Ind. Ornith. lxix. and Gen. Hist. vi. p. 153.

|| General Zoology, ix. p. 337.

PHYTOTOMA.

HYREUS, separating this bird from *Phytotoma*, "from its having but three toes, placed two before and one behind, in the manner of the genus *Tridactylia*." Dr. LATHAM has arranged the species in two sections, according to the number of toes; the first contains the *P. rara*, having four toes, the second *P. Abyssinica*, which has only three. We cannot but prefer this arrangement to that adopted by Mr STEPHENS; for the formation of a new genus should rest on a better foundation than descriptions drawn up merely from figures. All that is known of the Abyssinian plant-cutter, is derived from the descriptions of DAUDIN and BUFFON (and these do not perfectly agree), both taken from drawings, one of which was copied from a Nubian specimen, and sent to DAUDIN, the other done in Abyssinia, was brought home by Mr BRUCE. In our humble opinion, genera can never be satisfactorily established, without a minute examination of the individuals themselves on which they are founded.

DON FELIX DE AZARA* mentions another bird, the *Dentato*, evidently belonging to this genus, and having four toes: it is the *Phytotome du Paraguay*, *Phytotoma rutila* of VIEILLOT, which M. SONINI remarks is closely allied to *P. rara*, if it be not in fact the same species. The individual before us, which we have named in honour of the naturalist who accompanied Lord BYRON, constitutes the third species of LATHAM'S first division of the genus, making in all four species of *Phytotoma* at present known, provided *P. rutila* be really distinct from *P. rara*. The characters of the four species may be briefly described as follows:—those of *P. rara*, and *Abyssinica* are taken from LATHAM †; that of *P. rutila* from AZARA'S account of that bird.

* Voyages dans l'Amérique meridionale, SONINI'S edit. 3. p. 226.

† Supp. to Ind. Ornith. p. xix.

PHYTOTOMA.

SYNOPSIS SPECIERUM.

PHYTOTOMA.

* *Pedibus tetradactylis.*

1. P. RARA.—P. griseo-obscura, remigibus rectricibusque albo-maculatis.

Phytotoma rara, *Molina*, Nat. Hist. of Chili, p. 234.—*Gmel. Linn. Syst. Nat.*

HAB. In Chili.

2. P. RUTILA.—P. brunneo-viridi imbuta; fronte, jugulo, maculâ utrinque pectorali, abdomineque imâ rufescentibus; pectore, abdomineque supernè albis, albido obscuriore striatis; alis caudâque nigris.

P. rutila, *Viell.*

HAB. In Paraguay.

3. P. BLOXAMI, sp. nov.—P. supra cinerascens, fusco-lineata; fronte, vertice, corporeque subtus rufescentibus; alis rectricibusque fusco-nigris; humeris, pteromatumque marginibus albis.

Long. $7\frac{1}{2}$ pollices.

HAB. In Chili.

In Museo Britannico.

** *Pedibus tridactylis.*

4. P. ABYSSINICA.—P. nigra: capite, gulâ, juguloque rubris.

Phytotoma Abyssinica, *Latham*, Supp. to Ind. Ornith. xlix.

HAB. In Abyssiniâ, et Nubiâ.





Phylotoma Bloxami.





Phytotoma Bloxami.

PHYTOTOMA BLOXAMI, (NOBIS).

Bloxam's Plant-cutter.

PLATE IV.

P. supra cinerascens, fusco-lineata; fronte, vertice, corporeque subtus rufescentibus; alis rectricibusque fusco-nigris, humeris pteromatumque marginibus albis.

THE total length of the individual before us is seven inches and a half; that of the bill, from the apex to the extremity of the rictus, rather more than five-eighths of an inch. The upper part of the bill is bluish-black, the sides of the upper mandible and the whole of the lower paler. A deep sulcation divides the margin of each mandible into two distinct tomiae or ridges, both of which in the upper are strongly serrated: in the lower, the interior ridge only is serrated, the exterior being perfectly entire. We believe this to be the only instance hitherto known of this singular conformation of the bill. The crown of the head is of a deep orange-red colour; the throat, breast, belly, vent, and three-fourths of the tail beneath, are of the same colour, but considerably lighter: the sides and under wing-coverts are brownish-black; the quill feathers underneath paler. The feathers of the cheeks, nape, back, wing-coverts, scapulars, and uropygium, are dark oil-green, longitudinally streaked in the centre with brownish-black: on the feathers of the uropygium, the oil-green colour predominates; the tips of the tail-coverts, and the secondary quill-feathers are whitish; a broad and conspicuous white band extends across the shoulders, and a narrower one is formed below it, by several of the feathers of the primary wing-coverts being tipped with white; a slight streak of the same colour, on the exterior web of the greater quill-feathers (except the first and second) forms a third, broader, oblique band across their middle. The spurious wing-feathers are of the same colour as the quills. The two middle tail-feathers are brownish-black, all the rest are brownish-black with the inner webs ferruginous from the base, for nearly two-thirds of their length; the outer or first feather is margined externally, and at the tip, with the same colour. The legs, feet, and claws, are black.

Our specimen was shot at Valparaiso, and brought home by Lord BYRON in H. M. ship *Blonde*, and was presented to the British Museum by the Lords Commissioners of the Admiralty.



GENUS CHLOROPSIS, NOBIS.

TURDUS, *Gmel.*—PHILEDON, *Cuvier.*—CERTHIA, *Shaw.*

Ord. II. INSESSORES; Tribus 5^{ta}. Tenuirostres, Fam. 5^{ta}. Melliphagidæ, *Vigors.*
—Ord. II. LES PASSEREAUX; Fam. 1^{re}. Les Dentirostres, *Cuvier.*—Ord. III.
PASSERES, *Latham.*

CHAR. GEN.—*Rostrum* mediocre, subgracile, teretiusculum, incurvum, acutum, basi trigonum, medio ad apicem compressum; mandibula tomis inclinantibus, pone apicem leviter utrinsecus emarginatis; mesorhinio carinatim elevato, angulo mentali rotundato. *Lingua* longa apice fibroso. *Nares* basales, laterales, membranâ nudâ posticè tectæ. *Alæ* rotundatæ mediocres. *Remige* primo spurio, brevissimo, secundo tertioque longioribus, quarto quintoque longissimis, subæqualibus. *Cauda* æqualis, mediocris, rectricibus duodecim. *Pedes* inessores; tarsi et digiti breves, externo cum medio antico, basi coalito; hallux robustior; acropodia scutulata. *Ungues* sulcati, compressi incurvi, hallucis validior.

Typus genericus, *TURDUS cochinsinensis*, *Latham.*

THE objections advanced against the formation of new genera by those who are adverse to any change in the systems of the earlier writers, however necessary new arrangements may now be rendered by the progress of science, and the great accumulation of new species and forms which have since been discovered, are so ably combated, and their futility so clearly exposed, by the arguments of the first naturalists of the age, that we deem no farther apology necessary for the institution of the above genus, convinced that, in doing so, we are giving facility to the study of this interesting branch of science, and not, as has been asserted, throwing impediments in the way of its cultivation, at the same time contributing to the establishment of those luminous and philosophical views, with respect to the classification and arrangement of the different departments of natural history, which, as far as they regard Ornithology and Entomology, have already been so convincingly advocated by the writings of our own countrymen.

[a, PL. 5.]

CHLOROPSIS.

The type of the genus we now propose, though a bird known in our collections for many years, does not appear to have had its affinities properly investigated, or rightly understood. By GMELIN and LATHAM it was included under the title of *Turdus cochinsinensis*, in their widely extended genus *Turdus*, which embraced a great variety of forms, many of them possessing scarcely a feature of the true typical species of the genus, and among them the bird above mentioned. Dr SHAW, in the 8th volume of his General Zoology, classes it in *Certhia*,—a genus, as instituted by LINNÆUS, containing not only birds differing from each other in habits and manners, but in the development of their proportions and anatomical structure. To some of the groups, however, included under that generic term, and which are now characterised as the families of the *Cinanyridæ* and *Nectariniadæ*, it appears to have considerable affinity. Mr STEPHENS, the continuator of the same work, proposes * to place it in *Brachypus*, a genus lately formed by Mr SWAINSON for that group of the smaller *Merulidæ* distinguished by the shortness of their tarsi and toes, and the comparative weakness of their bill, and which have also been separated from the other Thrushes by MM. TEMMINCK, under the name of *Turdoides*. But with this group it seems to have no intimate affinity, the resemblance being confined to the proportion of the feet. CUVIER, in his Regne Animal, classes it with the Philedons (genus *Melliphaga* of LEWIN), a family becoming every day more extended, by the discovery of new species, and exhibiting a great variety of forms, but all united in affinity with each other by the common nature of their food, and the conformation of their tongue. In the views of this distinguished naturalist as to the appropriate station of this group, we fully concur, and have accordingly made our genus a constituent part of the family of the *Melliphagidæ* of VIGORS. The species at present known, and strictly referable to the genus, are few, and are all natives of the warm climates of Asia. From the formation of their tongue, which is long, extensile, and furnished at the tip with a pencil of cartilaginous fibres, they are supposed to feed principally upon the nectar of flowers; or, what is still more probable (judging from the strength of their bill, as compared with that of the true nectariferous species), on the juices or flesh of the tropical fruits.

* See 13th vol. of SHAW's General Zoology.

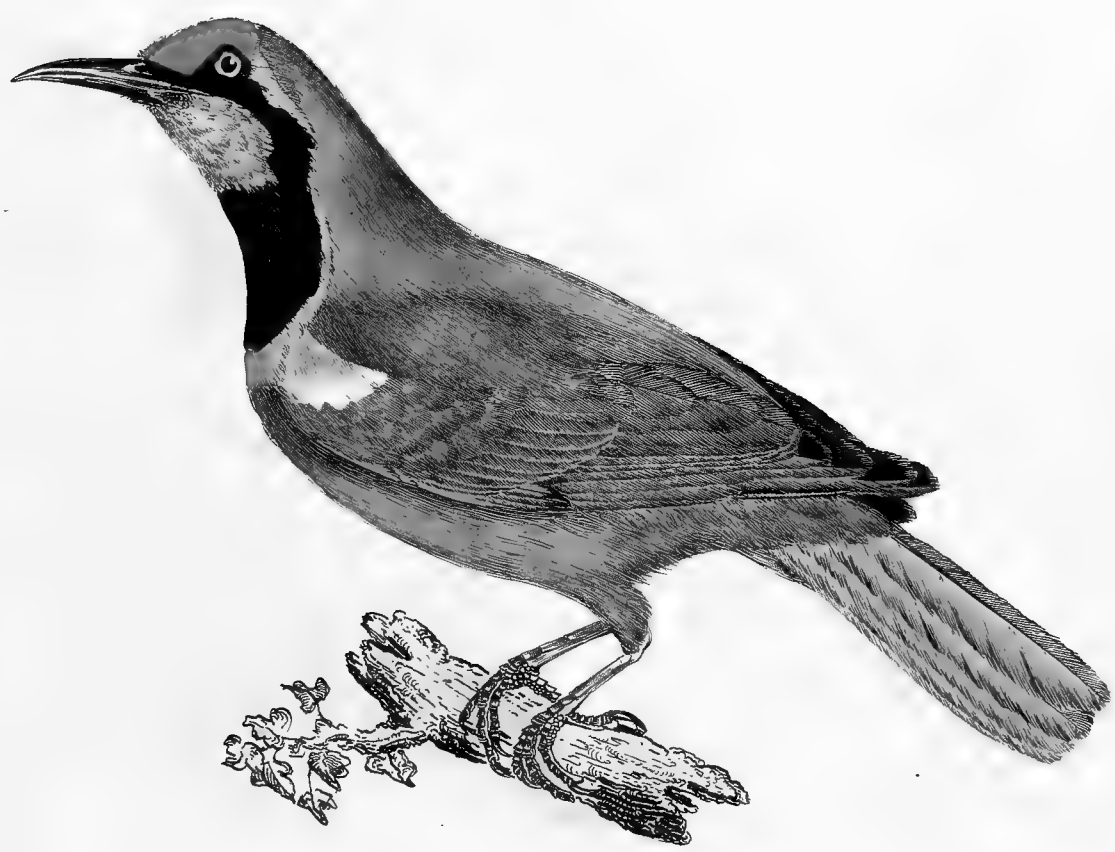
CHLOROPSIS.

SYNOPSIS SPECIERUM.

CHLOROPSIS.

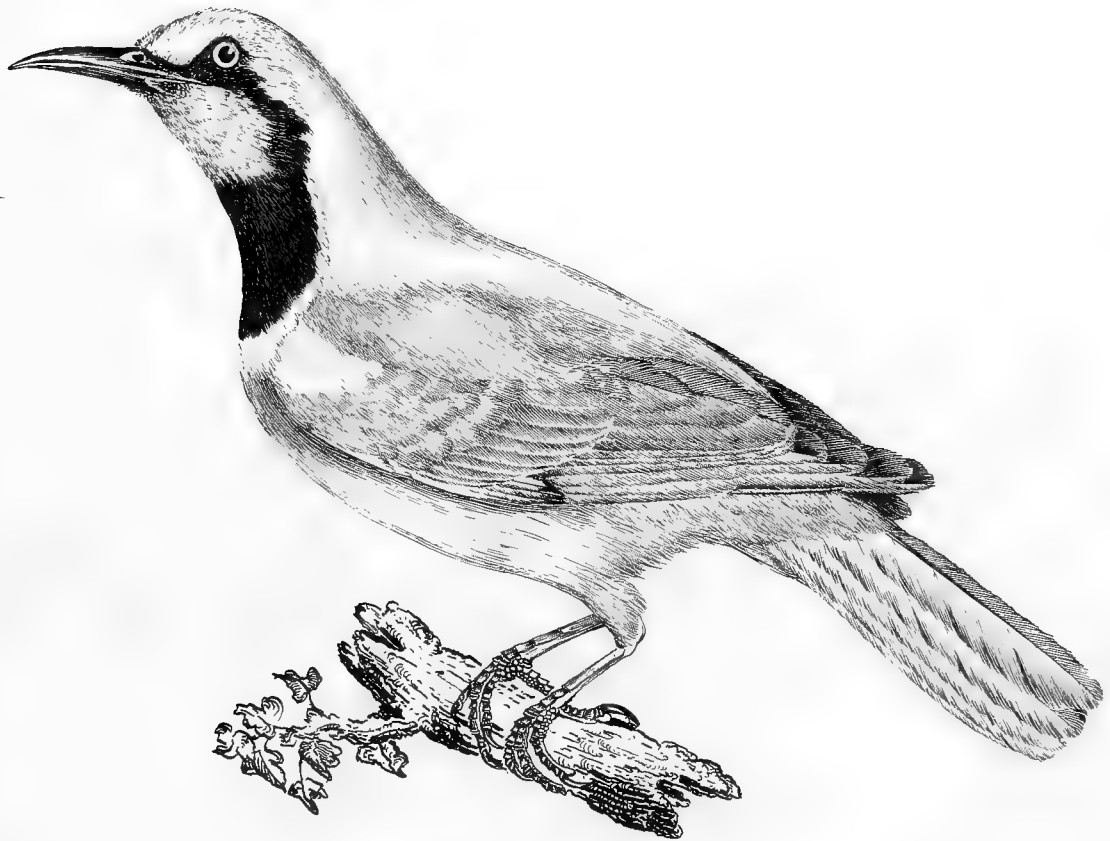
1. *C. COCHINSINENSIS*.—*C. viridis*, loris juguloque nigris, maxilla inferior strigâ cœruleâ, sub gula lunulâ flavâ. Flexuris nitidè cœruleis.
Turdus cochinsinensis, *Gmel. Syst.* 13th ed. ii. p. 325.—*Lath. Ind. Ornith.* i. 357. 113.
Black-chinned Thrush, *Lath.* iii. 79. 106.
Le Verdin, *Vieill. Ois. d'Or*, ii. 77, 78.
Long. $5\frac{1}{2}$ pollices.
HAB. In Cochinchina et India.
In museis plerisque.
2. *C. MALABARICUS*.—*C. viridis*, nitens, fronte aurantio, mento gulâque hyacinthinis, loris juguloque nigris, sub jugulo lunulâ aureâ; flexuris nitidè cœruleis.
Turdus malabaricus, *Gmel.* 13th ed. ii. 837. 125.—*Lath. Ind. Ornith.* i. 349. 77.
Yellow-fronted Thrush, *Lath. Gen. Hist.* v. 64. 50.
Le Petit Merle de la côte de Malabar, *Voy. Sonnerat*, ii. 192.
Long. $6\frac{1}{2}$ pollices.
HAB. In India.
In museo GULIELMI JARDINE Baronetti, et Parisiensi.
3. *C. SONNERATI*, sp. nov.—*C. viridis*, loris, gulo, juguloque nigris, strigâ parvâ maxillari hyacinthinâ; flexuris nitidè viride-cœruleis.
Long. $8\frac{1}{2}$ pollices.
HAB. In India, et insulis.
In museo GULIELMI JARDINE Baronetti.
4. *C. GAMPSORYNCHUS*, sp. nov.—*C. corpore toto viridi*, strigâ parvâ maxillari cœruleâ; flexuris viride-cœruleis, rostro brunnescente, apice adunco.
Long. $7\frac{1}{2}$ pollices.
HAB. In India?
In museo Societatis Zoologicæ.





Chloropsis Malabaricus.





Chloropsis Malabaricus.

S. L.

CHLOROPSIS MALABARICUS, (NOBIS).

Malabar Chloropsis.

PLATE V.

C. viridis, nitens, fronte aurantio, mento gulâque hyacinthinis, loris juguloque nigris, sub jugulo lunula aurea. Flexuris nitidè cœruleis, campteriis hyacinthinis.

Turdus Malabaricus, *Gmel. Syst. ed. 13. ii. 837.*—*Lath. Ind. Ornith. i. 349. 77.*

Yellow-fronted Thrush, *Lath. Gen. Syn. iii. 60. 69.*

Le Petit Merle de la côte de Malabar, *Voy. Sonnerat, ii. 192.*

IT is sincerely to be regretted, that our information respecting the habits and manners of exotic species, are in general so meagre and confined; for it is in proportion to our knowledge of the various interesting facts elucidating their economy, that the scientific naturalist is repaid for the dry detail of nomenclature, or is enabled to make his methodical arrangements in accordance with nature, and the affinities which so beautifully connect the various species in one continuous and unbroken chain. It is also the detail of these alone that can be expected to create an interest in the mind of a general reader, or of one who has never studied, or perhaps neglects, the artificial systems of ornithological writers.

Most of our works are in fact either mere descriptions of the exterior markings or colours of different birds, with a list of the synonymes of various authors attached, or, in addition to the graphic descriptions, delineations of the birds themselves. To those of the latter description, where the figures are correct, and the colouring true to nature, the natural history, or picture of the manners and habits of the species, is alone wanting to render them complete, and equally instructive to every class of readers. Such, in a great measure, is WILSON'S splendid work on the North American birds, where we find the economy of each individual detailed and set forth in a language which cannot fail to give delight and universal satisfaction. But here the author confined himself to a certain and defined territory, and himself studied each species in its living state, whether as an inhabitant of the forests, the moun-

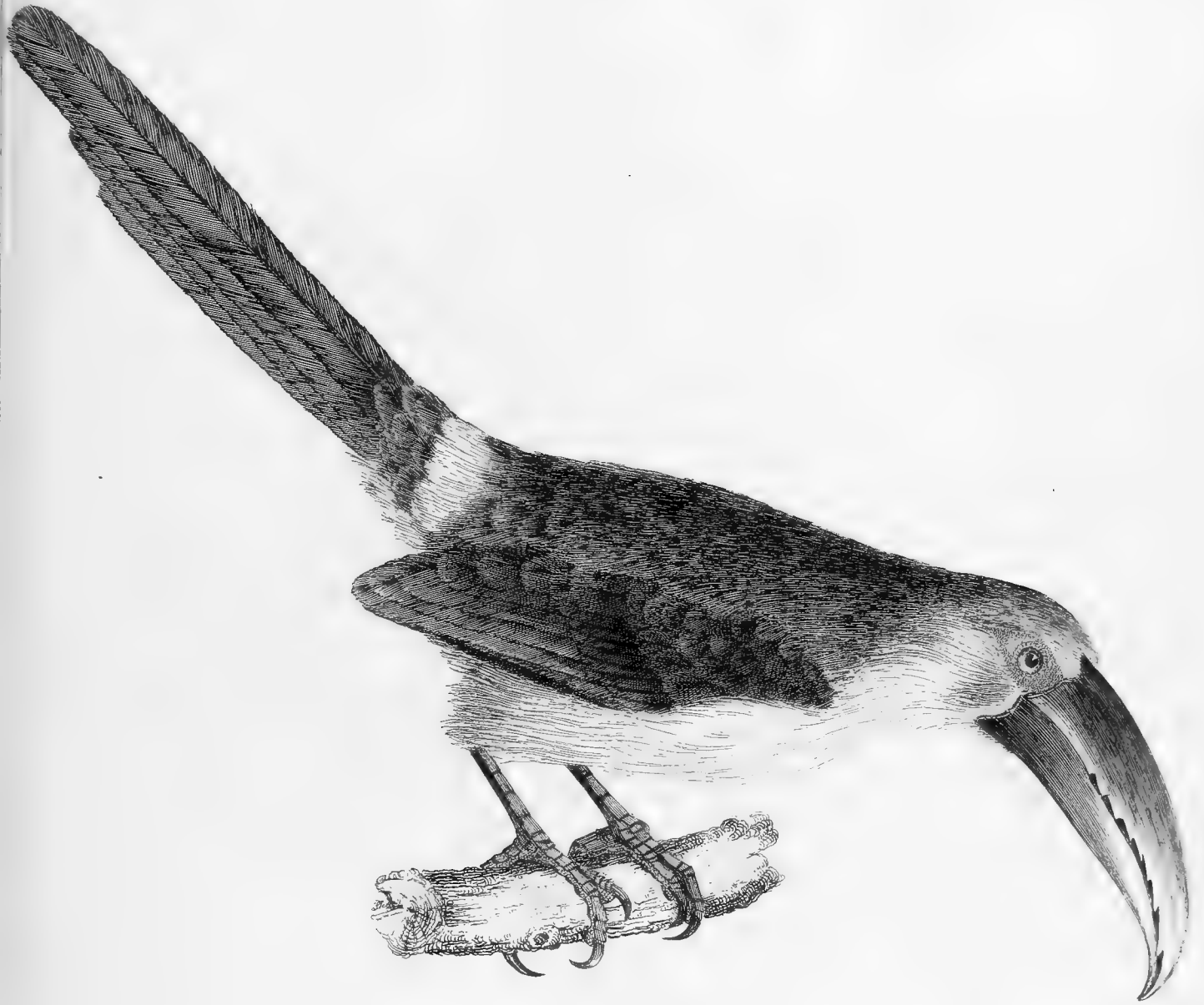
CHLOROPSIS MALABARICUS.

tains, the waters, or the plains. In a general or more extended work, such as the present, this cannot be done, as we must be dependent upon the observations of others, and have very frequently no more than the desiccated skin, in evidence of the existence of the bird before us. It is thus with the present species, which, though known to collectors, and noticed in the works of various authors, remains, as to its manners, in nearly the same state as when first discovered. The construction of its tongue, as well as other peculiarities observable in its form, point out, however, pretty distinctly the station it ought to hold in a systematic arrangement. In this species, the bill is somewhat more attenuated than in the rest, approaching in this respect nearer in form to some of the New Holland groups of melliphagous birds.

Its length is six inches and a half, the forehead of a brilliant orpiment-orange, the base of the under mandible and throat ultramarine blue, tinged with violet-purple; space between the bill and eyes, part of the cheeks, and lower part of neck, black; beneath the black, a crescent of Dutch orange. Upper parts sap-green, changing in its intensity according to the light in which it is placed, and passing into gamboge-yellow behind the eyes, and where it comes in contact with the black throat. Under parts sap-green, lighter towards the vent. Inner webs of quills brownish-black. Inner margins of the interior webs of the tail-feathers, the same, except the two centre feathers, which are wholly green. Shoulders pale glossy verditer-blue, the edges of the wings dark ultramarine blue. Bill brownish-black. Legs and toes blackish-grey.



Pteroglossus croceus.



Pteroclytus vociferus

PTEROGLOSSUS CROCEUS, (NOBIS).

Saffron-coloured Araçari.

PLATE VI.

P. croceus, snbtus pallidior, uropigio crissoque rubris.

THIS species of *Araçari* is one of the many new and interesting ornithological objects discovered by Dr SUCH in the Brazils, and brought to England, with other rare and valuable skins, about two years ago. Having never received any specific appellation from its discoverer, or since its introduction to our museums, it becomes necessary, now that we are about to figure and describe it for the first time, to give it some name, whereby to distinguish it from its congeners, and which we propose to do under the title of *croceus*, a saffron-yellow being the prevailing colour of its plumage. The bill of this species is large, measuring in many specimens upwards of four inches in length: it is considerably arched, and much hooked at the tip, the serratures regular and well defined. Its precise colour in the living bird has not been recorded; but, from the uniform tint observable in the specimens brought here, it appears to have been of a bright yellowish-green, with a narrow streak of pale yellow running along the lateral margin of the upper mandible. The upper parts of the body are deep oil-green, the feathers which clothe the crown and nape margined with saffron-yellow; forehead, and all the under parts saffron-yellow. On the rump, and passing underneath across the vent, is a narrow band of red. The tail is long and cuneated, of a deep oil-green colour. The legs, toes, and claws, greyish-blue. Average length, exclusive of the bill, about twelve inches.

The Araçaris are natives of South America, and resemble, in their general appearance, the true Toucans, with which they were associated by the earlier methodists. They were afterwards, with great propriety, separated from the genus *Ramphastos* by ILLIGER, who instituted a new genus (*Pteroglossus*) for their reception. Dull olive, or oil-green and yellows, appear to

PTEROGLOSSUS CROCEUS.

be the colours which principally prevail among the *Araçaris*; while in the *Toucans*, it is black, red, and yellow, which chiefly predominate. Their food is said to be fruits, though it is far from improbable that they are supported by animal as well as vegetable substances, as it is now ascertained to be the case with the *Toucans*, a genus so nearly related to them in form and character.



Chloropsis gamposrhynchus





Chloropsis gamprokynchus

CHLOROPSIS GAMPSORHYNCHUS, (NOBIS).

Hook-billed Chloropsis.

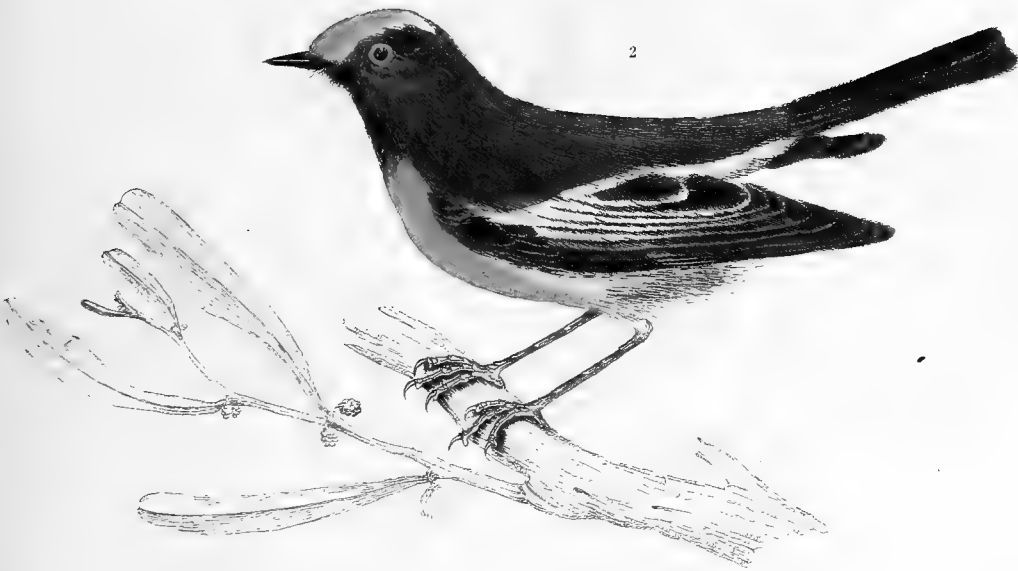
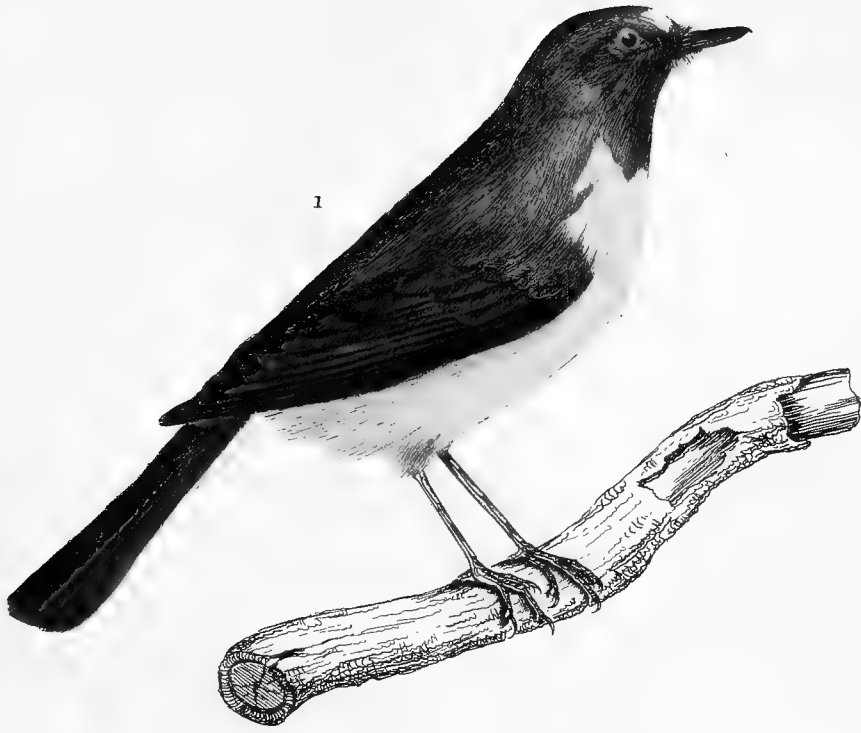
PLATE VII.

C. viridis, flexuris cœruleis rostro adunco.

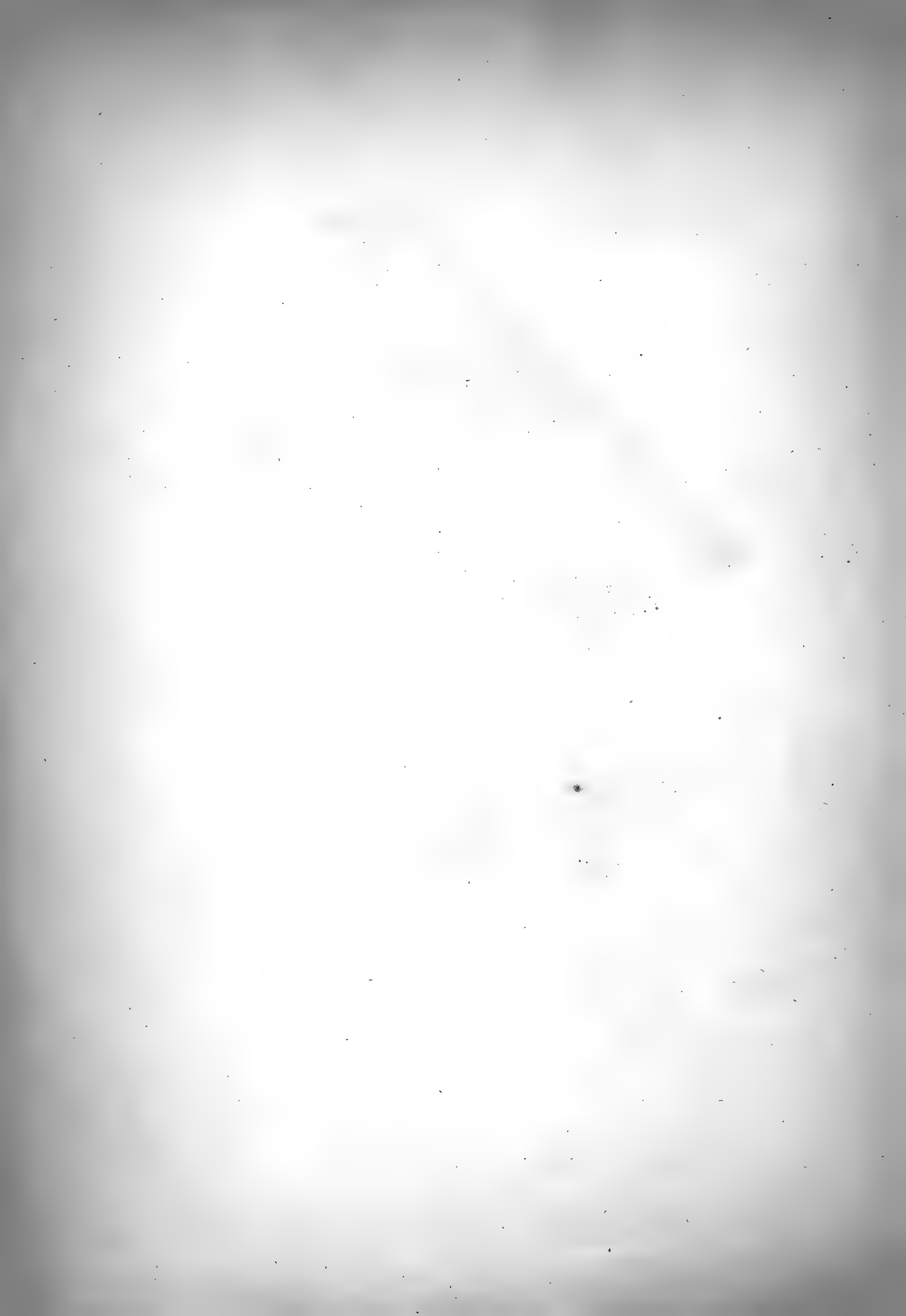
FOR the loan of this new and interesting species, as well as for many others, we are indebted to the Zoological Society of London, to which it was presented by our coadjutor Mr VIGORS, together with the rest of his valuable ornithological collection. We take the present early opportunity of figuring it, both as being a species yet uncharacterized, and also as differing considerably from the type of a genus now proposed by ourselves.

