

From a friend in China Lt. Conover U. S. Store ship *Supply*, I have received a specimen of Coal from Japan, and one from Killow in Formosa, both of which are good looking Coal. We had no Coal from the Eastward farther than from China hitherto in the Museum, so that these specimens are great prizes.

We have received an imperfect crystal of native sulphur from Persia, presented by Mr. J. B. Lawson.

We have also received from Mr. Pontet, a fine specimen of UMBER. The locality is not stated in that gentleman's letter, which he dates only from the "Jungles," but which I suppose to be situated in the Damun-i-Koh. He says it is embedded in the hill side at about 1000 feet elevation, and that there is evidently a very large vein (bed) of it; what is exposed may be five feet thick.

*Report of Curator, Zoological Department, for April Meeting, 1855.*

I have now the pleasure to acknowledge and report upon a fine collection of skins received from Dr. E. Rüppell of Frankfurt: a collection which has afforded the long sought opportunity of actually comparing sundry Indian and E. African birds together; and the results of such comparison I proceed to lay before the Society, while I distinguish the numerous species which are new to its museum by prefixing an asterisk to each name.

MAMMALIA.

\*CERCOPITHECUS ENGYTHITHIA, (Herm., apud Gray; *C. griseo-viridis*, Desm.; &c.) Abyssinia.

\*CANIS VARIEGATUS, Rüppell. Abyssinia. (Skull wanting.)

\*VULPES VIRGINIANUS, (Gmelin; *V. cinereo-argentatus*, Richardson). N. America.

\*SCIURUS MULTICOLOR, Rüppell (*Sc. cepate*, A. Smith). Abyssinia. (Skull wanting.)

\*XERUS SETOSUS, (Forster; *Macroxus leuco-umbrinus*, Rüppell; &c). Abyssinia.

\*PSAMMOMYS OBESUS, Rüppell. Egypt.

\*FIBER ZIBETHICUS, (L.) N. America.

\*POTAMOCHERUS AFRICANUS, (Schreber; *Sus chæropotamus*, Desmoulin; *S. larvatus*, F. Cuvier). Skin, without skull. From S. Africa.

\*COASSUS NEMORIVAGUS, (F. Cuv.; *Cervus simplicicornis*, Illiger). Doe, from S. America. (Skull wanting.)

AVES.

\*PŒOCEPHALUS MEYERI, (Rüppell). Abyssinia.

\*AGAPOENIS TARANTA, (Stanley). Abyssinia.

\*CIRCUS RANIVORUS, (Daud.) Africa. Two specimens.

\*SPIZÆTUS OCCIPITALIS, (Daud.) Abyssinia.

\*AQUILA NÆVIROIDES, (Cuv.; *Falco senegalus*, Cuv.; *F. rapax*, Temminck; *F. albicans*, Rüppell; *Aq. choka*, A. Smith). Abyssinia. This African bird is considered by Mr. G. R. Gray to be identical with the Indian *AQ. FULVESCENS*, Gray (v. *Aq. fusca* et *Aq. punctata*, Gray, et *Aq. vindhiana*, Franklin). The specimen sent by Dr. Rüppell has much larger and more powerful legs and talons, and is altogether a stouter and stronger bird, than its Indian near affine; for which reason we consider it to be a distinct species.\*

\*HALIAËTUS LEUCOCEPHALUS, (L.), in immature plumage. N. America.

MILVUS ÆGYPTIUS, (Gm.: *Falco Forskalii*, Gmelin; *F. parasitus*, Daud.; *F. parasiticus*, Latham). Egypt. Identical with a specimen from S. Africa, presented by Capt. Sherwill; and readily distinguished from the other dark-coloured Kites by its yellow beak.

\*POLYBORUS BRASILIENSIS, (Gmelin). Chili.

\*GYP S RUPPELLI, C. L. Bonaparte. (*G. Kolbei* apud Rüppell). Fine adult, from Abyssinia. Upon a former occasion (*J. A. S. XIX*, 502), we called attention to the great difference of opinion among the best ornithologists regarding the specific unity or distinctness of various races of Vulture, which have been comprehended under *G. FULVUS*, (L.) About the same time, the Prince of Canino published his matured opinion on the subject, in the *Rev. Zool. &c.*, 1850, p. 447; and we feel satisfied of the correctness of his views. His highness recognises,—1, *G. FULVUS*, (L.), of Europe (and we may add the high mountains of Asia, as the Himalaya).†—2, *G. OCCIDENTALIS*, Schlegel (v. *Kolbei* apud Temminck, *Man. d' Orn.* IV, 587), of the Pyrenees, Sardinia, and the Barbary States.—3, *G. RUPPELLI*, Schlegel (*vulgaris?* C. L. Bonap., *ibid.* p. 242, v. *Kolbei* apud Rüppell), of E. Africa.—4, *G. KOLBEI*, (Daudin), founded on the S. African *Chasse-fiente* of Levaillant.—5, *G. INDICUS*, (Scopoli, v. *tenuiceps* and *tenuirostris*, Hodgson), of India and the Malay countries. And 6, *G. BENGALENSIS*, Gmelin, of India (and also E. Africa, according to Rüppell). Our museum now possesses the whole of these, with the exception of *G. KOLBEI* of S. Africa: and there can be no doubt of the distinctness of the others. With the exception of *G. BENGALENSIS*, all are very remarkable for possessing 14 rectrices.‡

\* We also exceedingly doubt the alleged identity of the Indian *BUTEO CANESCENS* with the Nubian *B. RUFINUS*.

† In Macedonia, this species was noticed by Capt. Drummond to be "most numerous in the plains as well as the mountains." *Ann. Mag. N. H.* XVIII, 10.

‡ In *G. FULVUS* (*verus*), which is the 'great White Vulture' of the Himalaya,

\*NEOPHRON PILEATUS, (Burchell; *N. carunculatus*, A. Smith; *Pernopterus niger*, Lesson; *Cathartes monachus*, Temminck). Abyssinia.

\*CATHARTES AURA, (L.) Chili.

BUBO VIRGINIANUS, (L.) N. America.

\*PROMEROPS CYANOMELAS, Cuvier. Abyssinia.

HALCYON SENEGALENSIS, (L.) Nubia.

\*MEROPS CÆRULEOCEPHALUS, Latham. Abyssinia.

\*M. LAMARCKI, Cuvier (*M. viridis* apud Rüppell). Two specimens, from Abyssinia. This differs from the Indian *M. VIRIDIS*, L., in having much more ferruginous on the wings, extending across both webs of the primaries and secondaries; and the throat is yellowish-green, tinged with ferruginous, having scarcely a trace of verditer except on its extreme

the clothing plumes generally are elongated and lanceolate at all ages; and those covering the craw are pale or whitish. It is also a larger bird than the others; the closed wing of a young Nepalese specimen measuring 33 inches.

In a fine adult of *G. OCCIDENTALIS*, from Algeria, the closed wing measures but 27 inches. The clothing feathers are much less acuminate than in *G. FULVUS*, and resemble those of *G. RUPPELLI* in form; but their colour is throughout dull pale isabelline, slightly tinged with ashy excepting round the margins; and the hue of those covering the craw is much darker.

In the adult *G. RUPPELLI*, the whole plumage is fuscous, with strongly contrasting whitish margins more or less broad, imparting a handsome variegated appearance, especially to the scapularies and coverts of the wings and tail: feathers covering the craw blackish; and those forming the white ruff shorter and more dense than in either of the preceding. Length of wing 24 inches.

As we have all ages of the affined *G. INDICUS* for reference, we observe that its feathers are not more or less acuminate according to age; and in the young of this species and of *G. FULVUS* (and doubtless of the others also), the feathers of the upper-parts have a medial pale streak, but not the broad whitish margins which distinguish the adults of *G. RUPPELLI*.

In *G. RUPPELLI*, the beak is somewhat broader in proportion to its length than in *G. FULVUS* and *G. OCCIDENTALIS*, resembling that of *G. BENGALENSIS* except in having its ceral portion more prolonged backwards; while *G. INDICUS* has a comparatively slender bill, especially as viewed laterally, with its ceral portion remarkably elongated. In a particularly fine adult of *G. INDICUS*, the closed wing measures  $24\frac{1}{2}$  in.

Good Himálayan specimens (skins) of the adult and young of *G. FULVUS*, with skeleton; and skeleton also of *VULTUR MONACHUS*, the 'Great Black Vulture' of the Himálaya; and of the *ΓΥΡΑËΤΟΣ*, popularly mis-called 'Golden Eagle' by English residents;—would be very thankfully received for the Society's museum.

lateral margin bordering the black eye-streak, and very little of it even there.

DENDROBATES GOËRTAN, (Gm. ; *D. poiocephalus*, Swainson). Two specimens, from Nubia.

\*CAMPETHERA NUBICA, (Boddäert); *Picus punctatus*, Cuv. ; *P. notatus*, Lichtenstein. S. Africa.

\*C. ÆTHIOPICA, (Hemprich). Two specimens, from Abyssinia.

\*LEMODON BRUCEI, Rüppell. Abyssinia.

\*L. UNDATUS, Rüppell. Abyssinia.

\*L. MELANOCEPHALUS, Rüppell. Abyssinia.

\*BARBATULA CHRYSOCOMA, (Temminck). Abyssinia.

\*TRACHYPHONUS MARGARITATUS, Rüppell. Abyssinia.

\*TURACUS LEUCOTIS, Rüppell. Abyssinia.

COLIUS SENEGALENSIS, L. Abyssinia.

\*C. LEUCOTIS, Rüppell. Two specimens, from Abyssinia.

\*OXYLOPHUS AFER, (Leach, = *Levaillantii*, Swainson, and *ater* apud Rüppell; *nec ater*, Gmelin, which = *SERRATUS*, Sparman, a common Cape species, which the late H. E. Strickland received from Kordofan).\* Specimen from Abyssinia. Throat and fore-neck black, the feathers laterally edged with dull white, which gradually increases downward; the black predominating much more than as represented in Swainson's figure (*Zool. Ill.* 2nd series, Vol. I, pl. 13), and spreading downward over the breast and flanks.

\*CENTROPUS SUPERCILIOSUS, Rüppell. Abyssinia.

\*CAPRIMULGUS ISABELLINUS, Temminck. Ditto.

\*CORVULTUR CRASSIROSTRIS, Rüppell. Ditto.

\*CORVUS PHŒOCEPHALUS, Cabanis. (*C. scapulatus* apud Rüppell. †) Ditto.

\*LAMPROTORNIS CYANIVENTRIS, nobis, n. s. : *L. nitens* apud Rüppell, from Abyssinia; *nec NITENS* (L.), of S. Africa, from which it differs in having a conspicuously shorter bill, and in various details of colouring. In *L. NITENS* (*verus*), the whole plumage is glossy *æneous* or steel-green, brightest on the wings, and mingled with steel-blue on the head and neck: the abdominal region being of the same hue as the back, but an admixture of steel-blue is observable on the tibial plumes, axiliaries, and

\* Vide *P. Z. S.* Nov. 26, 1850.