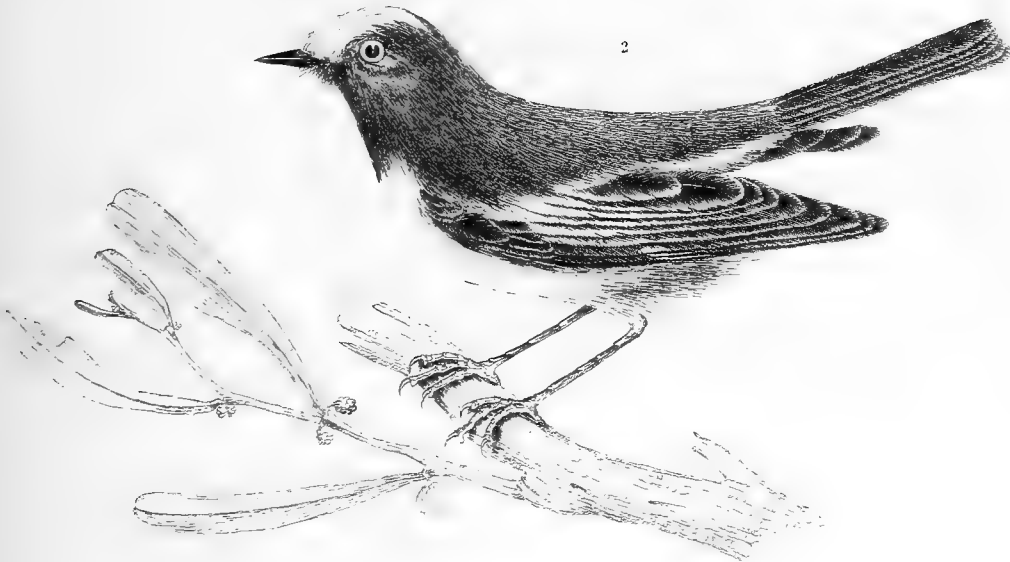
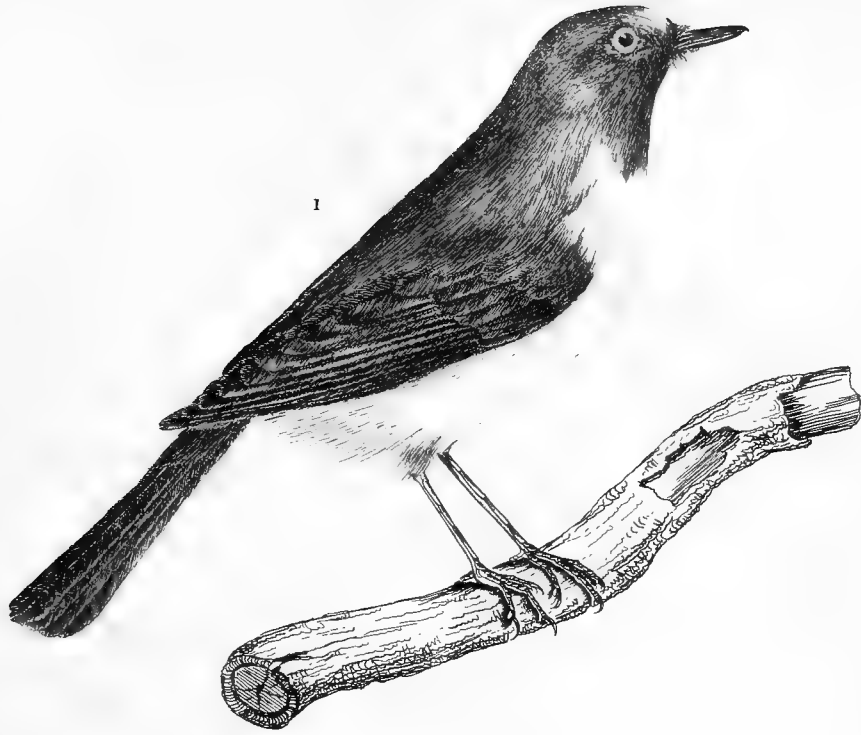
In *C. cochinsinensis*, the bill is comparatively slender, and gradually curved towards the tip; in the present species, both mandibles are remarkably strong, the upper much hooked, and the tip projecting over that of the under; the nostrils are wide and expanded; the tarsi are very short and strong; the whole form of the bird is more robust, and the general appearance less elegant, than in the others belonging to this group. Its length is seven inches; the whole plumage is bright emerald-green, paler on the under parts, and appearing to be tinted with a greater or lesser proportion of yellow or green, as the specimen is placed in different shades of light; the feathers covering the shoulders are of a deeper tint, forming a patch of very vivid green; on the side of the upper mandibles are a few deep ultramarine feathers, indicating the blue or purple line, that, like the bright colour on the shoulders, is common through the whole genus; the bill is deep brownish-black, hooked, and remarkably strong; the tarsi are only half an inch in length, and, with the feet, are deep bluish-black.





1. *Muscicapa Lathamii* 2. *M. Goodenovi*





1. *Muscicapa Lathamii* 2. *M. Goodenii*

MUSCICAPA LATHAMII, *Vigors.*

Latham's Fly-catcher.

PLATE VIII.—FIG. 1.

M. nigrescenti-grisea, pectore abdomineque purpureo-roseis, maculâ frontali crissoque albis.

Muscicapa Lathamii, *Zool. Journ.* vol. i. p. 410. pl. 13.

THE length is four inches and three quarters: the bill is deep brownish-black, and has the base surrounded with numerous very fine bristles; a few possessing a greater degree of strength spring from each side of the rictus. On the forehead there is a spot of white, as in most of the true fly-catchers; the whole of the upper parts, the throat, and upper part of the breast, dark greyish-black, ending on the breast in the shape of a crescent; the wings and tail are blackish-brown, palest on the inner webs; the outer edges of the tail-feathers are blackish-grey, and the tips are acuminate, as if the shafts proceeded beyond the extremities of the webs; the breast, belly, and vent, are lake-red, with a considerable mixture of crimson-red, growing paler as it approaches the vent; the under tail-coverts are white; the legs, feet, and claws, are brownish-red.

We have had this species many years in our collections; but it remained unnoticed, until lately described by Mr VIGORS in the *Zoological Journal*. It appears to have been confounded with *Muscicapa erythrogastra*, which it resembles in the general colour and markings of the plumage, and in the occasional variety to which it is subject; but may at once be distinguished from it, by its size, by the different colour of the breast, from the deeper black of the upper parts, and from the smaller proportion of white on the wings and tail. The female appears yet to be unknown, at least no authenticated specimen of it has hitherto reached this country. In many specimens, the plumage is much duller than that now described; but this may belong to young birds, or such as were immature.

The specimen from which the accompanying drawing and description were taken, is now in the collection of the *Zoological Society of London*.

MUSCICAPA GOODENOVII, *Vigors & Horsfield.*

Goodenough's Fly-catcher.

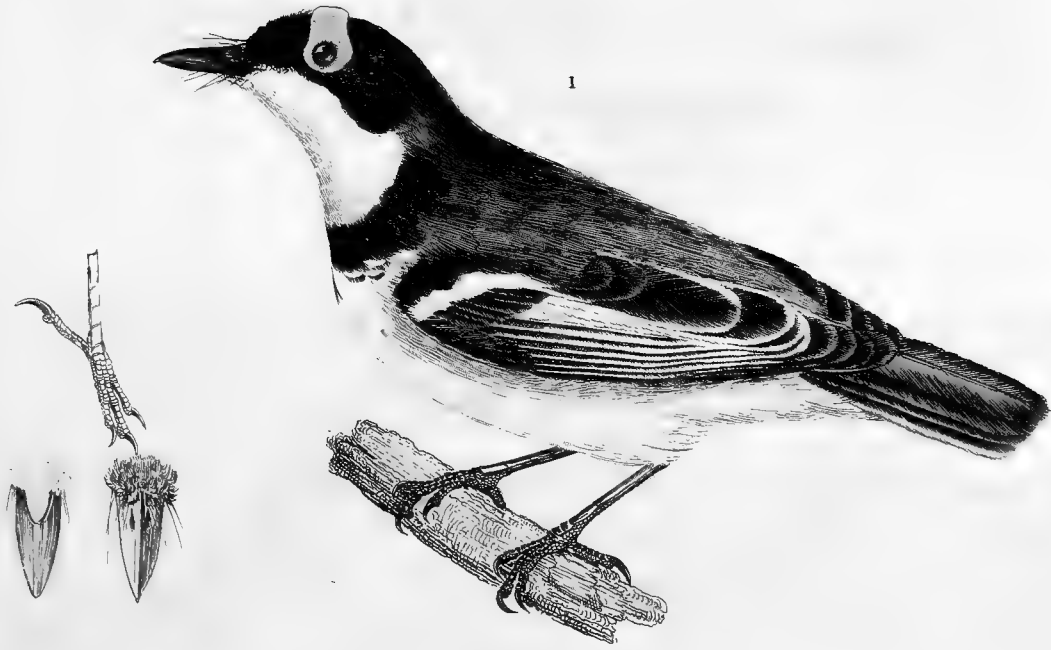
PLATE VIII.—FIG. 2.

M. nigrescenti-brunnea; abdomine, strigâ longitudinali alarum reetricumque duarum lateralium marginibus albis; fronte pectoreque vividè coccineis.

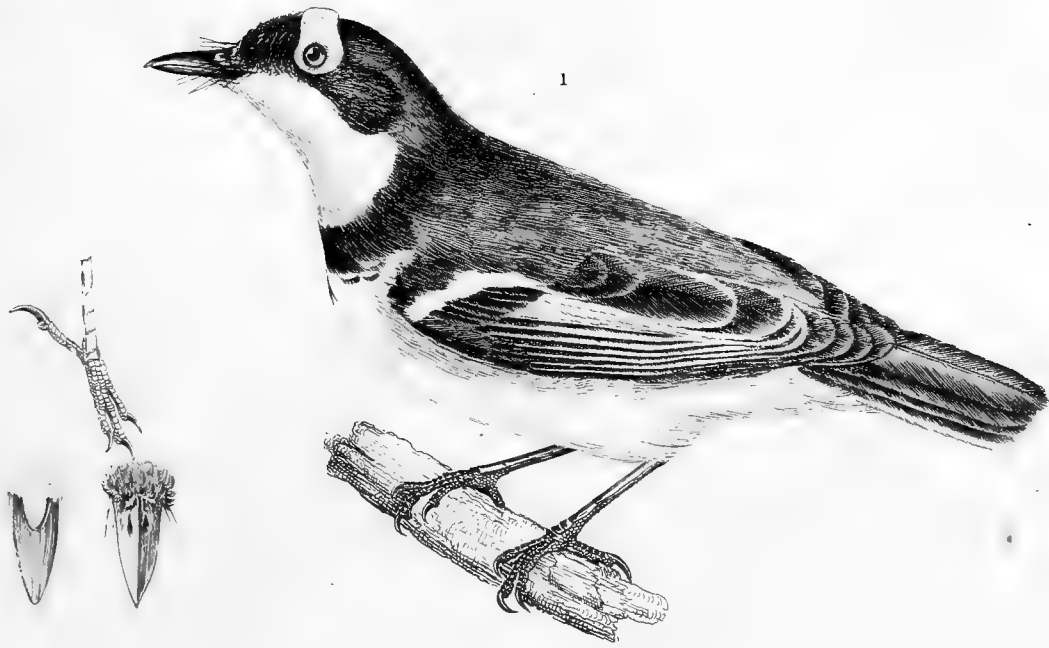
Muscicapa Goodenovii, Vig. et Horsf. Trans. Linn. Soc. xv. p. 245.

THE length is three inches and four-fifths: the forehead and crown are bright scarlet-red. The upper parts of the body, the neck, the upper part of the breast and the wings, are brownish-black; the wing-coverts, and secondary quill-feathers, are edged with white, forming a broad stripe along the wings; the middle part of the outer web of the quills has also a very narrow white margin; the lower part of the breast is bright scarlet-red, running downwards upon the belly in a paler shade; the belly and vent are white, slightly tinged upon the sides with scarlet; the feet and eyes are brownish-black.

This beautiful species was discovered by Mr BROWN on the south coast of New Holland in 1802, and is now in the collection of the Linnean Society of London. It has been named by Mr VIGORS and Dr HORSFIELD in honour of the Rev. SAMUEL GOODENOUGH, Bishop of Carlisle, and Vice-President of the Linnean Society.



1. *Platyrhynchus collaris* 2. *Platyrhynchus Desmarcei*



1. *Platyrhynchus collaris* 2. *Platyrhynchus Desmaresti*

PLATYRYNCHUS COLLARIS, (NOBIS).

Collared Platyrynchus.

PLATE IX.—FIG. 1.

P. supra niger chalybeo nitore, subtus albus, nigrâ pectorali vittâ, oculis carunculatis.

It is with a considerable degree of hesitation that we have placed the two species now figured in the genus *Platyrynchus*, although they approach nearer to it than to any other in their general characters. We are entirely ignorant of their habits or manners of life, and even of the country to which they belong; and although there are some differences in the structure of the feet and wings, that might be deemed sufficient for the formation of a new genus, we think it better to place them in *Platyrynchus*, until we have had an opportunity of examining a greater number of specimens and species, and of ascertaining correctly some facts regarding their habits and country. They differ from the type in the bill, although much depressed being remarkably strong; in the form of the nostrils, which are linear, and perfectly free or uncovered on the under side; in the structure of the feet, which have the outer toes connected as far as the first joint from the extremity, and the inner as far as the first from the joining of the tarsus; the first quill-feather is very short, almost spurious; the fourth and fifth are longest. Both species have a remarkable cartilaginous wattle above the eyes, arising from the upper eye-lids.

The length is five inches and a quarter: the head, back, and wing-coverts are deep shining bluish-black. Above the eyes there is a broad caruncle, arising from the upper eye-lids, which, in the living bird, appears to have been bright yellow; the throat and under parts of the body are pure white, with a deep bluish-black band in the form of a crescent, surrounding the upper part of the breast, and joining the colours on the back of the neck; the quills are brownish-black, with a narrow edge of dusky white; the edges of the greater wing-coverts are white, and join a band of the same colour which crosses the shoulder, appearing to be a continuation of it longitudinally along

the wing; the tail consists of twelve feathers, and is considerably rounded; the colour is entirely deep bluish-black, with the exception of the outer feathers, which are edged and tipped with white, and the second, which has the tip only white; the feathers covering the thighs are black, with white tips; the feet and legs are bluish-black.

PLATYRYNCHUS DESMARESTII, (NOBIS).

Desmarest's Platyrynchus.

PLATE IX.—FIG. 2.

P. supra griseus, gutture albo, collo pectoreque castaneis, caudâ remigibusque nigris, oculis carunculatis.

WE have named this species in honour of the distinguished naturalist who first characterised the genus. It is, like the preceding one, furnished with a broad cartilaginous wattle arising from the upper eye-lids, which is of a bright scarlet-red, and appears to have lost very little of its original colour. The length is four inches and a half: the head, neck, and back, are blackish-grey; the wings and tail are bluish-black, and have the same white markings as in *P. collaris*; the throat is white; the neck and upper part of the breast are deep reddish-brown, which terminates in a crescent form on the breast, and is there edged with deep bluish-black; the lower part of the breast, belly and vent are white; the legs and feet are bluish-black.

GENUS TITYRA, VIEILLOT.

LANIUS, *Linn.*—PSARIS, *Cuv.*

Ord. II. INSESSORES; 2^{da}. Fam. LANIADÆ, *Vigors*; Sub-Fam. Tyrannina, *Swainson*.—Ord. VI. PASSERES, *Linnæus*.—Ord. II^{de}. LES PASSEREAUX, *Cuvier*, 1^{re}. Fam. Les Dentirostres.—Ord. III^{me}. INSECTIVORES, *Temminck*.

CHAR. GEN.—*Rostrum* validum, crassum, rectum, culmine rotundato; maxilla apice adunco, emarginata; nares rotundæ, ferè nudæ; rictus inermis. *Alæ* elongatæ, remige primo brevior, tertio quartoque longissimis; alula spuria, brevis, angusta, rigida. *Pedes* mediocres, incessores. *Acrotarsia* scutulata; *paratarsia* squamis lateralibus, numerosis, ovatis, obtectis. *Acrodactyla* scutulata. *Digitus* externi ad primam phalangem connexi, interni liberi. *Cauda* mediocris, æqualis vel rotundata.

Typus Genericus, LANIUS *cayanus*, Linn.

IT is our intention in the present work, when deciding upon the name to be given to a genus already characterised by various authors, to be guided by the right of priority, wherever it can be accurately ascertained, and where the appellations are all equally applicable. Modern ornithologists have adopted for this genus CUVIER'S name of *Psaris*, in preference to *Tityra* of M. VIEILLOT, notwithstanding the System of the latter was published considerably prior to the Regne Animal of CUVIER, where that naturalist first characterised this group: it is on this account that we now retain *Tityra*, the right of priority being unquestionably due to M. VIEILLOT.

Lanius cayanus, LINNÆUS, for a long period continued the only species known; and from it the generic characters of CUVIER and VIEILLOT were taken. Since that time, three new species have been added by an indefatigable British ornithologist Mr SWAINSON, under the titles of *Psaris Cuvieri*, *cristatus* and *niger*; another by Mr SELBY, *Psaris erythrogenys*; and we have now much pleasure in being enabled to give the figures and descrip-

TITYRA.

tions of two, with the specific characters of a third species, equally new and interesting, the figure of which will appear in our Second Number.

The whole of the group have hitherto been found, with one exception only, in the wild and retired forests of South America, frequenting the deepest recesses, and enjoying the complete solitude which every where pervades them. Their food is chiefly the larger species of insects; sometimes, when they are apparently pressed by hunger, consisting of weak or young birds, and small reptiles. The Cayenne Shrike, with whose habits we are most familiar, is by far the most fierce and rapacious, more frequently attacking such of the weak species of its own race as may occasionally occur in its vicinity, and in its general manners more closely resembling the true *Lanii*. The other species, according to their size and strength, vary in their habits of rapacity. *T. Cuvieri*, *Vieilloti*, and *castanea*, differ in a slight degree from the type, by having the bill more depressed, and the toes longer and more slender in proportion. From their weakness, they are unfitted for seizing a strong prey, and are more nearly allied to the stronger *Tyranni* and *Muscicapidæ*. *Psaris niger*, SWAINSON, possesses a metallic lustre on many parts of the plumage; and having the graduated tail of the American *Thamnophili*, might by some be excluded from the present genus. We, however, concur with Mr SWAINSON'S views, and prefer retaining it in the present group; but in our monograph of the specific characters of the known species, we have placed it at the extremity.

The colours of their plumage are chaste or sombre, the tints generally blended into each other, and possessing none of that brilliancy so frequent among South American species. The young birds do not attain their adult plumage, until after their first or second moult. Previous to this period, they retain that of the female, or have the colours and markings less vivid and distinct.

SYNOPSIS SPECIERUM.

TITYRA.

1. T. CAYANA.—T. supra grisea, capite, remigibus caudâque nigris, subtus griseo-alba.

Tityra cinerea, Vieillot, Gal. des Ois. Pl. 134.

Psaris cayanus, Cuvier, Reg. An. tom. i. p. 341.

Lanius cayanus, Linnæus, Syst. Nat. i. p. 304.

Cayenne Shrike, Latham, Gen. Hist. ii. p. 85.—Shaw's Zoology, vol. vii. p. 297

Long. 8 pollices.

HAB. In Cayenâ et Americâ meridionali.

In museis plerisque.

TITYRA.

2. *T. ERYTHROGENYS*.—*T. supra grisea, genis rufis, capite, remigibus, caudâque nigris, infra griseo-albida.*

Psaris erythrogenys, Selby, Zool. Journal, vol. ii. p. 483.

Long. $7\frac{1}{2}$ pollices.

HAB. In Pernambuco, Americâ meridionali.

In museo Parisiensi.

3. *T. CRISTATA*.—*T. fusca, infra pallide fulva; alis ad basin maculâ albâ obtectâ notatis; vertice nigro subcristato.*

Psaris cristatus, Swainson, Zool. Journal, vol. ii. p. 355.

Long. 7 pollices.

HAB. In Brazilâ meridionali.

In museo Dom. SWAINSON.

4. *T. FILEATA*, sp. nov.—*T. ferruginea infra pallidior, vertice occipiteque nigris.*

Long. 7 pollices.

HAB. In Americâ meridionali.

In museo Dom. LEADBEATER.

5. *T. CUVIERI*.—*T. olivacea, subtus albida; capite supra nigro; occipite, temporibus et colli lateribus, cinereis; pectore, lateribus tegminibusque infernis flavis.*

Psaris Cuvieri, Swainson, Zool. Illust. Pl. 32. ?

Long. $5\frac{1}{2}$ pollices.

HAB. In Brazilâ.

In museo Societatis Zoologicæ.

6. *T. CASTANEA*, sp. nov.—*T. castanea, infra pallidior; vertice subcristato.*

Long. $5\frac{1}{4}$ pollices.

HAB. Amer a Meridionali?

In museo GULIELMI JARDINE, Baronetti.

7. *T. VIEILLOTI*, sp. nov.—*T. supra flavescenti-viridis nucha genisque plumbeis; pectore axillisque flavis; humeris castaneis.*

Long. $5\frac{1}{2}$ pollices.

HAB. In Americâ Meridionali?

In museo GULIELMI JARDINE, Baronetti.

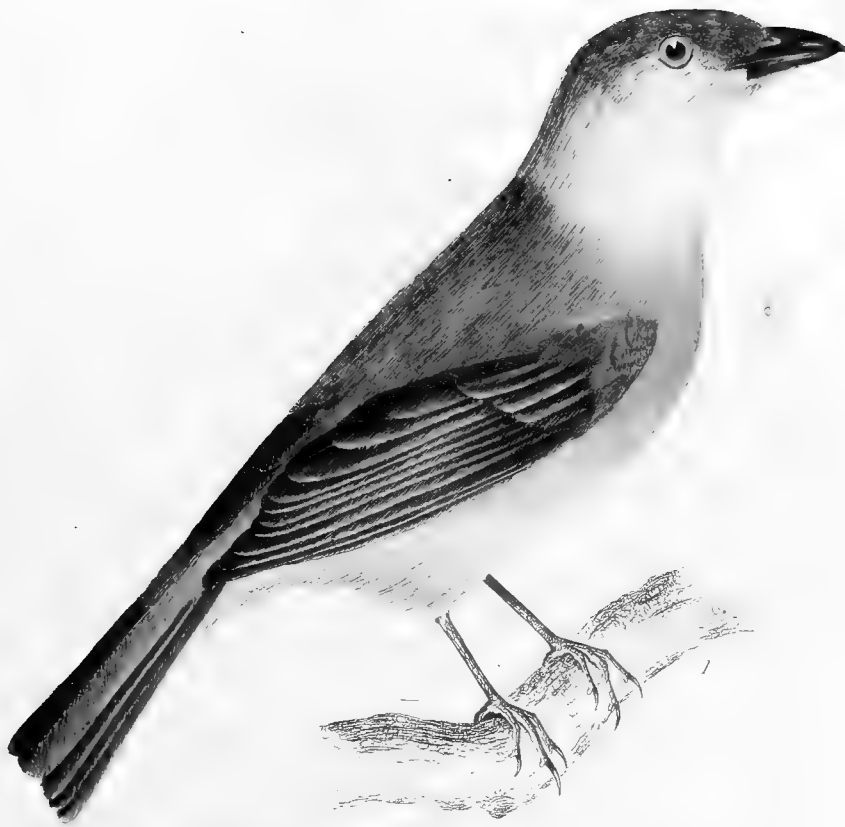
8. *T. NIGRA*.—*T. nigra, infra grisea; caudâ subgradatâ, nigrâ, apice albâ.*

Psaris niger, Swainson, Zool. Journal, vol. ii. p. 356.

Long. $5\frac{1}{4}$ pollices.

HAB. —————

In museo Dom. SWAINSON.



1. *Tityra Vieilloti* 2. *Tityra costaricensis*.





1. *Tityra Viilloti* 2. *Tityra custaneus*.

TITYRA VIEILLOTI, (NOBIS).

Vieillot's Tityra.

PLATE X.—FIG. 1.

T. supra flavescenti-viridis, nuchâ genisque plumbeis; pectore axillisque flavis, humeris castaneis.

THIS species is closely allied to *Tityra Cuvieri*, figured by Mr SWAINSON in his Zoological Illustrations: it is, however, considerably larger, and his species wants the bright chesnut-coloured patch upon the shoulder. The feathers on the back-part of the head are slightly elongated, though not sufficiently so as to constitute a crest; those on the lower part of the back and rump have the long and loose texture of the American *Thamnophili*: in its other characters it is perfectly true to the type.

The total length is five inches and a half. That of the bill to the extremity of the gape nearly three-fourths of an inch, blackish-brown, the under mandible paler towards the edges; nostrils half concealed by minute setæ and feathers. Crown dark yellowish-green, the feathers tipped with black, and on the forehead tinged with grey. Back of the neck and cheeks bluish-grey, shaded into a lighter tint on the breast and throat; back, greater wing-coverts, rump, and tail, greenish-yellow; shoulders reddish-brown; breast, axillæ, and under wing-coverts, bright gamboge-yellow; the colours on the breast and sides gradually shaded into those of the belly and vent, which are nearly white, tinged with pale sienna-yellow. The legs and feet are blackish-grey; the tarsi on the insides are closely and minutely scutellated for nearly one-third of their length upwards. The claws are black, weak and slender.

The skin of this species was purchased in a miscellaneous collection of birds from different parts of South America. A ticket was attached to it marked MALE, but without any other note regarding its habits or economy.

TITYRA CASTANEA, (NOBIS).

Chesnut-coloured Tityra.

PLATE X.—FIG. 2.

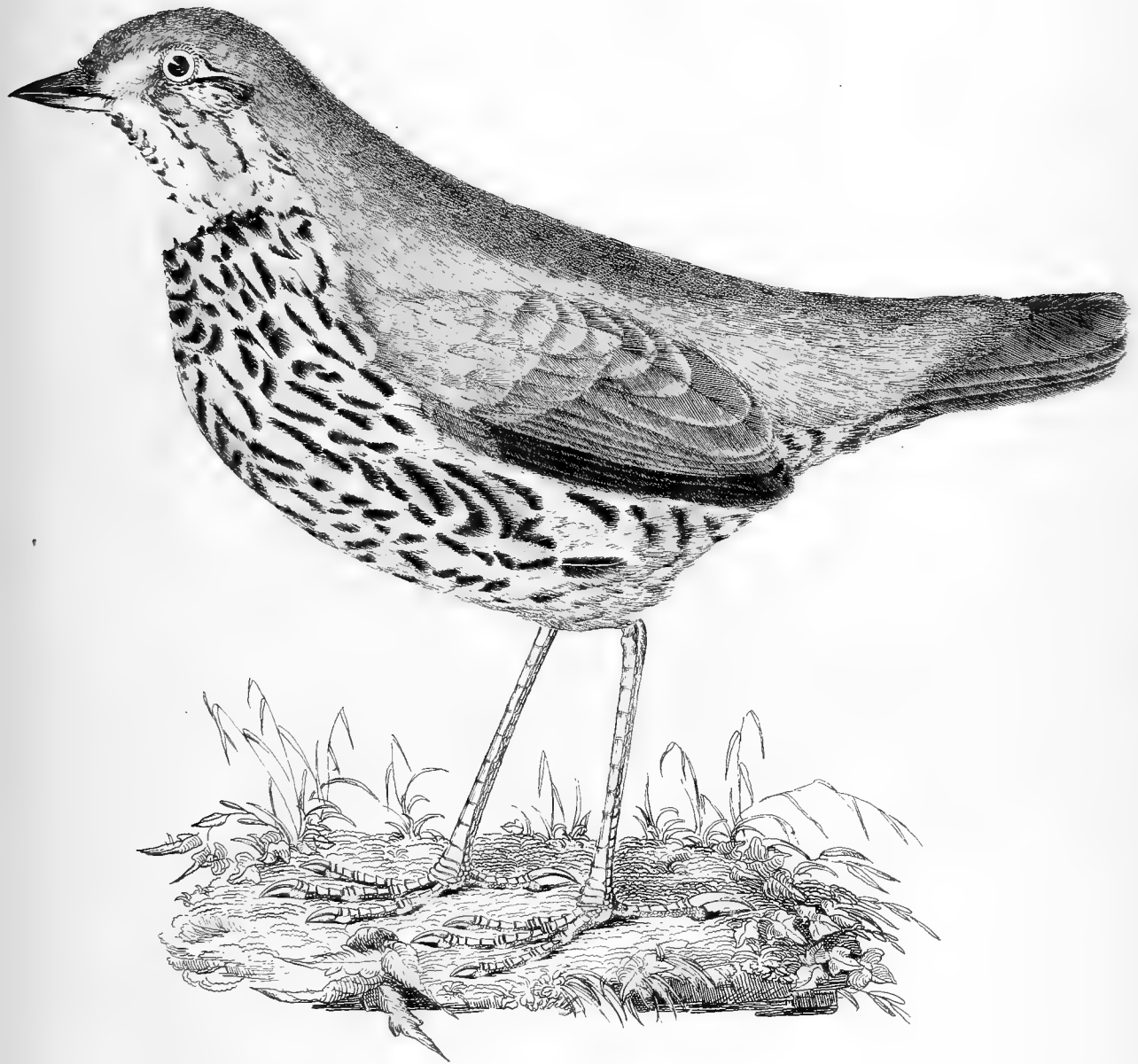
T. castanea, infra pallidior ; vertice subcristato.

LENGTH five inches and a quarter ; the bill is blackish-brown, paler towards the edges on both mandibles ; the nostrils are nearly half concealed by short incumbent feathers. Crown of the head bright chesnut-brown, the centre of each feather darkest ; those on the back-part are elongated, and form a very slight crest. The neck is dull bluish-grey, forming a sort of collar nearly half-round, blended into the colours of the back and head ; the back, wings, rump, and tail, reddish-brown ; wings and greater coverts a slight shade darker. The whole under parts are orange-coloured brown, approaching on the throat to yellowish-white. The legs and feet are blackish-grey ; the claws are black.

This was received from the same source as the former, but without any note whatever regarding its habits. In its general characters it is true to *Tityra* ; but, like all the smaller species, it has the feathers on the lower part of the back and rump loose and elongated.



Chamaea meruloides



Chamaeza meruloides

CHAMÆZA MERULOIDES, *Vigors.*

PLATE XI.

C. supra brunnea, subtus rufescenti-albida, nigro longitudinaliter maculata; gulâ albidâ: crisso, rectricumque apice rufescentibus.

Chamæza meruloides, *Vigors*, *Zool. Journ.* vol. ii. p. 395. (note.)

CHAMÆZA MERULOIDES forms the type, and the only individual of a genus first characterized by Mr VIGORS in the *Zoological Journal*, from a specimen brought by Dr SUCH from the Brazils, and from which we made the drawing for the accompanying plate. At first sight it would be taken for a species of *Pitta*, which genus and *Grallaria* it intimately connects with the true Thrushes; but on a closer examination, some differences appear, which are sufficient to entitle the formation of a new group. The bill is short, and of no great strength, while that of *Pitta* is remarkable for its power; the legs and feet are slender and weak; the claws are slender, and that on the hind toe very much compressed; the wings are very short and rounded, and differ from *Pitta* in the comparative length of the quill-feathers. We must regret that only one specimen has yet reached this country, and that the correctness of the generic characters cannot be proved by an examination of a greater number. We at present refrain from making any further remarks, in the hope of receiving a supply of specimens from Dr SUCH, who has again gone to South America, and has promised to send whatever he can procure that can illustrate the ornithology of that country; and his well known zeal in this department of natural history, leaves little room for doubting the speedy fulfilment of his promises.

The length of this specimen was seven inches and a half; that of the bill to the forehead only half an inch. The prevailing colour of the upper parts, the wings and tail, is dark yellowish oil-green, paler on the lower part of the back, and on the edge of the quills tinged with a greater proportion of red-

CHAMÆZA MERULOIDES.

dish-yellow; the throat, breast and belly are reddish-white, paler on the throat, and on the breast longitudinally marked with brownish-black spots, distributed in the same manner as those on the under parts of the common thrush; the under tail-coverts are reddish-brown; the legs and feet are yellowish-brown; the claws are a few shades darker.



1. *Pringilla Temperata*, Abt. 20. Female. 2. *Pringilla Bicknelli*



1. *Fringilla Temporalis* Male. 2. *Fringilla Temporalis* Female. 3. *Fringilla Bichenovii*

FRINGILLA TEMPORALIS, *Latham.*

Temporal Finch.

PLATE XII.—FIG. 1. *Male.*—2. *Female.*

F. olivaceo-brunnea, subtus grisea, capite cœrulescente-griseo, tænia per oculos, uropigioque coccineis.—Tænia in fœmîna caret.

Fringilla temporalis, *Lath.* Ind. Orn. Supp. xlvi. No. 4.—*Vig. & Horsf.* Trans. Linn. Soc. xv. p. 258.

Temporal Finch, *Lath.* Gen. Hist. vi. p. 115. No. 91.—*Shaw*, Gen. Zool. ix. p. 533.—*Levin*, Birds of New Holland, pl. 12.

Red-bill, *Caley's* MS. Notes to Birds in Coll. of Linn. Soc.

THIS is a very common species in New Holland, appearing in large flocks during the winter in the gardens and enclosed grounds. It feeds principally on seeds, and different kinds of grain: it is easily tamed, and often kept in confinement. According to Mr CALEY (whom we have already mentioned as having added largely to our knowledge of Australasian birds) it is called by the settlers *Red bill*. They frequently visited his garden during the winter, to feed on a species of grass-seed, in such numbers that above forty were killed at a shot.

The length of the male is four inches, the bill short and strong, and of a dull scarlet-red colour, from whence the species most probably derives its provincial name; the head and back of the neck are blackish-grey, passing into bluish-grey on the breast and under part of the throat; over each eye there is a streak of bright scarlet-red, which extends backward above the auricular feathers, and occupies the space between the eye and the bill above the rictus; the back, shoulders, greater wing-coverts, and edges of the quill-feathers, yellow oil-green, shaded into the bluish-grey of the neck and sides; the upper tail-coverts are scarlet-red, and are considerably lengthened; the lower part of the breast, vent, thighs, and under tail-coverts, pale sienna-yellow; the quills and inner webs of the secondaries are clove-brown; the tail is much cuneated, the centre feathers are dark blackish-brown, the others getting lighter as they approach the outside; the legs, feet and claws yellowish-brown.

The female is somewhat smaller: the colours of the plumage are generally duller, the scarlet streak over the eyes is wanting, and those parts which are bluish-grey in the male, are hair-brown in the female.

FRINGILLA BICHENOVII, *Vig. & Horsf.*

Bicheno's Finch.

PLATE XII.—Fig. 3.

F. brunnea, graciliter fusco-fasciata; pteromatibus remigibusque albo-tessellatis; genis, gutture, abdomine, uropigioque albis; loris, fasciâ gracili gutturali alterâque abdominali, dorso imo, crisso, rectricibusque nigris.

THIS delicately coloured species was discovered in September 1802 by Mr BROWN at Shoal-water Bay and Broad Sound, New Holland.

The length is between three and four inches: the bill is greenish-yellow, paler towards the edges of the mandibles, and passes into blackish-grey at the base. Crown of the head, neck, and back, are wood-brown, crossed with numerous fasciæ of a deeper tint, and more distinct on the lower part of the neck and back; the forehead, where it joins the bill, is black, gradually shaded into the brown of the upper parts; the quills are black, the outer webs marked with triangular white spots; the secondaries, greater and lesser coverts, are regularly spotted with yellowish-white, the spots are generally arranged in pairs, and give the wings a beautifully tessellated appearance; the upper tail-coverts are white; the cheeks, throat, breast, and belly, are white; there is a narrow, deep black fascia round the ears, and passing under the throat, which is formed by the tips of the auricular feathers having a narrow black edge; another broader black band surrounds the lower part of the breast, and passes under the wings; the under tail-coverts and tail are black; the legs are bluish-grey.

This beautiful species forms part of the collection of the Linnean Society of London, and it is through their liberality that we are now enabled to give the figure which accompanies this description. The specimen we believe to be unique, and was the only one brought from New Holland by Mr BROWN. It has been named by Mr VIGORS and Dr HORSFIELD in honour of J. E. BICHENO, Esq. a gentleman earnestly devoted to the study of natural history, and deserving well the compliment paid to him by his brother naturalists.



Podiceps poliocephalus





Podiceps podiceps

PODICEPS POLIOCEPHALUS, (NOBIS).

Hoary-headed Grebe.

PLATE XIII.

P. supra brunneus, plumis capiti, genisque elongatis, apicibus albis, subtus argenteo-albidus.

THE length of this species appears to be about eleven inches; but the difficulty of measuring a specimen correctly after it has been stuffed, must allow for any error in its dimensions. The bill is an inch and an eighth long, greenish-yellow, with the edges paler; the forehead, crown, and upper part of the back of the neck, blackish-brown, shaded into the paler tint of the cheeks and neck, and at the back of the neck coming to a point, and mixing with the colours of that part; the tips of the feathers on the forehead, above the eyes, on the cheeks, and extending half-way down the sides of the neck, are considerably elongated, and are pure white, giving to those parts a very white or hoary appearance; the back of the neck, back and wings, are dull umber-brown, darkest on the back, and there having the feathers occasionally tipped with white or yellowish-brown; the throat, neck, and upper part of the breast, are dull yellowish-brown; the belly and vent are of the beautiful silvery white, common to the genus, passing at the sides and under the wings into pale yellowish-brown; the secondaries are white, with irregular patches of pale umber-brown near the tips, and form a broad bar which crosses the wings, but is apparent only when they are expanded; the legs and feet are blackish-green.

We have not met with this species in any collection, and can with a considerable degree of confidence assert it to be undescribed. It is a native of New Holland, from whence we received a single specimen some years since, but without any notes regarding it. It is a perfectly typical species, and agrees with the true Grebes in the general form, plumage, and colours.

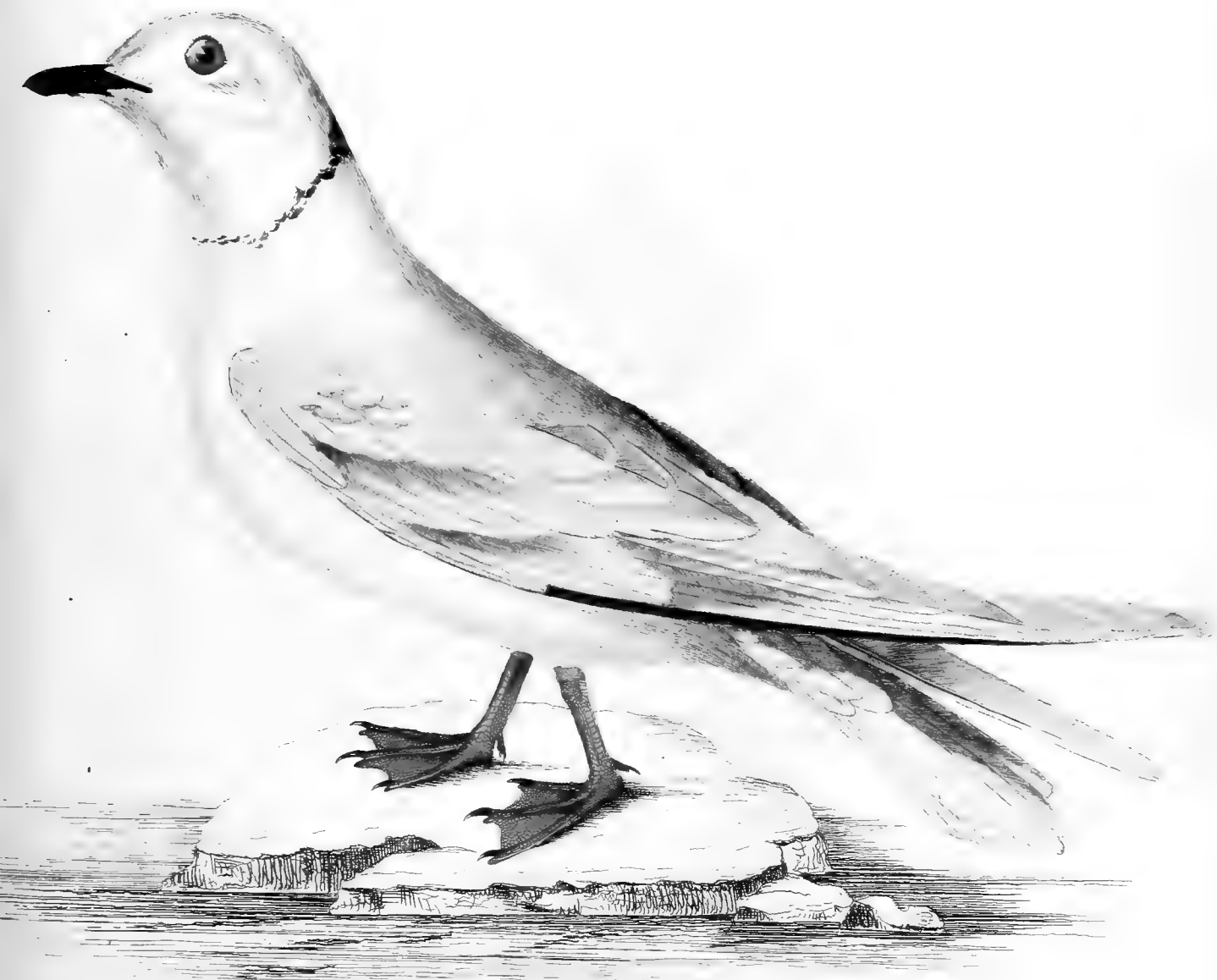
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no other
part to see

from that

side of mountain

1000



Larus Roseus





Larus Rescus

LARUS ROSEUS, *Macgillivray*.

Rosy Gull.

PLATE XIV.

L. dorso remigibusque pallidè griseis ; capite, pectore abdomineque pallidè roseis ; collo torquo nigro circumdato, duobis reatricibus mediis caudæ longioribus.

Larus roseus, *Macgillivray*, Wern. Soc. Trans, vol. v. p. 249. (note.)

THIS interesting species is one of the acquisitions gained to ornithology by the enterprising expeditions of Captain PARRY. A single specimen was procured during his second voyage, which is now in the Royal Museum of the University of Edinburgh. A ticket was attached to it, marked "*Larus* male, 27th June 1823, Igloolik ;" and, as far as we can learn, it was the only specimen procured or seen during that perilous voyage. It resembles its congeners in the general form and distribution of colours ; but differs from them in the formation of the tail, which has the two centre feathers considerably lengthened, as in the genus *Lestris*, and forms a striking contrast, when compared with that of the *Larus Sabini*, where it is forked, and the exterior feathers very much elongated. It might with as much propriety constitute the type of a distinct genus. It appears furnished with very considerable powers of flight : the wings are in proportion long, and the shafts of the feathers are broad and strong. It is extremely probable that its occurrence in these northern latitudes is accidental ; at all events it must be a species of great rarity.

The following description was taken chiefly from the manuscript notes of Mr MACGILLIVRAY, its first describer, which were written soon after the arrival of the specimen in this country, and since which period the colours of the plumage have considerably faded.

The bill is six-eighths of an inch long, black, and with very little angle ; the edges and inside of the mouth are orange. The edges of the eye-lids

LARUS ROSEUS.

are orange, and are surrounded by a narrow circle of black feathers ; the head and neck are nearly pure white ; the lower part of the neck, the breast and belly, are beautiful pale rose-red, of a paler tint upwards, and appearing considerably darker when the feathers are put aside ; a narrow collar of deep black surrounds the neck obliquely, widest at the back part, and with the black feathers more interrupted as it surrounds the throat ; the back and wings are bluish pearl-grey ; the first quill is the longest, and has the outer web black until within an inch of the base, where it passes into blackish-grey ; the tail is cuneated, besides which the two centre feathers exceed the length of the inner ones very considerably ; the tarsi are strong and short, and, with the feet, are bright vermilion-red ; the claws are brownish-black, and sharp.

The total length of this specimen is fourteen inches ; the extent of the wings about twenty-nine inches.





C. n. Baillonit.





Grebe Baillonii

CREX BAILLONII, (NOBIS).

Baillon's Crake.

PLATE XV.

C. supra brunneo-olivacea, dorso tectricibusque alarum albo nigroque maculatis; collo subtus pectoreque cœrulescentibus, abdomine mediâ albida, hypochondriis tectricibusque caudæ inferioribus albo nigroque fasciatis.

Ortygometra Baillonii, *Shaw's Zool.* xii. 228. 27.

Poule d'eau Baillon, *Temm. Man. d'Ornith.* ii. 692.

THE rare occurrence of this bird in Britain, and the interest its occasional appearance creates, as well as the inferior execution of the figures hitherto published, have induced us to give it a place, at this early period, in the pages of our work. The figure is taken from a British specimen caught about three years ago near Melbourne in Cambridgeshire; it is now in the possession of the Rev. Dr THACKERY, F.L.S. Provost of King's College, Cambridge, whose collection it enriches, and to whose kind attention we are indebted for the examination of this and other rare British birds. The solitary and retired habits which distinguish the various groups of the Grallidæ, are equally prominent in the subject now before us. Like most of its congeners, it is an inhabitant of swamps, marshes, and the reedy margins of lakes, in the retirement and recesses of which its peculiar habits screen it from observation, and it is seldom or never seen, except when taken by surprize, and forced unwillingly to a momentary exertion of its pinions. At other times, when aware of the approach of danger, it evades its enemy by the rapidity of its progress through the entanglement of the coarse aquatic herbage which grows abundantly in such situations, or by the facility which the compressed and wedge-shaped form of its body enables it to thread the narrow interstices of the thickest bed of reeds. It also swims and dives well, frequently escaping further pursuit, by submerging its body, and remaining with its bill alone above the surface of the water. Although so rare a visitant in Britain, it appears that its migrations extend to equal parallels of latitude upon the Continent, as it is not uncommon in the neighbourhood of Boulogne, where it annually breeds in the marshes. It is also met with in other parts of France; but is

CREX BAILLONII.

more generally distributed in Italy, and the eastern parts of Europe. Its nest is placed near to the water's edge, or fastened to the reeds, thus forming a kind of floating habitation: it lays from seven to nine oval-shaped eggs, of an olive or oil green colour. Its food consists of worms, snails, and other insects, as well as the leaves and seeds of aquatic plants.

The following is a description of the individual above mentioned. Length about $6\frac{1}{4}$ inches. Bill dark green, the head and back part of the neck wood-brown, inclining to yellowish-brown. Throat and fore-part of the neck, cheeks, breast and flanks, bluish-grey, with a few undulations of brown. Vent and under tail-coverts greyish-black, barred with white. Upper parts yellowish-brown, tinged with oil-green, and marbled with irregular spots of white, surrounded with a border of black. Legs and toes yellowish-brown, tinged with flesh-red. Irides reddish-brown.

GENUS LOBIPES, CUVIER.

TRINGA, *Linn.*—PHALAROPUS, *Briss. Vieill. Temm.*

Ord. IV. GRALLATORES ; 3^{tia} Fam. Scolopacidæ, *Vigors.*—Ord. IV. GRALLÆ, *Linnæus.*—Ord. VI. GRALLATORES ; 34^{ta} Fam. Lobipes, *Illiger.*—Ord. V. LES ECHASSIERS ; 4^{me} Les Longirostres, *Cuvier.*—Ord. XIV. PINNATIPEDES, *Temminck.*

CHAR. GEN.—*Rostrum* rectum, gracile, teretiusculum ; maxilla ad basin depressa, utrinque sulcata, apice rotundato paulò incrassato deflexo ; mandibula recta ; lingua acuminata, gracilis ; nares in sulco maxillæ ante basin sitæ, lineares, laterales prominentes, membranâ circumdatæ. *Alæ* longæ, remige primò longissimo, reliquis gradatim decrescentibus, rachibus latis fortibusque ; tectricibus longissimis ; alula spuria longa, angusta, rigida. *Pedes* grallatores, vel natatores, tetradactyli, digitis longiusculis lobatis ; tibiæ nudæ, reticulatæ, posteriore scutulatæ ; tarsi digito medio paulò longiores, compressi ; acrotarsia scutulata ; paratarsia scutulis numerosis, triangulis, quadrangulisque obtectis ; calcaneis minutè fimbriatis. Digi-
giti medii bilobi, aut trilobi, interni bilobi, externi angustè quadrilobi ; toma fimbriatum, basi conjunctum, lateribus excisuris in lobos rotundatos ; hallux externè scutulis minutis ovatis obtecta, lobo parvo integro ; ungues phalange breviores, falculares, arcuati, acuti. *Cauda* mediocris.

Typus genericus, TRINGA *hyperborea*, *Linn.*

THE genus *Phalaropus* formerly contained two species, *P. platyrhynchus* and *hyperboreus* : these have often been separated, either into genera or sections, and as often again united, as characters of sufficient importance to confirm the views of those persons who described them, were perceived in each. We are far from wishing to increase the number of genera already formed ; but in this instance it is indispensable, the very fact of the old species having been so often transferred from one genus to another, indicates something in their characters that cannot be reconciled. They have alter-

LOBIPES.

nately been placed in the genera *Tringa* and *Phalaropus*. The genus *Criomophilus* has been formed from one species; while that of *Lobipes* was made for the reception of the other. In *Phalaropus*, where we only retain *P. platyrinchus*, the bill is broad, flat, strong, and hooked at the tip; the tongue short, rounded at the tip, and broad; the tarsi are short and strong, and very little flattened; the toes are rather short, with broad and deeply scalloped membranes; and the general form is robust. In *Lobipes*, where we propose placing the remaining species, the bill is long, slender, smooth, and in some species slightly bending upwards; the tongue is slender and pointed; the tarsi rather long and flattened; the toes long in proportion, not so broadly webbed, and the scalloped edges of the membrane in some species scarcely perceptible. They are finely and elegantly shaped, as in many of the *Totani*. These discrepancies of character show the necessity of a division, which we have no doubt will be strengthened, as we become better acquainted with the natural economy of the group.

They inhabit the sea-coasts, the shores of inland lakes, and occasionally occur on the banks of rivers, feeding on Molluscæ, or aquatic insects. They readily take the water, and swim expertly. *Lobipes hyperboreus* is often met with far out at sea, swimming and collecting the marine animalculæ which abound in the latitudes where it chiefly frequents. The plumage is close and thick, and of a downy texture, adapted to resist the effects of water; and they have a marked difference in the colouring of their plumage during the summer and winter seasons. In summer, or during the period of incubation, it consists of different shades of brown and red: in the winter, of grey and white; in both seasons having the colours blended, and running softly into each other. They appear to moult twice yearly. They are gregarious, being generally met with in small flocks of ten or twelve together.

This group, although containing only three species, and these apparently very limited in number, is widely distributed, and found in countries differing in the extremes of temperature. They occur in Europe, in South America, in North America, extending beyond the Arctic Circle, on the shores of Greenland, and the islands in the Arctic Seas, and in Africa. One species only has yet been found in Great Britain, occasionally visiting our shores, and breeding annually in the Orkney and Shetland Islands.

LOBIPES.

SYNOPSIS SPECIERUM.

LOBIPES.

1. *L. HYPERBOREUS*.—*L.* supra niger, ferrugineo, alboque, varians secundum tempora; capite, nu-
châ, lateribusque pectoris, obscure griseis; lateribus colli ferrugineis, gulâ et
abdomine albis; rostro nigro; tarsi pedibusque sordide flavis.

Tringa hyperborea, *Linn. Syst. Nat.* ii. 675.

Phalarope hyperboré, *Temm.* ii. 709.

Le Lobipède à Hause col, *Cuv. Reg. Anim.* i. 495.

Larus fidipes alter nostras, *D. Johnson, Ray, Synop. Method.* 132.

Phalarope, Red, *Montagu, Orn. Dict.* ii. and Supp.

Red-necked *Phalarope*, *Bew. Brit. Birds*, ii. 149. (last edit.)

Long. 6 pollices.

HAB. In Europâ, Americâ boreali, et Insulis in Mare Arctico.

In museis plerisque.

2. *L. FIMBRIATUS*.—*L.* capite, superiore parte colli dorsoque, griseis; striga laterali nigra ab ocu-
lis ad humeros; corpore subtus albo, remigibus brunneis, tarsi pedibusque
olivaceis.

Phalaropus fimbriatus, *Phalarope liseré*, *Temm. Pls. col.* pl. 370.

Phalaropus frenatus, *Phalarope bride*, *Vieill. Gal. des Ois.* Pl. 271.

Long. 7 pollices, (*Vieill.*)

HAB. Circa Novum Eboracum, *Vieill.*—In Senegali et Mexico, *Temm.*

In museo Baronis LAUGIER.

3. *L. INCANUS*, sp. nov.—*L.* supra griseus, superciliis albis, fronte nuchâque canis; lateribus colli
pectorisque ferrugineis, albo commixtis, uropigio albo; remigibus nigris, in-
feriore pectoris, abdomine, crissoque, albis; rostro nigro; tarsi pedibusque
olivaceis.

Long. 7 pollices.

HAB. In America Meridionali.

In museis GULIELMI JARDINE et Dom. LEADBEATER.





Actitis macularia





Tringa Incarnus

LOBIPES INCANUS, (NOBIS).

Hoary Lobefoot.

PLATE XVI.

L. supra griseus, superciliis albis, fronte nuchâque canis; lateribus colli pectorisque ferrugineis, albo commixtis, uropigio albo; remigibus nigris, inferiore pectoris, abdomine, crissoque albis; rostro nigro; tarsi pedibusque olivaceis.

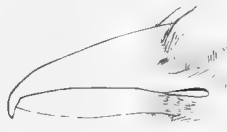
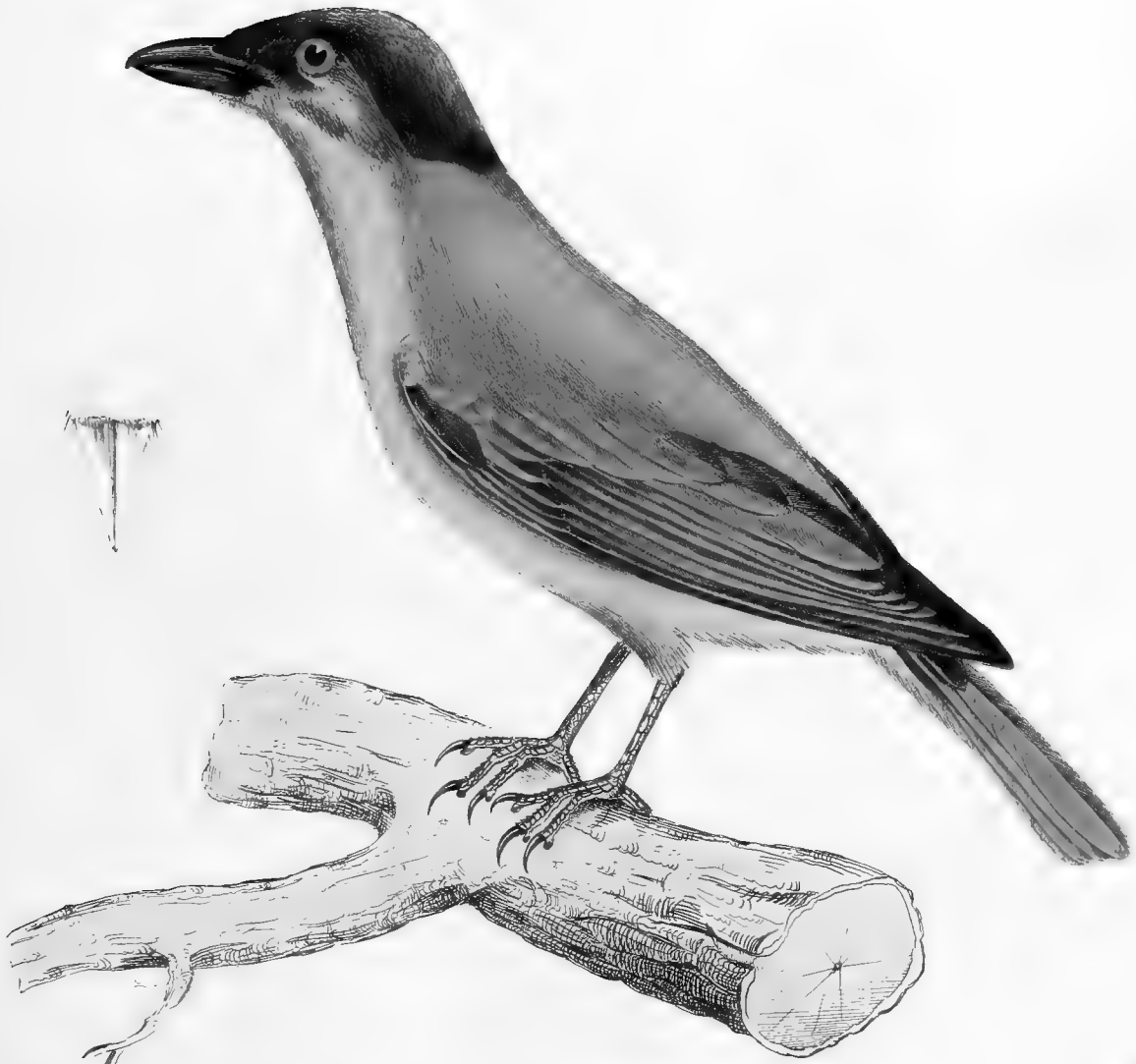
THE skin of this new species was purchased from MR LEADBEATER of London, who received two specimens from Mr BULLOCK on his return from South America: they were brought to the market of Vera Cruz by the native bird-catchers, among different species of *Tringæ*, *Totani*, &c. and are carried thither tied two and two by the extremities of the pinions to a long pole. It is in this way that South American skins, and particularly of those birds which are used for food, have the plumage of one wing so frequently injured or destroyed.

In the texture of the feathers, and distribution of the colours, it resembles the rest of the group. The tarsi are rather long, and much flattened, and the lining membrane of the toes is not so broad, or so much scalloped, as in the other species.

Length seven inches. Crown of the head, back, greater and lesser wing-coverts, and shoulders, clove-brown, with a mixture of blackish-grey, having in both of the specimens brought to this country by Mr BULLOCK, feathers of a darker shade, and of a reddish colour, mixed with the plumage of the upper parts; the greater wing-coverts and scapulars are edged with pale grey; the forehead, eye-brows, and back of the neck, hoary white; the sides of the neck and breast pale clear reddish-brown, shaded with white on the fore part of the neck, and mixed with blackish grey and white feathers; the cheeks and throat, lower part of the breast, the belly, vent, and rump, pure white; the tail blackish-grey, the inner webs of the outer feathers white; the bill is black, smooth, and very slightly inclined upwards, $1\frac{1}{3}$ inches in length; the legs and feet are blackish-green; the claws are black.

LOBIPES INCANUS.

It is probable that the specimens from which the foregoing description was taken, were in a state of change: the occurrence of reddish and dark brown feathers, mingled with the plumage, indicates that the change either to the summer or winter dress has not been completed; and we think it better to give the description as it really is, than to guess at what might be the mature colours in either state.



Tityra pileata



PLATE 11
THE BIRD
MUSEUM

Tityra pulchra

TITYRA PILEATA, (NOBIS).

Black-crowned Tityra.

PLATE XVII.

T. ferruginea infra pallidior, vertice occipiteque nigris.

WHEN making out the generic characters of *Tityra*, previous to writing the sketch of that genus given in our first Number, we omitted the presence of the rigid, falciform feather described by Mr SWAINSON * as inserted between the first and second quills; but this is not present in all the species we then thought should belong to the group, and could not be admitted as a proper distinguishing or characteristic mark. We are not aware of the existence of this curious variation of structure in any other birds, and it is very difficult to form any idea for what purpose it is intended. It exists in *T. cyanea*, *personata*, and *niger*, and we should strongly suspect also in *T. erythrogenys*, although we have not had an opportunity of examining the wings of this species. In *T. niger*, it is developed apparently to its highest degree, and is considerably more than half the length of the first and second quills. *T. pileata*, *castanea*, and *Vieillotii*, want it entirely, and might form a separate group, taking *T. pileata* for the type, and in which, perhaps, might be included *T. Cuvieri*. Until, however, we can see the species together, and compare them more closely with one another, we think it better to retain the genus as it stands, lest we should make alterations upon too uncertain characters, which would again require a change. We shall take the very earliest opportunity of recurring to it.

For the loan of this new species of *Tityra*, now figured, we are indebted to the liberality of Mr LEADBEATER, Brewer Street, London. It was received by him from South America among some other skins, but without any notice whatever accompanying it. In the general form, in the shape

* Zoological Journal, No. vii. p. 354.

TITYRA PILEATA.

of the bill, and in the distribution of the scales on the tarsi and feet, it is true to the type ; but it is furnished with a greater share of rather strong rictorial bristles than what agrees with the general characters of the group. The total length of the skin was seven inches. The bill is strong, and slightly hooked : the upper mandible is dark umber-brown ; the under is a shade lighter, and is tinged with yellow. Crown of the head, and upper part of the neck, round the eyes and cheeks, are deep greyish-black, lightest on the cheeks, and under the eyes. Back, rump, and tail, the greater and lesser wing-coverts, are light reddish chesnut-brown ; the primary quills are dark umber-brown, with pale edges. Throat, breast, belly, and vent, reddish wood-brown, darkest across the breast, shaded into the chesnut of the upper parts, and the greyish-black of the head and neck. The under wing and tail coverts are yellowish wood-brown. The legs and feet appear to have been blackish-blue ; the claws are umber-brown.

The upper outline of the bill on this Plate is that of *T. pileata* seen from above : the under outlines are those of the bill and feet of *T. cayana*.



Fericultus chrysocephalus



Toriculus chrysocephalus





Sericulus chrysocephalus, adult.





Sericulus chrysocephalus, adult.





Sericulus chrysocephalus, Young.





Vericulus chrysocephalus, Young.

SERICULUS CHRYSOCEPHALUS, *Swainson.*

Golden-headed Sericulus.

PLATES XVIII, XIX, XX.

MAS. Niger; capite, cervice remigibusque secundariis aureis.

FŒM. Brunnea; dorso pectoreque albido-lunulatis; vertice, gulæ medio torquæque nuchali nigris; abdomine albido, brunneo-lunulato.—Auct. *Vig. & Horsf.* Trans. Linn. Soc.

JUN. Vertice gulaque nigris, corpore albido-lunulatis, lunulis magnitudine variantibus; cæteris ut in fœmina.

Melliphaga chrysocephala, *Lewin*, Birds of New Holland.

Golden-crowned Honey-eater, *Lath.* Gen. Hist. iv. p. 184.

Loriot Prince Regent, *Temm.* Pl. Col. 320.—*Quoy et Gaimard*, Voyage de Freycinet autour du Monde, pl. 22.

Sericulus chrysocephalus, *Swains.* Zool. Journ. vol. i. p. 478.—*Vig. & Horsf.* Trans. Linn. Soc. vol. xv. part i. p. 326.