† Vide the Prince of Canino, in the *Comptes Rendus*, tom. xxxvii (1853), p. 829. This Abyssinian specimen, however, accords precisely (even in measurements) with Swainson's description of *C. CURVIROSTRIS*,—? (*nec* Daudin, v. *leuconotus*, Sw.), of W. Africa, which is stated to be distinct from the nearly affined *C. SCAPULATUS*, Daudin, of the Cape; while another, of similar colouring, will stand as *C. MADAGASCARIENSIS*, C. L. Bonaparte.

under wing-coverts: shoulder of the wing (under the scapularies) bright steel-blue or purple, tipped with amethystine, which forms a distinct bar. In *L. CYANIVENTRIS* the upper-parts are glossy steel-green, uniform on the crown, nape, and back, but passing to bluish on the rump and upper tail-coverts, and also on the ear-coverts; throat and breast like the back, but the belly and thighs are brilliant steel-blue mixed with amethyst; as likewise the axillaries and under wing-coverts, which are very brilliant, the amethystine hue prevailing: shoulder of the wing (under the scapularies) steel-blue, with no terminal amethystine bar as in *L. NITENS*, but a little of this colour shewing at the bases of the feathers. In *L. CYANIVENTRIS*, the wings are more uniformly glossed than in *L. NITENS*, extending quite over the tertiaries and primaries; and the wing-coverts and tertiaries have their black terminal spots larger and rounder. In fact, the northern bird approaches in brilliancy to the superb *L. SPLENDENS*, (Leach, v. *L. ptilinorhynchus*, Swainson,) of W. Africa, of which also we possess a fine specimen.

\**JUIDA RUFIVENTRIS*, (Rüppell). Abyssinia. This form approximates the Malayan genus *CALORNIS*, G. R. Gray; but the feathers are throughout rounded or not acuminate,

\**HYPHANTORNIS AURIFRONS*, (Temminck). Male and female. S. Africa.

\**PLOCEUS* ———? Male. S. Africa.

\**PL. LARVATUS*, Rüppell. M. and F. Abyssinia.

\**EUPLECTES XANTHOMELAS*, Rüppell. M. and F. Ditto.

\**EU. FLAVESCENS*, (Daud.; *Fringilla phalerata*, Illiger). S. Africa.

\**EU. FLAMMICEPS*, Swainson. M. and F. Abyssinia.

\**COLIUSPASSER TORQUATUS*, Rüppell. (*Vidua rubritorques*? Swainson). M. and F. Abyssinia.

\**VIDUA PARADISEA*, (L.) Two females. Abyssinia.

\**V. SERENA*, (L.; *V. erythrorhyncha*, Swainson). Abyssinia.

\**AMADINA* (?) *FRONTALIS*, (Vieillot). Abyssinia.

\**MUNIA CANTANS*, (L.) Two specimens, from Abyssinia. Affined to the Indian *M. MALABARICA* (v. *Lonchura cheet*, Sykes).

\**ESTRELDA ELEGANS*, (Vieillot; subg. *Pytilia*, Swainson). Abyssinia.

\**E. BENGALUS*, (L.) Abyssinia.

\**E. CINEREA*, (Vieillot). Abyssinia.

\**PASSER SIMPLEX*, (Lichtenstein; *P. Swainsonii*, Rüppell: nec *P. simplex* apud Swainson, which = *P. GULARIS*, Lesson). Abyssinia.

\**P. SALICICOLUS*, (Vieillot; *P. hispaniolensis*, Tem.) Female, from Egypt. This species was observed in Afghánistán by Capt. Thos. Hutton, and is not uncommon at Pesháwur. In Kohát it abounds, and is there known as the 'Kábul Sparrow.' (T. Alex. J. Trotter, in *epistolá*.)

\**EMBERIZA SEPTEMSTRIATA*, Rüppell. Abyssinia.

\**SERINUS* (P) *STRIOLATUS* (*Pyrrhula striolata*, Rüppell). Female, from Abyssinia. This bird combines the beak of a *CARPODACUS*, with the plumage of a Serin, *CRITHAGRA*, or Siskin. The species of the true Canary-bird type, or *CRITHAGRA* of Swainson, Dr. Rüppell refers to *SERINUS*.\*

\**CRITHAGRA NIGRICEPS* (*Serinus nigriceps*, Rüppell). Two males. Abyssinia.

\**CR. XANTHOPYGIA* (*Serinus xanthopygius*, Rüppell). Abyssinia.

\* His *S. TRISTRIATUS*, however, we consider to be a *PASSER*; and may here add, that the *S. aurifrons*, nobis, *Catal.* No. 681, proves to be identical with *Passer pusillus*, Pallas, and will now stand as *SERINUS PUSILLUS*. We have not the European Serin (*S. MERIDIONALIS*, C. L. Bonap.), for comparison; but M. de Selys Longchamps informs us that the beak of *S. PUSILLUS* resembles that of *S. MERIDIONALIS* when viewed laterally, but is a little less bulged, as seen from above. The beak of *S. (?) STRIOLATUS* is probably even more bulged, as viewed from above, than that of *S. MERIDIONALIS*; but we suspect that *SERINUS* (as founded on the European bird, *Fringilla serinus*, L.), is the modern genus or sub-genus with which it best accords.

*S. PUSILLUS* has hitherto been only known to inhabit the high mountains of W. Asia; and according to Pallas is common upon the Caucasus and about the Caspian sea. In summer it is found near the snow-line, together with *MONTIFRINGILLA NIVALIS* and *RUTICILLA ERYTHROGASTRA*; descending in winter to the sub-alpine regions of Persia. *S. MERIDIONALIS* is "common in Asia Minor, visiting the plains in flocks during the winter." (Strickland).

Our specimens of *S. PUSILLUS* were procured by Capt. T. Hutton and by L. C. Stewart, Esq., in the vicinity of Masuri, in different winters; and Capt. Hutton lately informed us, that he had "fallen in with it this winter (1854-5), after an interval of many years. It appeared to be always in pairs, and like our Siskin and Goldfinch is very fond of alighting upon the tall coarse nettles which abound here. They are merely winter birds at Masuri, and seem to have left about the middle of February." In summer, we are informed by Lt. Speke, of the 46th B. N. I., that "it is found in Spiti and Ladakh at an altitude of from 10 to 13,000 ft., but not in such quantities as *PYRRHOSPIZA PUNICEA*; more than 2 or 3 being seldom seen at a time; and like the Goldfinch they are not confined to a distinct locality."

So far as we can remember, the genus *PYRRHULOIDES*, nobis, *J. A. S.* XIII, 951, founded on *PYRRHULA EPAULETTA*, Hodgson, *As. Res.* XIX, 156, is nearly affined to *SERINUS*, and intermediate to that genus and true *PYRRHULA*. (*S. PUSILLUS* is the type of the division *METAPONIA*, C. L. Bonap., *Comptes Rendus*, XXXVII (1853), p. 917).

CALANDRELLA BRACHYDACTYLA, (Tem.) Two specimens, from Abyssinia. Head less rufescent, and with the dusky mesial streaks to the feathers more developed, than we remember to have seen in Indian specimens: but an example from Algeria differs in no respect from the latter.\*

\*ALAUDA RUFICEPS, Rüppell. Two specimens, from Abyssinia.†

AGRODEOMA SORDIDA (*Anthus sordidus*, Rüppell). Before receiving this Abyssinian specimen, we had provisionally identified the large dull sandy-coloured Pipit of the Panjáb, previously referred to A. SIMILIS, Jerdon, with the present species: and we feel little doubt that A. SIMILIS of the Indian peninsula will prove to be identical with ANTHUS CINNAMOMEUS of Rüppell. The S. Indian bird is very remarkable, among the MOTACILLIDÆ, for possessing an extremely rudimentary first primary.

\* The Prince of Canino, enumerating the species of this genus, gives one as C. BAGUEIRA; by which we presume that the Indian bird is intended. *Comptes Rendus*, XXXVIII (1854), p. .

† Dr. Rüppell refers this bird to MEGALOPHONUS, G. R. Gray; but the characters are rather those of the true ALAUDÆ, except that the legs and feet are comparatively small and weak. The wing has the short first primary minute, the third, fourth, and fifth equal and longest, and the second and sixth are scarcely shorter. A. ERYTHROPYGIA, Strickland, from Kordofan (*P. Z. S.* Nov. 1850), is probably affined to it.

The true MEGALOPHONI (v. *Brachonyx*, Swainson,) were classed as MIRAFRÆ by Dr. A. Smith; and they seem to be merely weak-billed MIRAFRÆ, and resemble MIRAFRA in wanting the tuft of short bristly feathers over each nostril, which is characteristic of the more typical Larks. CERTILAUDA also wants this tuft, and MACRONYX (but the latter is a genus of *Pipits*, affined to the long-clawed CORYDALLE, as C. RICHARDI and C. RUFULA). Mr. G. R. Gray assigns to MEGALOPHONUS certain true Larks (possessing the nareal tuft) of S. Africa, which Dr. A. Smith classed as ALAUDÆ; but these constitute a peculiar form, CALENDULAUDA, nobis; ex. ALAUDA ALBESCENS, Lafr. (v. *A. codea*, A. Smith),—A. LAGEPA, A. Smith, &c.

The genus MIRAFRA, also, has hitherto been composed very heterogeneously. Confining it to the species devoid of nareal tufts, we therefore distinguish, 1, SPIZALAUDA, nobis; ex. M. HAYI, Jerdon, which is a peculiar and rather thick-billed true Lark, as shewn by the form of the wing, &c.; and 2, ANNOMANES, Cabanis; ex. M. PHENICURA, Franklin,—AL. LUSITANIA, Gmelin (v. *deserti*, Licht., *isabellina*, Tem., et *M. phenicuroides*, nobis),—and probably M. CORDUFANICA, Strickland (*P. Z. S.* Nov. 26th, 1850), to which we suspect that *A. cinnamomea*, Bonap. (*Rev. Zool. &c.* 1851, p. 178), should be referred. (P. S. Since this note was first printed, we have learned of the prior establishment of the genus ANNOMANES; and that A. CINNAMONEA (CORDUFANICA?) is correctly referred to it; also the ALAUDA PALLIDA of Ehrenberg, which possibly

BUDYTES VIRIDIS (*Motacilla viridis*, Scopoli, founded on the bad figure in Brown's *Ill. Orn.* pl. 33, f. 2; *M. bistrigata*, Raffles; *B. melanocephala* et *B. beema*, Sykes; *B. neglecta*, *melanocephala*, et *flava*, apud Jerdon, *Catal.*; *M. melanocephala*, Lichtenstein; *B. flava* vel *neglecta* et *B. Rayi* vel *flaveola* of India and the Malay countries, *auctorum*). Two specimens, from Abyssinia.

\*CRATEROPUS LEUCOPYGIUS, Rüppell. Abyssinia.

ERYTHROPYGIA GALACTOTES, (Tem.) Ditto.