THIS beautiful species is the type of Mr SWAINSON'S genus *Sericulus*, and presents one of those forms which has hitherto completely puzzled ornithologists with regard to its natural affinities, and its proper station in the extensive order of animated beings to which it belongs. In its general outward shape, it approaches nearest to the *Orioles* and *Thrushes*, possessing the bill, nostrils, and shape of the wings belonging to the former, while the tarsi and feet are those of the *Merulidæ* or shorter-legged *Pittæ*. The chief difference consists in the structure of the feathers of the head and neck, and in the form of the tail, which is slightly though decidedly forked, a form always indicative of a greater power of flight. The point, however, which has caused the greatest uncertainty, and on which we are sorry we cannot yet decide, is the idea that it is melliphagous, or derives its sustenance by sucking the nectar or juices of flowers. LEWIN places it at the head of his genus *Melliphaga*, and, although he does not enter very fully into its manner of living, yet the habits of the bird are indi-

SERICULUS CHRYSOCEPHALUS.

cated by the meaning of the generic name, and by the habits of its congeners, some of which we know to be entirely suctorial, or to feed nearly in the same way as the Humming-birds of South America. It is the alleged structure of the tongue, in the present species (for it has not yet been seen or examined), that has given rise to this opinion; but even if, upon examination, it should be found to be formed as in those birds which are truly nectiferous, we do not think it at all conclusive that the nourishment is derived by suctorial means. We have instances of analogous structure in many others, as in the genera *Ramphastos* and *Pteroglossus*, which feed even occasionally on animal food, though chiefly on the juicy and luxuriant fruits so abundant in tropical countries; and the cartilaginous pencils with which their tongues are furnished, seem only to assist in the taste, or to give additional zest to the exquisite delight they appear to experience when slowly devouring one of these. Some species in our own country which are entirely frugivorous possess this structure in a less degree: the Brambling or Mountain-finch (*Fringilla montifringilla*, Linn.), has the tongue tipped with a short thick pencil of fibres, and they can only be employed as organs of taste, or perhaps assist to place more accurately the different grains in a proper position to be shelled by the edges of the bill. In the New Holland genera *Creadion* and *Mimeta*, the tongue is also composed at the tip of a large brush of apparently nothing more than cartilaginous fibres; but the form of these species is not at all particularly adapted for procuring their food in the manner of the true suctorial birds; and we should very much doubt, if creatures of their size and strength, and of course requiring a proportionate quantity of nourishment, could draw sufficient from the nectar of flowers to support them in the ordinary offices of their lives. For these reasons, we think it more probable, that all those large species with brush-like tongues, with which New Holland abounds, live and derive their sustenance much in the same manner as the *Ramphastidæ* of South America, with this difference only, that it is never derived from animal substances; but until we receive some authentic information from some person who will take the trouble to observe these birds in their native solitudes, all our opinions must be speculative and uncertain.

This species was first figured and described by LEWIN under the name of King's Honey-eater,—a name given to it in honour of KING, who accompanied Captain COOK in his well-known voyages. It is a native of New Holland, and inhabits chiefly the borders of the Paramatta River,

SERICULUS CHRYSOCEPHALUS.

but every where it is apparently of rare occurrence. Few specimens reach this country, and being deservedly highly prized by dealers, they are soon picked up: it is also sought after to adorn head-dresses, or other female ornaments, for which the skins are used in the same way as those of the paradise birds.

The length of the adult male is ten inches. The head and back of the neck, running in a rounded point upon the breast, are very deep bright gamboge-yellow, blended into the deepest orange on the centre of the crown of the head. The feathers on these parts differ considerably from the ordinary structure: on the crown, they are thick, short, and feel to the touch like velvet; on the neck they are longer, and on both parts each feather is slightly crisped, or curled upwards at the tip, as if done artificially; when examined by a microscope, the individual webs of the feather are only again webbed at the base, and stand perfectly free from each other for half their length; they are there round and transparent, and are generally club-shaped at the tips. In the young bird, the feathers on these parts do not vary from the ordinary structure. All the other parts of the plumage, except the secondaries and inner webs of the quills, are deep black: those round the eyes, and on the cheek, are of a thick velvety texture, and, with the upper parts, are glossed with bluish reflections. The secondaries are very bright gamboge-yellow, with a narrow edge of black running along the inner webs; the first quill is the shortest, and is entirely black; the next have the tips and outer webs black, the half of the inner web, and that part of the shaft not running through the black tips is yellow; as the quills approach the true secondary feathers, the yellow of the inner web extends across the shaft, leaving only a black edge on the outer, which gradually narrows, until it entirely disappears, and the tips only on both webs remain black. The tail contains twelve feathers, and is decidedly forked, the outer feathers being a quarter of an inch longer than those in the centre. The tarsi and feet are deep blackish-brown.

We have not seen the female; but from the account given by Mr VIGORS and Dr HORSFIELD in the *Linnean Transactions*, it appears to resemble nearly the young of the first year. The young male, however, is often in different states of change, and the real characters of it are rendered more unstable.

On Plate XX. we have given what we consider to be the young male of the first year, almost before any change has taken place: a very few yel-

SERICULUS CHRYSOCEPHALUS.

low feathers begin to appear on the head and neck ; but the rest of the plumage is evidently immature. Plate XVIII. shows the transition of the male from the young plumage, and was taken from a beautiful and interesting specimen very obligingly lent to us by Mr WILSON, Preserver of Objects of Natural History to the University of Edinburgh.

Fig. *a*, on Plate XX. is a magnified representation of one of the soft short feathers on the head of the adult male.



Thamnophilus niger



Thamnophilus niger

THAMNOPHILUS NIGER, *Such.*

Greyish-black Bush Shrike.

PLATE XXI.

T. corpore nigrescento-griseo, capite cristato, remigibus subbrunnescens, obscure fasciatis.

Thamnophilus niger, *Dr. Such*, *Zool. Journ.* No. iv. p. 559.

THIS species was brought from South America a few years since by Dr SUCH, and was first characterised by him in a late number of the *Zoological Journal*. It belongs to that division of the genus which has the tail long and considerably graduated, and the colours are probably the most sombre and uniform in the whole group, wanting in a great part that variegation of shades common to most of them.

The total length is about eight inches: the head is furnished with a crest composed of rather long dense black feathers, which, near the base of the bill, are strong and bristly, bending forward partly over the nostrils. The whole plumage is a dull greyish-black, lighter and slightly tinged with a greater proportion of blue on the rump and under parts: the quills, secondary feathers, and tail, are nearly black; the secondaries are barred irregularly with umber-brown. The toes are long and slender, and with the legs, are dark blackish-brown: the hind claws are long, slender, and considerably curved.

The specimen from which we took the drawing for this Plate, is in the Museum of the Zoological Society of London. There is also good specimens of this species in the collection of C. EDMONSTONE, Esq. of Cardross Park, Dunbartonshire.





Gallinula ceryxoides



Galbula cezeoides

GALBULA CEYCOIDES, *Such.*

Three-toed Jacamar.

PLATE XXII.

G. supra viridi-atra, pectore abdomineque medio albis, capite gulaque nigro-brunneis, ochraceo-lineatis; pedibus tridactylis.

Galbula ceycoides, Dr. Such, Zool. Journ. No. v. p. 112.

THIS curious species, one of the late acquisitions from Brazil, occupies a station in the long chain of affinities by which birds, as well as other organised creatures, are gradually though inseparably connected, which sets at rest that variety of opinion regarding the proper station of the Jacamars in our systems. Among the true scansorial birds, the feet are generally remarkable for their strength, and are adopted for that leading character of the group indicated by the title applied to them. The genus *Galbula* was placed by several of the older ornithologists in the natural division of the *Scansores*, to which it was allied only, by having the toes placed two before and two behind: in other respects, the legs and feet are very weak, and formed as in the *Halcyonidæ*, and in the genus *Merops*. In the present species, we entirely lose the zygodactyle structure, and find them similar to the three-toed King-fishers, thus beautifully forming a link of union between them.

This species is by no means common in Brazil: not more than five or six specimens have yet reached this country; and we have not observed it in the French or Dutch museums. It was first noticed by Dr SUCH, and is described by him in the Zoological Journal. The following description is chiefly taken from specimens lately received from Dr SUCH, and differing in no respect from that described by himself.

The total length of the skin is seven inches and a half, that of the bill nearly one inch and three quarters. The head and cheeks are covered with long, pointed blackish-brown feathers, the tips of which are ochre-

GALBULA CEYCOIDES.

yellow, palest on the forehead, and unless when raised, the head appears almost entirely of that colour : the back and sides of the neck are blackish-grey, and have the feathers of a very loose texture ; the throat is deep brownish-black, the centre of the breast and belly dusky white ; the rest of the plumage is blackish-green, with green or bluish reflections, which appear most vivid on the wings and tail : the quills and secondaries are edged with yellowish-white ; the legs are brownish-black.

GENUS MOMOTUS, BRISSON.

PRIONITES, *Illig.*—MOMOTUS, *Lath.*—LES MOTMOTS, *Cuv. Temm.*
—BARYPHONUS, *Vieill.*

Ord. II. INSESSORES, *Vigors*; 3^{me}. Trib. CONIROSTRES, *Cuvier.*—Ord. II.
PICÆ, *Linnæus.*—Ord. II. AMBULATOIRES, *Illiger*, 8^{me}. Fam. Dentirostres.
Ord. II. LES PASSEREAUX, *Cuvier*, 3^{me}. Trib. LES CONIROSTRES.—Ord. II.
OMNIVORES, *Temminck.*

CHAR. GEN.—*Rostrum* mediocre, crassiusculum, cultratum, tomiis dentatis, posticè serratis, versus apicem integerrimis; vibrissæ raro-radiatæ, malares et ingluivales; nares basales, laterales, posticè membrana plumulis obsita semiclausæ; anticè foramine rotundato patentès; *lingua** angusta pennacea. *Alæ* breves, rotundæ, remige primo brevissimo, secundo, tertio, gradatim incrementibus, quarto quinq; longissimis. *Pedes* mediocres, incessores, digiti antici duo externi subæquales, ad rhizonychium usque coadnuti, interni ad basin conjuncti, tertia parte breviores, hallucès æquantes; unguès omnes arcuati, anticus medius dimidio longior. *Cauda* longa, cuneata.

Typus genericus *RAMPHASTOS Momota*, *Linn.*

RAMPHASTOS MOMOTA of LINNÆUS was first separated, with great propriety, from the *Ramphastidæ* by BRISSON, who formed from this species his genus *Momotus*. Since that time, it has been very accurately characterized by Professor ILLIGER of Berlin, under the appellation of *Prionites*; but this being long subsequent, must of course be yielded to the right of priority. The type was at that time the only one known, since which, however, two species have been added to this small though well defined group, all beautifully agreeing with each other in their form, colour, and general structure, and, as far as we know, in their manner of life. The prevailing colours are different shades of green, blue, and chesnut. The texture of the plumage, though thick and downy at the root, is yet loose and unconnected: the wings are short and rounded, and apparently unfit for extensive flight; the tail is strongly cuneated, the exterior feather on each side is remarkably short, while the two centre ones are considerably longer than any of the rest; the shafts of the two centre feathers, for nearly the

* ILLIGER.

MOMOTUS.

space of an inch, and about the same length from the extremity, are in many specimens entirely devoid of the web: this is common through the whole species, and by some is thought to arise from age, by others that the bird only of the first year has them entire. We have seen specimens in every other respect carrying the adult plumage, and are at a loss how to account for the change taking place: we have seen it partially stript from only one side of the feather; and in a specimen of *M. Ruficapillus* now before us, the third feather from the outside, and on one side only, exhibits exactly the appearance generally thought to be confined to those in the centre.

All the species inhabit the thick forests of South America. They feed principally on fruits, but occasionally plunder the nests of other birds of their young, and appear to resemble the *Ramphastidæ* considerably both in this and in their general manners. They breed either in holes in the ground, most probably the forsaken burrows of some animal, or in old hollow trees.

SYNOPSIS SPECIERUM.

MOMOTUS.

1. *M. MOMOTA*.—*M. corpore flavescente-viridi, vertice aterrimo, cœruleo splendente circumdato, auriculis nigris posticè attenuatis.*
Momotus, *Briss. Syn. Method.* ii. p. 175.
Ramphastos momota, *Linn. Syst. Nat. ed. 13. i. p. 357.*
Momotus Brasiliensis, *Lath. Ind. Ornith. i. p. 140.*—*Shaw, Gen. Zool. vol. viii. p. 42.*
Brazilian saw-billed Roller, Edwards, Glean. iii. p. 251.
Long. 16–18 pollices.
HAB. In Americâ meridionali.
In museis plerisque.
2. *M. RUFICAPILLUS*.—*M. supra viridi-flavescens, pileo castaneo, gula juguloque flavescentibus, auriculis orbitas loramque anticè complectentibus aterrimis, posticè rotundatis.*
Baryphonus ruficapillus, Vieill. Gall. des Oiseaux.
Long. 14–16 pollices.
HAB. In Americâ meridionali.
In museis plerisque.
3. *M. MARTII*.—*M. supra viridi-flavescens, capite colloque dilute castaneis, malis cœruleis, subtus viridi cœrulescens, auriculis nigris posticè attenuatis.*
Prionites Martii, Spix & Martius, Nov. Spec. Av. Brasil. Part i. p. 63. tab. lx.
Long. 12 pollices.
HAB. In Brasiliâ.
In museis GULIELMI JARDINE, Baronetti, et Dom. LEADBEATER.



Momotus Martii





Homotus Martii

MOMOTUS MARTII, *Spix & Martius.*

Martius's Momot.

PLATE XXIII.

M. supra viridi-flavescens, capite colloque dilutè castaneis, malis cœruleis, subtus viridi-cœrulescens, auriculis nigris posticè attenuatis.

Prionites Martii, *Spix & Martius*, Nov. Spec. Av. Brasil. Part i. p. 63. tab. lx.

THE length is about twelve inches: the bill is brownish-black, and is toothed, as in the rest of the genus: the crown, occiput, and back of the neck, are pale reddish-orange, with a mixture of yellowish-brown, and pass into yellowish oil-green on the back and wing-coverts; the auricular feathers are velvet-black, sometimes having the ends of the webs tipped with ultramarine blue, and extend under the eyes to the extremity of the rictus: the feathers upon the lower jaw, and extending partly upon the cheek, are pointed, extremely close in texture, and form a patch of shining ultramarine or verditer-blue: the tail in this species is equally cuneated with the others, but is not so long in proportion; the feathers are verdigris-green, with ultramarine reflections, underneath pale blackish-grey, with a silvery tinge: the quills are edged with ultramarine-blue: the throat, breast and belly pale verdigris green, tinged on the throat with verditer-blue, and on the breast and sides with ochre-yellow: vent and under tail-coverts deep yellowish-white, slightly tinged with verdigris-green: the under wing-coverts very pale reddish-orange: the feet and claws are blackish-brown.

This species is described by SPIX and MARTIUS as inhabiting the woods of Para in Brazil, and there known by the provincial name of *Jiriba*, possessing a short and jerking flight, and building its nest under ground.

The specimen from which our drawing is taken, was brought by Mr BULLOCK from some part of Mexico, and was purchased by us at his sale of Mexican curiosities.





Tityra personata





Silyra personata

TITYRA PERSONATA, (NOBIS).

Masked Tityra.

PLATE XXIV.

T. supra grisea, subtus griseo-alba, fronte, maxilla, remigibus caudaque nigris, cauda apice alba.

FOR this new and beautiful *Tityra*, we are indebted to our friend Mr SWAINSON, who, although he is himself conducting an elegant work on Ornithology, and is daily describing new species, has sent this almost as soon as received entirely for our use. Mr SWAINSON received the skin from Mr JENKINS, a gentleman now residing at Real del Monte, on the table-land of Mexico, devoting a great portion of his time to the study of the natural productions of that most interesting portion of the world, and who has already transmitted to this country several valuable additions to ornithology.

The length is seven inches and a half: the bill is wide and strong, as in *T. cayana*, yellowish-brown, with the tip of both mandibles black: the space between the eyes and the bill, and a narrow circle round the eyes, are bare of feathers, and appear to have been red, or yellowish-red, in the living specimen; at present they are dull orange coloured brown, and strong short hairs are thinly scattered over them: the nostrils are placed near the centre of the upper mandible, about an eighth of an inch from the base, perfectly free and uncovered by any membrane; they are round and small, and are covered by a very few weak hairs arising from the base of the bill: the forehead, the lower parts of the cheeks, in a line from the under mandible, and a narrow circle round the eyes, are deep black: the other parts of the head, the neck and back, the greater wing-coverts, rump, breast and belly, are ash-grey, paler on the under parts, and on the vent almost inclining to white: the shoulders, quills, and secondary feathers, are black, the wings are long in proportion: the small feather inserted between the first and second quill is of more than ordinary length,

TITYRA PERSONATA.

and is stiff, sharp-pointed, and falciform : the tail is composed of twelve feathers, equal at the end, and in colouring it nearly resembles that of our common Wheat-ear (*Saxicola œnanthe*) : the shafts of the feathers are black, the tip for two-eighths of an inch yellowish-white, beyond which it is black for nearly an inch, or until it is hid by the upper coverts ; the remaining part of the base is bluish-white : the tarsi and feet are strong, and of a deep bluish-black.





Musophaga variegata



Muscophaga variegata

MUSOPHAGA VARIEGATA, Vieillot.

Variegated Plantain-eater.

PLATE XXV.

M. supra grisea, brunneo maculata, subtus alba nigrescente-castanea striata, capite crista occipitali.

Musophaga variegata, Vieill. Gal. des Ois. Pl. 48.

Le Musophage varié, 2de. edit. du Nouv. Dict. d'Hist. Nat. tome xxii. p. 92.

THIS elegant *Musophaga* has long been known in our museums, but has hitherto remained undescribed by British naturalists: it, however, fell under the observation of the continental ornithologists, and we find it described by VIEILLOT in his *Galerie des Oiseaux*, under the title of *Musophaga variegata*. In the general contour of its form, it greatly resembles the type of the genus *M. violacea*, but differs from it in wanting altogether that extension of the base of the upper mandible which extends considerably over the forehead, and which has been considered as constituting a generic character. With the views of the Baron CUVIER and Mr VIGORS, regarding the station which this and the nearly allied genus *Corythaiix* hold, as forming the link which connects the perching birds or Insessores of the latter author with the Rasores or Gallinaceous Order, we fully concur: it appears, indeed, a matter of doubt, whether the plantain-eaters might not as naturally be placed among the *Cracidae* of the latter order, as among the *Cuculidae* of the former. The versatility or power of turning backwards the extreme toe, must determine to which it is most closely allied, and of this it is difficult to form a correct judgment from an examination of dried specimens; but the form and proportion of the feet, as well as the strong membrane which connects the toes at the base, would seem to imply that this power, if possessed, must be very limited and confined. ISERT, who first described the Violet Plantain-eater, and instituted the genus, considered it as possessing *pedes ambulatorii*, or feet with three an-

MUSOPHAGA VARIEGATA.

terior, one posterior toe, and none of the anterior versatile ; but ILLIGER, and other ornithologists, hold a contrary opinion, and have classed it with those birds which have scansorial feet.

The figure is one-half the natural size : the bill is gamboge-yellow, strong, and gently arched, and with a few irregular serratures on both mandibles : the crown of the head, cheeks, throat, and sides of the neck, are chocolate-brown, the feathers rigid, and with bristly points : the occiput is furnished with a crest composed of long narrow feathers, of unequal lengths, chocolate-brown, margined with white : the upper parts are deep smoke-grey, the side and terminal spots of the feathers chocolate-brown : the under parts are white, with large oblong spots of brown : the quills are black, glossed with purplish-blue : tail long, the exterior feathers black, the two middle black towards their tips, but passing into deep smoke-grey at the base.

We received the specimen from which the accompanying Plate is taken, along with a valuable collection of skins, from Sierra Leone, where they were collected by the exertions of WILLIAM FERGUSSON, Esq. surgeon to the Royal African Corps, and remitted for our collections.



Pteroglopus maculatus



Pteroglossus maculatus

PTEROGLOSSUS MACULATUS.

Spotted-billed Araçari.

PLATE XXVI.

P. rostro maculata, capite, gula pectoreque flavis ; auriculis croceis ; dorso, secundariis caudaque viridibus, crisso rubro.

L'Araçari à bec tacheté ; *Ramphastos maculatus*, *Vieill. Gal. des Oiseaux*, vol. ñ, (Plate not numbered).

THE length of this species, including the bill, is about twelve inches ; that of the bill is from two inches and a quarter to two and three quarters : it is broad and strong at the base, and appears to be of a firmer texture than in the generality of the species : the colour is pale bluish-grey, inclining to gamboge-yellow at the tip and edges of the mandibles, and is irregularly crossed and spotted with large black patches. In the male, the head, back and sides of the neck, throat and breast are deep black : the feathers that spring immediately beneath the rictus, and those covering the ears, are saffron-yellow, and run to a point as they mingle with the feathers on the sides of the neck : the upper parts are dusky sap-green, and are divided from the black of the head and neck by a narrow band of primrose-yellow ; on the rump there is also a few feathers of the same colour : the quills are blackish-brown : the tail is dusky sap-green, and all the feathers, except the two exterior on each side, are tipped with orange coloured brown : the hypochondriæ are saffron-yellow, blended with primrose-yellow on the centre of the vent, and on the lower part of it inclining to oil-green : the under tail-coverts are dark scarlet-red : the feet and legs are blackish-blue.

Those parts of the plumage which are black in the male, are in the female deep orange coloured brown, paler beneath : the auricular feathers are deep oil-green, tipped with primrose-yellow.

PTEROGLOSSUS MACULATUS.

Dr LATHAM has figured the female of this species in his General History of Birds, under the title of the " Janeiro Toucan," and appears to confound it with that of the piperine species (*P. piperivorus*), which may at once be distinguished from it by the different form and colour of the bill.

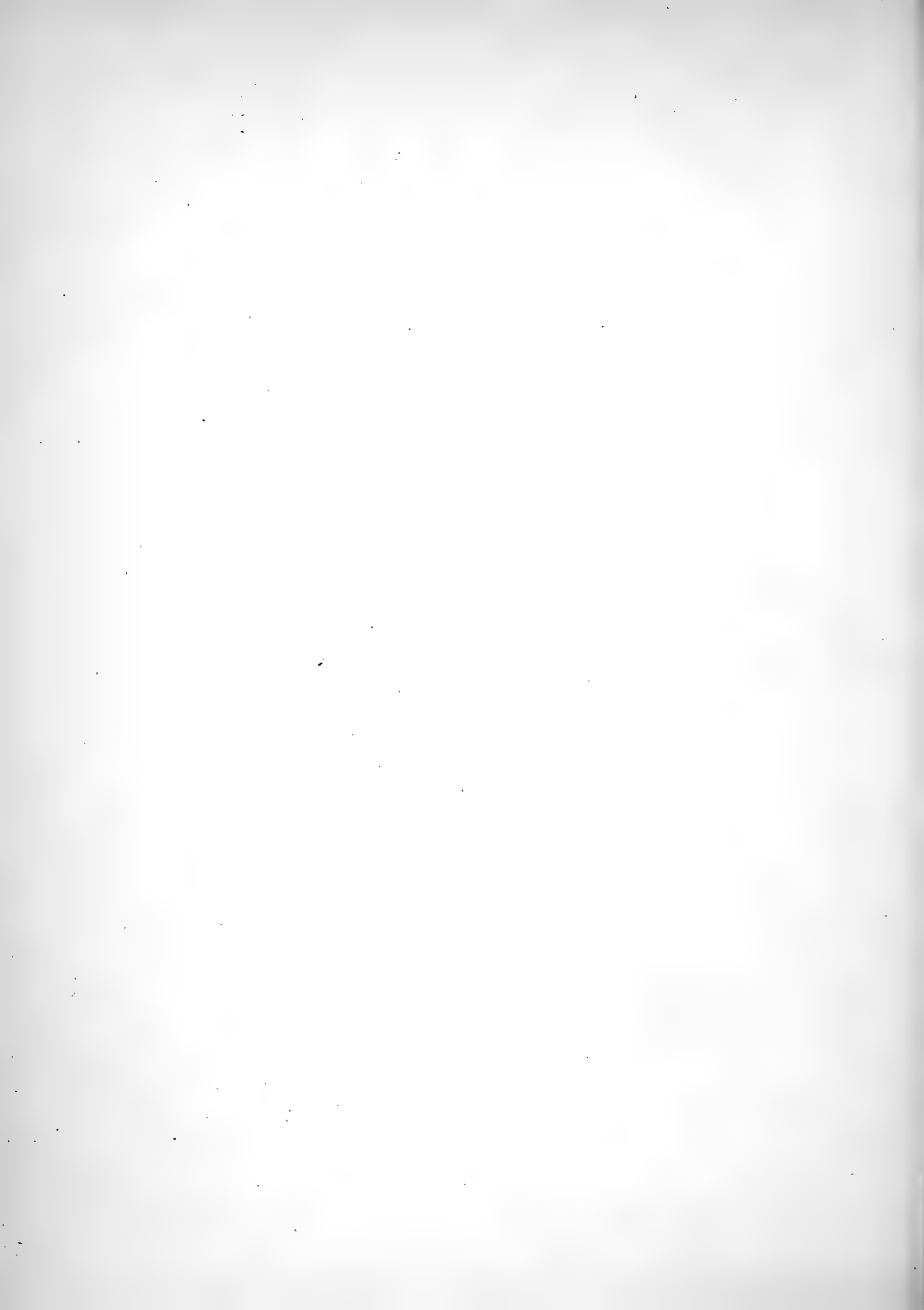




Podiceps Sabini



Scolopax Sabini



SCOLOPAX SABINI, *Vigors.*

Sabine's Snipe.

PLATE XXVII.

S. corpore castaneo atroque vario, subtus pallidior; pileo, humeris, pteromatibus remigibusque atris, rostro pedibusque fuscis.

Scolopax Sabini, Vigors, Trans. Linn. Soc. vol. xiv. p. 556.

THIS rare species of *Scolopax* was first described by Mr VIGORS under its present title in the fourteenth volume of the Transactions of the Linnean Society. From the account there given, it appears, that the individual which furnished the materials for his description, and from which our figure is taken, was killed in Queen's County, Ireland, in 1822. The singularity of its plumage and appearance fortunately rescued it from destruction, and being presented to Mr VIGORS, it now enriches the collection which he has so munificently presented to the Zoological Society of London. A second specimen of a female has since been killed near Rochester, on the banks of the Medway, and is now preserved in the valuable collection of Mr DUNNING of Maidstone. It is a slight degree smaller, which may probably indicate the difference of sex; but it agrees in every other respect, as to plumage and relative proportion, with the bird now described, and corroborates the justness of Mr VIGORS's views, in considering it a new species, instead of permitting it to remain unnoticed as a mere variety of the Common Snipe (*S. gallinago*) or Greater Snipe (*S. major*).

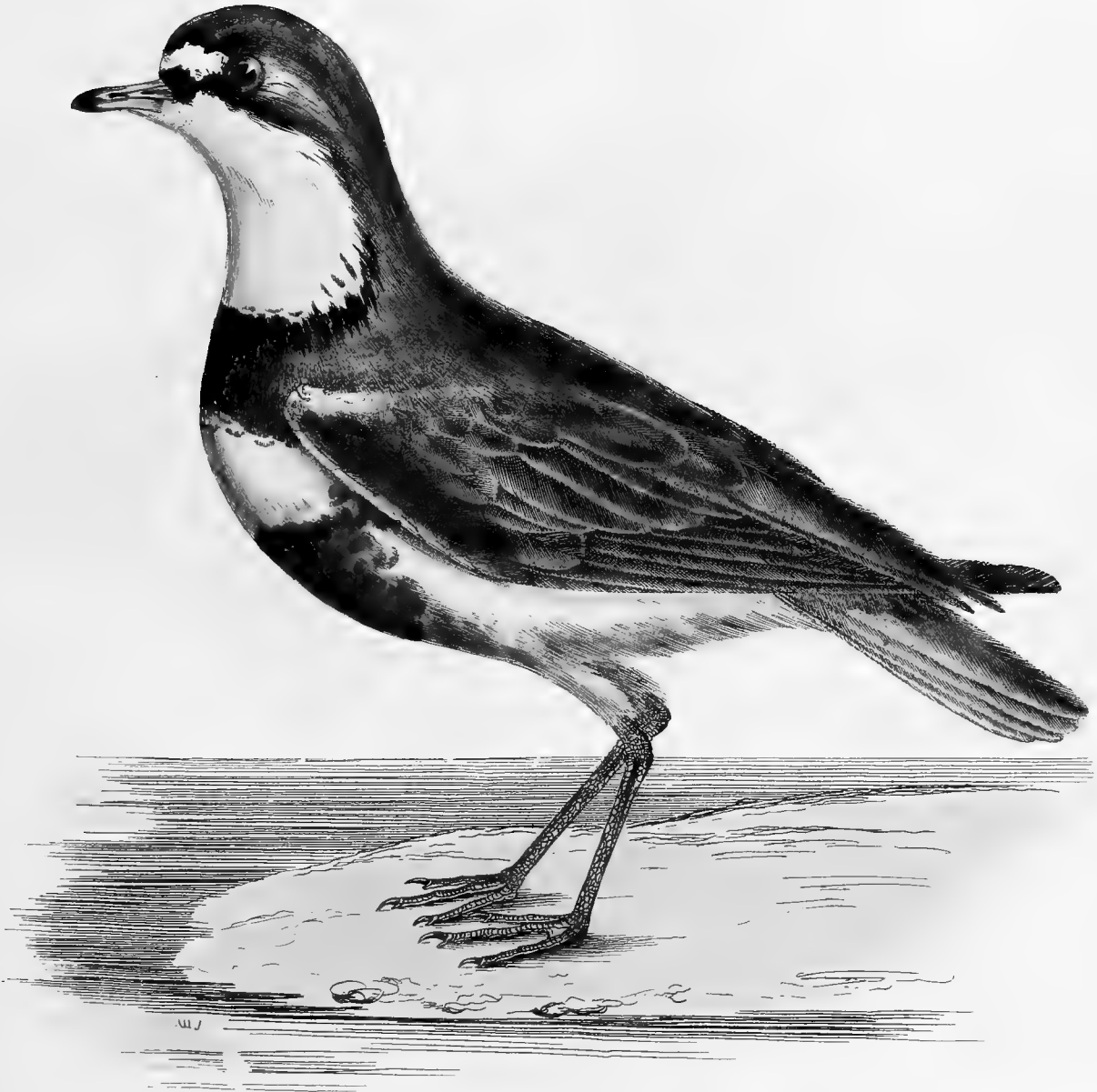
In his description, Mr VIGORS has entered minutely into its affinities, and pointed out, with clearness and precision, those differences of structure which distinguish it from *Scolopax major*, *gallinago*, and *gallinula*, the European species to which it is most closely allied. Independent of the colour, it is sufficiently distinguished from *S. gallinago* and *major* by the

SCOLOPAX SABINI.

comparative length of the bill and legs, and by the number of the feathers in the tail, which are twelve, while in *S. gallinago* they are fourteen, and in *S. major* sixteen. With *S. gallinula* it agrees in this point; but they can never be confounded together.

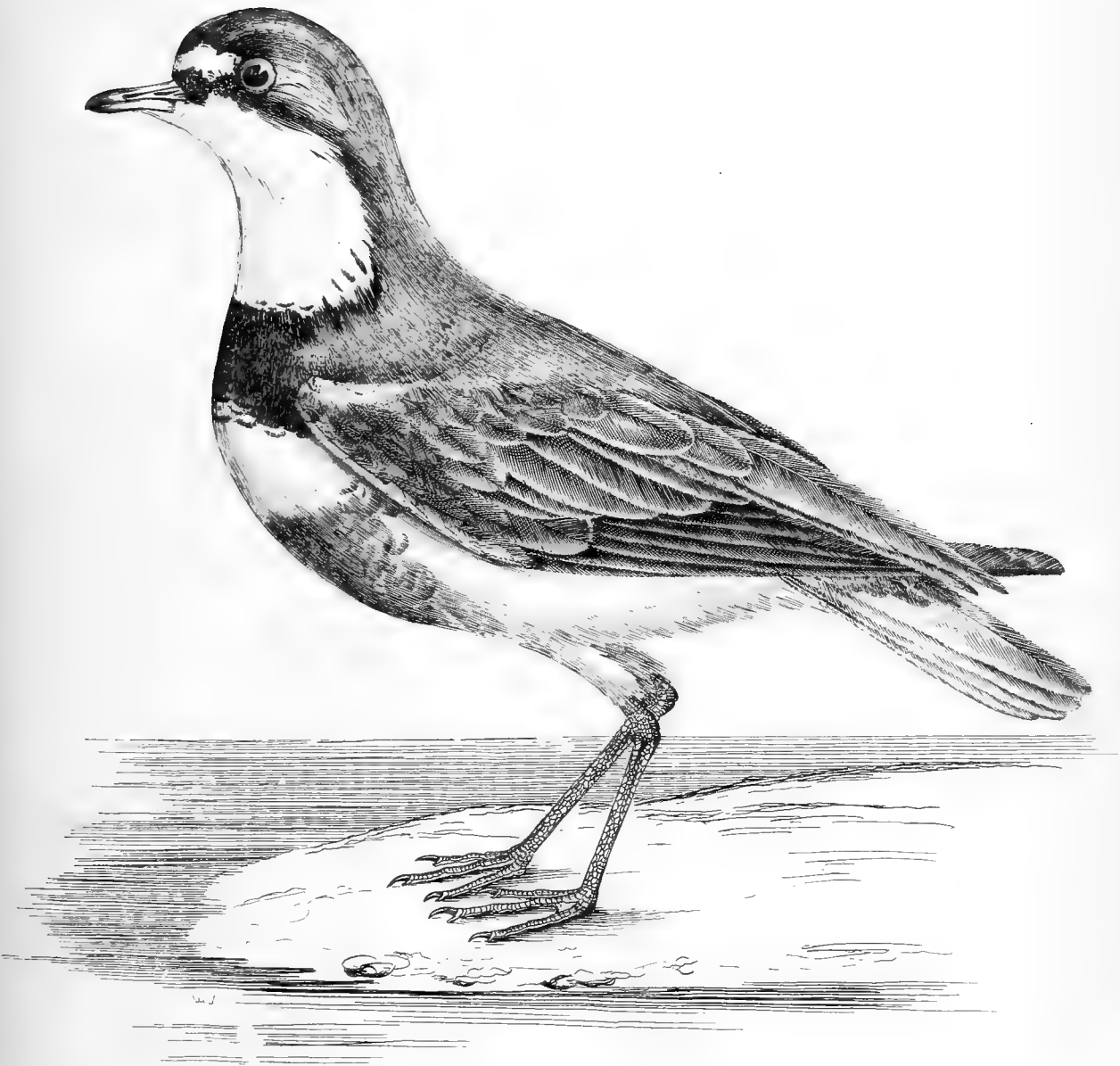
The lower part of the tibiæ being naked, it becomes associated with the true Snipes, distinguished on this account from the Woodcocks, which have the tibiæ feathered to the joint. From its rarity, its distribution as a species may be considered as very confined. No specimen from any other country has hitherto been met with or recognized, similar to these two individuals.

The total length is nine inches and three-tenths: the head, throat and neck are brownish-black, speckled with obscure chesnut-brown, belly and vent greyish-black, barred with chesnut-brown: the back and scapulars are black, with chesnut-brown bars and spots: the under wing-coverts are blackish-grey: the tail contains twelve feathers, the basal half of which are black, the remaining part chesnut-brown, with black fasciæ: the bill is two inches and seven-tenths in length, blackish-brown, inclining to yellowish-brown at the base: the legs and feet are blackish-brown, tinged with grey: the length of the tarsus is one inch and a quarter.



Charadrius bicinctus





Charadrius bicinctus

CHARADRIUS BICINCTUS, (NOBIS).

Chesnut-breasted Dottrel.

PLATE XXVIII.

C. supra brunescens fasciis flavescens, fronte albo; subtus albus cingulo pectorali nigro, altero abdominali castaneo.

Chesnut-breasted Plover, *Lath.* Gen. Hist. of Birds, vol. ix. p. 324. No. 10.

WE received the skin of this species from New Holland some years since, and we have not met with it in any collection except the Museum of the Linnean Society of London, where there is a specimen in apparently immature plumage. We have referred it to the Chesnut-breasted Plover of LATHAM, whose description of that bird agrees nearly with our specimen; and we do not think very slight differences, especially in birds so liable to vary as those of this genus, are sufficient to form permanent distinctions.

The length is about seven inches and a half: the bill is black, lighter towards the base: the base of the upper mandible is surrounded by a narrow circle of black, which extends in a line from the rictus to the eye, and under it, upon the lower auricular feathers; a band of white crosses the forehead from eye to eye, immediately above which the feathers are black, but gradually blend into the uniform pale clove-brown tint which covers the whole upper parts: the greater wing-coverts, and some feathers on the back, are edged with pale yellowish-brown; the outer webs of the quills are deep blackish-brown, the inner webs are paler; the shaft of the first quill is white: the throat is white, ending in a crescent shape on the upper part of the breast: the rest of the under parts are pure white, but the breast is crossed with a deep black crescent-shaped band, of nearly three quarters of an inch in breadth, shaded at the sides into the colour of the upper parts: another band, nearly twice the breadth, and of a bright chesnut colour, crosses the belly, extending downwards almost to the legs, and

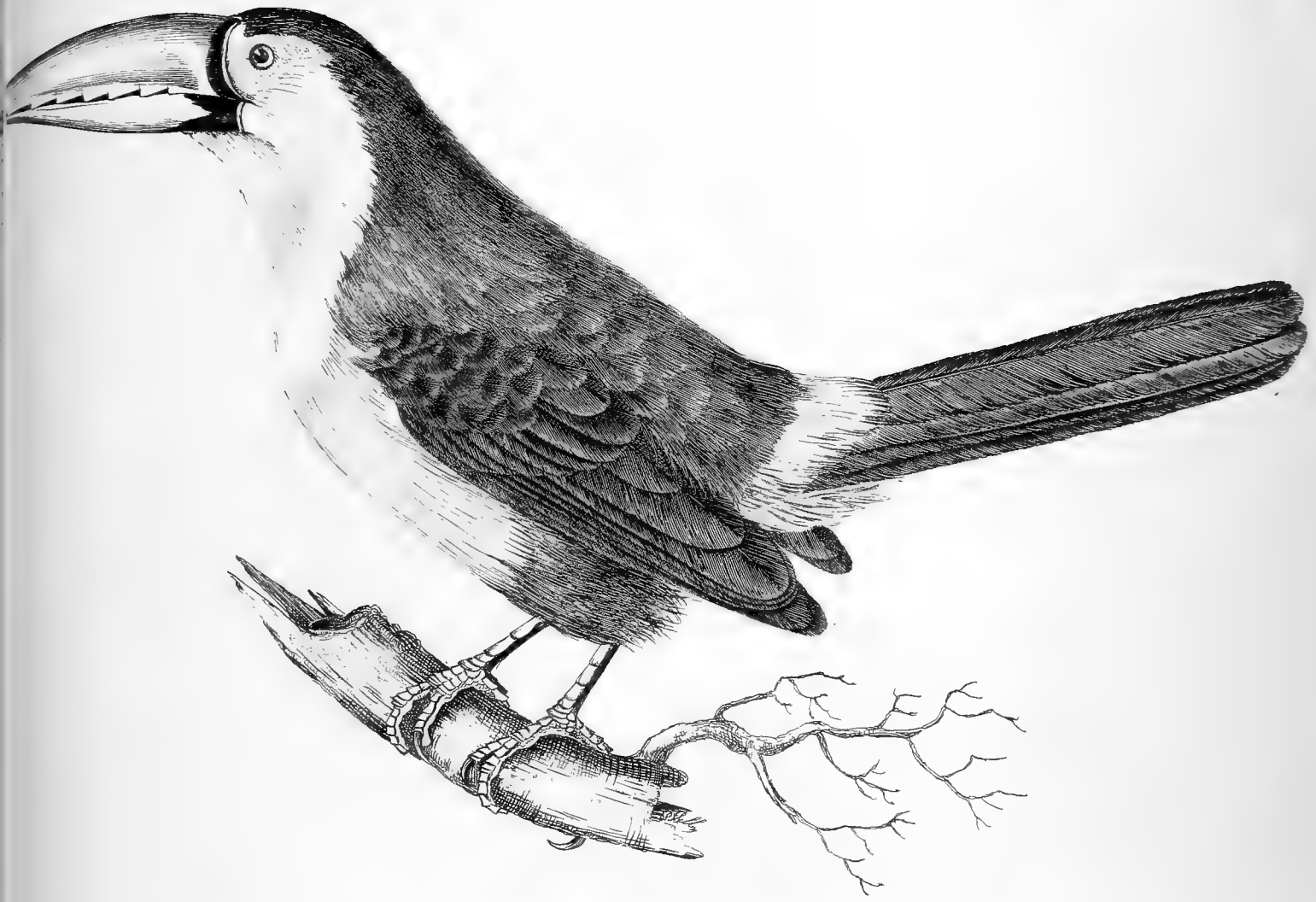
CHARADRIUS BICINCTUS.

upon the sides getting narrow, and running under the wings : the tail is rounded at the tip ; the two centre feathers are pale blackish-brown ; those on each side are paler as they approach the exterior, which is entirely white, except a patch on the inner web : the legs and feet are blackish-green.



Ramphastos dicolorus





Ramphastos dicolorus

RAMPHASTOS DICOLORUS, *Linnæus*.

Yellow-billed Toucan.

PLATE XXIX.

R. niger, gulâ pectoreque aureis; fasciâ abdominali latâ rubrâ; rostro viridi-flavo, basi fasciâ nigrâ transversâ ornatâ; mandibulæ superioris margine laterali rubro; culmine plano.

Ramphastos dicolorus, *Gm. Linn.* p. 556.—*Lath. Ind. Orn.* p. 135.—*Swain. Zool. Ill.* pl. 108.

Yellow-throated Toucan, *Lath. Gen. Hist. Birds*, vol. ii. p. 282.

Le petit Toucan à ventre rouge, *Vaill. Hist. Nat. des Toucans*, pl. 8.

THE very beautiful species, which we have chosen for the illustration of this interesting genus, is among the smallest of the true Toucans, and measures in length from fifteen to sixteen inches, of which the bill, which is not so disproportionate in size as in many of the others, varies from two inches and three-fourths to three and one-fourth: the colour is greenish-yellow, paler on the culmen, with a narrow brownish-black band at the base of both mandibles, which are serrated, but not deeply, and are edged with pale reddish-orange: all the upper parts, the tail, vent, and thighs, are deep bluish-black, having blue and greenish reflections on the back and head in different lights: the centre of the breast is very deep bright orange, gradually passing round the edges, and upon the throat and cheeks, into primrose-yellow, palest immediately under the throat; on the lower part of the breast it passes more abruptly into the primrose-yellow, and almost forms a decided band between that colour and the rich scarlet which uniformly covers the belly: the crissum and upper tail-coverts are also scarlet-red, and of a deeper shade than that of the under parts: the feet and legs in the living bird are delicate blue. The species is a native of Brazil, and at one time was accounted very rare and valuable; but they must either not have been looked for in the proper places, or were in some other way omitted to be sent to this country in collections.

RAMPHASTOS DICOLORUS.

During the last eighteen months, we have seen at least sixty specimens, and very frequently from eight to ten in one lot of skins.

This singular and awkward-looking genus is confined exclusively to the tropical climates of South America, and there holds the same station in the ornithological world with the Hornbills of India and Africa, and the *Scythrops* or Rain-fowl of New Holland, to both of which tribes it approaches considerably in its habits.

It is a genus rather numerous in its species, and they all accord in a remarkable degree, both in their form and colour, and in the general distribution of its tints: it is to this similarity that we ascribe the comparative confusion which even yet exists among the species. The form of the body is narrow and slender; but, by the combination of short wings, a broad and rounded tail, and an enormous beak, in some species almost equalling the size of the whole bird, they have, when in a state of rest, a very clumsy and sluggish appearance: it is, however, only when seen in a state of inactivity that this opinion can prevail; for, as soon as roused and excited by the appearance of food, or any other cause, they are at once all energy, their motions in the highest degree graceful and elegant, and apparently performed with such ease and lightness, as to remove every idea raised by the seeming weight and inconvenience of their bill. The skeleton, with the exception of the cervical vertebræ, is very slender, the sternum or breast-bone is weak, small, and extremely narrow, and is only held in connection with the rest of the skeleton by means of the ribs; the os furcatorius being imperfect, and advancing from the clavicles on each side for about an inch in a narrow pointed form, adds to the weakness of these parts, and renders them unfit for any predatorial habits which would require much force and resistance. The cervical vertebræ exhibit a greater degree of strength than any of the other parts, which is required to sustain the weight and disproportion of the bill; for although that member is remarkably light, the inconvenience of its size renders a greater degree of strength requisite. The osseous exterior of the bill, though thin, is strong and firm, particularly at the edges of the mandibles: the interior of it is filled with convolutions similar to the cribriform bones in animals, and upon these, numerous vessels are closely and minutely ramified. These, according to Dr TRAILL of Liverpool, reach to the nostrils, are connected with the organs of smell, and thereby give to these birds a greater extension of this sense than what is generally supposed to be allotted to this tribe of living creatures. From what we have seen of the habits of these birds, we

RAMPHASTOS DICOLORUS.

cannot perceive that they are endowed with more than the ordinary powers of smelling: such is not at all necessary for procuring the food upon which they in general live; and we strongly think, that this structure of their bills, as well as the disproportion of size, which we also find developed in a still more extraordinary degree in the genus *Buceros*, is applied, and no doubt well adapted, to some part of their economy, of which we are still ignorant. The species are all solitary, never appearing together in flocks. They very much resemble our common Magpie or Jay in their general manners: in their flight, and their manner of hopping from branch to branch, or on the perches of their cage, and in the motions of their wings and tail they are perfectly similar: they also correspond with most of the weaker *Picæ* in the nature of their food, which consists of small or young birds, eggs, and juicy fruits. Animal food, however, seems to be their greatest luxury; for although they appear extremely fond of a peach or nectarine, and continue in a perfectly healthy condition, when fed exclusively upon these or similar fruits, yet they are instantly laid aside and despised, when a young bird or a piece of raw meat is presented to them; and the eagerness with which they retain and devour either of these, is a sufficient proof how agreeably it suits their taste. Their mode of eating any thing of this kind is so extremely curious, that we have been induced to copy a very interesting account written by Mr BRODERIP in the Zoological Journal, and which conveys a better idea of it than any we could now give:

“ After looking at the bird which was the object of my visit, and which was apparently in the highest state of health, I asked the proprietor to bring up a little bird, that I might see how the Toucan would be affected by its appearance. The proprietor soon returned, bringing with him a goldfinch, a last year’s bird. The instant he introduced his hand with the goldfinch into the cage of the Toucan, the latter, which was on a perch, snatched it with his bill. The poor little bird had only time to utter a short weak cry; for, within a second, it was dead, killed by compression on the sternum and abdomen, and that so powerful that the bowels were protruded after a very few squeezes of the Toucan’s bill. As soon as the goldfinch was dead, the Toucan hopped with it still in his bill to another perch, and placing it with his bill between his right foot and the perch, began to strip off the feathers with his bill. When he had plucked away most of them, he broke the bones of the wings and legs (still holding the little bird in the same position) with his bill, taking the limbs therein, and

RAMPHASTOS DICOLORUS.

giving at the same time a strong lateral wrench. He continued this work with great dexterity till he had almost reduced the bird to a shapeless mass; and, ever and anon, he would take his prey from the perch in his bill, and hop from perch to perch, making at the same time a peculiar hollow clattering noise, at which times I observed that his bill and wings were affected with a vibratory or shivering motion, though the latter were not expanded. He would then return the bird to the perch with his bill, and set his foot on it. He first ate the viscera, and continued pulling off and swallowing piece after piece, till the head, neck, and part of the back and sternum, with their soft parts, were alone left: these, after a little more wrenching, while they were held on the perch, and mastication, as it were, while they were held in the bill, he at last swallowed, not even leaving the beak or legs of his prey. The last part gave him the most trouble; but it was clear to me that he felt great enjoyment; for, whenever he raised his prey from the perch, he appeared to exult, now masticating the morsel with his toothed bill, and applying his tongue to it, now attempting to gorge it, and now making the peculiar clattering noise, accompanied by the shivering motion above mentioned. The whole operation, from the time of seizing his prey, to that of devouring the last morsel, lasted about a quarter of an hour. He then cleaned his bill from the feathers, by rubbing it against the perches and bars of his cage."

Fruits are devoured much in the same way, though nothing is retained with such apparent delight, or for so long a period, as animal food; and in their wild state, during the season of incubation, we should think that young birds plundered from the nest, and eggs, formed their chief sustenance. These they cannot procure at any other time, and the rich fruits and berries so abundant in their native regions must be substituted. In a state of confinement, they are active and lively, and soon become tame. A beautiful species is now alive in the possession of our friend and coadjutor Mr VIGORS, which is peculiarly gentle and tractable, suffers himself to be played with, and feeds from the hand. This bird is fed entirely on vegetable diet, with the occasional variation of a boiled egg; and nothing can exceed the beauty and brightness of his plumage. He is extremely fond of washing, and enjoys it even in very severe weather: in other respects he is remarkably hardy.

The manner in which the birds of this genus compose themselves to rest, is another curious trait in their economy; and the care with which they try to protect their bill from the cold of the nights, or other injury,

RAMPHASTOS DICOLORUS.

seems to imply a great degree of tenderness and sensibility in that organ, which opinion is confirmed, when we look at the numerous vessels which are ramified between the bony part of the bill and the external horny covering. We have had an opportunity of seeing several species in a state of confinement, and the manners of the whole are in this particular similar. Mr VIGORS very minutely thus describes the manners of the species now in his possession : “ As the dusk of the evening approached, he finished his last meal for the day, took a few turns, as if for exercise after his meal, round the perches of his cage, and then settled on the highest perch, disposing himself, almost at the moment he alighted on it, with his head drawn in between his shoulders and his tail turned vertically over his back. In this posture he generally remained about two hours, in a state between sleeping and waking ; his eyes for the most part closed, but opening on the slightest interruption. At such times he would allow himself to be handled, and would even take any favourite food that was offered him, without altering his posture further than by a gentle turn of the head. He would also suffer his tail to be replaced by the hand in its natural downward posture, and would then immediately return it again to its vertical position. In these movements the tail seemed to turn as if on a hinge that was operated upon by a spring. At the end of about two hours he began gradually to turn his bill over his right shoulder, and to nestle it among the feathers of his back, sometimes concealing it completely within the plumage, at other times leaving a slight portion of the culmen exposed. At the same time he drooped the feathers of his wings and those of the thigh coverts, so as to encompass the legs and feet : and thus nearly assuming the appearance of an oval ball of feathers, he secured himself against all exposure to cold.”

Such are the facts which we have been able to collect regarding this very interesting tribe of birds ; but much yet remains unknown of their habits, as well as of their internal anatomy and structure. The distance of their native country, and the dangers incident to those who would study them in their natural abodes, together with the exaggerated accounts which are brought home of these and other species, increase to a great extent our difficulties of arriving at the truth ; but we shall take the earliest opportunity of publishing whatever additional authentic information we can collect respecting them.





Tachyphonus cristatus
1. Young Male - 2. Adult Male.





Tachyphonus cristatus
1. Young Male - 2. Adult Male

TACHYPHONUS CRISTATUS, *Vieillot.*

Crested Tanager.

PLATE XXX.

MAS. Niger; cristâ rubrâ; mento uropigioque fulvis; scapularibus tectricibusque interioribus albis.

FÆM. Corpore castaneo subtus pallidior.

Tanagra cristata, *Gm. Linn.* ii. p. 898.—*Lath. Ind. Orn.* i. p. 422.

Haupette, *Buff. Pl. Enl.* 7. fig. 2.—*Desmarest, Hist. Nat. des Tanagres*, pl. 47.

Crested Tanager, *Lath. Gen. Hist. of Birds*, vol. vi. p. 11. No. 10.

Tachyphonus cristatus, *Swains. Brand's Journ.* No. xxxix. p. 66.

THE length of the adult male is about six inches and a quarter. The head is furnished with a broad lengthened crest of very deep shining reddish-orange feathers, rather paler immediately on the forehead; a narrow strip on the chin and throat, and the rump are yellowish wood-brown; the feathers immediately covering the shoulders, and those in the axilla, are pure white; the rest of the plumage is very deep blackish-brown, a little paler on the under parts; the legs and feet are yellowish-brown. The female is rather less in size, and is entirely destitute of a crest: the upper parts are dark yellowish-brown, and are shaded into a lighter tint on the breast and belly, having also on those parts a greater mixture of ochre-yellow: the quills and tail are nearly umber-brown, with the edges inclining to chesnut. The young males for the first year resemble the females, and by degrees attain the full plumage; the crest is not indicated, except by a slight elongation of the feathers. The lower figure on the accompanying Plate is that of a young male in a state of change.

We have now figured this well-known species, both as an example of VIEILLOT'S genus *Tachyphonus*, and to show the change which is undergone by the males before they arrive at maturity. It is a species belonging to the extensive Linnean genus *Tanagra*, and, with a few others, was first

CHARADRIUS CRISTATUS.

separated from it by VIEILLOT, who has figured *T. leucopterus*, the *Tanagra nigerrima* of GMELIN, as the type. Mr SWAINSON, in his later arrangement of the genus, has made *Tanagra atricilla*, LINN. (the bird which forms VIEILLOT's genus *Lanio*), the type, and has of course excluded some of the conic billed species which could not agree with this, and formed them into his new genus *Tiaris*. We certainly like this arrangement better; for even if we took VIEILLOT's type, some of those with weaker bills did not at all coincide with the real characters; and on the other side, we admit some which must have before been excluded, although they approached nearer to this than to any other group. Of their habits we know very little; but to judge from their appearance, it is probable that they feed chiefly on grains and seeds, though partly insectivorous, for which purpose in some species, the form of the bill appears considerably fitted. They are all natives of South America.



Pipilo maculatus, Male.



Pipilo maculatus, Male.





Pipilo maculata. Female.



Pipilo maculata, Female.

PIPILO MACULATA, *Swainson.*

Spotted Pipilo.

PLATES XXXI. AND XXXII.

MAS. Capite, gula parte superioreque pectoris nigris; dorso uropigioque olivaceis, dorsi plumis longitudinali macula alba in latere exteriore rachi; subtus alba, hypochondriis, crissoque ferrugineis.

FÆM. Capite, gula et parte superiore pectoris, olivaceis, dorso absque maculis albis, cæteris ut in mare sed obscurioribus.

Pipilo maculata, Swainson's MSS.

THIS new species was very kindly sent to us for examination by Mr SWAINSON, who lately received it from Real del Monte in Mexico. The length of the male is about eight inches and a quarter: the head, throat, and upper part of the breast, ending in a crescent form, are deep black; the back of the neck, back and rump, are oil-green, but have the feathers on the back and shoulders, and also the wing-coverts, marked on the outer web with an oblong white spot, bordered with a dark shade: the centre of the breast and belly are pure white: the sides, hypochondriæ, and under tail-coverts, are reddish-orange, with a shade of yellow, paler towards the vent: the quills, secondaries, and tail, are brownish-black: the edges of the true quills are grey, which becomes oil-green as they approach the secondaries: the outer web of the outer feathers of the tail is white, and on the inner web of the three exterior there is an oval white spot, smallest on the third from the outside: the bill is black: the legs and feet are brownish-yellow; they are strong, the hind claw is not much bent, it is equal in length to the hallux, and is formed as in those birds which spend a considerable part of their time on the ground.

PIPILO MACULATA.

The female is nearly equal to the male in size, and differs in having the colours of a duller hue, and in the nearly total want of the white spots upon the back ; there are only indications of them on the wing-coverts : the head and neck are dull oil-green, and the upper parts have a greater tinge of yellow than in the male : the colour of the bill is paler.

GENUS NEOPHRON, SAVIGNY.

VULTUR, *Linn. Lath. Gmel.*—CATHARTES, *Illig. Temm.*—CATHARISTA, *Vieill.*

Ordo I. RAPTORES, Fam. 2^{da}. VULTURIDÆ, *Vigors.*—Ord. I. ACCIPITRES, *Linnæus, Latham.*—LES OISEAUX DE PROIE, LES PERCNOPTERES, *Cuvier.*—Ord. I. RAPACES, *Temm.*—Ord. III. RAPTATORES, Fam. 3^{tia}. VULTURINI, *Illiger.*—Ord. I. ACCIPITRES, Tribus 1. DIURNI, Fam. 1^a. Vulturini, *Vieill.*

CHAR. GEN.—*Rostrum* pergracile, rectum; maxilla basi ceromate, dextro distincto, adunco; mandibula deorsum curvata, gonyde nullo; nares longitudinales, laterales, prope culmen sitæ. *Caput* anterius nudum, collo plumoso. *Alæ* longæ; remige tertio longissimo; rectrices 14. *Pedes* validi, mediocres, nudi; ungues subincurvi; tarso-theca squamulato-reticulata; acrodactyla scutulata; pelma scabra.

Typus Genericus VULTUR PERCNOPTERUS, *Linn.*

THE genus *Neophron* was first established by SAVIGNY, and has been adopted by VIGORS, who makes it one of the five forms recognizable in the family of the *Vulturidæ*. It belongs to the aberrant division, or that in which the groups undergo a considerable modification of the characters which distinguish what is termed the normal or typical division, and which in this family is represented by the genera *Sarcoramphus* and *Vultur*. Classed according to its affinities, it holds a station intermediate between the genus *Gypaëtos*, of which the *Vultur barbatus* of authors is the type, and those species belonging to the New World which form the genus *Cathartes*, as restricted by VIGORS and other ornithologists. From the latter group it differs in having its neck more fully clothed with feathers, in this particular approaching the *Gypaëti*; the bill* and legs are also of still weaker conformation, and farther removed from the strength and full development of those corresponding parts in the two typical forms of the family.

* The form and shape of the bill approaches very closely to that of *Tachypetes*, one of those oceanic birds which appear to connect the *Natatores* with the terrestrial order of *Raptores*.

NEOPHRON.

This genus, which belongs to the Old World, has for its type *Neophron Percnopterus*, the *Vultur Percnopterus* of LINNÆUS, *Cathartes Percnopterus* of TEMMINCK; its place in America is supplied by *Cathartes*, restricted as we have before mentioned. From the imperfect or weaker developement of those organs which distinguish the more typical vultures, a corresponding difference is observable in their mode of life. They are if possible more filthy in their habits, preying upon the foulest carrion, and most disgusting offal of every description. In their disposition they also evince more timidity, and are destitute of the determinate boldness of the typical *Sarcophagi* and larger Vultures. In the economy of nature, however, they perform an important and essential part, clearing the surface from all those noxious substances which would, in the warm climates they inhabit, be productive of fevers and pestilential disease, if permitted to decay naturally. Hitherto the *Vulturidæ* have been supposed to possess the sense of smelling in an exquisite degree, and it was imagined that by it they were principally directed to their prey. Later observations, however, so far from confirming this supposition, are directly opposed to it; and the experiments of Mr AUDUBON, detailed in his excellent papers on the habits of the American *Vulturidæ*, the *Cathartes aura* and *uruba*, go far to prove that it is by their sight alone, and not by smell, that they detect and hunt for their prey. Such being the case with two species subsisting upon carrion and tainted flesh, we may, reasoning analogically, naturally presume that the like holds good with respect to the other groups of the *Vulturidæ*. This genus may be divided into two sections, one with the tail cuneiform, the other with it square or even at end. To the latter belongs the species figured by TEMMINCK in the *Planches Coloriées**, and called by him *Cathartes monachus*. This also varies from the type in having a greater portion of the hind-neck covered with thick down, instead of feathers; but in the form and proportion of its bill and legs, it is strictly conformable to *Neophron Percnopterus*. It is in this section also that the *Cathartes melegrades* of the same author, and known to him by a figure of the head, will in all probability be entitled to be placed.

* See Pl. Col. Pl. 222.

NEOPHRON.

SYNOPSIS SPECIERUM.

NEOPHRON.

* *Cauda cuneata.*

1. NEOPHRON PERCNOPTERUS.—N. albus, remigibus nigris, crista occipitali, cauda albida, cuneata.

Vultur Percnopterus, *Linn. Syst. i. p. 127.*—*Lath. Ind. Ornith. i. p. 2. No. 3.*—*Shaw's Zool. v. vii. p. 33.*

Alpine Vulture, *Lath. Syn. i. p. 12.*—*Id. Supp. p. 3.*

V. Ægyptius, *Lath. Ind. i. p. 2, 3. B.*

Sacre d'Égypte, *Buff. Ois. i. p. 167.*

Egyptian Vulture, *Lath. Syn. i. p. 13.*

V. leucocephalus, *Lath. Ind. Ornith. i. p. 2. No. 4.*

Vautour de Norvege, *Buff. Ois. i. p. 164.*

Ash-coloured Vulture, *Lath. Syn. i. p. 13.*

V. fuscus, *Gmel. Syst. i. 248.*—*Lath. Ind. i. 5. No. 10.*

Vautour de Malte, *Buff. Ois. i. p. 161.*

Maltese Vulture, *Lath. Syn. i. p. 15.*—*Lath. Gen. Orn. i. 22. 13.*

V. Ginginianus, *Lath. Ind. Orn. i. p. 7. No. 16.*

Vautour de Gingi, *Sonn. Voy. Ind. ii. 184.*

Gingi Vulture, *Lath. Syn. p. 7.*—*Shaw's Zool. vii. 32.*—*Lath. Gen. Hist. i. p. 27. No. 21. Pl. 5.*

Cathartes Percnopterus, *Temm. Man. d'Ornith. v. i. p. 8.*

Le Percnoptere d'Égypte, *Cuv. Regn. Anim. i. p. 307.*

Rachamah, *Bruce's Trav. App. p. 163.*

Long. 31 pollices.

HAB. In Europâ, Africâ, et Asiâ.

In museis plerisque.

** *Cauda æquali.*

2. NEOPHRON MONACHUS.—N. fusco-brunneus, capite antierius juguloque livido-carneis, remigibus nigris. Pedibus flavis.

Cathartes Monachus, *Temm. Pl. Colorées, Pl. 222.*

Long. 26 pollices.

HAB. In Africâ.

In museis Belgii et Parisiensis.

1873



1873

1873

1873



Neophron Percnopterus



Acrophron Percnopterus

NEOPHRON PERCNOPTERUS, *Savigny.*

Egyptian Neophron.

PLATE XXXIII. (Immature Plumage).

MAS.—*Adult.* Albus, remigibus nigris, crista occipitali; cauda albida cuneata.

Juven. Collo, pectore, scapularibus tectricibusque brunneo-nigris, corpore brunneo alboque vario.

- Neophron Percnopterus, *Savig.* Ois. de l'Egypt, p. 16.—*Vigors*, in *Zool. Journ.* v. ii. p. 380.
Vultur Percnopterus, *Linn.* Syst. i. p. 123. 7.—*Lath.* Ind. Ornith. i. p. 2. No. 3.—*Shaw's Zool.* v. vii. p. 33.
Alpine Vulture, *Lath.* Syn. i. p. 12.—*Id.* Supp. p. 3.
V. Ægyptius, *Lath.* Ind. Orn. i. p. 2, 3. var. B.
Sacre d'Egypt, *Buff.* Ois. i. p. 167.
Egyptian Vulture, *Lath.* Syn. i. p. 13.
V. leucocephalus, *Lath.* Ind. Orn. i. p. 2. No. 4.
Vautour de Norvege, *Buff.* Ois. i. p. 164.
Ash-coloured Vulture, *Lath.* Syn. i. p. 13.
V. Angolensis? *Lath.* Ind. Ornith. i. p. 7. No. 17.—*Gmel.* Syst. i. p. 252.
Angola Vulture? *Penn.* Tour in Wales, i. p. 307. Pl. 16. ed. Lond. 1810.—*Lath.* Syn. i. p. 18.—*Lath.* Gen. Hist. i. 21. 12.
V. fuscus, *Gmel.* Syst. i. 248.—*Lath.* Ind. i. p. 5. No. 10.
Vautour de Malte, *Buff.* Ois. i. p. 161.
Maltese Vulture, *Lath.* Syn. i. p. 15.—*Lath.* Gen. Orn. i. 22. 13.
V. Ginginianus, *Lath.* Ind. Ornith. i. p. 7. No. 16.
Vautour de Gingi, *Son.* Voy. Ind. ii. 184.
Gingi Vulture, *Lath.* Syn. p. 7.—*Shaw's Zool.* vol. vii. p. 32.—*Lath.* Gen. Hist. i. p. 27. No. 21. Pl. 5.
Cathartes Percnopterus, *Temm.* Man. d'Ornith. v. i. p. 8.
Le Percnoptere d'Egypte, *Cuvier*, Regn. Anim. i. p. 307.
Vautour l'Ourigou, *Le Vaill.* Ois. d'Afrique. v. i. Pl. 14.
Rachamah, or Poule de Faraone, *Bruce's Travels*, Append. p. 163.

THIS interesting species, which forms the type of the genus *Neophron*, is an inhabitant of the warmer parts of the ancient world, and is one among the few of the family of the *Vulturidæ* which are met with in Europe. Hitherto its appearance in this division of the globe has been confined to the meridional districts; but we have now to record its appearance in Britain, the individual from which our figure is taken having been killed upon the

NEOPHRON PERCNOPTERUS.

shores of the Bristol Channel in October 1825. It is now in the possession of the Rev. A. MATTHEW of Kilve in Somersetshire, who has kindly favoured us with the loan of the specimen, accompanied with particulars relating to its appearance and capture. When first discovered, it was feeding upon the carcase of a *dead* sheep, and had so gorged itself with the carrion as to be unable or unwilling to fly to any great distance at a time : it was therefore approached without much difficulty and shot. Another bird apparently of this species was seen at the same time upon wing at no great distance, which remained in the neighbourhood a few days, but could never be approached within gunshot : this was supposed to be the mate of the one killed. It measured two feet seven inches in length, and in extent of wing five feet nine inches. Its bill, from the forehead to the tip, is two inches and a half long, the tarsus three inches, and the middle toe with its claw the same. The bill is brownish-black or horn coloured. The cere, which is somewhat bulging at the base, and occupies half the length of the bill, wine-yellow. Nostrils situated on the middle of the cere, large and open. Crown of head, cheeks and throat, covered with a naked skin, of a livid flesh-coloured red, with a few straggling bristly feathers between the bill and eyes, and upon the margins of the mandibles. Ears round, open and large. Occiput and nape covered with a close, thick set white down, with small black feathers intermixed. Neck clothed with long arched and acuminate feathers, forming a kind of ruff of a deep umber-brown, tipped with cream-yellow. Back and scapulars cream-white, the latter intermixed and varied with umber-brown. Lesser wing-coverts nearest the body deep umber-brown, margined with a paler shade : these are succeeded by two rows of cream-coloured sharp-pointed feathers. Greater coverts umber-brown, varied with cream-white. Secondaries pale umber-brown, their tips and margins yellowish-white. Quills black. Tail cuneiform, umber-brown at the base, the tip yellowish-white. Under parts mixed with umber-brown. Legs strong and fleshy, of a pale yellowish-grey. The tarsi covered with a rough reticulated skin : the middle toe with four entire scales upon the last phalange ; the exterior and interior each with three ; hinder toe short and strong. Claws blackish-brown, strong, but not greatly arched. Its sex unfortunately was not ascertained.