\*LANIUS COLLARIS, L. Ditto.

ENNEOCTONUS RUFUS, (Brisson). Ditto.

\*LANIARIUS ERYTHROPTERUS, (Shaw). Ditto.

\*DRIOSCOPIUS CUBLA, (Latham). Ditto.

\*PLATYSTEIRA SENEGALENSIS, (L.) M. and F. Ditto.

MERULA OLIVACEA, (L.) Ditto.

\*THAMNOLÆA SEMIRUFA (*Thamnobia*? *semirufa*, Rüppell.)—Ditto. Altogether distinct from THAMNOBIA, which we conceive to be nearly affined to TROGLODYTES.

\*CERCOTRICHAS ERYTHROPTERUS, (L.) Ditto. This is a true *Sháma*; and the generic name CERCOTRICHAS, Boie, holds precedence of *Kittacincla*, Gould. Our museum now possesses three species,—C. ERYTHROPTERUS of Nubia, Abyssinia and Kordofan,—C. MACROURUS of India and the Malay countries,—and C. LUZONIENSIS (*Copsychus luzoniensis*, Kittlitz), of the Philippines.\*

—rather than LUSITANIA—may be identical with our *Mirafra phænicuroides*, *passim*: but we have seen no description of ANN. PALLIDUS.)

There still remain 6 or 7 species of true MIRAFRA,—viz. 4 in India, M. ASSAMICA, M. AFFINIS, M. ERYTHROPTERA, and M. CANTILLANS,—a fifth in Java, M. JAVANICA,—a sixth in N. S. Wales, M. HORSFIELDI, Gould (which is affined to the Indian M. CANTILLANS), and Mr. Gould suspects another in N. Australia, larger and more nearly affined to M. JAVANICA. M. ASSAMICA is erroneously identified with the last-mentioned species by Mr. G. R. Gray.

N. B.—*M. flavicollis*, McClelland (*P. Z. S.* 1839, p. 163), is merely the female of EMBERIZA AUREOLA!

\* There can be no doubt that C. MACROURUS (which is often termed the *Indian Nightingale*) is the species familiarly referred to as “the Nightingale” by Dr. J. D. Hooker, in his ‘Himalayan Journal’ (I, 332, II, 146): the season which he states them to be in song (October), quite sufficing to shew that the real Nightingale cannot be intended. The true British Nightingale abounds in Persia, where it is termed *Bulbul-i-hazár-dástán*, or the “bird with a hundred tongues;” and many caged Nightingales are brought from that country to Afghánistán in the first instance, and thence to India; a few finding their way even to Calcutta, where they command a high price as song-birds, and are known as the *Bulbul bosta*. To the proper *Fauna Indica*, the veritable genus LUSCINIA is unknown.



PRATINCOLA RUBICOLA, (L.) Abyssinia.

\*PR. (♀) SORDIDA, (Rüppell). Two specimens. Ditto.

\*SAXICOLA ISABELLINA, Rüppell. Ditto.

S. AURITA, Temminck. Ditto.

\*SYLVIA LEUCOPOGON, Meyer. (*S. passerina*, Temminck; *S. subalpina*, C. L. Bonap.) Egypt.

\*SALICARIA (♀) CINNAMOMEA, Rüppell. Abyssinia. This curious little bird is apparently congeneric with the TRIBURA LUTEOVENTRIS, Hodgson, P. Z. S. 1845, p. 30, and J. A. S. XIV, 583; but as we have good specimens of neither for comparison, we can only thus indicate the affinity.

PHYLLOSCOPUS BONELLII, (Vieillot; *Sylvia Nattereri*, Temminck).

\*TCHITREA MELANOGASTER, (Swainson). Abyssinia. In plumage like some specimens of TCH. AFFINIS, nobis, but the bill and feet much smaller.

\*HIRUNDO RIOCOURII, Savigny (*H. cahirica*, Licht.; *H. rustica orientalis*, Schlegel). Specimen from Abyssinia, with under-parts not more rufous than in ordinary H. RUSTICA, from which it certainly (the present specimen at least) is insufficiently distinguished.

\*H. MELANOCRISUS, Rüppell. Abyssinia.

\*H. (♀) PRISTOPTERA, Rüppell. A highly interesting and separable form of Swallow, with minute bill and feet, and the outer margin of its first primary having the extremities of the filaments reverted into hooks, as in the N. American H. SERRIPENNIS, Audubon, which however is a COTILE (or burrowing bank Swallow).

\*ORIOLUS MELOXITA, Rüppell. Abyssinia.

\*NECTARINIA TAKAZE, (Stanley). M. and F. Abyssinia.

N. FORMOSA, (L.) M. and F. Ditto.

\*N. CRUENTATA, Rüppell. Ditto.

\*N. HABESSINICA, Ehrenberg. Ditto.

\*N. AFFINIS, Rüppell. Ditto.

\*N. METALLICA, Lichtenstein. Nubia.

\*ALSOCOMUS GUINEA, (L.) Abyssinia.

ALS. ARQUATRIX, (Tem.) Ditto.

\*TURTUR ERYTHROPHYS, Swainson. Two specimens are sent as T. RISORIUS apud Rüppell, one from Nubia, the other from Abyssinia. Both differ from the Indian Collared Turtle-dove (*T. risorius verus*), and agree with that of S. Africa (*T. vinaceus*), in having a much broader black semi-collar upon the nape. Both also are of a much paler hue than the S. African bird, especially on the crown. The Nubian is larger, the wing measuring 7 in. long, with its 1st primary  $\frac{3}{8}$  in. shorter than the next, the 2nd and 3rd equal, and the 4th  $\frac{1}{4}$  in. longer than the 1st; tail rounded, its outermost feathers  $\frac{5}{8}$  in. shorter than the medial. Colour

nearly as in the Indian bird, but the vinaceous hue of the neck and breast more intense; the axillaries, sides, and under surface of the wing, dark ashy, whereas in the Indian bird they are whitish; the tail also is more broadly tipped with white, and its lower coverts are ashy. The feet too are larger and coarser; and bill pale-coloured. This is clearly Mr. Swainson's *T. ERYTHROPHRYS*; whereas the Abyssinian species is, as decidedly, the

\**T. SEMITORQUATUS*, Swainson (though not well agreeing with Dr. Rüppell's figure of *SEMITORQUATUS*). Wing  $6\frac{1}{4}$  in. only; its 1st and 3rd primaries  $\frac{1}{8}$  in. shorter than the 2nd, and  $\frac{3}{8}$  in. longer than the 4th: tail sub-even, its outermost feather being  $\frac{1}{8}$  in. shorter than all the rest. Crown of the same vinaceous hue as the breast, scarcely infuscated, and devoid of ashy tinge; axillaries, sides, and under surface of wings, very pale ashy; and middle of belly and lower tail-coverts white. Bill black; and tarsi and toes conspicuously more slender and less coarse than in the preceding. From the very decidedly distinct form of the wings and tail, we do not hesitate to consider this as a distinct species from its various near congeners.\*

\* In the Cape species, *T. VINACEUS*, (Gm.), the 2nd and 3rd primaries are equal and longest, and the 1st and 4th are sub-equal, and  $\frac{1}{4}$  in. shorter than the preceding: outer tail-feathers  $\frac{5}{8}$  in. shorter than the medial. General colour much darker than in the others; the under-surface of wings dusky-ash; but the vent and lower tail-coverts are whitish.

*T. RISORIUS* of India has the third primary a little shorter than the 2nd, and the 1st  $\frac{1}{4}$  in. shorter, and the 4th  $\frac{3}{8}$  in. shorter, than the 2nd: tail-feathers sub-even, or slightly rounded, except the outermost pair, which are  $\frac{1}{2}$  in. shorter than the medial. Nuchal semi-collar much narrower than in the others, and no vinaceous hue on the nape below it; beneath the wings are whitish; and the vent and lower tail-coverts are of a full ash-grey.

*T. BITORQUATUS*, (Tem.), of Java, Timor, &c., is another fine species of this immediate sub-group, with the grey of the crown and wings, and the vinaceous of the neck and breast, deeper and brighter than in the others; black semi-collar moderately broad, and margined (more broadly above) with white; beneath the wings very dark ashy; and vent and lower tail-coverts white.

The Indian *T. HUMILIS*, (Tem.), is somewhat less affined to the rest, and is very remarkable (among the *COLUMBIDÆ*) for the diverse hue of the sexes.

Having now *five* closely affined and very similar wild species or distinct races of Collared Turtle-dove actually before us, the question arises, to which of them should the common domestic Collared Turtle-dove (so abundantly bred in cages) be referred, if indeed to any one of them? This domestic breed would seem to be of exceedingly remote antiquity, and was probably derived by the

*T. SENEGALENSIS*, (L. : *Col. cambaiensis*, Gmelin ; *C. aegyptiaca* ? Lath. ; *C. maculicollis* ? Wagler). Two specimens from Abyssinia differ from all the Indian we have seen, in having the colours distinctly broken on the scapularies, and more or less on the back ; the scapularies being of a dull

Hebrews from the Egyptians. The breadth of its black semi-collar points to an African rather than to an Indian origin. There can be little doubt that it is the "Turtle-dove" of our English version of the Pentateuch, repeatedly mentioned as the equivalent of a "young Pigeon" for a burnt-offering,—“a pair of Turtle-doves or two young Pigeons,”—and that it was abundantly propagated in cages as at present, and, therefore, always available. That our Indian *T. RISORIUS* is *not* (as currently supposed) the wild type of this domestic breed is indicated, firstly, by its very different voice or *coo*,—secondly, by its larger size, reversing the usual rule with domestic animals, and with the generality of tame Pigeons in particular,—and thirdly (as remarked before), the domestic Collared Turtle-dove has always a much broader black semi-collar than *T. RISORIUS*, in which it accords with the three wild races found in Africa. Of the latter, the Cape species (*T. VINACEUS*), and equally the Malayan (*T. BITORQUATUS*), may at once be set aside, for geographical reasons alone, besides that there are other objections : and of the two that remain, *T. SEMITORQUATUS* agrees best in size, and also in having white lower tail-coverts ; but the tail is more squared, and the feathers composing it are considerably broader, while the black bill seems to be a further objection. Comparison of voice would of course assist the enquiry. To the best of our judgment, not one of the five accords sufficiently ; and the genuine wild type may yet remain to be discovered, in another equally affined wild species, of which there may be several yet undiscriminated. The tame breed is very true to its particular colouring, except when pure white, and the white are often matched with the ordinary blonde or cream-coloured Doves, producing an intermediate or pallid offspring : but the cream-colour has a decided look of domesticity, and is unlikely to have been the original hue. Mr. Selby assures us that “a mixed breed is often obtained between it and the common wild Turtle-dove” of Britain (*T. AURITUS*) ; “but the progeny are invariably *mules* and incapable of further increase,—a fact that has been established by many careful and oft-repeated experiments.” Jardine’s *Nat. Libr., Columbidae*, p. 172. The same experiments might easily be tried with the Indian *T. RISORIUS* ; only in this instance the affinity is undoubtedly closer.

(*P. S.*—Since the above was in type, we have seen the Prince of Canino’s *Coup d’Œil sur les Pigeons*, published in the ‘*Comptes Rendus*’ for 1854-5, and especially his remarks on the Turtle-doves (1845, pp. 15, 16). The particular subgroup of *T. RISORIUS* and its affines is designated by his Highness STREPTOFELIA ; and he refers to it four species from Africa, and five from Asia and its dependencies. The domesticated race is assigned (as currently) to *T. RISORIUS*. To judge from Dr. Rüppell’s figure, however, we should have referred the Abyssinian *T. LUGENS* to

fuscous-brown, with broad ferruginous tips, whereas in the Indian bird the two colours are completely blended, or there is (at most) but a faint indication of the *break*, which must be sought for to be observed. Savigny's coloured figure of the Egyptian bird must either represent a distinct species, or both size and colouring are exceedingly exaggerated.\*

\**CENA CAPENSIS*, (Latham). Abyssinia.

*PTEROCLES EXUSTUS*, (Tem.): female, from Nubia.

\**PT. SENEGALENSIS*, Lath. (*Pt. guttatus*, Licht.) Mas. Ditto.

\**CLAMATOR* (?) *ERKELII*, (Rüppell). Abyssinia.

\**GLAREOLA LIMBATA*, Rüppell. Two specimens. Ditto.

\**LOBIVANELLUS MELANOCEPHALUS*, Rüppell. Ditto.

\**L. SENEGALENSIS*, (L.; *Vanellus lateralis*, A. Smith). Ditto.

*SARCIOPHORUS CORONATUS*, (L.) Nubia.

\* ,, *PILEATUS*, (L.) Ditto.

\* ,, *MELANOPTERUS*, (Rüppell). Abyssinia.

\**METOPIDIUS AFRICANUS*, (L.) Abyssinia.

*PHILOMACHUS PUGNAX*, (L.) Ditto.

*SPHÆOTIDES* (?) *VIGORSII*, A. Smith (*O. scolopacea*, Tem.; *O. ruficrista*, A. Smith, *apud nos.*, *Catal.*) S. Africa.

\**S. MELANOGASTER*, (Rüppell). Female. Abyssinia. Closely affined to the Bengal Floriken (*S. BENGALENSIS*); but shorter in the tarse, with some other distinctions.

*S. AFER*, (Latham). Two specimens. S. Africa.

\**SCOPUS UMBRETTA*, (L.) Abyssinia.†

the group of *Turtures auriti*; and, of this latter group, may remark that *T. RUPICOLA*, (Pallas,) replaces *T. MEENA* in the Simla and Masuri hills. *T. DUSSUMIERI*, (Tem.), "with broad collar, from Malasia and the Philippines," we have never seen from continental Malasia (*i. e.* the Malayan peninsula); where *T. TIGRINUS* abounds, distinct alike from *T. SURATENSIS* and *T. CHINENSIS*. *STR. GAIMARDI*, C. L. Bonap., "with much narrower collar, and much shorter toes," than *STR. DUSSUMIERI*, is described from the Marianne Islands; and the fifth Asiatic species of *STREPTOPELIA* is the Indian *HUMILIS*, so remarkable for the diversity of the sexes.)

\* The Prince of Canino separates the Indian and N. African races.

† Mr. Frith remarks the affinity of this curious genus for *ANASTOMUS*; *vide* especially the young of the latter. We suspect, from the figures we have seen of that extraordinary and gigantic wader from the White Nile, lately described by Mr. Gould as *BALÆNICEPS REX*, that this latter bears much the same relationship to *SCOPUS*, that *CANCROMA* does to *ARDEA* and especially *NYCTICORAX*. *BALÆ-*

\*CICONIA ABDIMII, Licht. (genus *Sphenorhynchus*, Hemprich; *Abdimia*, and the species—*Abd. sphenorhyncha*, C. L. Bonap.) Ditto.

ARDEA PURPUREA, (L.) Two specimens. Ditto.

HERODIAS ASHA, (Sykes; *A. gularis*, Bosc.; *H. pannosa?* Gould). From the Red Sea. We have long suspected the identity of these; and so far as the present specimen enables an opinion to be formed on the subject, our suspicions are confirmed: but it is still desirable to compare adults in breeding livery. (The Prince of Canino admits all three as distinct. *Comptes Rendus*, 1855, p. 720.)

H. BUBULCUS, (Savigny). Sent as *H. Veranii*, (Roux), from Egypt. This is the third specimen which we have received as *H. Veranii*, the others being respectively from Sicily and Algeria. We cannot perceive in them the slightest difference in size, proportions, or colouring, from the common Buff-backed Egret of India and Java; and, therefore, can only regard them as of one species.

NYCTICORAX GRISEUS, (L.) Adult and young (the latter remarkable for the strong rufous tinge on its great alars and caudals); from Abyssinia.

\*FULICA CRISTATA, L. Two specimens. Ditto.

GALLINULA CHLOROPUS, (L.) Ditto.

THALASSEUS BENGALENSIS, (Lesson): *Sterna media* (?), Horsfield; *St. affinis*, Rüppell; *St. Torresii*, Gould; *Sterna*, Jerdon's *Catal.* No. 402). A species widely diffused over the Indian Ocean, from the shores of India and Africa to those of Papua and Australia. Specimen from the Red Sea; exactly resembling another from the Bay of Bengal: while a third, from Singapore, in winter dress (like that originally described by M. Lesson), exhibits the greater development of black upon the primaries noticed by Dr. Pucheran in *Rev. Zool. &c.* 1850, p. 544.\*

STERNA HIRUNDO, L. From the Red Sea. Identical with specimens from Europe and S. India.

\*PLECTROPTERUS GAMBENSIS, (Latham). Abyssinia.

\*DENDROCYGNA VIDUATA apud Rüppell. Young, from Abyssinia. This can hardly be the same species as *D. VIDUATA*, (L., *vera*), from S. Ame-

NICEPS, SCOPUS, and ANASTOMUS are all African forms, the last having also a peculiar Indian species. (The African species heretofore referred to ANASTOMUS—*A. LAMINIGERUS*, Tem.,—is the type of *HIATOR*, Reichenbach.)

\* There can be little doubt also of the identity of *St. velox*, Rüppell, with *TH. CRISTATUS*, (Stephens, nec Swainson, v. *St. pelicanoides*, King); from the Indian Ocean, China, and N. Australia. We have a specimen from the Maldives, and another from the Tenasserim coast.

rica; figured in Griffith's Translation of and Commentary on Cuvier's *Régne Animal*, VIII, 671.

ANAS ERYTHORHYNCHA, (L.) Two specimens. Ditto.

\*A. LEUCOSTIGMA, Rüppell. Ditto.

\*A. RUPPELLI, nobis, *n. s.* Sent as A. PÆCILORHYNCHA, from Central Africa. A smaller bird than A. PÆCILORHYNCHA (*vera*, which was originally described from Ceylon), with closed wing measuring  $9\frac{1}{2}$  in. : beak to forehead  $1\frac{2}{8}$  in. ; and tarse  $1\frac{1}{2}$  in. Colour nearly as in the common Indian bird, but with the head and neck uniformly streaked; whereas A. PÆCILORHYNCHA has the crown and stripe through the eyes dusky, and supercilium and rest of head and neck whitish, with minute dusky specks; wing-speculum much the same; but A. PÆCILORHYNCHA has the entire outer web of the larger tertiaries white, while A. RUPPELLI has only their extreme outer border white. The rump and upper and lower tail-coverts in A. PÆCILORHYNCHA are uniformly dark-coloured, and brightly glossed with green in the male; in A. RUPPELLI they are variegated like the back and belly. Lastly, the bill of the latter is more than proportionally smaller, much less gibbous at base, and differently coloured. In A. PÆCILORHYNCHA the gibbous triangle on either side of the advanced frontal feathers is of a bright orange-colour; the tip of the bill, with the posterior half of the *dertrum*, intense yellow;\* and the rest black: in A. RUPPELLI the bill is chiefly yellow, with merely a portion of its upper surface and the *dertrum* black. The legs also appear to be infuscated, instead of bright coral-red as in the other.

PHALACROCORAX AFRICANUS, (Gm.) Adult, from Abyssinia. M. Malherbe previously favoured us with an example of the young of this species, from Algeria.†

Of reptiles, one species only is sent, PSAMMOSAURUS SCINCUS, (Merrem), *v. griseus*, (Daudin), from Nubia: and

Of fishes, only CHROMIS BOLTI, Cuv., from the Nile.

\* Erroneously coloured red in Hardwicke's figure.

† The following presumed identifications may be here suggested.

DRYMOICA INORNATA, (Sykes, 1832), with DR. MYSTACEA, Rüppell (1835).

DR. GRACILIS, Rüppell (1835), with DR. LEPIDA, nobis (1844).

MELANOCORYPHA BIMACULATA, Menetries, with M. TORQUATA, nobis, *J. A. S.* XVI, 476. (The latter is not a true MELANOCORYPHA, but the type of CALANDRINA, nobis.)

PELICANUS CRISPUS, Bruch, with P. PHILIPPENSIS (*v. roseus et manillensis*), Gmelin: nec P. JAVANICUS, Horsfield, which in India is equally common; while P. ONOCROTALUS (*verus*) is rare.

2. Capt. S. R. Tickell, Maulmein. A collection of bird-skins, from the mountainous interior of the Tenasserim provinces. This collection contains several new species; and among them is the female of apparently an undescribed Hornbill.

*BUCEROS TICKELLI*, nobis, *n. s.* Length 25 or 26 in.; of wing 12 in.; and tail 11 in. Bill  $4\frac{1}{2}$  in. from forehead, and 2 in. in greatest vertical depth, at  $\frac{1}{4}$  of its length from base; the basal half of the upper mandible gibbous, or pinched up (as it were) into a sharp keel, which descends more abruptly upon the forehead (where concealed by the erect frontal feathers), and slopes evenly forwards till it disappears, at about  $\frac{2}{3}$  of the length of the bill from base. Occipital crest ample; the feathers open-webbed, and with those of the crown fuscous-brown with narrow pale mesial line to each: upper-parts uniform dark fuscous-brown, with a slight gloss of green; the middle pair of tail-feathers coloured like the back, but the rest much darker, or glossy green-black,—as are likewise the primaries and secondaries, which are more or less margined with brown (nearly as in *B. GALERITUS*): some pale feathers at base of the winglet; and the 3rd to the 7th primaries (inclusive) have their outer web emarginated successively further from the base, the commencement of the emarginated portion of each being somewhat broadly edged with fulvous-white: primaries and rectrices tipped with dull white, more or less speckled with dusky: the entire under-parts dull rusty-isabelline, except the feathers at the base of the lower mandible, which are coloured like those of the crown: in texture the feathers of the lower-parts are loose and open-webbed, especially on the throat and front of neck. Bill intermixed dusky and yellowish-white, passing to yellow on the imperfectly developed casque.