From the above description, it would appear that this individual had not acquired its mature plumage, which, in the perfect adult, is of an uniform white, except the greater quills, which are black, and in which state it is recognized as the *Vultur Ginginianus* of LATHAM, and other authors.

NEOPHRON PERCNOPTERUS.

The changes of plumage to which it is subject in its advance from the young to the adult state, have given rise to the creation of several supposed distinct species, as the extensive list of synonyms quoted evidently shows. We entertain, however, some doubts as to its identity with the Angola vulture of PENNANT (*Vultur Angolensis* of LATH. Ind. Orn.), inasmuch as he has figured and described it with the tail even, and not of the cuneiform shape which distinguishes *Neophron Percnopterus*. In other respects it appears to possess all the characters of the genus, and will, if really distinct, form a second species, differing from the type in a modification of the form of the tail. It is also possible that some of the others enumerated as varieties, or considered the same bird at different periods of age, may, upon farther and closer investigation, prove to be distinct species; at present they are considered by several eminent ornithologists as all belonging to the same. In Egypt this vulture is very abundant, and BRUCE has given a description of it in his Travels under the title of the Rachamah or Poule de Faraone. This appears to have been taken from a bird not perfectly matured (or it must constitute another species), as no mention is made of the long slender feathers of the occiput, which, according to TEMMINCK, distinguish the adult, and are also characteristic of the *Vultur Ginginianus* of LATHAM, which we consider referable to the species now under consideration. It is nearly allied in affinity with those species of the American *Vulturidæ* which form the genus *Cathartes*, as restricted by VIGORS and other naturalists of the present day, and constitute their analogue in the ancient world. Its habits and mode of life are also found to be very similar*. It delights in the most putrid carrion and offal, rejecting no dead or decomposing animal matter, and is deservedly respected by the inhabitants for its service in thus performing the office of a scavenger, and clearing away all those immundities which, in the warm climates it inhabits, would become pestilential, and infect the air with putrid miasmata. It also occasionally preys upon lizards and other reptiles, but rarely attacks the smaller animals or living birds. In the contour of its form it is more graceful than the species of the genus *Cathartes*, approaching in this respect also the genus *Gypaëtos*, of which the *Vultur barbatus* of authors is the type. It possesses great powers of flight, the wings being very long, and the tail considerably produced, and it soars

* Vide Observations on the Habits, &c. of the Turkey Buzzard and Carrion Crow (*Cathartes aura* and *uruba*), by J. J. AUDUBON, in Edinburgh New Philosophical Journal for Oct. 1826.

NEOPHRON PERCNOPTERUS.

with great buoyancy and ease. In a living state it has a very strong smell, partaking of the flavour of its corrupted food ; and when killed, it putrefies very rapidly. It is common in Spain, in Turkey, and throughout the Archipelago ; but Africa appears to be the country most congenial to its economy. It is said to breed in caverns and the clefts of rocks, but the number and colour of its eggs have not been ascertained. Its cry is seldom heard ; and when at rest it generally sits upon the ground.



Trichoglossus concinnus.



Trichoglossus concinnus.

TRICHOGLOSSUS CONCINNUS, *Vigors & Horsfield.*

Crimson-fronted Parakeet.

PLATE XXXIV.

T. *viridis*; fronte, tenia post oculari descendente, reetricumque basi intus coccineis; occipite cœrulescente, macula laterali subtus flava; nuchâ inter scapulioque olivaceis.

Trichoglossus concinnus, *Vig. & Horsf.* Trans. Linn. Soc. vol. xiv. p. 292.

Psittacus concinnus, *Kuhl*, *Nova Acta Phys. Med. Acad. Cæsar. Leopold. Carol. Nat. Cur.* vol. x. p. 46.

Crimson-fronted Parakeet, *Lath.* Gen. Hist. vol. ii. p. 181.

THE Parrots, *Psittaci*, or that extensive family constituted by the birds known under the names of Maccaws, Cockatoos, Parrots, Parakeets, and Lories, have lately been formed into separate and distinct genera, and afford perhaps one of the best examples of the necessity of subdividing large groups. About the commencement of that late era of natural history, when some ornithologists, more impressed than others with the importance of subdividing these extensive families, by some determinate appellation applied to the respective divisions, the number of known species amounted to above 200, and since that period considerable numbers have been discovered. The labour of making out an unknown bird among the host of species, or of determining whether or not it was described, was very considerable; and the great difference of the external characters, with the variation in the habits of some decided groups, induced ornithologists at times to undertake their division.

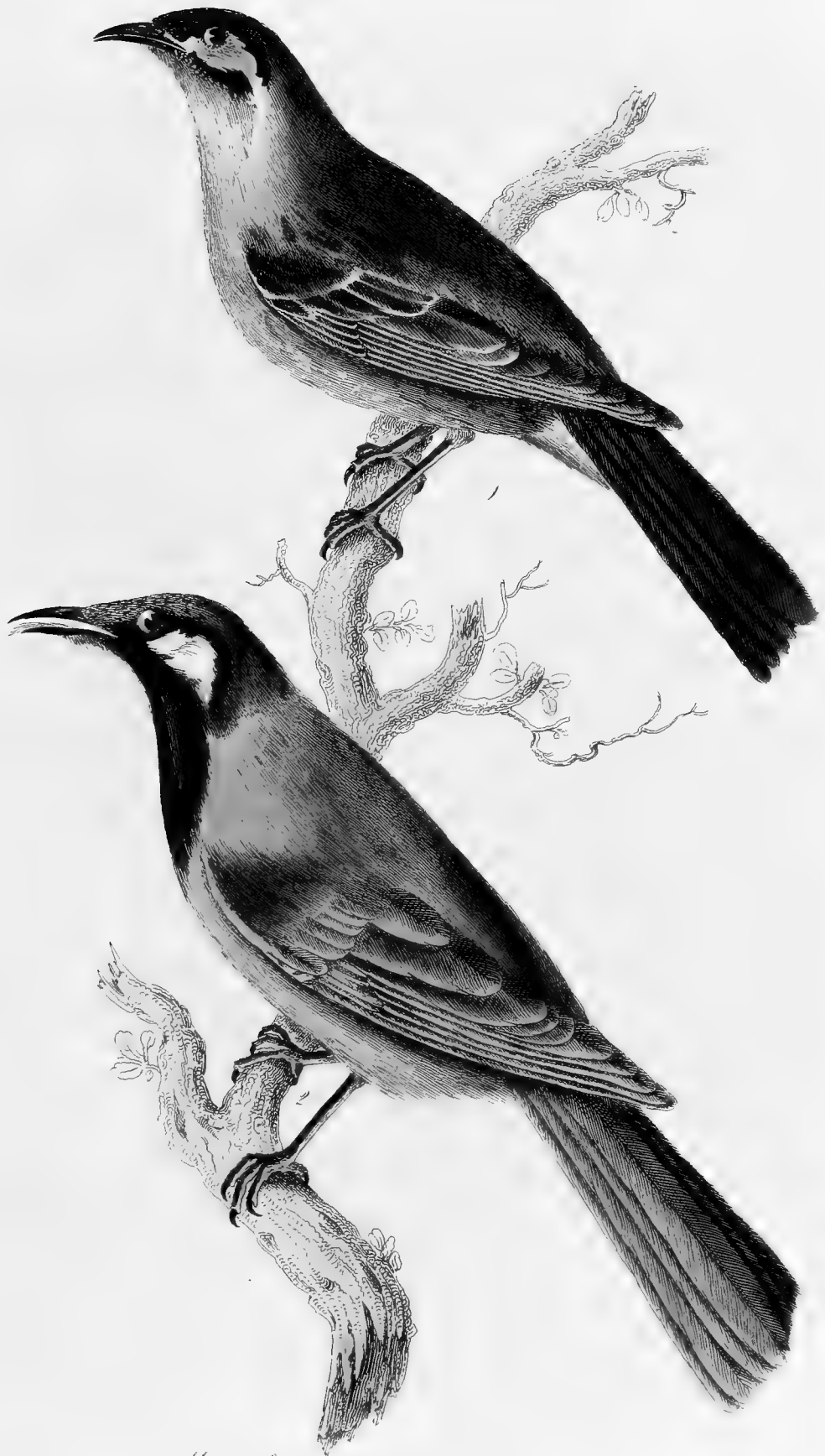
The group to which our present species belongs affords an example of one of these, presenting very distinct external characters, differing widely in the kind of food by which it is nourished, and in the formation of the organs adapted for collecting it. In our next, or in a very early Number, along with the history of this genus, we intend to give a representation of the tongue of a species belonging to it, and to describe minutely its tubular structure, by which the birds forming it are enabled to live almost en-

TRICHOGLOSSUS CONCINNUS.

tirely on the nectiferous juices of flowers, or on soft and pulpy fruits ; and on this account we now refrain from describing it.

This beautiful little species is very abundant in New Holland and the adjacent islands. It is met with in almost every collection, and, since the discovery of the structure of the tongues in this group, and the consequent alteration of the food given to them, they are often met with in a state of confinement. They will live on the ordinary food given to parrots in a tame state, bread and milk, and boiled eggs, &c. ; but the additional health and vigour they display, and the finer state in which their plumage is kept when fruits, honey, or brown sugar is added, and made the chief food, at once shews that this nourishment is much more in accordance with what they receive in a wild state.

The total length is from eight to nine inches ; the prevailing colour, as in most of the parrots, is bright emerald-green, inclining more to a yellowish shade on the lower parts. The forehead is banded with scarlet-red, which extends before the eyes nearly parallel with the rictus. The auricular feathers are of the same colour, and form an oval patch behind and under the eyes. The crown of the head is ultramarine blue, in some lights having a greenish tinge, and passes into the yellowish oil-green band that surrounds the upper part of the back. The cheeks under the red patch are dashed with ultra-marine blue. The back beneath the oil-green band is entirely deep emerald-green, with the exception of first quill, and the inner webs of the others, these are brownish-black, and the first, second, and third are edged with a very narrow stripe of pale yellow. The whole of the two centre tail-feathers, and the outer webs of the others, are also emerald-green ; the inner webs of the exterior ones yellowish-green, passing into scarlet-red at the base. The breast, belly, and vent are bright yellowish emerald-green ; about the lower part of the breast there is a bright yellow band, which passes under the axillæ, and is there much broader. This band varies considerably in different specimens : in some it is much brighter than in others, and we find it sometimes entirely encircling the breast, sometimes interrupted in the centre, forming only a patch on each side ; it is always narrow in the centre, and extends in breadth as it approaches the axillæ. The tarsi are short and strong, and, with feet, are of a bluish-grey colour.



1. *Melliphaga crypsos*. 2. *Melliphaga leucotis*.





1. *Melliphaga crypsops*. 2. *Melliphaga tennotis*.



MELIPHAGA CHRYSOPS, *Vigors & Horsfield.*

Black-cheeked Honey-eater.

PLATE XXXV.—FIG. 1.

M. supra olivacea-fusca, subtus pallidior; tænia per oculos flava, supra subtusque nigra marginata.

Meliphaga chrysops, *Vig. & Horsf.* Trans. Linn. Soc. vol. xv. P. I. p. 315.

Sylvia chrysops, *Lath.* Ind. Orn. Supp. p. liv.

Black-cheeked Honey-eater, *Lath.* Gen. Hist. iv. p. 196.

THE length of this species is about six inches, the form rather slender and lengthened. The whole upper parts are deep oil-green, with the centre of each feather considerably darker. The space between the bill and the eyes, and under the eyes, are bright gamboge-yellow, forming a patch of that colour, which ends on the cheeks and upper part of the neck in a curved stripe of pale yellowish-white: this light space is bordered on each side with a narrow line of black, the upper extending from the eye above the auriculars, the lower from the base of the under mandible, and widens as it reaches the sides of the neck. The throat and centre of the belly are nearly pure white, the breast and sides are pale wood-brown, dashed with longitudinal stripes of a darker shade. The quills and tail are umber-brown, in both the outer webs are edged with dirty gamboge-yellow.

MELIPHAGA LEUCOTIS, *Vigors & Horsfield.*

White-eared Honey-eater.

PLATE XXXV.—FIG. 2.

M. corpore supra abdomineque flavo-olivaceis; capite, gutture pectoreque nigricante griseo; macula auriculari alba.

Meliphaga leucotis, *Vig. & Horsf.* Trans. Linn. Soc. vol. xv. P. I. p. 314.

Turdus leucotis, *Lath.* Ind. Orn. Supp. p. xliv.

White-eared Honey-eater, *Lath.* Gen. Hist. vol. iv. p. 186.

THE length is six inches and a half, and the form of the bird is much more robust than the preceding. The crown of the head is blackish-grey, the

MELIPHAGA LEUCOTIS.

centre of each feather black. The throat, upper parts of the breast, sides of the head, and a stripe behind the eyes, black, tinged with blackish-grey; the auricular feathers are pure silvery white, and form an oval patch underneath and behind each eye. The rest of the plumage is yellowish oil-green, much paler on the under parts, and on the centre of the belly approaching nearly to chrome-yellow. The inner webs of the quills and tail-feathers are brownish-black; the tips of the latter are whitish.

The two species we have now figured, with the *M. Novæ Hollandiæ*, *M. auricomis*, &c. are the forms to which we would restrict the genus *Meliphaga*, throwing out of it the strong species, and also those with very slender and attenuated bills. Those that would be thus retained form a very decided and well marked group, confined entirely to New Holland: they agree nearly in size; the colours running through the whole are shades of yellowish-green and brown, yellow, black and white, which, in their distribution or markings, also correspond; and in every species the auricular feathers are considerably more than the ordinary length, of a loose but silky texture, and in some species nearly an inch in length. It is also worthy of remark, that these feathers are always of a distinct and paler colour, generally white or yellow, and form a decided patch in the male birds. Most of the species seem very common in their native country. We seldom meet with a collection from New Holland without several specimens in it, and most collections possess them.



1 *Tachyphonus cristatus*. F. 2 *Tachyphonus Vigorsii* M.





1. *Tachyphonus cristatus*. F. 2. *Tachyphonus Vigorsii*. M.

TACHYPHONUS CRISTATUS, *Vieillot.*

Crested Tanager.

PLATE XXXVI. Fig. 1.

FÆM. T. corpore castaneo subtus pallidior.

IN Plate XXX. of our last Number, we figured the adult male, and the young of the first year in a state of change. To render the illustration of this species as complete as possible, we now give the representation of the adult female, which remained unnoticed before our description accompanying that of the male. The colour is entirely dull umber-brown, tinged with reddish brown and ochre-yellow, the shades varying considerably in different specimens.

TACHYPHONUS VIGORSII, *Swainson.*

Vigor's Tanager.

PLATE XXXVI. FIG. 2.

T. violacea-niger, cristâ rubrâ ; scapularibus tectricibusque interioribus niveis.

Tachyphonus Vigorsii, *Swains.* Brand's Journ. No. xxxix. p. 63.

WE are indebted to Mr SWAINSON for the first public notice of this fine species, which he has very deservedly dedicated to Mr VIGORS. It is a native of southern Brazil, and appears rather common. Our specimens were received in a collection from Dr SUCH.

TACHYPONUS VIGORSII.

The length of the male is seven inches. The bill is brownish-black, the under mandible tinged with a silvery blue towards the base: the head is furnished in the centre with a crest of bright yellowish-red feathers, which become paler at their base: the scapulars and inner wing feathers are of the purest white; all the other parts are deep black, tinged with steel-blue, except on the quills and tail, which appear of a duller shade. The tail is slightly rounded. The feet and legs are blackish-brown. We are unacquainted with any thing regarding the manners of this species.



Tyrannus calcaratus.





Tyrannus calcaratus.

TYRANNUS CALCARATUS, *Swainson.*

Spiny-footed Tyrant.

PLATE XXXVII.

T. olivacea-fuscus, abdomine fulvescente ; genibus spinuliferis.

Tyrannus calcaratus, *Swains.* Brand's Journ. No. xi. p. 271.

THIS curious species is first noticed by Mr SWAINSON, who met with it during his residence in Brazil: he mentions it as of rare occurrence. We fortunately met with seven specimens of it in a lot of skins which were brought to us for sale. The whole of these agree perfectly with each other, except that some specimens had the spines on the back of the tarsus much longer and stronger than in others, a distinction probably arising from the ages of the individuals. All our specimens were slightly shorter than that described by Mr SWAINSON, none of them exceeding seven inches and a half in length. The bill is brownish-black, and rather strong in proportion to the size of the bird. The whole of the plumage is a dull olive-grey, tinged on the lower parts with pale dirty yellow. In one or two specimens, the back and wings were mixed with reddish-brown, probably indicating the shades peculiar to the younger birds. The legs and feet are slender, the scales on the back of the tarsus are elongated, and opposite the joint form five or six sharp spiny processes. These apparently increase in length and sharpness with the age of the individual. In one or two specimens evidently the same, but, to judge from the redder tinge on the plumage, younger birds, the spines were hardly perceptible.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 351

PROBLEM SET 1

1999

1. A particle of mass m moves in a potential $V(x) = \frac{1}{2}kx^2$.

(a) Find the energy levels E_n for $n = 0, 1, 2, 3$.

(b) Find the wave functions $\psi_n(x)$ for $n = 0, 1, 2, 3$.

2. A particle of mass m moves in a potential $V(x) = \frac{1}{2}kx^2 + \frac{1}{4}bx^4$.

(a) Find the energy levels E_n for $n = 0, 1, 2$.

(b) Find the wave functions $\psi_n(x)$ for $n = 0, 1, 2$.

3. A particle of mass m moves in a potential $V(x) = \frac{1}{2}kx^2 + \frac{1}{4}bx^4 + \frac{1}{6}cx^6$.

(a) Find the energy levels E_n for $n = 0, 1, 2$.

(b) Find the wave functions $\psi_n(x)$ for $n = 0, 1, 2$.

4. A particle of mass m moves in a potential $V(x) = \frac{1}{2}kx^2 + \frac{1}{4}bx^4 + \frac{1}{6}cx^6 + \frac{1}{8}dx^8$.

(a) Find the energy levels E_n for $n = 0, 1, 2$.

(b) Find the wave functions $\psi_n(x)$ for $n = 0, 1, 2$.

GENUS ORTYX, STEPHENS.

TETRAO, *Linn.*—PERDIX, *Auctorum.*

Ord. III. RASORES. Fam. TETRAONIDÆ, *Vigors.*—Ord. V. GALLINÆ, *Linnaeus.*—Ord. IV. RASORES, 20^{ma}. Fam. GALLINACIA, *Illiger.*—Ord. IV. GALLINACES, *Cuvier.*—Ord. X. GALLINACES, *Temminck.*

GEN. CHAR.—*Rostrum* validum, crassum; maxilla adunca, tomis propè rictum unidentatis obsoletè. *Nares* scutello tectæ. *Alæ* rotundatæ, remige primo brevissimo, quinto longissimo. *Cauda* æqualis, mediocris vel longa, tectricibus longioribus. *Pedes* fortes. *Tarsis* muticis. *Acrotarsia* scutellata. *Paratarsia* reticulata. *Digiti* sublongi ad basin connexi. *Unguibus* longis, ferè rectis. *Hallux* mediocris.

Typi Generici ORTYX CAPISTRATA et MACROURA, *Nobis.*

SINCE the separation of the genus *Perdix* from the *Tetrao* of LINNÆUS, an immense number of species, either truly belonging or only allied to it, have been discovered, and, until more accurately examined and divided by ornithologists, assisted to increase the confusion, already more than sufficient. The present farther subdivision was first formed by STEPHENS, the continuator of SHAW'S General Zoology; but although formed by him into a genus quite distinct, the propriety had often been before suggested, by authors placing those birds now ranged in it, into separate sections of the old genus; and we certainly think they combine characters of sufficient importance to authorise their remaining in the place allotted to them by most of our modern ornithologists.

These birds have been found only in America, and, with the exception of one species, are confined to the southern parts of it. They hold the same place there with the true Partridges, Francolins and Quails of the other parts of the world, living on the borders of woods, among brushwood, or in the thick grassy plains, and occasionally frequenting cultivated fields in the search of food, which consists chiefly of grains, or seeds, roots, and insects. During the night they always roost on trees, and occasionally also perch on them during the day. Their general shape is robust; the bill is very strong, and apparently fitted to a mode of feeding requiring

ORTYX.

considerable exertion, such as the digging up of bulbous and tuberous roots. The tarsi and feet are strong, the toes of considerable length, with the claws long, and formed for scraping. The colours of the plumage are generally different shades of brown, red, orange, grey, and white; the marking in bars, waved lines or spots, as in the true partridges. The head is always crested.

We have placed the two new species described in the present number as the types of the genus; the one as possessing all the characters developed in the greatest degree, the other as exhibiting the form with the lengthened tail, but characteristic in other respects. *Ortyx Sonnini* (*Perdix Sonnini*, TEMMINCK), is also true to the type: the bill is slightly modified; but *Or. borealis* recedes considerably, and connects this form with the true partridges and quails.

We have marked *Or. dentata* with a doubt as belonging to this genus, having never seen the bird, and cannot assert it on our own authority. *Or. Falklandica* and *Californica* appear both dubious species, particularly the latter.

SYNOPSIS SPECIERUM.

ORTYX.

1. ORTYX CAPISTRATA, sp. nov.—O. fronte, superciliis et linea per oculos ferrugineis, vertice cristato; supra brunnea, plumis nigro pulcherrimè penicillatis, linea per rachin maculataque ad apicem triangulari flavis; remigibus nigris albo maculatis, subtus plumbea.
Long. 10 pollices.
HAB. In Mexico.
In museo GULIELMI JARDINE, Baronetti.
2. ORTYX MACROURA.—O. fronte gulaque nigris, supra pallidè brunnea, maculis fasciisque albescentibus, rostro pedibusque rubris, cauda elongata.
Long. 13 pollices, caudæ 5½.
HAB. In Mexico.
In museo GULIELMI JARDINE, Baronetti.
3. ORTYX SONNINI.—O. corpore supra, cauda et pectore rubrescente-cinereis maculis nigris conspersis; subtus castanea, maculis albis nigro circumdatis; gutture castanea.
Perdix Sonnini, *Temm.* Pl. Col. pl. 75.—Fig. et Gall. tom. iii. p. 451.
Ortyx Sonnini, *Steph.* in Shaw's Gen. Zool. vol. xi. part ii. p. 383.
Sonnini's Quail, *Lath.* Gen. Hist. viii. p. 328.
Long. 7½ pollices.
HAB. In Americâ meridionali, Guiana.

ORTYX.

4. **ORTYX CRISTATA.**—**MAS.** O. fronte et gutture albescente-rufis, collo nigro maculato, cauda flavescente striata, tegminibus alarum albescente-rufo circumdatis; corpore subtus albo, nigro et rufo-maculato; ventre medio rufo.

FÆM. Corpore supra nigro maculato, subtus nigro et albo fasciato.

Tetrao cristatus, *Gmel. Syst. ii. p. 765.*

Perdix cristata, *Temm. Fig. et Gal. iii. p. 466.*

Crested Quail, *Lath. Gen. Hist. vol. viii. p. 329.*

Ortyx Temminckii, *Steph. in Shaw's Gen. Zool. vol. xi. part ii. p. 381.*

Long. $7\frac{1}{2}$ pollices.

HAB. In Americâ meridionali.

5. **ORTYX BOREALIS.**—**MAS.** Corpore supra ex fusco-castanea, rufescente et nigro variegato; subtus albedo, nigricante transversim undulato; superciliis gulaque albis; lunula juguli nigra; rectricibus lateralibus cinereis, capite subcristato.

FÆM. Subtus dilutior; temporibus et gula ochroleucis; lunula juguli rufescente.

Tetrao Virginianus, *Gmel. Linn. ii. p. 761.*

Perdix borealis, *Temm. Fig. et Gall. iii. p. 436.*

Ortyx borealis, *Steph. in Shaw's Gen. Zool. vol. xi. part ii. p. 377.*

Maryland Partridge, *Lath. Gen. Hist. vol. viii. p. 324.*

Quail or Partridge, *Perdix Virginiana*, *Wilson, N. Amer. Orn. vol. vi. p. 21.*

Long. 8-9 pollices.

HAB. In Americâ boreali.

In museis plerisque.

6. **ORTYX? DENTATA.**—**O.** corpore supra ex rufescente-cinereo maculis et lituris nigricantibus vario; superciliis rufis; subtus pallidè rufescente-cinereo, obsolete lineato; rectricibus fuscis, lineis nigris striatis; mandibula apice marginata.

Perdix dentata, *Temm. Fig. et Gal. iii. p. 418.*

Long. $10\frac{1}{2}$ pollices.

HAB. In Americâ meridionali.

7. **ORTYX FALKLANDICA?**—**O.** corpore supra fusciscente, maculis striisque angulatis, capite punctato; subtus albo, pectore ex fusciscente flavo, arcubus variis nigricantibus conspersis.

Perdix Falklandica, *Temm. Fig. et Gall. iii. p. 738.*

Ortyx Falklandica, Malvine Quail, *Steph. in Shaw's Gen. Zool. vol. xi. part ii. p. 386.*

Long. $7-7\frac{1}{2}$ pollices.

HAB. In Insulis Falklandicis?

8. **ORTYX CALIFORNICA?**—**MAS.** O. corpore plumbeo; crista verticali erecta; gula nigra, albo cincta, abdomine testaceo, lunulis nigris.

FÆM. Coloribus dilutioribus, absque lunula gulari nigra.

Perdix Californica, *Temm. Fig. et Gal. iii. p. 738.*

Ortyx Californica, *Steph. in Shaw's Gen. Zool. vol. xi. part. ii. p. 334.*

Long. 7-8 pollices.

HAB. Californiâ.

In Museo Britannico, auctoritate STEPHENS.



Cotlyx capistrata





Cotyx capistrata

ORTYX CAPISTRATA, (NOBIS).

Harnessed Ortyx.

PLATE XXXVIII.

O. fronte, superciliis et linea per oculos ferrugineis, vertice cristato; supra brunnea, plumis nigro pulcherrimè penicellatis, linea per rachin maculaque ad apicem triangulari flavis; remigibus nigris albo maculatis, subtus plumbea.

THIS very distinct species we purchased last spring from among a collection of skins brought for sale to Edinburgh. The person who had them for disposal said that they were all collected by himself in different parts of South America; and all the other skins with which we were acquainted being from that country, we have no reason to doubt the man's veracity. This group also has only yet been found in this part of the world.

The total length is about ten inches. The bill, as in the congeners, is very strong and thick; the depth at the base is equal to the length. The head is crested, the feathers continuing elongated for a considerable way down the back of the neck; a narrow band on the forehead, the eye-brows, and a line extending through the eyes, are pale chesnut-brown; the space immediately round the eyes is nearly bare of feathers. The crest, back, wing and tail coverts are reddish-brown, delicately barred with black. On the back, the centre of each feather along the shaft, and ending in a triangular spot at the tip, is yellowish-white, and, with the greater wing-coverts, are blotched with black on the inner webs. The lower part of the back and rump are yellowish-white, indistinctly barred with a lighter shade. The quills and secondaries are black, the former spotted with white, the latter irregularly barred with the same colour on the outer webs. The cheeks, neck, breast and belly, are bluish-black, paler on the vent, and there tinged with yellowish-white. The tail is black, the feathers in the centre barred with yellowish-brown, those on the outsides barred only on the edges. The legs and feet are bluish-black, and are remarkably strong.



Crex guttaria





Crax guttata

CREX GULARIS (NOBIS).

White-throated Crake.

PLATE XXXIX.

C. supra olivacea, plumis medio nigris, subtus grisea, gula alba, alis calcaratis.

THIS new species is a native of the Brazils, and was received in a late package of valuable skins from Dr SUCH. Its length is about nine inches and a half. At first sight it closely resembles our common Water Rail, *Rallus aquaticus*, LINN., but on examination possesses all the characters of the true *Crex* of BECHSTEIN. We are ignorant of the manners of this species, no remarks having accompanied the specimens from Dr SUCH. The whole genus delight in low and moist meadows; but some of the species are certainly more truly aquatic than the others. Our present species is furnished with a strong deep bill. The legs are proportionally rather short, and as a whole it possesses no characters decidedly marked as adapted for either mode of living. The prevailing colour of the upper parts is yellowish oil-green, the centre of each feather deep brownish-black. The under parts are pale bluish ash-grey, with the exception of the throat, which is pure white: the feathers covering the thighs are of a darker shade, and are barred with white. The wings are furnished with a slight spur at the end, a structure common to many of this genus, and also to the adjoining groups of the Gallinules and true Rails. The bill and legs are yellowish-green.

THE GREAT OUSE

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The Great Ouse is a large bird of the
 family of the Ouses, and is found in
 the southern parts of the island of
 Madagascar. It is distinguished from
 the other species of its family by
 its long neck and its long legs. It
 is a very tame bird, and is often
 seen in the neighbourhood of the
 habitations of the natives. It feeds
 on the seeds of the plants which grow
 in the fields. It is a very useful
 bird, and is much valued by the
 natives. It is often seen in the
 neighbourhood of the habitations of
 the natives. It feeds on the seeds
 of the plants which grow in the
 fields. It is a very tame bird, and
 is often seen in the neighbourhood
 of the habitations of the natives.

groups of the Ouses



Plate 11



Otis aurita.



Otis aurita.

OTIS AURITA, *Latham.*

Passarage Bustard.

PLATE XL.

MAS.—*O. nigra*, gula auribusque albis, supra fulvo-fusca, maculis fasciisque nigris, tectricibus parvis alarum albis, quatuor plumis setaceis utrinque post auribus sursum surgentibus.

FÆM.—*O. gula alba*, supra fulva nigris maculis fasciisque, subtus pallidior.

Otis aurita, *Lath.* Ind. Ornith. v. ii. p. 660. s. 7.

Passarage Bustard, *Lath.* Syn. Supp. p. 228.—Gen. Ornith. v. viii. p. 365. sp. 13.

Curmoor or Florikan, *Forbes*, Orient. Mem.

THE great similarity which exists in the plumage of this family, and the periodical changes to which it appears the males of many of the species are subject, has caused considerable confusion, and no little difficulty, in the proper identification of the smaller kinds which are found in India, and other parts of the ancient continent. The peculiar tufts of slender elastic feathers which arise on each side of the head, immediately behind the ear-coverts, are, however, sufficient to distinguish this bird, or at least the male in this dress, from all the other nearly allied species. LATHAM, in his *Index Ornithologicus*, and in his *General History of Birds*, has correctly described it under the title of *Otis aurita*, or *Passarage Bustard*. It is also described by FORBES in his *Oriental Memoirs*, and a figure of it given, but under the title of a very different species, viz. the *Otis Houbara*, or *Ruffed Bustard*. STEPHENS, in his *Continuation of SHAW'S General Zoology*, vol. xi. has placed it under the head of the *Indian Bustard*, having attached the synonyms of *Otis aurita* to that species. But the *Otis Bengalensis*, or *Indian Bustard* of LATHAM, cannot, from the description he has given of it, and its superior size, be referable to this species. According to the notes furnished by our correspondent from India, it is stated to be of much rarer occurrence than many of the other *Bustards* which inhabit that country. Like its congeners, it is of a very wild and retired disposition, inhabiting the plains and open districts. It is much sought

OTIS AURITA.

after, on account of the delicacy and delicious flavour of its flesh, and on this account, and its rarity, bears a very high price in the Indian markets. The skins of two males we have received differ from each other in the quantity of black upon the under parts of the body, indicating the change of plumage to which they are periodically subject. The one from which our figure is taken, appears to have attained its perfect summer or nuptial dress, the neck and under parts being of a uniform black: the other has the same parts intermixed and blotched with white and tawny feathers, shewing that the change with respect to it had not been perfected at the time of its capture. In some parts of India it is called the Black Florikin: in others, according to LATHAM, the Oerail and Abluk-cherui. We have placed this bird provisionally in the genus *Otis* of authors, as we have hitherto had no opportunity, from the difficulty of procuring the various species it embraces, of bringing them together under one view, to make the observations necessary for their separation into groups, or regulating their arrangement according to their affinities. It appears, however, as well as *Otis Bengalensis*, *O. Houbara*, and other species, to differ in many respects from the true Bustards, of which *Otis Tarda* is the type. The bill in three species, and particularly in the one now under consideration, being longer in proportion, and more depressed at the base: their legs are also longer, and naked to a farther extent above the tarsal joint; and in *Otis aurita* the toes are divided nearly to their origin, instead of being connected by a membrane. In *Otis aurita*, the form of the greater quills is very peculiar, though they have remained unnoticed by naturalists; and it is probable that the same peculiarity may be found to exist in other nearly allied species. A figure of one of the feathers is given on the same plate with the bird, which shews the emargination which takes place at two-thirds of its length, and the narrow and bristle-like point to which it is drawn. This is not confined to the male, as the other sex has them of the same form.