This conspicuously distinct species from any other Hornbill which we have seen, was found by Capt. Tickell “confined to the great hills (the continuation of the Himalaya and Yo-ma-tsung) which run N. and S. through the Tenasserim provinces, and form the back-bone of the Malayan peninsula. They are wild and wary, and keep to the summits of such colossal trees that it is no wonder Mr. Barbe and other collectors in this country never procured a specimen. I believe, however, that no European has ever been into those jungles besides myself. This Hornbill and *B. PUSARAN* have a steady even flight. All the others I have seen, viz. *CAVATUS*, *ALBIROSTRIS*, *NIPALENSIS*, *PICA*, and *BIROSTRIS*, proceed with those singular flappings and sailings, so peculiar to this genus: and it is strange that these two species should offer so marked a distinction.”\*

\* Capt. Tickell has subsequently forwarded a more elaborate description of this Hornbill, for publication in the Society’s Journal.

*PARUS SUBVIRIDIS*, Tickell, *n. s.* Affined to *P. XANTHOGENIS* and *P. SPILONOTUS*; but the whole of the under-parts dull yellowish-green without a trace of black, passing to ashy on the vent and lower tail-coverts: back much the same, but darker, with the feathers centred yellower, imparting a mottled appearance: crown and nape black, a few of the posterior long crest-feathers tipped with yellow: feathers at base of bill, the lores, cheeks and sides of neck, supercilia, and mesial nape-streak, bright yellow: wings and tail dull black, the great alars and caudals margined with ashy, and two or three of the primaries with whitish; a conspicuous white patch also at the base of the primaries; and the tertiaries are tipped on the outer web with an elongate whitish spot, this hue also extending up the inner web of the smallest tertiary: the smallest wing-coverts are tipped with ashy, and the first great range of wing-coverts with white upon both webs, the second range upon the outer web only; forming two cross-bands on the wing: the anterior half of the wing is white underneath, but the axillaries are light yellow: the outermost tail-feather has its exterior web dull white, and a spot of the same tipping the inner web; this spot being successively smaller on the penultimate and ante-penultimate tail-feathers: bill black; and legs plumbeous. Length about  $4\frac{3}{4}$  in.; of wing  $2\frac{3}{4}$  in.; and tail 2 in.: longest crest-feathers  $\frac{5}{8}$  in.

“Shot at an elevation of 3,500 ft. The *PARI* are very uncommon in the Tenasserim forests. In fact,” remarks Capt. Tickell, “this is the only one I have seen.”

*PTERUTHIUS ERALATUS*, Tickell, *n. s.* Quite similar to *PT. ERYTHROPTERUS* of the Himalaya, excepting that the latter has constantly the tertiaries wholly ferruginous in both sexes. In the Tenasserim bird, the female has the tertiaries greenish golden-yellow, like the secondaries, with merely a tinge of ferruginous upon the shaft and on the inner web only of each; and the male differs from that of the Himalayan bird by having nearly the whole outer webs of the tertiaries bright golden-yellow, the smallest having also a black tip and inner edge, the next a black tip to the outer web only, the third and longest an oblique and elongated black tip to the outer web only, and the feather succeeding this (or last of the secondaries) has also a mark  $\frac{7}{8}$  in. long on its outer web of mingled ferruginous and golden-yellow. We also cannot perceive, in the male sent by Capt. Tickell, any trace of the carneous tinge, seen particularly on the flanks posteriorly of *PT. ERYTHROPTERUS*; and the female has the under-parts, with the exception of the white throat only, much more fulvescent than the under-parts of the female *PT. ERYTHROPTERUS*. The two species or races indeed manifest much the same relation-



ship to each other, as do *SERILOPHUS LUNATUS* (Gould), of Burma, and *S. RUBROPYGIUS*, (Hodgson), of the S. E. Himalaya. The Tenasserim *PTERUTHIUS* was "found at an elevation of 3,500 to 4,500 ft."

*GARRULAX STREPITANS*, Tickell, *n. s.* One of the *G. BELANGERI* and *G. LEUCOLOPHOS* series. Crown and occiput rich tawny-brown; the nareal plumes, lores, cheeks and chin, blackish, passing into dull tawny-brown on the throat and front of the neck, and to a more ferruginous brown on the ear-coverts posteriorly: a large patch of white on the sides of the neck, pure and strongly contrasting with the dark crown and ear-coverts, but shading off gradually to ashy on the middle of the nape, the back, and sides of the breast: the ashy of the back shades off to greenish olive-brown on the rump, wings, and flanks, also on the vent, lower tail-coverts, and tibial plumes; passing on to blackish on the tail: breast and middle of the belly ashy, the pectoral feathers tawny-brown anteriorly. Bill and feet black. Length about 11 in.; of wing  $4\frac{1}{4}$  in.; and tail 5 in., its outermost feather 1 in. shorter: bill to forehead  $1\frac{1}{3}$  in.; and tarse  $1\frac{1}{2}$  in.

"Common from 3,000 to 5,000 ft., and pre-eminently noisy."

*G. MELANOSTIGMA*, nobis, *n. s.* Affined to *G. ERYTHROCEPHALUS* and *G. RUFICAPILLUS*. Entire crown very bright rufo-ferruginous, contracting along the occiput: small frontal plumes, lores, and chin, black: sin-cipita and cheeks ashy, with black mesial streaks, more developed on the ear-coverts: general hue greenish olive-brown, having a tawny tinge on the nape, sides of neck, breast and middle of the belly, the breast being paler: throat and front of the neck rufo-ferruginous, shading into the duller hue of the breast: wings and tail bright greenish golden-yellow; the coverts of the primaries deep black, forming a conspicuous patch, and the next range of coverts bright ferruginous inclining to cinnamon-colour: secondaries and tertiaries conspicuously tipped with blackish. Bill black; and legs brown. Length about  $10\frac{1}{2}$  in.; of wing  $4\frac{1}{3}$  in.; and tail  $4\frac{1}{2}$  in., its outermost feathers  $1\frac{1}{4}$  in. shorter: bill to forehead 1 in. or nearly so; and tarse  $1\frac{1}{2}$  in.

"Common, and found with the last; but ranging higher still, up to the vast wall-like crags of Moolé-it; 7,500 ft. Sexes alike."\*

\* The extraordinary development of this genus demands a new *Conspectus* of the species, for which the Society's museum affords better materials than perhaps any other. We have vainly tried to arrange them satisfactorily into minor groups; and cannot follow Mr. G. R. Gray in adopting the three headings of *GARRULAX*, *TROCHALOPTERON*, and *PTEROCYCLOS* (the last pre-occupied in Malacology). The species not in the Society's museum are here distinguished by an asterisk.

TURDINUS CRISPIFRONS, nobis, n. s. Very like T. MACRODACTYLUS (*Malacopteron macrodactylum*, Strickland, v. *Brachypteryx albugularis*,

1. G. BELANGERI, Lesson, *Zoologie du Voyage de M. Belanger*, p. 258, with coloured figure: *Ianthocincla leucolophos?* var., apud nos, *J. A. S. X*, 924. Common in Pegu and the Tenasserim provinces.

2. G. LEUCOLOPHOS; *Corvus leucolophos*, Hardwicke (Gould's 'Century,' pl. 18). Himalaya; Asám; Khásya hills; Arakan.

\*3. G. PERSPICILLATUS; *Turdus perspicillatus*, Gmelin; Shaw's 'Zoology,' X, 325; *le Merle de la Chine*, Buffon. China.

\*4. G. BICOLOR, Müller; *Rev. Zool. &c.*, 1844, p. 402. Nearly affined to the three preceding species. From the west of Sumatra.

\*5. G. MITRATUS, Müller. Of this we have seen no description.

6. G. STREPITANS, Tickell, *ut supra*.

\*7. G. CINEREIFRONS, Kelaart, nobis, *J. A. S. XX*, 176. Mountains of Ceylon.

\*8. G. DELESSERTI; *Crateropus Delesserti*, Jerdon, *Madr. Journ. X*, 256 (*Ill. Ind. Orn.*, pl. 13): *Cr. griseiceps*, Delessert. Nilgiris.

9. G. CHINENSIS; *Lanius chinensis*, Scopoli: *Corvus auritus*, Gmelin: *Turdus shanho* et *T. melanopsis*, Gmelin; *Crateropus leucogenys*, nobis, *J. A. S. XI*, 180. China; and also Tenasserim provinces (Ye): *vide J. A. S. XXIII*, 732. Remarkable for the rigidity of its frontal plumes.

10. G. CÆRULATUS; *Cinclosoma cærulatum*, Hodgson, *As. Res. XIX*, 147. S. E. Himalaya.

11. G. RUFICOLLIS; *Ianthocincla ruficollis*, Jardine and Selby (*Ill. Orn.* 2nd series, pl. 21): *I. lunaris*, McClelland and Horsfield. S. E. Himalaya; Asám; Sylhet; Tippera.

\*12. G. RUFIFRONS; *Crateropus rufifrons*, Swainson, 2¼ *Centen.* p. 290: *G. rubrifrons*, Lesson. Java.

13. G. ALBOGULARIS; *Ianthocincla albugularis*, Gould, *P. Z. S.* 1831, p. 187: *Cinclosoma albigula*, Hodgson, *As. Res. XIX*, 146. Himalaya; Khásya hills.

\*14. G. GULARIS; *Ianthocincla gularis*, McClelland and Horsfield, *P. Z. S.* 1839, p. 159. Asám.

\*15. G. MCCLELLANDII, nobis, *J. A. S. XII*, 949: *Ianthocincla pectoralis* apud McClelland and Horsfield, *P. Z. S.* 1839, p. 160. Asám. (Qu. G. MONILIGER, No. 17?)

16. G. PECTORALIS; *Ianthocincla pectoralis*, Gould, *P. Z. S.* 1835, p. 186: *Cinclosoma grisaure*, Hodgson, *As. Res. XIX*, 146: *G. melanotis*, nobis, *J. A. S. XII*, 149 (var.) Himalaya; Arakan; Tenasserim provinces.

17. G. MONILIGER; *Cinclosoma moniliger*, Hodgson, *As. Res. XIX*, 147. S. E. Himalaya; Asám; Tippera; Arakan; Tenasserim provinces.

18. G. MERULINUS, nobis, *J. A. S. XX*, 521. Khásya hills.

Hartlaub), of the Malayan peninsula (described *J. A. S.* XIII, 382); but smaller and non-rufous, with longer, softer, and more graduated tail, and

19. *G. OCELLATUS*; *Cinclosoma ocellatum*, Vigors, *P. Z. S.* 1831, p. 55. (Gould's Century, pl. 15). Himalaya.

20. *G. RUFUGULARIS*; *Ianthocincla rufogularis*, Gould, *P. Z. S.* 1835, p. 48: *Cinclosoma rufimenta*, Hodgson, *As. Res.* XIX, 148. Himalaya; Khásya hills; Tippera.

21. *G. SQUAMATUS*; *Ianthocincla squamata*, Gould, *P. Z. S.* 1835, p. 47: *Cinclosoma melanura*, Hodgson, *As. Res.* XIX, 147. (Jardine and Selby, *Ill. Orn.*, 2nd series, pl. 4). S. E. Himalaya; Khásya hills.

22. *G. SUBUNICOLOR*, Hodgson, *J. A. S.* XII, 952, XIV, 599. S. E. Himalaya.

23. *G. AFFINIS*, Hodgson, *J. A. S.* XII, 950. Nepal.

24. *G. VARIEGATUS*; *Cinclosoma variegatum*, Vigors, *P. Z. S.* 1831, p. 55: *G. Abeillei*, Lesson. (Gould's 'Century,' pl. 16). N. E. Himalaya.

25. *G. CHRYSOPTERUS*; *Ianthocincla chrysoptera*, Gould, *P. Z. S.* 1835, p. 48. S. E. Himalaya.

26. *G. ERYTHROCEPHALUS*; *Cinclosoma erythrocephalum*, Vigors, *P. Z. S.* 1831, p. 171. (Gould's 'Century,' pl. XVII.) N. W. Himalaya; Nepal (*nec* Sikim).

27. *G. RUFICAPILLUS*, nobis, *J. A. S.* XX, 521. Khásya hills.

28. *G. MELANOSTIGMA*, nobis, *ut supra*. Tenasserim provinces.

29. *G. PHÆNICEUS*; *Ianthocincla phænicea*, Gould (*Icones Avium*): *Crateropus puniceus*, nobis, *J. A. S.* XI, 180. S. E. Himalaya; Khásya hills.

30. *G. (?) CACHINNANS*; *Crateropus cachinnans*, Jerdon, *Madr. Journ.* X, 255 (et pl. 7): *Cr. Lafresnayei*, Ad. Delessert; *Cr. Delesserti*, La Fresnaye (*nec* DELESSERTI, Jerdon). Nilgiris.

31. *G. (?) JERDONI*, nobis, *J. A. S.* XX, 522. Nilgiris.

32. *G. (?) LINEATUS*; *Cinclosoma lineatum*, Vigors, *P. Z. S.* 1831, p. 55: *Cinclosoma setaferum*, Hodgson, *As. Res.* XIX, 148; *C. striatum* (?), Royle's list. Himalaya generally; Alpine Punjab.

33. *G. (?) IMBRICATUS*, nobis, *J. A. S.* XII, 951. Butan.

*N. B.*—*G. Feliciae*, Lesson, = *LEIOTHRIX STRIGULA* (Hodgson), v. *Muscicapa variegata*, Ad. Delessert, and *Leiothrix chrysocephala*, Jameson.

The last two species approximate the division *ACTINODURA*, Gould; to which are referred—

1. *A. EGERTONI*, Gould, *P. Z. S.* 1836, p. 18: *Leiocincla plumosa*, nobis, *J. A. S.* XII, 950. (Figured in Gould's 'Birds of Asia.')

S. E. Himalaya; Asám: Khásya hills. And

2. *A. NIPALENSIS*; *Cinclosoma nipalense*, Hodgson, *As. Res.* XIX, 145. (Also figured in Gould's 'Birds of Asia.')

S. E. Himalaya. Then follows—

erect, short and stiff frontal plumes, which are much less developed in the other species: the rictal bristles are also much slighter. Length

\*LEIOPTILA ANNECTANS, nobis, *J. A. S.* XVI, 450. Sikim. And, lastly, the genus SIBIA, Hodgson, comprising—

1. S. PICOIDES, Hodgson, *J. A. S.* VIII, 38: *Heterophasia cuculopsis*, nobis, *J. A. S.* XI, 187. S. E. Himalaya.

2. S. GRACILIS; *Hypsipetes gracilis*, McClelland and Horsfield, *P. Z. S.* 1839, p. 159; *J. A. S.* XVI, 149, XX, 521. Asám; Khásya hills.

3. S. CAPISTRATA; *Cinclosoma capistratum*, Vigors, *P. Z. S.* 1831, p. 85: *C. melanocephalum* (?), Royle's list: *S. nigriceps*, Hodgson, *J. A. S.* VIII, 38. Himalaya generally.

It is very remarkable that no species of this group has hitherto been noticed from the Malayan peninsula; and two or three only, as yet, in the great islands: but Capt. Tickell's recent discovery of two new species in the mountainous interior of the Tenasserim provinces renders it likely that others will yet be met with further south, when the loftier regions of the interior come to be explored. A recent author observes, that "although Malacca birds are among the very commonest in European collections, I am not aware that the country has been visited by any ornithologist. \* \* \* There are two Portuguese resident in Malacca, whose sole business is procuring and selling the skins of mammalia and birds. They have numbers of the Malays of the interior in their employ, whom they furnish with ammunition, arseniated soap, &c. All the birds are skinned and put up by these Malays, who are paid a small sum per skin. The greater part of the birds thus come from one or two localities only, where, as this collecting has been going on for years, there can hardly be a new bird to be found." *Ann. Mag. N. H.*, Feb. 1855. Yet this author (Mr. A. R. Wallace) mentions certain species as having been procured by himself, during his nine weeks stay at Malacca, which we have never seen in collections from that neighbourhood, that had been purchased of the dealers referred to; and other species as being there common, which we have rarely seen in such collections (NECTARINIA HYPOGRAMMICA for example). It is very evident that the more dull-coloured species, and also those which are particularly abundant about the station (unless of remarkably shewy plumage), are neglected. ALCEDO BERYLLINA, Vieillot (v. *A. biru*, Horsfield), is stated to occur there, and Helfer mentions it as an inhabitant of the Tenasserim provinces; but we have seen it from neither portion of that range of country, though likely enough to occur; and, of restricted ALCEDO, only *A. EURYZONA*, Tem., *A. MENINGTING*, Horsf., and *A. BENGALENSIS*, Gmelin (the common Indian bird). Mr. Wallace's HALCYON GULARIS is probably the Indian *H. SMYRNENSIS*, which abounds in the Malayan peninsula, and accords precisely with the late Mr. Strickland's description of a Smyrna specimen! A Woodpecker is mentioned as "like HEMICERCUS CONCRETUS, but with head and crest of the same colour as the body."

about  $7\frac{1}{2}$  in.; of wing 3 to  $3\frac{1}{4}$  in.; and tail 3 to  $3\frac{1}{4}$  in.; its outermost feather  $\frac{3}{4}$  in. shorter: bill to gape 1 in.; and tarse the same. Colour deep non-rufous olive-brown, the feathers of the head, neck, and back, pale-shafted, and margined with black; a pure white speck at the tip of the smallest tertiary, and sometimes to that of the next, and probably of more: throat pure white, marked with dark olive, but differently from that of *T. MACRODACTYLUS*; in the latter species the feathers surrounding the throat are more or less broadly black-tipped; but in *T. CRISPIFRONS* they are black medially, with white outer edge and extreme tip, and the dark markings are less abruptly defined and do not surround and circumscribe the throat as in the other species: lower-parts tinged with ashy, mingled with whitish along the middle. Bill dusky, pale underneath and at tip; and legs dark olive-brown. "Not uncommon, but very local, and confined entirely to deep thickets amongst rocks."

*T. BREVICAUDATUS*, nobis, *n. s.* A third and more aberrant species, remarkable for its short tail, in which respect the Malayan *T. MACRODACTYLUS*, (Strickland), is intermediate to this and the preceding species. Size comparatively small. Length about  $5\frac{1}{2}$  in., of which tail  $1\frac{5}{8}$  in.; its outermost feather  $\frac{3}{8}$  in. shorter than the medial: closed wing  $2\frac{1}{2}$  in.; more rounded than in the two other species, having the sixth to the tenth primaries sub-equal and longest: bill to gape  $\frac{1}{10}$  in.: tarse  $\frac{7}{8}$  in. Colour of the upper-parts much as in the preceding species, but somewhat more rufescent, and the feathers still softer and less elongated; of a rich olive-brown, black-bordered, and paler towards shaft; at forehead inclining to ashy, and scarcely stiffened: plumage over the rump discomposed, and excessively dense and copious: throat mingled dusky and whitish; and rest of the lower-parts weak ferruginous, deepest on middle of belly, vent

Can this be the adult female of *H. CONCRETUS*, which has the head and crest plain ashy? Whereas the young female has these parts fulvous, and the young male has the crown fulvous and the lengthened occipital crest dull crimson; the adult male having a crimson crown and ashy crest! The beautiful *MACROPTERYX COMATUS* is a novelty, as inhabiting the Malayan peninsula: also *PERICROCOTUS MINIATUS*, Tem. (if rightly identified,—we have seen the Indian *PER. SPECIOSUS* from Pinang!); "*IXOS ANALIS*, Horsf." is probably *PYCNONOTUS CROCORRHUS*, Strickland. Mr. Wallace's *MUSCIPETA PARADISEA* is doubtless our *TCHITREA AFFINIS*, which it quite distinct from *TCH. PARADISI (vera)* of India: and his *PHYLLORNIS ICTEROCEPHALUS*, Tem., is doubtless *PH. COCHINCHINENSIS*, Lath., *apud nos*.—*Buceros nigrirostris*, nobis, proves (from this gentleman's observation) to be the female of *B. MALAYANUS*, Raffles (*v. anthracinus*, Tem.); of which Dr. S. Muller considered it to be a permanent variety.

and lower tail-coverts: a series of whitish terminal specks on the great range of wing-coverts, and others tipping the secondaries and tertiaries. Bill dusky above, pale below; and legs pale, with whitish claws.

These birds belong to a group which is pre-eminently difficult of classification, *viz.* the great *TIMALIA* series, which attains its maximum of development in the Malayan peninsula. As a genus or sub-genus, it is barely separable from *TRICHASTOMA*, nobis, and this again from *MALACOPTERON*, *ALCIPPE*, nobis (exemplified by *BRACHYPTERYX SEPIARIA*, Horsfield, and numerous other species affined to it). *TURDINUS* is distinguished by its robust form and especially by its peculiarly mottled plumage, the feathers being mostly pale-shafted and black-edged. It is not distantly affined to *PELLOERNIUM*.\*

*POMATORHINUS HYPOLEUCOS*, nobis, *var.?* (*J. A. S.* XIII, 371; XIV, 59). Specimen remarkable for having narrow white mesial streaks to the feathers of the nape, chiefly towards the sides of the nape, which we can perceive no trace of in Arakan specimens; and similar well defined but wider streaks on the dark ash-coloured sides of the breast, which are little more than indicated in the Arakan specimens under examination. Bill to gape 2 in. Perhaps a distinct variety, more probably merely a particularly fine adult, of *P. HYPOLEUCOS*.†

\* In a preceding note, we cited a paper on Malacca birds, by Mr. A. R. Wallace. The species which he remarked to be most abundant, were the different Bulbuls, "and the various strong-legged birds forming the genera *TIMALIA*, *MALACRONOUS*, &c. These latter birds are found to be abundant both in species and individuals, when carefully searched for on the sides of roads and other places where there is a thick low jungle; while the former are found on every fruit-tree and about the Malay villages. Their affinities are most interesting and puzzling. I have eight species of birds," he adds, "all of an obscure dusky-olive plumage and nearly of the same size, which can only be distinguished by minute differences in the bill, or obscure markings in various parts of the plumage. They appear to belong to the genus *TRICHASTOMA*, Blyth; and are mostly fruit-eating birds, though they also feed freely on insects." Yet, although so common, we can rarely glean a specimen from the Malacca collections got up by the Portuguese dealers, which consist of the same ever recurring gaudy-coloured skins, *usque ad nauseam*. It may be inferred that a large proportion of the *TIMALIA* and *MALACOPTERON* series yet remain to be described.