Length from the tip of the bill to the end of the tail, about eighteen inches; of the bill from base to tip, one inch three-eighths. Length of tarsus four inches. Under mandible, and margins of upper, ochre-yellow. Region of eyes and cheeks white, with a few black feathers interspersed; ear-coverts, chin and throat, white. Behind the ears, on each side of the head, a tuft of four setaceous or capillary feathers, the two longest being upwards of three inches in length, and each dilating at the tip into an oval tuft. Crown of head, neck, and under parts of the body, deep black, in some specimens mixed with white and tawny feathers. Ridge of wings,

OTIS AURITA.

and part of wing-coverts, black, the rest, and the collar between the neck and shoulders, white. Greater quills hair-brown, emarginated at about two-thirds of their length, and drawn to a fine point. Secondaries marbled with pale orange, brown and black. Upper parts black, spotted with grey and cream-yellow. Tail cream-white, speckled and barred with black. Legs Sienna-yellow, naked for upwards of two inches above the tarsus, and reticulated. Toes short, the connecting membrane very small.

The female has the chin and throat white: cheeks and ear-coverts cream or pale ochre-yellow; the crown of the head with two longitudinal streaks of blackish-brown; hinder part of neck with very fine zig-zag black lines; the under part deep cream-yellow, with two lists of black. Breasts with transverse black bars; under parts pale cream-yellow. The upper parts of the body beautifully marbled with cream-yellow and black. Tail the same. Wing-coverts pale cream-yellow, with distant black bars. Greater quills shewing faintish bars of hair-brown and greyish-white. Legs and bill the same as the male.



Spizella socialis



Thamnophilus Leachii.



Thamnophilus Leachii.

THAMNOPHILUS LEACHII, *Such.*

Leach's Bush-Shrike.

PLATE XLI.

T. ater, capite dorsoque albo maculatis, remigibus fulvo sub-fasciatis ; abdominis lateribus uropigioque albo-fasciatis.

Thamnophilus Leachii, *Dr. Such*, *Zool. Journ.* vol. i. p. 558.

THIS is a large and strong species ; and we are induced to figure it from the near approach it bears to *T. lineatus* of Dr. LEACH, but from which it appears sufficiently distinct, in its difference of size and markings. The specimen from which we made our drawing was brought from Brazil by Dr SUCH, and now forms part of the collection of the Zoological Society of London.

Its length is nearly eleven inches. The plumage is entirely dull brownish-black, having the feathers on the upper parts individually tipped with a triangular spot of white : the wings are tinged with a lighter shade of brown, and the outer edges of the quills, with both webs of the last secondaries, are barred with yellowish-white. The feathers on the lower part of the back and rump, in addition to the white tips, are barred with the same colour. The throat and breast are entirely black, and have the shafts of the feathers very strong. The tail is considerably graduated.



Myiophobus niger



Mitralus longipennis



Mitrochus longipennis.



MILVULUS LONGIPENNIS, *Swainson.*

Grey fork-tailed Tyrant.

PLATE XLII.

M. grisea; mento albente; caudâ fuscâ, longâ, furcatâ.

Tyrannus longipennis, *Swains.* Brand's Journ. lx. 283.

MR SWAINSON has the merit of first publicly describing this species, under the name of *Tyrannus longipennis*, although he ascribes the discovery of it to M. NATTERER, zoologist to the Austrian government. Mr SWAINSON then placed it in the last section of the genus *Tyrannus*, but afterwards with great propriety formed his genus *Milvulus*, taking *Muscicapa Tyrannus*, LINN. for the type, and including in it the present species, with the Swallow-tailed Fly-catcher, LATHAM, *Muscicapa Forficata* of BONAPARTE, and one or two others. The genus *Tyrannus*, however, still contains at least three distinct forms, from all of which the genus *Milvulus* differs in the general weakness of structure, and in the exceeding development of the organs of flight, approaching very near to some of the long-tailed *Muscipetæ*. The tarsi are considerably lengthened, and the claws are remarkably slender and sharp. This group, also, although agreeing generally with the habits of the Tyrants, differs in not being entirely insectivorous, but sometimes feeding on the berries of different plants.

The length is about nine to ten inches, of which the tail is nearly one-half. The bill is short and depressed, but rather strong. The plumage, excepting the wings and tail, is bluish-grey, paler beneath, and on the throat nearly white: the shaft of each feather is black, giving to the whole a slightly streaked appearance; the feathers on the crown are longer, and form a short incumbent crest. The wings and tail are dusky black: the former are very long in proportion, and are furnished with the rudiments of a knob or spur at the shoulder, as in most of the *Tyranni*. The primaries are pointed, but particularly the second, the inner web of which is

MILVULUS LONGIPENNIS.

narrow towards the apex. The tail is deeply forked, the exterior feather on each side white on the outer web. The tarsi and feet are black, and rather slender. The claws are long and weak, but sharp and finely curved.



Ptiloris paradisiensis. Male.



Ptiloris paradiseus. Male.



Ptiloris paradiscus. Female.



Ptiloris paradiseus: Female.



PTILORIS PARADISEUS, *Swainson.*

New Holland Ptiloris.

PLATE XLIII. MALE.—PLATE XLIV. FEMALE.

MAS.—P. supra nitidè atro-purpureus, infra nitidè atro-viridis; vertice, jugulo rec-tricibusque mediis splendidè cœruleo-viridibus.

FEM.—Supra brunescente, striga oculari alba; subtus flavescente-albus lunulis ni-gris.

Ptiloris paradiseus, *Swains. Zool. Journ. i. p. 481.*

Epimachus Brisbanii, Brisbane's *Promerops*, *Wilson's Illust. of Zool. Pl. XI.*

WE met with both sexes of this splendid species in a considerable collection of skins lately brought to Edinburgh by one of the Australian Company's ships, and which has fortunately come into our possession. The first public notice of it is by Mr SWAINSON in the *Zoological Journal*. That ornithologist places it among the *Melliphagidæ*, where it will form the passage to the adjoining group, the *Paradiseidæ* on the one hand, and the *Promeropidæ* on the other, and certainly fills up a blank wanting before the discovery of this species. It also supplies a prototype for the above-mentioned groups in its native country, and the only form yet discovered there, which bears the slightest resemblance to them.

The length of the male, including the bill, is twelve inches. This is rather less than the dimensions given by Mr SWAINSON; but there is no doubt a variation of size in this species, as well as in most others. The bill is hooked, resembling some of the *Promeropidæ*, about two inches and a quarter in length, the edges of the upper mandible near the tip unequal and notched: the nostrils are placed at the base, and in this sex are nearly concealed by the thick feathers on the forehead. The crown of the head is covered with scaly feathers, of a deep metallic bluish-green, and in some lights glossed with purple. The chin, cheeks, and all the upper parts, are deep purplish-red, in some lights appearing entirely black, and in others nearly of a fine carmine: on the cheeks and chin the feathers are thick, short and soft, and glossed in most lights with violet. On the front of the neck there is a triangular patch extending as far as the upper part of

PTILORIS PARADISEUS.

the breast, where it is broadest, and runs off at each side in two narrow points, thus giving the base of the triangle the shape of an inverted crescent. This space is composed of the same scaly kind of feathers with those on the crown, and is of the same fine metallic green, varying to shades of blue and violet according to the light. The breast is of the richest carmine, glossed with violet and blue, but in some lights appears deep black: the feathers composing this part are exceedingly close in texture, and both to the sight and touch resemble velvet. On the lower part of the breast and belly the feathers are of the same colour and texture, with the exception of the edges of each, forming a fine blackish-green margin, with yellowish reflections: the margin round each is very narrow on the lower part of the breast, but nearly extends over the half of those on the belly and vent, making those parts appear almost entirely of the blackish-green colour. This part of the feather is of a loose and rather downy texture. The wings are short and rounded, but apparently of great power, owing to the great breadth of the quills and secondaries. The quills are black; the secondaries but glossed with purple, and are nearly equal to the true quills in length. The tail is short and even, and is of the same colour with the upper parts, except the two centre feathers, which are about half an inch shorter, and of a fine metallic green. In both the tail-feathers and secondaries, the shafts are produced a short way beyond the webs. The legs are short and strong, and the hallux and hind claw remarkably so, as in all the *Melliphagidæ*. In the female we find the same colours (shades of brown and yellowish-white) prevailing as in the young and same sex of several of the bright coloured birds of New Holland, the *Sericulus* and *Ptilonorhynchus*, forming a marked contrast with the splendid colouring of the males. The general colour of the upper parts of the female of our species is a greenish wood-brown. From the upper part of the eye a white streak extends for nearly an inch upon the side of the neck. The feathers forming the wings are not so broad and rounded as in the male, and the edges of the quills and secondaries are light chesnut-red. The tail is the same colour with the upper parts, paler underneath, and the two centre feathers are equal in length with the others. The under parts are entirely yellowish-white, on the throat nearly pure white, each feather on the breast is marked with an oval line or black ring round the feather, about one-eighth of an inch from the edge. On the belly and vent they are barred with the same colour.

Our figures represent the natural size of the species.



Xanthornis coronatus.



Xanthocephalus coronatus.

XANTHORNUS CORONATUS, (NOBIS).

Crowned Xanthornus.

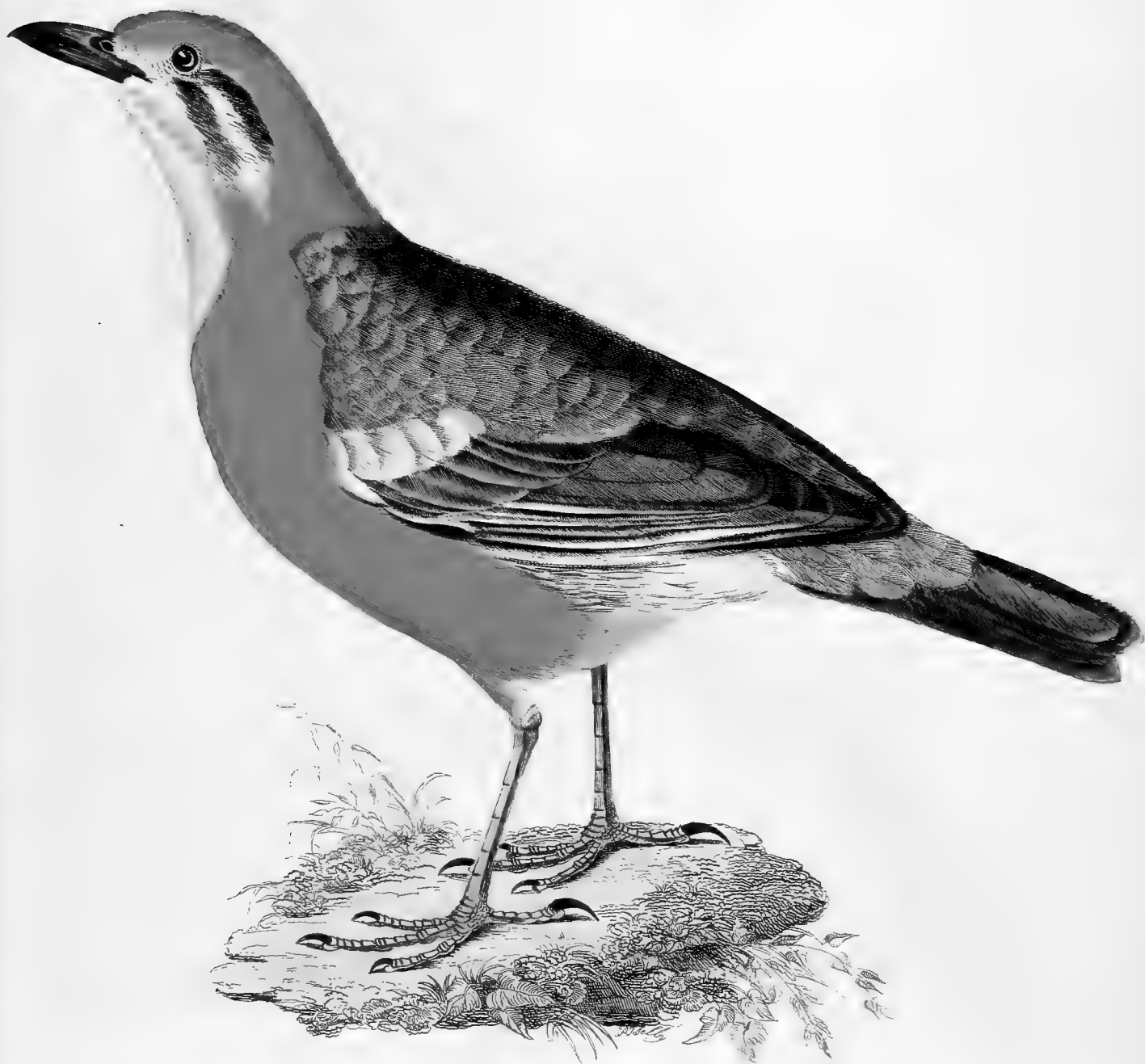
PLATE XLV.

X. niger, tectricibus, uropygio, crisso reatricibusque lateralibus flavis; crista amplissima pendula, rostro albescente.

Cassiculus coronatus, Swains. Philos. Mag. and Ann. for June 1827.

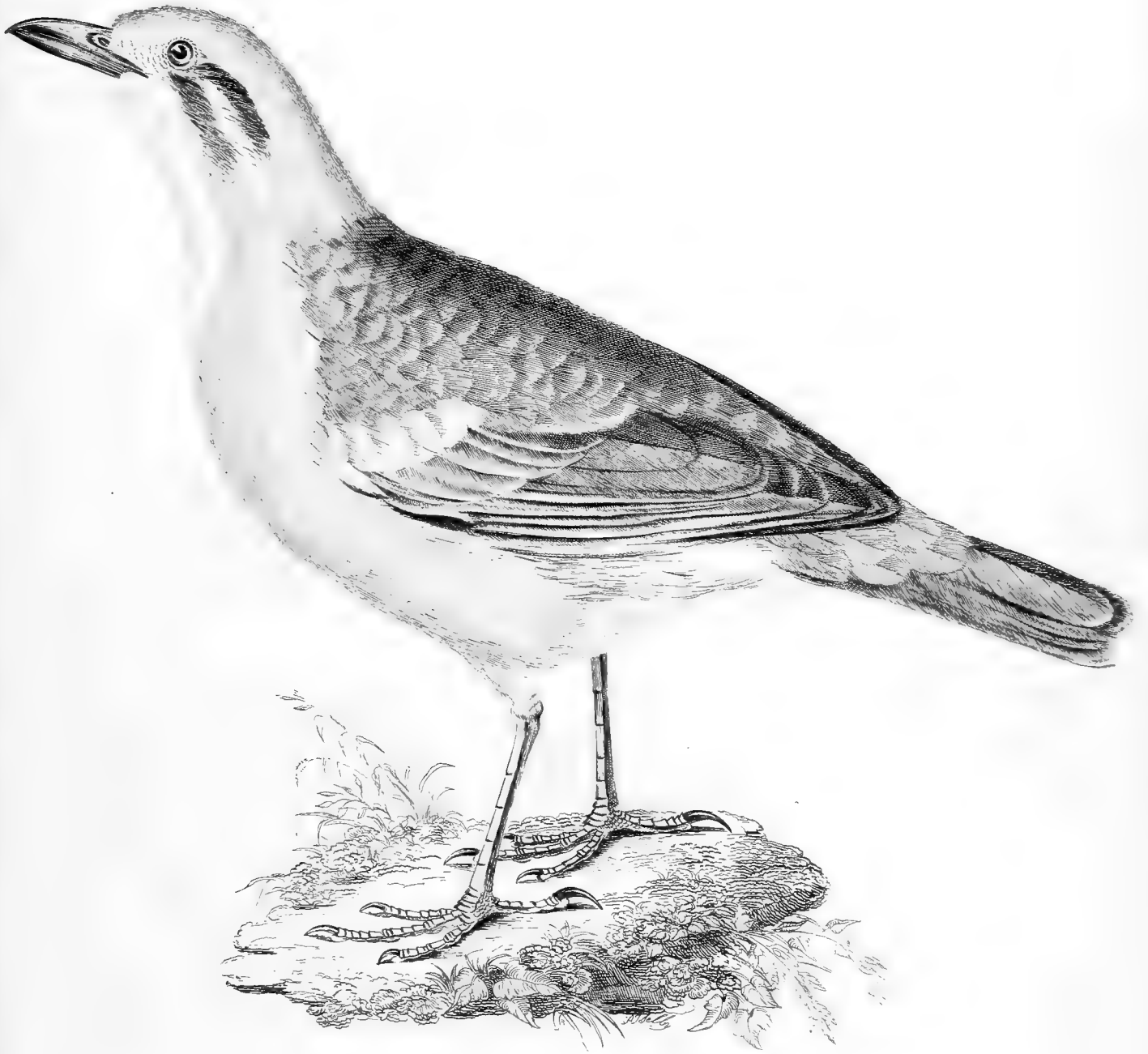
THIS beautiful species agrees so well with the characters laid down for *Xanthornus*, that we cannot see the propriety of separating it, and have accordingly retained it as constituting a part of CUVIER'S genus. We are aware that some of the smaller species differ from what we consider the more typical birds, in their more slender and gently curved bills, thereby approaching nearer to the *Icteri* of BRISSON; and we would rather recommend the separation of these under a new appellation, than to withdraw this, with which the characters now formed so well accord, and which are evidently taken from species equally agreeing in their generic distinctions. It is a native of Mexico, and is probably one of the most elegant in the whole group. The head is adorned with a full, gracefully pendent crest, of rather broad feathers, which divides in the centre, and falls over both sides of the back of the neck. The wing-coverts, the rump, the crissum and tail, with the exception of the two centre, and the outer webs of the exterior feathers, are fine chrome-yellow. All the other parts of the plumage are deep glossy black, tinged on the wings with a shade of brown. The bill is greenish-white, perfectly straight, and sharp at the tip. The nostrils are quite uncovered; but the plumage at the base of each forms a thick tuft of soft bristly looking feathers, which may serve as a slight defence. The feet and legs are brownish-black. The total length is about twelve inches and a half. The female is somewhat less, and nearly wants the beautiful crest.



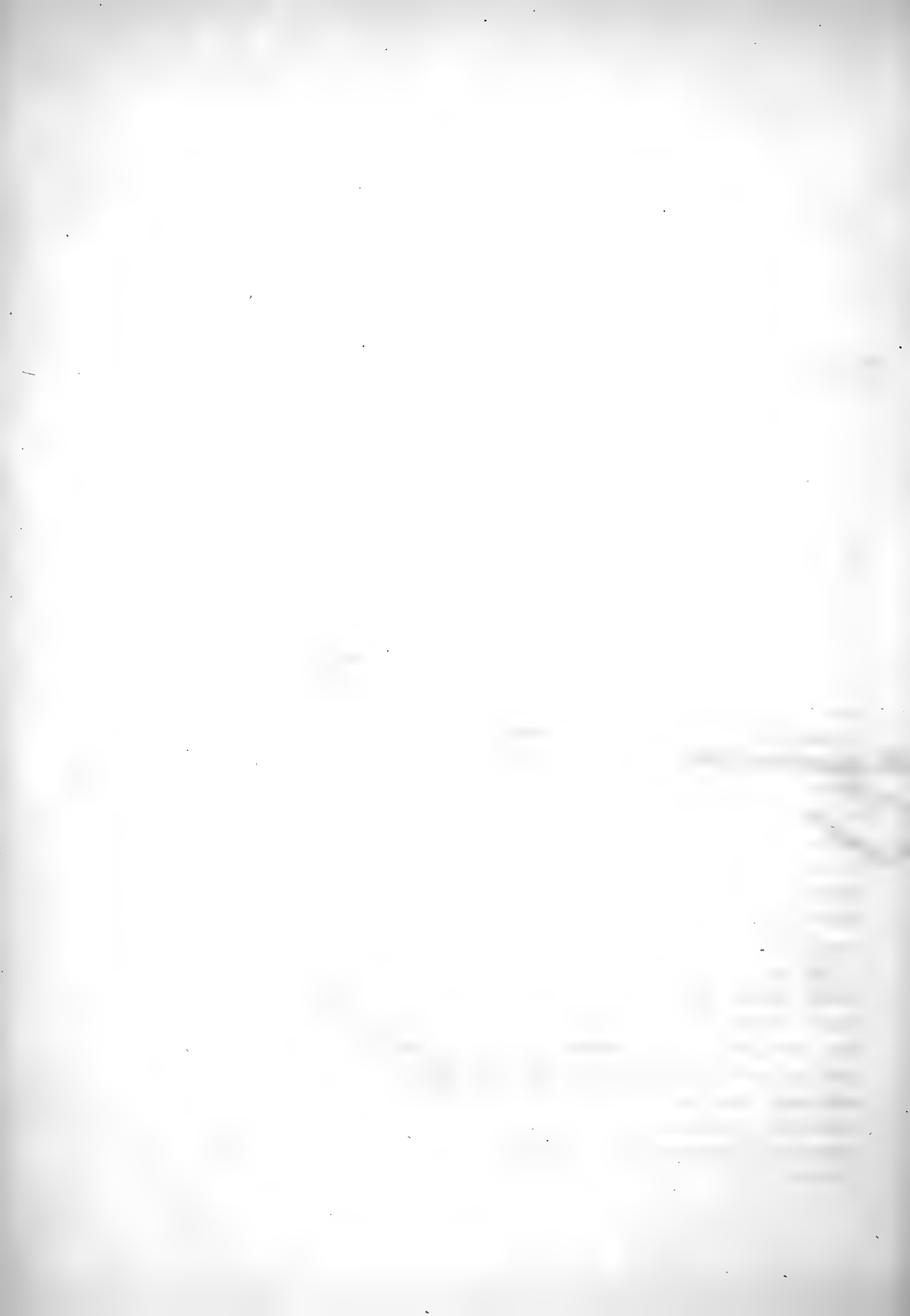


Turdus Cyanotus





Surdus Cyanotus



TURDUS CYANOTIS, (NOBIS).

Blue-backed Thrush.

PLATE XLVI.

T. cœruleo-cinereus, capite nuchâ, pectore abdomineque flavo-ferrugineis, strigâ oculari jugulo crissoque albis, duabus fasciis aurium fuscis.

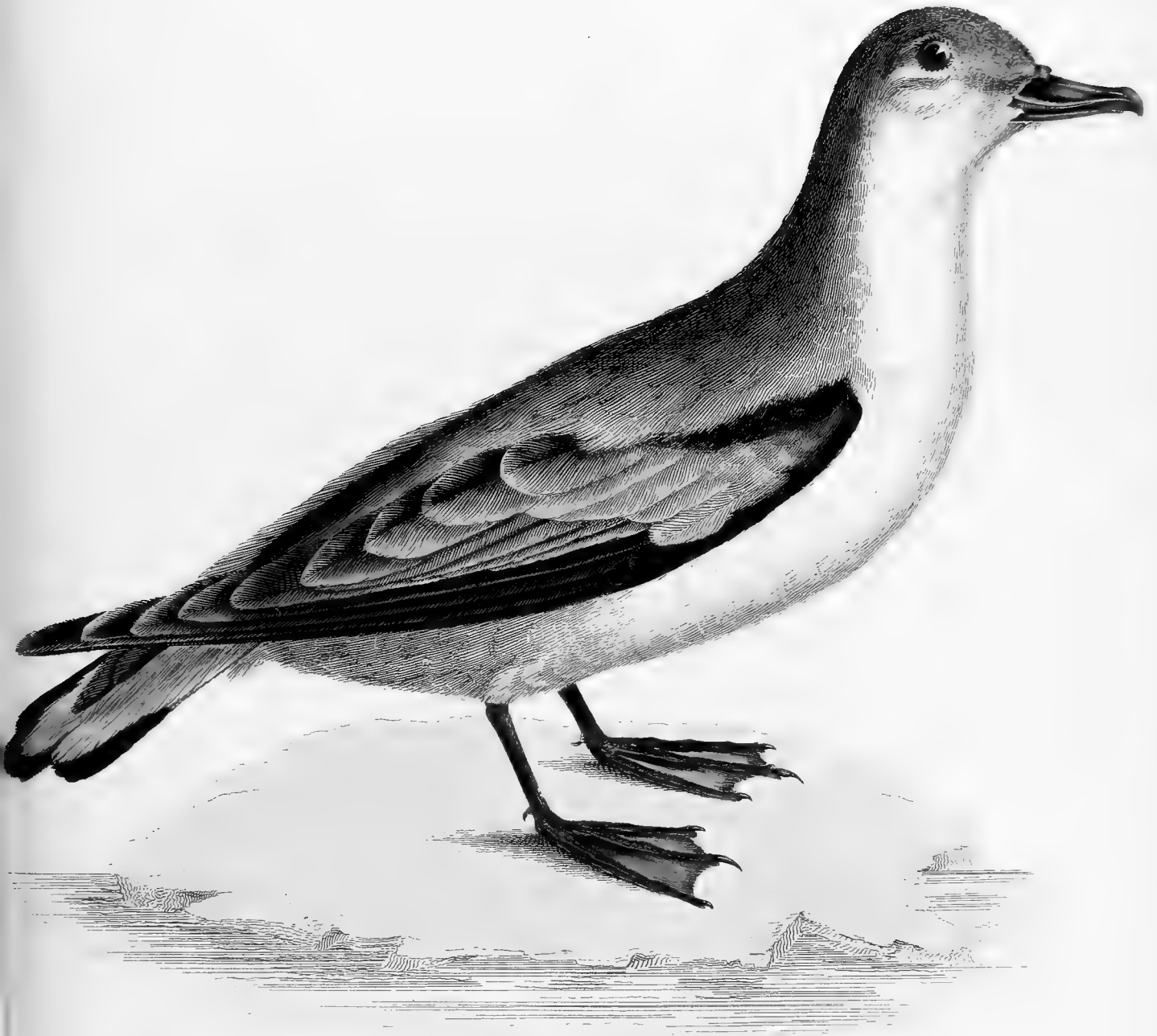
IN some recent packages from India, we have received two specimens of this bird, which belongs to the genus *Turdus*, but which we have been unable to identify with any of the numerous species hitherto described by LATHAM or other authors. No particular name was attached to the skins, but it was stated in the reference which accompanied them, that the bird was an inhabitant of the thickest jungles in the interior. It approaches nearest to the description given by LATHAM of his *Turdus citrinus* (orange-headed Thrush), which is supposed to be the young of the Ceylon Thrush, or Bachbikiri Shrike; but this wants the brown marks or streaks upon the ear-coverts, and the white throat, which distinguish our bird. The colour of the back of *T. citrinus* is also more of a greenish-grey, and the head and breast orange, instead of the ochre-yellow of *T. cyanotus*. It possesses all the characters of the genus *Turdus*, as now restricted, and appears to hold that station in it which approximates to the genus *Pitta*, to which it shows its affinity by the comparative strength of its bill, and the decreasing length of its tail.

The bill is black; the space between it and the eye, the throat, and cheeks, white. Ear-coverts white, with two yellowish-brown streaks, or lunules. The crown of head, hind neck, breast and abdomen, are of a deep ochre-yellow. From the lower angle of the base of the under mandible is a streak of ochre-yellow, which joins that of the breast. The vent and under tail-coverts are white. The back, wings and tail are of a clear bluish-grey: the lower tier of the lesser wing-coverts paler; the two outer tail feathers have white tips. Legs and toes pale ochreous-yellow. Length 8 inches.



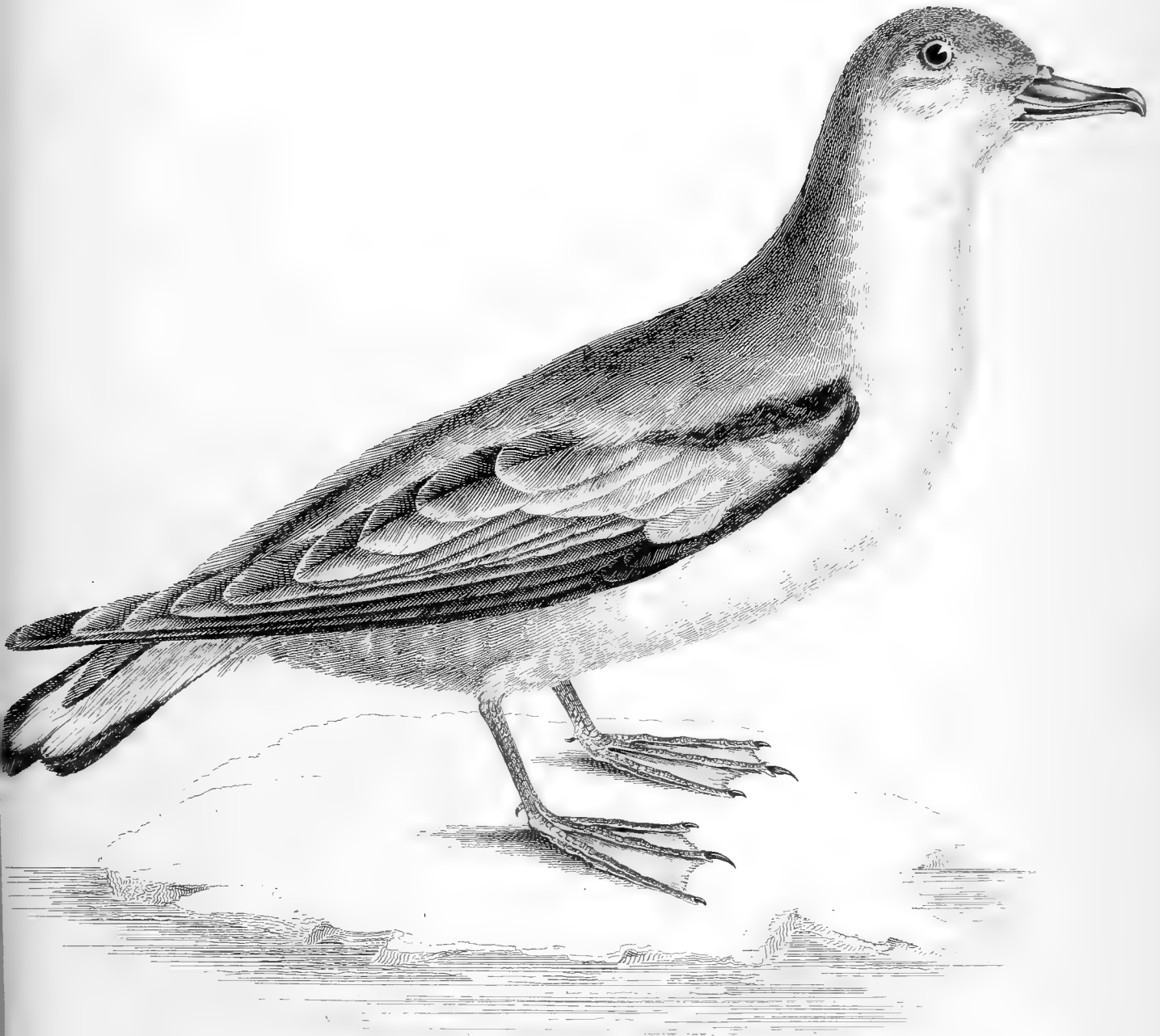
Fig. 1. Duck

Fig. 2. Duck



Pachyptilla Forsteri.





Pachyptilla Forsteri.



PACHYPTILA FORSTERI, *Stephens.*

Forster's Prion.

PLATE XLVII.

P. cœrulescente-grisea, subtus alba, remigibus rectricumque apicibus nigris, rectricibus duobus mediis longissimis.

Procellaria vittata, *Gmel.* Linn. vol. ii. p. 560.

Procellaria Forsteri, *Lath.* Ind. Orn. vol. iii. p. 827.

Pachyptila Forsteri, *Steph.* in Shaw's. Gen. Zool. vol. xiii. p. 251.