† With reference to this species, Capt. Tickell writes—"I must beg to demur about its being classed in *POMATORHINUS*. Examine narrowly the bill, which will be found softer in texture (this, however, in a dry skin cannot be well perceived), and sub-cylindrical; whereas *POMATORHINUS* has the bill exceedingly

\* Bull. he was so classed in  
Sill. 1855. p. 113.

*P. ALBOGULARIS*, nobis, *n. s.* Though most closely affined to *P. PHAYREI*, nobis (*J. A. S. XVI*, 452), of the Arakan and Khásya hills, we consider this to be evidently a distinct race. It is a larger bird than *P. PHAYREI*, with the upper-parts of a finer and richer tawny hue, especially on the crown, and the lower-parts of a much fainter rufous; the white upon the throat is more extended, and passes gradually into the rufescent hue of the breast; the feathers at the base of the lower mandible are pure white, whereas in *P. PHAYREI* the upper half of them are black; there is also much more white on the upper-part of the loreal region, and the supercilia are broader and purer white. Length of wing  $3\frac{7}{8}$  in.; of middle tail-feathers  $4\frac{1}{2}$  in.; and of bill to gape  $1\frac{1}{4}$  in. Specimen male.

(Of three closely affined species of this genus, *P. RUBIGINOSUS*, nobis, of Sikim, is distinguished by its black crown, and the deep rufo-ferruginous colour of its breast and long pointed loreal feathers; the hue of the upper-parts is also more rufescent than in the others: *P. PHAYREI*, nobis, of the Khásya and Arakan hills, has the crown of the same tawnyish olive-brown as the back, and the lower-parts are of a much weaker rufo-ferruginous than in *P. RUBIGINOSUS*; the loreal feathers are short, and the white supercilium is narrower than in the others and of the same breadth throughout: *P. ALBOGULARIS* has the lower-parts merely tinged with rufo-ferruginous; but the upper-parts are of rather a bright tawny-brown, and a supercilium commences from a large triangular white loreal patch, which is conspicuously bordered above with black. All have the cheeks and sides of the neck black; and the bill bright coral-red, which soon fades in the stuffed specimen, it being perhaps of a yellower coral-red in *P. PHAYREI*).

Both *P. HYPOLEUCOS* (var.?) and *P. ALBOGULARIS* were procured by Capt. Tickell at the base of Moolé-it, at an altitude of 5 to 6,000 ft.\*

compressed and hard. Then the shape of the head with its flat sinciput, and the fan-like broad tail."—Should it be deemed advisable to detach *P. HYPOLEUCOS* from *POMATORHINUS*, a second and rather less typical species exists in *P. ERYTHROGENIS* of the Himalaya; and the Australian type, with very differently shaped wing, is still more distinct and separable.

\* Of this genus, also, no species appears as yet to have been described from the Malayan peninsula; though there can be little doubt of its occurrence in the more elevated interior. In the islands, we know only of *P. MONTANUS*, Horsfield, in Java, *P. BORNENSIS*, Cabanis, in Borneo, and *P. ISIDOREI*, Lesson, in New Guinea; all of which belong to the Indian type as distinguished from the Australian type of *POMATORHINUS*, which latter constitutes the *POMATOSTOMUS*, Cabanis, *hodiè*.

*PHYLLOSCOPUS VIRIDIPENNIS*, nobis, *n. s.* A fourth species of the *Reguloides* subgroup (*J. A. S. XXIII*, 487), and most nearly resembling *PH. CHLORONOTUS*; but readily distinguished from that species by having the rump uniformly coloured with the back, also by having a longer and differently coloured bill, and legs of much darker hue. From *PH. PROREGULUS* (*Regulus modestus*, Gould), it is distinguished by its inferior size and much brighter colouring; the mesial coronal streak being as much developed as in *PH. CHLORONOTUS*, and of a purer yellowish-white contrasting with a blacker shade of dusky: edge of wing considerably brighter yellow than in the others; the wing-band and also the tibial plumes tolerably bright yellow, the latter constituting another good distinction: but a further and more conspicuous distinction consists in the wing beyond its coverts being uniformly green, without a trace of the *REGULUS*-like variegation seen in *PH. PROREGULUS*, and less conspicuously in *PH. CHLORONOTUS*: there is no dusky patch posterior to the coverts, nor whitish tip or border to any of the great alars; but the secondaries are broadly margined with tolerably bright green, and the tertiaries are merely of a duller green throughout, brightening on their outer edge, and are not dusky and contrasting (as in the other species). In brief, *PH. VIRIDIPENNIS* may be described to have the upper-parts vivid olive-green, brightest on the margins of the wing and tail feathers: lower-parts albescent tinged with yellow: crown dusky mixed with green, with bright yellowish-white supercilia and coronal streak continued over the occiput, the supercilia more yellowish anteriorly: a broad pale yellow wing-band formed by the tips of the great coverts of the secondaries; and the smaller range of wing-coverts slightly tipped with yellowish: tibial plumes bright yellowish: the margin of the wing pure canary-yellow: upper mandible wanting in the specimen, but the lower is wholly yellow. Legs infuscated-brownish. Length about 4 in., of which tail  $1\frac{5}{8}$  in.: wing 2 in.; having the short first primary  $\frac{9}{16}$  in., the second  $\frac{3}{4}$  in. longer than the first, and  $\frac{3}{8}$  in. shorter than the longest primaries. Bill to gape  $\frac{1}{2}$  in.; and tarse  $\frac{5}{8}$  in.

*HYPISIPETES TICKELLI*, nobis, *n. s.* Very like *H. MACLELLANDII*, Horsfield; but devoid of rufous tinge on the breast and lower-parts, which are uniformly coloured with the throat, and the throat-feathers are less elongated and pointed than in the other: axillaries bright yellow; and much of the under surface of the wing pale sullied yellow: lower tail-coverts dull yellow: upper-parts dull olive-green, slightly washed with rufous on the back; the wings and tail brightish golden-green, much less rufescent than in *H. MACLELLANDII*: crown dingy rufous-brown, the



feathers pale-shafted and pointed, but less elongated than in the other: ear-coverts dull greyish; and a very faint tinge of ferruginous on the sides of the neck. Bill dusky; and legs pale brown. Bill to gape  $1\frac{1}{2}$  in.; the latter defended by strong *vibrissæ*: closed wing 4 in.: tail the same: tarse  $\frac{5}{8}$  in.

ARBORICOLA BRUNNEOPECTUS, Tickell, *n. s.* On a former occasion, *J. A. S.* XVIII, 819, we distinguished three species of the Green or Hill Partridges of Anglo-Indian sportsmen,—viz. *A. TORQUEOLA* (*Perdix torqueola*, Valenciennes; *P. megapodia*, Temminck; v. *P. olivacea*, Gray); which appears to be the only species found in the Simla and Masuri hills, and in Sikim inhabits at a greater elevation than the next:—*A. RUFOGULARIS*, nobis, common in Sikim, and which Capt. Tickell has now sent from the Tenasserim mountains; and *A. ATROGULARIS*, nobis, which is common in the mountains of Asám, Sylhet, if not also those of Arakan. We have since seen many dozens of living examples of the last from Sylhet, and remarked that there is no apparent sexual diversity, and but slight individual variation; and this we now suspect to be also the case with the second species, the supposed females referred to which formerly we now suspect were that sex of *A. TORQUEOLA*. Capt. Tickell now sends a specimen of a fourth, found together with *A. RUFOGULARIS* at an elevation of from 3000 to 5000 ft. “They are tame and easily shot as they run along the ground.” In *A. RUFOGULARIS*, both sexes appear to have the chin and throat deep ferruginous, the former speckled with black, the latter with an inferior black border more or less developed: breast dark ashy, tolerably pure, and passing to white on the middle of the belly: flanks varied with ferruginous on the sides of the feathers, which have an elongated medial white spot, less developed than in the males of *A. TORQUEOLA*: back plain, or with but the faintest possible indication of terminal dusky margins to the feathers (which must be looked for to be observed at all): the scapularies with large black spots, and scarcely any trace of white medial lines; and the crown brown, often black-spotted, and passing to ashy on the forehead.—*A. ATROGULARIS* has a very broad white moustachial streak; and the throat black, passing into white below, the latter ill defined and spotted with black, the spots gradually disappearing on the pure ashy breast: no trace of ferruginous on the flanks, which have small narrow white spots, often obsolete or nearly so: crown brown, more or less black-spotted, and passing to ashy on the forehead; and the back conspicuously barred with black, two or three narrow transverse bands upon each feather: scapularies with black spots more or less developed, but with no white mesial streaks, and little trace of rufous or ferruginous.

—A. BRUNNEOPECTUS has the breast and flanks tawnyish-brown instead of ashy, with no admixture of ferruginous on the latter, which are spotted quite differently from those of any of the other species; each feather having a large rounded white spot, broad black terminal border, and another spot of black above the white: throat fulvous-white, passing to black in front of the neck, but no white below this as in A. ATROGULARIS, nor do the black spots descend visibly upon the breast, though on turning up the feathers, a rudiment appears upon each of the black and white markings which become so developed on the flanks: crown brown, black-spotted, and passing to whitish-brown on sides of forehead: back and scapularies scarcely differing from those of A. ATROGULARIS. Beak (of specimen examined) conspicuously larger than in the others.

A. INTERMEDIA, nobis, *n. s.* We believe this to constitute a fifth species, *probably* from Arakan. It has a black throat, succeeded by a great palish ferruginous patch which nearly surrounds the neck, and is in front spotless, but has large round black spots on the sides of the neck: rest of the plumage nearly as in A. RUFOGULARIS, but the general colour paler.