WE have figured and described this bird from a specimen lent to us by the Zoological Society of London, under the above title, with a degree of doubt, being unable to procure the Voyages of FORSTER, where a description of the Vittated Petrel is given, and which synonym is quoted by LATHAM under his *Procellaria*, and by STEPHENS under his *Pachyptila Forsteri*, the species with which our specimen most nearly agrees. There appears another, the *P. cœrulea*, which, if not the same, approaches very near to this. The description of both are by most authors copied from FORSTER, and without any attempt to clear up the distinction between them. In this genus, the changes of plumage undergone at different ages, seem to be under the same regulations as among the Gulls and Petrels; and the brownish colour of the plumage of some, with the dark centres of the feathers, indicate immature plumage, rather than a decided distinction of species.

The Prions were originally placed among the Petrels, next to which they should stand; but they differ from them, in the broad and dilated bill, and in having the edges of this member very distinctly pectinated, as in the genus *Rynchops* among the *Anatidæ*. This formation, including some minor modifications in their form and plumage, beautifully connects the family, the first in the order of *Natatores*, with the other extremity of the circle, ending with the *Laridæ*, and to the more typical families of which they are again joined by means of the true Petrels, Fulmars, &c.

PACHYPTILA FORSTERI.

The length of our specimen is nearly thirteen inches. The bill is bluish-grey, very broad at the base, and growing suddenly narrower at the tip, which is much hooked and sharp, the inner edges are pectinated: the under mandible is powerful, and bends downward at the point, following the form of the upper. The nostrils are placed at the base, on the centre of the bill, and stand forward about a quarter of an inch: they are tubular, as in the Petrels. The upper parts of the plumage are a fine bluish-grey, darker on the wings, and there inclining almost to blackish-grey. The shoulders and outer edges of the three first quills are black: the remaining quills, secondaries, and tips of the tail feathers, except the three outermost, deep blackish-grey; a patch under the eyes is of the same colour, and above each there is a streak of white. The under parts are pure white; and, on the breast, the grey colour of the back extends forward, and forms a sort of half crescent of a lighter tint. The tail is of the same colour with the upper parts, except the dark tips; and the two centre feathers are about a quarter of an inch longer than any of the others. The upper and under coverts are very long, the upper ones reaching to within half an inch of the extremity, the undermost exceeding the tail in length. The legs and feet are greenish-yellow, and of the same formation with the Petrels.



Cursorius bicinctus



Fregata vicinella

CURSORIUS BICINCTUS, *Temminck.*

Double-collared Courser.

PLATE XLVIII.

C. brunneus plumis dorsi pallidè castaneo marginatis; subtus ferrugineo-albidus, pectore fasciis duobus nigris cincto.

Double-collared Courser, *Lath. Gen. Hist.* vol. ix. p. 354.

Cursorius bicinctus, *Temm. Man. d'Ornith.* vol. ii. p. 515.

THE Coursers form a beautiful group confined to Africa and the warm parts of Asia, with the exception of one species which has been three or four times killed in Great Britain and in France*. They all inhabit arid plains and deserts, at a distance from cover and inhabited places. They are wild, solitary, and shy; run with exceeding swiftness, and are possessed with very extensive powers of flight. The species at present known are four in number, and the distribution of these, even in their native countries, seems to be limited. From the inaccessible nature of the places they frequent, and their wild disposition, we remain yet unacquainted with their manner of incubation, and with the changes of plumage undergone by the young in attaining that of the adult. In their general habits, they bear a strong resemblance to the Bustards, particularly to some of the smaller species.

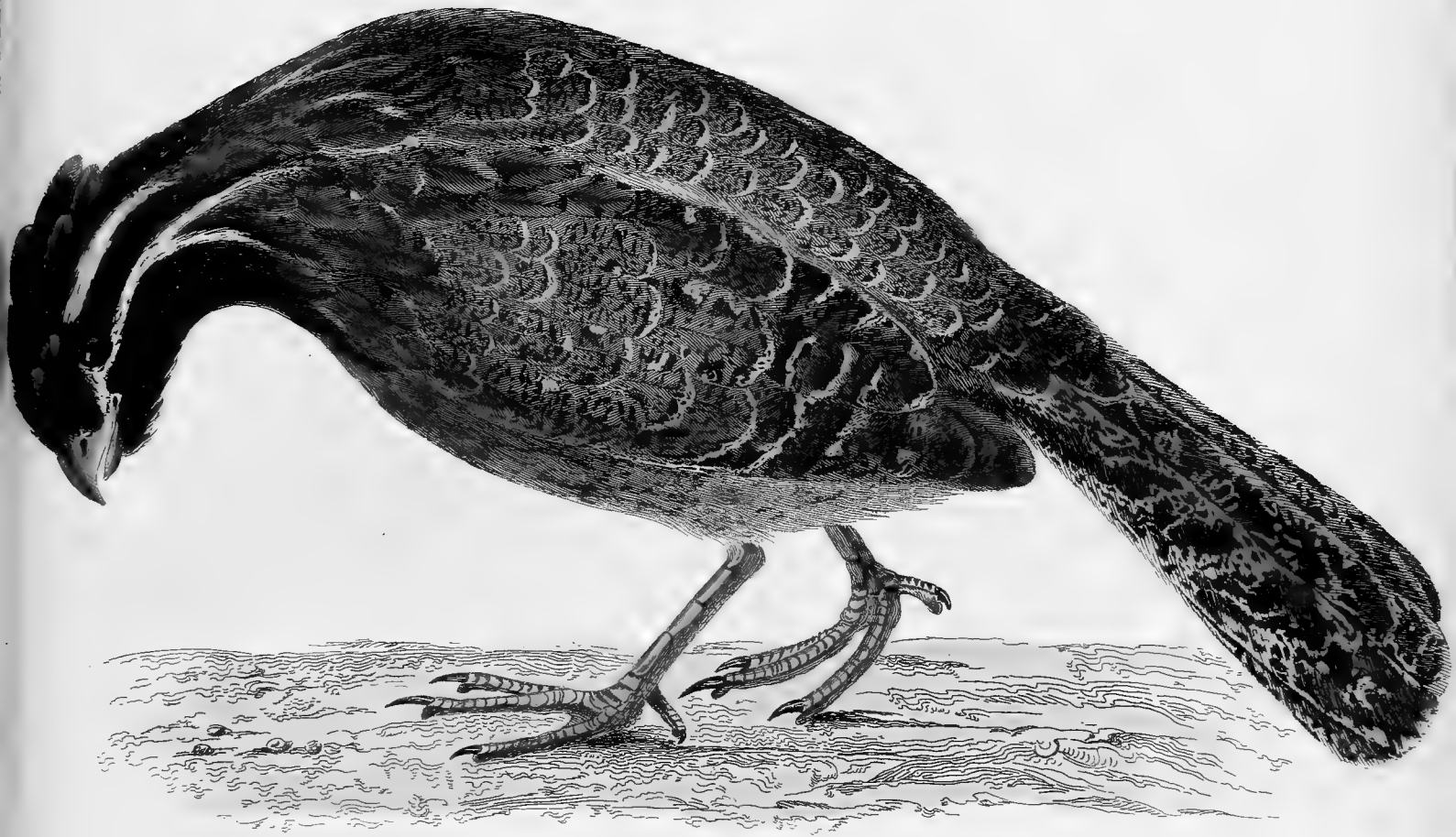
We are indebted for our specimen of this little known species, with several other interesting birds, to Dr A. SMITH, Superintendant of the South African Museum at the Cape of Good Hope, a very indefatigable zoologist, and to whose notes we shall have frequent occasion to refer. It was received by Dr SMITH from the Buchuanna country, and is said by him to be very seldom met with, except considerably farther north of the colony.

It is mentioned by Dr LATHAM and M. TEMMINCK as seen by LE VAILLANT; and the latter ornithologist has given a short description of it in the second edition of his Manual, with which our own specimen very nearly agrees.

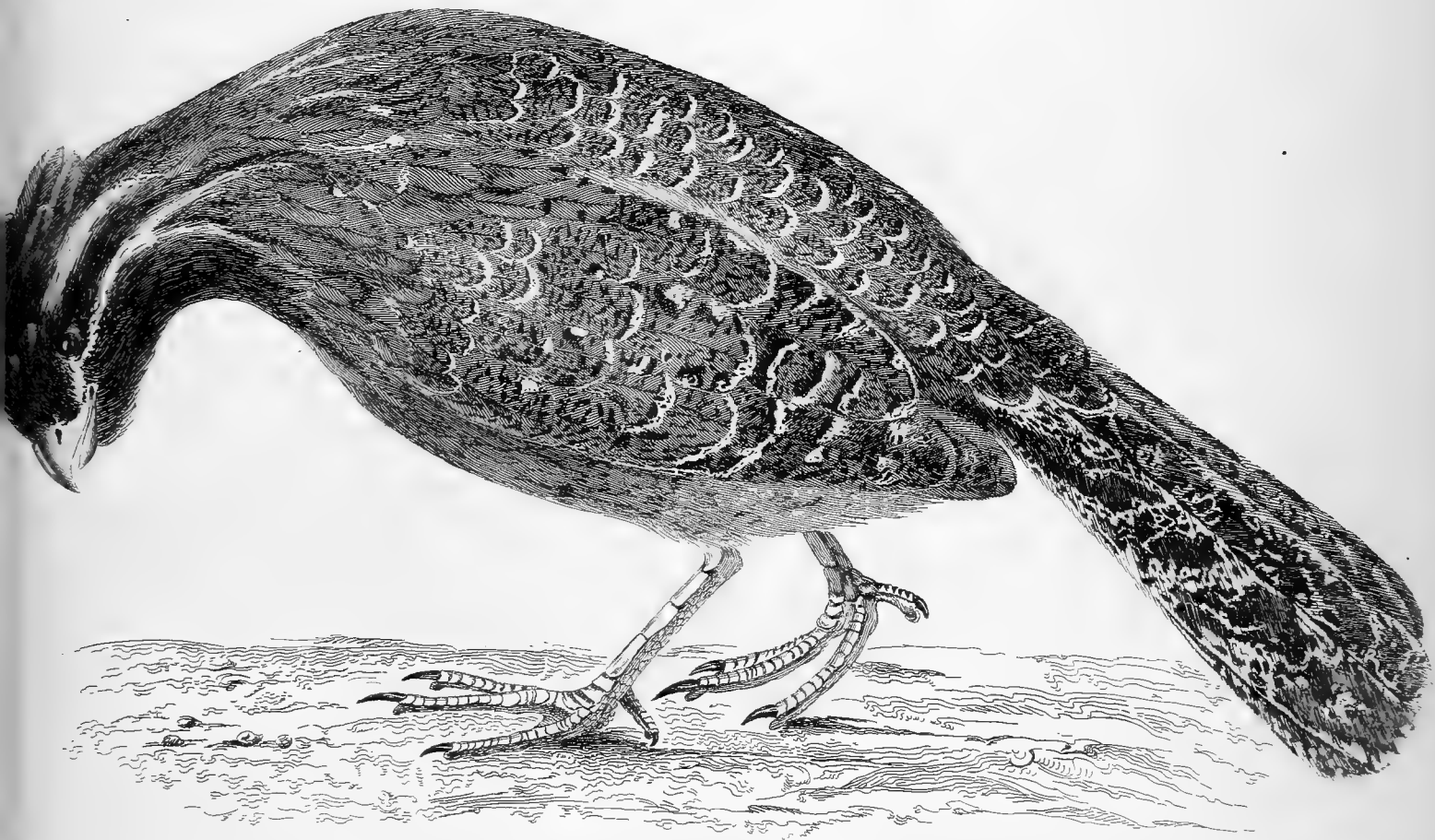
* A specimen of our British species has been recently killed in Charnwood Forest, Leicestershire, and is now in the possession of the Rev. Mr GIBBORNE of Yoxall Lodge, Staffordshire.

CURSORIUS BICINCTUS.

The total length is about nine inches and a quarter, and the whole bird is of rather a stouter make than the others of the genus. The bill is short in proportion, being only half an inch in length to the forehead, and scarcely an inch to the extremity of the gape. The entire plumage, with the exception of the back and wings, is bright reddish wood-brown, inclining to white on the throat, and palest on the under parts. The feathers on the head are marked on the middle with umber-brown: those on the throat and neck have a narrow stripe along the shaft of each nearly black, while those on the breast and belly have the shaft alone black, which appears distinctly from the pale colour of the rest of the feather. A double collar of shining black girds the breast, running rather upwards upon the sides of the neck: the lower band passes in a line with the shoulders, and is about half an inch in breadth: the upper one passes a little higher; it is about half the breadth, and extends farther round upon the back. The ground colour of the back is umber-brown; but each feather is bordered with a narrow margin of yellowish wood-brown: the umber coloured part of the feather is considerably darker where it joins the pale border. The four first quills are black, tinged with pale reddish-brown on the inner webs; the others are reddish-brown, darkest on the outer edges: the secondaries are also reddish-brown. The upper and under tail-coverts, and the outer feathers of the tail, are pure white: the remainder of the tail is deep umber-brown, inclining to pale reddish-brown on the tips of the feathers, and is there barred or waved with a deeper shade. The tarsi are about two inches in length, and with the feet and legs appear to have been greenish-yellow. The toes are short and strong, and the centre claw is pectinated, as in the genus *Caprimulgus*.



Oryzopsis Macroura



Ortyx Macroura

ORTYX MACROURA, (NOBIS).

Long-tailed Ortyx.

PLATE XLXIX.

O. fronte gulaque nigris, supra pallidè brunnea, maculis fasciisque albescentibus, rostro pedibusque rubris, cauda elongata.

WE have figured this species as new and interesting, belonging to a genus hitherto rather limited, as not possessing forms sufficiently characteristic, and particularly as showing that form of the genus where we find the feathers of the tail much elongated, and broad, as in many of the larger gallinaceous birds, but with every other character developed in the highest degree. The specimen we met with at the sale of Mr BULLOCK'S Mexican curiosities: it appeared to be the only one in the collection, and we have not met with the same species since.

The length is thirteen inches. The bill and legs are bright orange-red, and formed as in the most typical species. The feathers on the crown of the head, the throat and cheeks, are black; those on the head lengthened into a crest, and individually tipped with reddish-brown. A line of reddish-white extends above the eyes and auriculars, and loses itself on the sides of the neck. Another of the same colour runs under the eyes upon the auriculars. The back, sides of the neck, and upper parts of the breast, are deep reddish-brown, the feathers edged and dentated with greyish-white and bluish-grey: the upper part of the neck is bluish-grey, with the centre of each feather reddish-brown; the middle of the belly and vent silvery-grey, passing into bluish-grey, and minutely freckled with black. The rest of the upper parts are wood-brown, barred and spotted with black, and blotched with large spots of yellowish-white. On the secondaries the markings are much bolder, but the distribution is the same. The quills are brownish-black, waved with reddish-brown. The length of the tail-

ORTYX MACROURA.

feathers is five inches and a half: they are broad and rounded, and the upper coverts extend over them a little more than one-third; the ground colour of them is reddish-brown, thickly and closely barred obliquely with spots and blotches of black, so much so that at first sight they appear nearly of a uniform colour.

2



Ortyx macrooura



Perdix picta.



Perdix picta.

PERDIX PICTA, (NOBIS).

Painted Partridge.

PLATE L.

MAS. —————

ŒM. P. genis auricularibusque ferrugineis, corpore subtus, albo-nigroque læte maculato; dorso alisque fusco-castaneis, lineis longitudinalibus maculisque flavescens, uropygio tectricibusque caudæ nigro alboque striatis, crisso ferrugineo-castanea, reatricibus nigris ad basin albo striatis.

WE received this beautiful species, together with several other rare and valuable skins, a few months since, from the neighbourhood of Bangalore in India, through the exertions of a valued friend and correspondent *, whose zeal during his residence in that district enabled him to collect a great variety of the indigenous birds of the country. We have not been able to identify this with any of the Partridges hitherto described as natives of India; but being a female, it is possible that it may belong to some one of which a description of the male alone has been recorded. As we cannot, however, under present circumstances, verify this fact, we have ventured to give it a specific designation, and that in accordance with the name written on the ticket with which it came to us, viz. "The Female Painted Partridge." It belongs to the true Partridges, possessing all the essential characters of that genus, as now restricted, and with propriety separated from the *Francolins*, on the one hand, and from the American Partridges, or the genus *Ortyx*, on the other. Our figure is slightly reduced, being in the proportion of about eight-tenths of the natural size. The bill is blackish-brown: the crown of the head brown, with the margins of the feathers yellowish-white. The face, region of the eyes, and auriculars, pale brownish-orange, the hinder part of the neck pale buff, the

* Lieutenant J. ATHERTON, 13th. Light Dragoons, since deceased on his passage to England for the benefit of his health.

PERDIX PICTA.

centre of each feather black, the front and sides of the neck white, spotted with black. Breast, belly, and flanks, beautifully spotted with black and yellowish-white. The upper back and wings deep brown, with longitudinal cream-yellow streaks, and with the edges of the feathers pale wood-brown. The quills are barred with hair-brown and pale reddish-orange; the lower back and rump transversely barred with black and white. Upper tail-coverts brown, with waved black and white bars. Tail brownish-black, with a few narrow white bars near the base. Vent and under tail-coverts deep orange-brown. The legs, feet and claws, are yellowish-brown.



Circus assimilis.



Circus assimilis.



CIRCUS ASSIMILIS, (NOBIS).

New Holland Harrier.

PLATE LI.

C. supra brunneus, capite colloque albo ferrugineoque variis; subtus pallidè ferrugineus, plumis medio longitudinaliter, brunneo-striatis; europigio albo, cauda grisea obscurè fasciata.

WE have lately received this species in a considerable collection from New Holland, and have very little hesitation in considering it as yet undescribed. It is from the neighbourhood of Sidney, and is the only specimen in the collection,—we may add the only one that has come under our observation. In general form and colour it closely resembles the females of the true *Circi*, particularly of our own British species, that of the *C. rannivorus* of Africa, and of the *C. histrionicus*. It is, however, a larger and more powerful bird than any of these.

The length of our specimen is twenty-two, the breadth of the extended wings about forty-six inches. The upper parts of the plumage are a rich blackish-brown with purple reflections, which incline to reddish-brown on the head and neck, and which are edged with pale reddish-brown or white. The under parts are pale reddish-brown, having the centre of each feather marked with a longitudinal streak of a darker shade; the under wing-coverts, and the feathers which spring from the axillæ, are of a deep reddish colour, and are strongly barred; the rump is white, as in many of the congeners; the tail, when closed, is brownish-grey, obscurely and irregularly clouded with a darker shade; the outer feathers have a bright reddish tinge, and have the bars more numerous and less distinct; the legs are bright gamboge-yellow, and very long in proportion.





Lanius collaris, Male.



Lanius collaris, Male.



Lanius collaris, Female and Young.





Lanius collaris, Female and Young.

صا ال دناطوف



LANIUS COLLARIS, *Linnaeus*.

Collared Shrike.

PLATE LII, MALE. PLATE LIII, FEMALE & YOUNG.

MAS.—L. supra nigrescens, tectricibus superioribus albis; subtus albus, cauda rectricibus intermediis quatuor exceptis apicibus albis.

FÆM.—L. coloribus pallidioribus subtusque obscurior.

JUN.—L. capite dorsoque ochraceis, nigro-fasciatis, plumis alarum ochraceo-marginatis; subtus obscurè griseus fasciis nigris.

Lanius collaris, *Gm. Linn.* vol. i. p. 299.—*Lath. Ind. Orn.* vol. i. p. 69.

Collared Shrike, *Lath. Gen. Hist.* vol. ii. p. 22.—*Shaw, Gen. Zool.* vol. vii. part ii. p. 295.

WE have been induced to figure this well known species, both as a good type for the genus, and from being enabled, through the exertions of our excellent correspondent Dr SMITH, to give representations of both sexes, and of the young previous to the mature plumage. The works of LE VAILLANT, where it is already figured and described, are also in the possession of very few, and the consultation of them frequently procured with difficulty. According to LE VAILLANT, and the notes received from Dr SMITH, it is a common bird in Southern Africa, and in the neighbourhood of the Cape, where our specimens were collected. It feeds on small birds and the larger insects; in its habits is a daring and active bird, and proverbial among the Hottentots for its cruelty. The sexes differ little in their plumage. In the male, the darker colours are of a deeper and richer tint, and the white is more pure. In the female, the upper parts approach more to a brownish shade, and the breast and belly are clouded with greyish-black. In the young, the upper parts are pale ochre-yellow, closely barred with black; the edges of the greater and lesser coverts, and the tips of the tail, are also ochre-yellow; the under parts are dull grey, clouded and barred with darker shades: in four or five months the feathers of the

COLLARED SHRIKE.

adult plumage begin to appear, and before the completion of the first year, the bird is generally invested with its final colours.

The figures are of the natural size.





Pluvianus armatus.





Pluvianus armatus.

PLUVIANUS ARMATUS, (NOBIS).

Armed Pluvian.

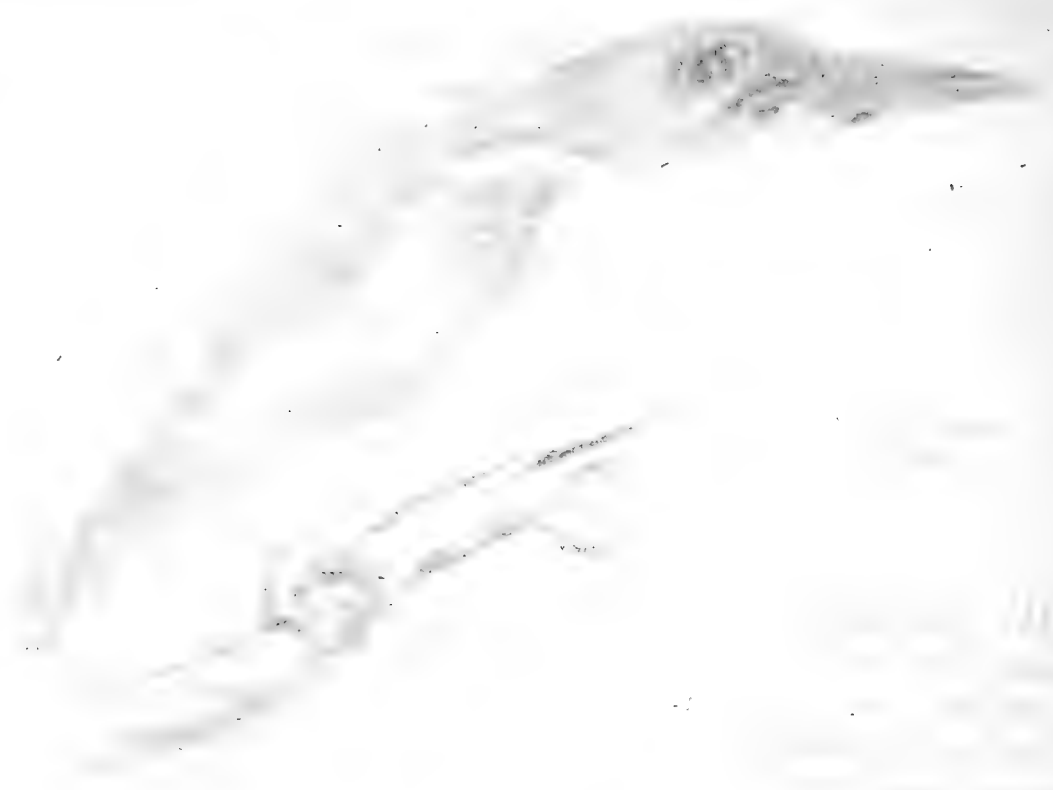
PLATE LIV.

P. niger, vertice, nuchâ, abdomine, europygio crissoque albis; scapulis tectricibusque griseis, alis calcaratis.

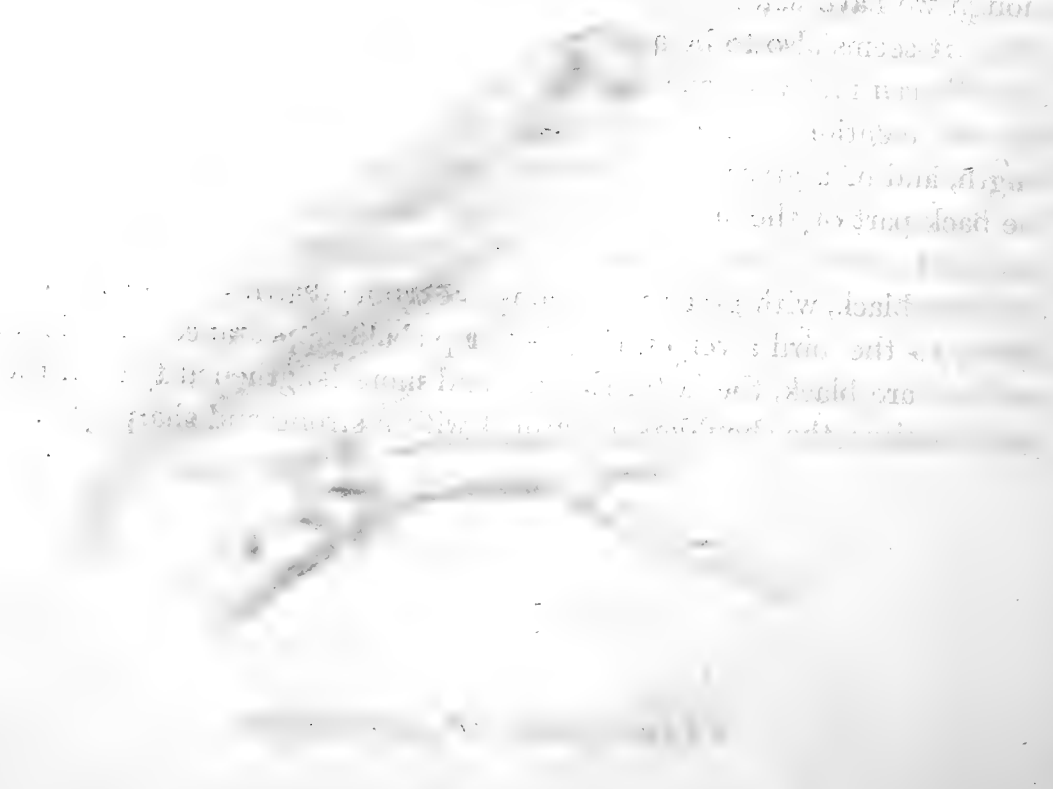
Charadrius armatus, Burchell, *Dr. Smith's MS. Notes.*

WE received this handsome species some time since from Southern Africa, under the title of "*Charadrius armatus*, BURCHELL," but have been unable to ascertain from whence Dr SMITH obtained the above reference. We have retained the trivial name, but have placed the species in VIELLOT'S genus *Pluvianus*, for which we would take a well known species, *P. coronatus*, as the type. The genus seems confined to Africa and Asia, though we have some birds from New Holland which are very nearly allied. It seems also to be a group very limited in its local distribution.

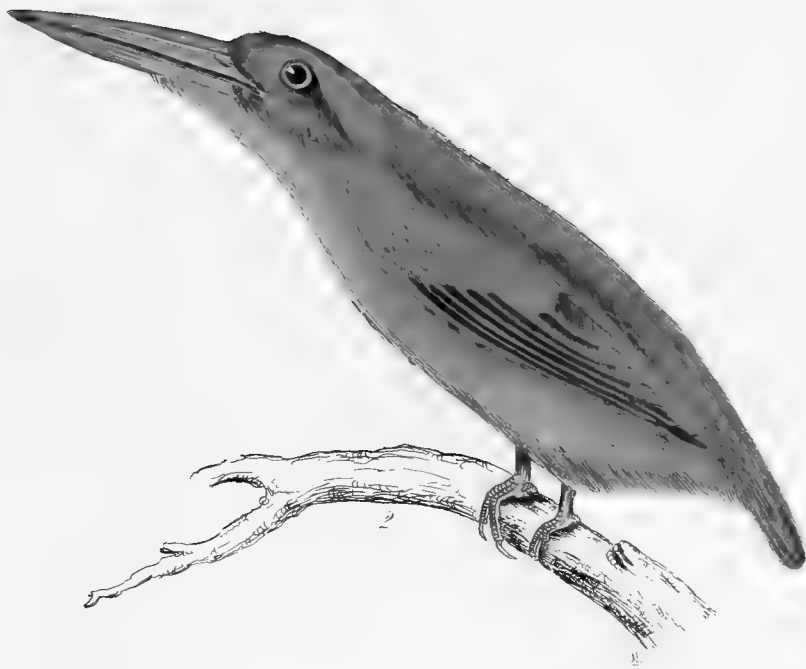
Dr SMITH met with our specimen to the south of the Buchuanna country, and mentions it as of rare occurrence. It is about twelve inches in length, and of a graceful and rather slender make, the crown of the head, the back part of the neck, the vent and rump, are pure white; the shoulders and greater wing-coverts are a fine brownish-grey; the other parts are deep black, with green reflections, the whole distribution of the colours giving to the bird a very variegated or piebald appearance; the bill, legs and feet are black, the latter slender, and more lengthened than in the typical species; the shoulders are armed with a strong and sharp spur.



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1. *Ceryle alcyon*. 2. *Ceryle tridactyla*.



1. *Ceryle azurina*. 2. *Ceryle tridactyla*.

CEYX AZUREA, (NOBIS).

Azure three-toed Kings-fisher.

PLATE LV. FIG. 1.

C. supra, capitis lateribus colloque nitidè cyaneis: subtus rufus, mento gulaque albescentibus; pedibus tridactylis.

Three-toed Kings-fisher, *Levin*, Birds of N. S. Wales, plate I.

Azure Kings-fisher, *Lath. Gen. Hist.* vol. viii. p. 61.

Tri-digitated Kings-fisher, *Shaw's Gen. Zool.* vol. viii. part i. p. 105.

Alcedo azurea, *Lath. Ind. Orn. Supp.* xxxii.—*Swainson*, *Zool. Illust.* plate 26.

THE genus *Ceyx* was formed by M. DE LACEPEDE for the reception of the three-toed Kings-fisher, *Alcedo tridactyla*, LINNÆUS. This was then the only species known to possess a difference in the structure of the feet, and the genus was thrown out by our more modern ornithologists, as composed of a solitary individual, and which did not possess other characters at great variance from the true *Alcedones*. Since that period, however, several other species have been discovered with tridactyle feet, and we think it preferable to retain the *Ceyx* of LACEPEDE for this group, than to add it in the form of a section to the already numerous genus *Alcedo*.

The Azure Kings-fisher has been already beautifully figured and well described by Mr SWAINSON; but being anxious to illustrate a number of genera at as early a period as possible, we have given it now with the *Alcedo tridactyla* of LINN. as types of the three-toed group. The total length of our specimen is six inches and a quarter, differing from that described by Mr SWAINSON by one inch. In this gentleman's plate, the bill is also figured as of a much greater length, and more slender: in other respects they perfectly agree, and, with the exception of the dimensions, we have transcribed his description, which corresponds with the bird before us. The total length is six inches and a quarter; the bill from the gape one inch and a quarter, rather strong at the base, black, and with the tip pale yellowish-white: "All the upper plumage, as well as the sides of the head, ears, and a stripe beyond, fine ultramarine blue, more vivid on the rump and tail-

THREE-TOED KINGS-FISHER.

covers, and duller on the tail, wing-covers, and lesser quill margins ; front blackish ; from the nostrils to the eye a whitish line, and from the ears on each side of the neck a whitish stripe, which almost forms a collar round the nape. Quill feathers sooty black. All the under parts orange-ferruginous ; throat and belly nearly white. Tail very short, nearly hid by the upper covers. Feet red ; claws black."

We lately received our specimens from the neighbourhood of Sydney, New Holland.

CEYX TRIDACTYLA, *De Lacepede.*

Three-toed Kings-fisher.

PLATE LV. FIG. 2.

C. supra violacea-rubescens, subtus albescens, hypochondriis croceis ; rostro pedibusque rubris.

Alcedo tridactyla, *Gm.* Linn. vol. i. p. 459.—*Lath.* Ind. Orn. vol. i. p. 260.—*Horsf.* Trans. Linn. Soc. vol. xiii. p. 174.

Tridactyle Kings-fisher, *Lath.* Gen. Hist. vol. iv. p. 59.—*Shaw's* Gen. Zool. vol. viii. part i. p. 104.

WE received this beautiful little species from Mr ARMSTRONG, a gentleman now resident in Java. It is about five inches and a half in length, of which the bill, measuring from the gape, makes nearly one inch and a half. The bill is bright orange, of a strong form, and more triangular shape than the others of this group, or the true Kings-fishers, and resembles more that of *Halcyon*. The upper parts are a rich sienna-red, having the tips of the feathers on the head, back of the neck, and rump, reddish-purple, differing in the intensity of its shades according to the light ; the throat and middle of the belly and vent, yellowish-white, of a darker shade upon the breast, and changing into a deep saffron colour upon the sides. The feet are slender, the two anterior toes long, and connected to the commencement of the first joint from the extremity ; the claws are long, slender, and sharp.

This species, although it has been long known to ornithologists, is rarely met with in collections, and the skins still bring a considerable price, both among the dealers in this country and upon the continent.