The other species sent by Capt. Tickell are ATHENE CUCULOIDES, MEGALAIMA FRANKLINII, HEMICERCUS CANENTE, CHRYSOCOLAPTES SULTANEUS, GECINUS CHLOROLOPHUS, PHENICOPHAUS CURVIROSTRIS, HARPACTES ERYTHROCEPHALUS, LYNCORNIS CERVINICEPS, PSILORHINUS SINENSIS (var.), ALCIPE NIPALENSIS, STACHYRIS NIGRIFRONS, TEPHRODORNIS PELVICA, TURDUS RUFULUS,\* PRATINCOLA INDICA, CYORNIS RUBECULOIDES, CORYDON SUMATRANUS, EURYLAIMUS JAVANICUS, SERILOPHUS LUNATUS, PSARISOMUS DALHOUSIÆ, PERICROCOTUS——?, † CAMPEPHAGA FIMBRIATA, HIRUNDO URBICA (!), ‡ TCHITREA AFFINIS, CRINIGER FLAVEOLUS, IOLE VIRESCENS, HEMIXOS FLAVALA, PHYLLORNIS HARDWICKII, PH. AURIFRONS, and PH. SONNERATII.

Of the Owl, he remarks—“If this be true CUCULOIDES, there is a species in the Sikim hills hitherto unnamed; but which I used to suppose

\* T. RUFULUS, Drapiez; *T. modestus*, Eyton: Qu. T. JAVANICUS (?), Horsfield; *T. concolor* (?), Temminck.

† Capt. Tickell insists that the specimen sent is the female of P. BREVIROSTRIS: to us it appears rather that of P. SOLARIS, nobis; having a pale throat and dark forehead.

‡ Capt. Tickell writes—“There are great numbers of these here” (at Maulmein) “in the season; and I have also seen large flocks of them in India, but they appear from time to time, not constantly as does H. RUSTICA.”

was CUCULOIDES. It is coloured almost exactly like A. BRODIEI, from which it differs in its much larger size. The bird I now send is the Tenasserim substitute for my A. RADIATA, which it almost exactly resembles in note and habits: being diurnal and crepuscular; whereas A. BRODIEI and the other above alluded to are strictly nocturnal, and have a very different note."—We can detect no difference between this and other Tenasserim specimens, and others from the Himalaya, and one from Chusan; and have repeatedly received examples from Asám, Sylhet, and Arakan.

"The Barbet," continues Capt. Tickell, "I have shot at Darjiling, where it is not common.\* But in the Tenasserim mountains it swarms from 3,000 to 5,000 ft. elevation, not higher, nor lower,—and from the first level it suddenly and entirely supplants M. LINEATA, the *Pokoung* of the Burmese. As long as day lasts, the woods amongst the Dauna hills resound with its cry—*piow, piow, piow*, &c. &c. There is another Barbet, smaller and resembling apparently the M. INDICA, which is also pretty common, from 1,000 to 3,500 ft.; but it settles *solely* on the summits of the hugest trees, calling out *tapral, tapral, tapral*, by the hour together; and I have found it impossible to procure with the gun: so small an object at such a vast height cannot be hit.† Mr. Parish, our chaplain, was with me on one of my excursions, and measured the trunk of one of these giants of the forest which had fallen across a little brook. The smooth bole, before a single limb branched out, was 130 ft. long."

The PHENICOPHAUS CURVIROSTRIS and PHYLLORNIS SONNERATI have heretofore been only known as Malasian species. The former was observed by Capt. Tickell "on low jungly hills,—very like PH. TRISTIS in habits: scarce: a pair shot were both precisely similar, except in colour of iris; the male having that cobalt blue, and the female orange. Food *Coleoptera*, *Hemiptera*, and very large caterpillars.

"HARPACTES ERYTHROCEPHALUS was common in the hills from 3,000 ft. upwards. Below that it is replaced by H. ORESKIOS. It flies in small troops, and is active and vociferous in the morning, solitary and quiet during the heat of the day, sitting in the shade. It appears larger and brighter than in Nepal and Sikim." The specimens sent are certainly brighter than, but do not exceed in dimensions, others from Darjiling, Sylhet, &c.

\* Mr. Hodgson procured it in Nepal; and we have received it from the Khásya hills, and from those of Arakan.—*Cur. As. Soc.*

† Probably M. TRIMACULATA (var. *cyanotis*). *Cur. As. Soc.*

The *PSILORHINUS SINENSIS*, (L.), var., is of the same race which we formerly termed *Ps. magnirostris* in *J. A. S.* XV, 27; the great size of the bill proving merely to be an individual peculiarity; but the colouring is considerably finer and more intense than in Himalayan specimens, which latter (as we are assured) are perfectly similar to examples from China.

The *ALCIPPE NIPALENSIS* (v. *Siva nipalensis*, Hodgson,) was "common, but local, in hilly jungles up to 4,000 ft. I found," adds Capt. Tickell, "*LEIOTHRIX ARGENTAURIS* and *SIVA STRIGULA*, about the sides of Moolé-it. *STACHYRIS NIGRICEPS*, in hilly forests, 3000 ft. *CORYDON SUMATRANUS* is a singular and rare bird. Of its habits little or nothing is known. I can only say that it is crepuscular (very likely diurnal as well), and so stupid and tame as to allow itself to be pelted without moving. *EURYLAIMUS JAVANICUS* is not common: at least it is not often seen; being very quiet and secluded, though excessively tame, and not crepuscular like *CORYDON*. *SERILOPHUS LUNATUS*. These birds are much freer flyers than *EURYLAIMUS*. I found them once, in a flock, hurrying about like Titmice, but very high up. *CALYPTOMENA VIRIDIS*. These birds resort to dense thickets when alarmed, but will sally out to feed on fruit (wild figs, &c.), and they mingle with Barbets and other birds in so doing. The note is low and sweet—a mellow whistle. Like the *EURYLAIMI*, they are tame and stupid.\*

"I obtained," continues Capt. Tickell, "the egg of *BUCEROS CAVATUS*; and "have seen with my own eyes that the male builds the female in, by covering the hole in the tree, where she incubates, with mud, leaving only room for her bill to protrude and receive food from his! I thought that this was a fable." (The same is stated in the Rev. J. Mason's 'Tenasserim,' &c., p. 274.) Of mammalia, Capt. Tickell "got nothing particular. Indeed, I never saw a country so utterly void of large game."

Finally, he obtained the young, about a month old, of the large pouched *Hargila* (*LEPTOPTILOS ARGALA*). The fact of this bird breeding in the Provinces was long ago announced to us by Capt. Sparkes; who stated—"With regard to the 'Adjutant's' nest, I was out surveying in December, 1848, in the district of Moulmein, at a place about five miles to the east of the town; and having occasion to ascend some eminence to obtain a

\* Of *PSARISOMUS DALHOUSLÆ*, Mr. Frith informs us, that flocks often ascend to the table-land of Cherra Punji; where, as they fly across the open ground from garden to garden, the native boys hunt them by intercepting and turning their flight away from the gardens, when they are soon fatigued and easily caught by the hand.

good *coup d'œil* of the surrounding country, I determined to climb to the top of the highest peak of the Kharong hills, a detached mass of limestone rock which rises almost perpendicularly out of an extensive level plain, to the height of 600 feet. The ascent was extremely difficult and dangerous, and had never before (as the people assured me) been attempted by an European. On gaining the summit I found that I was immediately over the top of a large tree—which sprung from a crevice in the rock below: and on its highest branches was an 'Adjutant's' nest, composed of dry sticks very rudely interlaced [or merely heaped together?] making a flat platform as it were, with little or no perceptible cavity towards the centre. In this were two young 'Adjutants,' about the size of small Geese, covered with a *white* down, and with pouches and beaks ridiculously disproportioned to their size, being extraordinarily large. Both of the young were taken by one of my Burmese servants. In another similar nest, in an adjoining tree, were one young one, and one addled egg, of a *spotless dirty white* and somewhat larger than a Turkey's egg."

Mr. R. W. G. Frith informs us that he found both of the species of 'Adjutant' breeding in the S. E. part of the Sundarbans. Their nests were placed on the tops of the loftiest trees, and were extremely difficult and hazardous to approach, from the density of the undergrowth and the great number of Tigers which infest the vicinity. In fact the nests were only to be approached by means of the tracks made by Rhinoceroses, Buffaloes, &c., through the jungle. The large or pouched species breeds about a month earlier in the season than the other, immediately (it would seem) after its arrival from the places which it frequents during the rainy season. They are then in the finest state of plumage; ash-grey, with the pale wing-band complete; and, for the most part, they have but just perfected their plumage when they leave Calcutta at the end of the rains. In the same neighbourhood, Mr. Frith was credibly assured that the huge ARDEA GOLIATH, Rüppell (*A. nobilis, nobis, &c.*),\* also bred; and he expects to be able to procure the eggs of all three species during the next breeding season.

A further notice of the 'Adjutant' may be here cited. In Lower Bengal, we see the adult birds only during the rains; though the young remain throughout the year, congregating about *abattoirs* and such places. At Masuri, Capt. Hutton remarks—"The 'Adjutant' is a sure forerunner of the rains with us, appearing always about a fortnight before they

\* These are recognised as distinct by the Prince of Canino. *Comptes Rendus*, XL (1855), p. 722.

commence. They do not alight on the hills, but are seen soaring about high above us in circles. I have seen them regularly every year; and in 1843 noted their first appearance on the 2nd June. They appear to come from the interior towards the plains. I have never seen them *during the rains* on the hills nor in the Deyra Doon."

It is not generally known that our large pouched *Hargila* is also an African bird. Dr. Rüppell notices its occurrence in Nubia and Abyssinia in small flocks.

E. BLYTH.

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*Corrigenda, for Report for February Meeting, pp. 178 ante.*

- p. 178, l. 3 from bottom. "For NYCTICIGUS," read NYCTICEJUS.  
 ,, 179, ,, 2. For "ceiniger," read CRINIGER.  
 ,, ,, note, l. 2. For "Coccothrauses," read *Coccothraustes*.  
 ,, 180, ,, 12. For "Tenasserin," read Tenasserim.  
 ,, ,, ,, 13. For "TINUNCULUS," read TINNUNCULUS.  
 ,, ,, ,, 19. For "CYANOGARULUS," read CYANOGARRULUS.  
 ,, ,, ,, 24. For "CERERA," read CEREBEA.  
 ,, ,, ,, 25. For "MARILARDICA," read MARILANDICA.

LIBRARY.

The following additions have been made to the library since the last meeting.

*Presented.*

Mittelsyrien und Damascus, Geschichtliche Ethnographische und Geografische Studien, von Alfred V. Kremer. Wien, 1853, 8vo.—BY THE AUTHOR.

Description de l'Afrique par un Géographe Arabe anonyme du sixieme Siecle de l'Hègire. Text Arabe publié pour la premiere fois par M. A. de Kremer. Vienne, 1852, 8vo.—BY THE EDITOR.

Report of the Calcutta Public Library, for 1854.—BY THE CURATORS.

Thirty-second Annual Report of the Parental Academic Institution and Doveton College.—BY THE PRINCIPAL.

The Upadeshak, No. 99.—BY THE EDITOR.

The Calcutta Christian Observer, No. for March, 1855.—BY THE EDITORS.

The Oriental Baptist, No. 99.—BY THE EDITOR.

Notice Historique sur M. M. Burnouf, Pere et Fils. Par M. Roudet. Paris, 1854, Pamphlet, 4to.—BY THE AUTHOR.