

NOTES ON BIRDS FROM GERMAN AND BRITISH EAST AFRICA.

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Since the publication of the catalogue of birds collected by Dr. W. L. Abbott in the vicinity of Mount Kilimanjaro,^a considerable material from neighboring regions has been examined, which throws light on some of the species involved. Besides U. S. National Museum specimens, there were a number from Mombasa, British East Africa, made available in the present connection through the kindness of Dr. W. J. Holland, director of the Carnegie Museum in Pittsburg, Pennsylvania, who has also obligingly permitted the inclusion here of notes on a number of interesting species not represented in Doctor Abbott's collection; and the writer's thanks are due him for this and other courtesies. For purposes of convenient collation, references to Doctor Holland's paper on Mombasa birds^b are given under most of the species treated.

Family CEDICNEMIDÆ.

CEDICNEMUS VERMICULATUS VERMICULATUS Cabanis.

Oedicnemus vermiculatus CABANIS, Journ. f. Ornith., 1868, p. 413 (East Africa).

A single specimen from Mombasa, recorded by Doctor Holland as *Oedicnemus capensis*,^c belongs undoubtedly to *O. vermiculatus*. It is a female in worn plumage, and is of interest from this northern locality, even though previously reported from the same place.

Family COLUMBIDÆ.

TURTUR SEMITORQUATUS INTERMEDIUS Erlanger.

Turtur semitorquatus intermedius ERLANGER, Journ. f. Ornith., 1905, p. 124 (Roba-Schalo, lake region of southern Shoa, southern Abyssinia).

A specimen from Mombasa^d is identical with others from Taveta and Mount Kilimanjaro, and belongs apparently to this form.

^a Oberholser, Proc. U. S. Nat. Mus., XXVIII, 1905, pp. 823-936.

^b Ann. Carnegie Mus., III, 1905, pp. 453-463.

^c Idem, p. 453.

^d *Turtur semitorquatus* Holland, Ann. Carnegie Mus., III, 1905, p. 454.

TURTUR CAPICOLA TROPICUS Reichenow.

Turtur capicola tropica REICHENOW, Ornith. Monatsber., 1902, p. 139 (East Africa).

An example from Mombasa, recorded by Doctor Holland as *Turtur capicola damarensis*,^a agrees with birds from the Kilimanjaro region in typically exhibiting the characters of *Turtur c. tropicus*.

CHALCOPELIA CHALCOSPILA ACANTHINA Oberholser.

Chalcopeelia chalcospila acanthina OBERHOLSER, Proc. U. S. Nat. Mus., XXVIII, 1905, p. 845 (Mount Kilimanjaro, German East Africa).

A specimen from Mombasa^b is typical of the recently described northeastern race *Chalcopeelia chalcospila acanthina*, agreeing perfectly with the type from Mount Kilimanjaro.

Family PICIDÆ.

CAMPETHERA ABINGONI MOMBASSICA (Fischer and Reichenow).

Picus (Campothera) mombassicus FISCHER and REICHENOW, Journ. f. Ornith., 1884, p. 262 (Mombasa, British East Africa).

An adult male from Mombasa exhibits the characters of this subspecies and shows it to be one of the most distinct of the races of *Campothera abingoni*.

The four forms, *chrysuræ*, *abingoni*, *suahelica*, and *mombassica*, have been considered by Doctor Reichenow subspecies of *Campothera chrysuræ*,^c but as *C. abingoni*^d was the earliest of these races to be described it should furnish the specific term, and the birds be called

Campothera abingoni abingoni (Smith).

Campothera abingoni chrysuræ (Swainson).

Campothera abingoni suahelica (Reichenow).

Campothera abingoni mombassica (Fischer and Reichenow).

CAMPETHERA NUBICA PALLIDA (Reichenow).

Dendromus nubicus var. *pallida* REICHENOW, Vögel Afrikas, II, 1903, p. 179 (Mrapua, German East Africa; and Barawa, Italian Somali Land).

An adult male from Mombasa^e differs from Kilimanjaro and Taveta specimens in its paler colors, and agrees with Doctor Reichenow's diagnosis of *pallida*, indicating that this is a distinguishable race.

^a Ann. Carnegie Mus., III., 1905, p. 454.

^b *Chalcopeelia chalcospila* Holland, Ann. Carnegie Mus., III, 1905, p. 454.

^c *Dendromus chrysurus* Swainson, Birds West Afr., II, 1837, p. 158 (Senegal).

^d *Chrysophilus abingoni* Smith, Rep. Exped. Explor. Cent. Afr., Append., 1836 p. 53 (Port Natal).

^e *Dendromus nubicus* Holland, Ann. Carnegie Mus., III, 1905, p. 456.

DENDROPICOS GUINEENSIS MASSAICUS Neumann.

Dendropicus guineensis massaicus NEUMANN, Journ. f. Ornith., 1900, p. 206
(Ndalalani, Nguruman Lake, Masai Land, German East Africa).

A specimen from Mombasa recorded by Doctor Holland as *Dendropicos hartlaubii*^a is just like our Taveta specimens, and is further evidence of the propriety of recognizing this subspecies of *Dendropicos guineensis*.

Family INDICATORIDÆ.

MELIGNOTHES MINOR DIADEMATUS (Rüppell).

Indicator diadematus RÜPPELL, Neue Wirb. Faun. Abyss., Vögel, 1835, p. 61
(wooded region of Abyssinia).

Specimens from Mombasa recorded by Doctor Holland as *Indicator minor*^a agree with the Kilimanjaro bird, and show that *M. m. diadematus* is the form occurring at that locality. As with most of the honey-guides, there is much individual variation in *diadematus*, but this does not vitiate the characters of the race. It is of valuable interest to note that Rüppell discovered the mistake he made when describing *Indicator diadematus*, and that after comparing his bird with a specimen of *minor* from the Cape of Good Hope he declared them identical.^b

MELIGNOTHES EXILIS MELIPHILUS Oberholser.

Melignothes exilis meliphilus OBERHOLSER, Proc. U. S. Nat. Mus., XXVIII, 1905, p. 869. (Taveta, British East Africa).

In a paper appearing in the July issue of the Journal für Ornithologie,^c and received since my paper was published, Erlanger states that *Indicator minor teitensis* Neumann^d is a subspecies of *exilis*, not, as Doctor Reichenow intimates,^e of *minor*. If this proves to be the case, I have probably redescribed *Melignothes exilis teitensis* (Neumann) as *Melignothes exilis meliphilus*, and the name *teitensis* of course should be used for this race; if not, the forms of *Melignothes* stand as given in my previous paper.^f The status of the other members of the genus is not affected by this change.

^a Ann. Carnegie Mus., III, 1905, p. 456.

^b Neue Wirb. Faun. Abyss., Vögel, 1835, p. 85; see also Oberholser, Proc. U. S. Nat. Mus., XXVIII, 1905, p. 868.

^c Journ. f. Ornith., July, 1905, pp. 464-467.

^d Idem, 1900, p. 195 (Bura, Teita, British East Africa).

^e Vögel Afrikas, II, 1902, p. 112.

^f Proc. U. S. Nat. Mus., XXVIII, 1905, pp. 868-874.

Family CORACIIDÆ.

EURYSTOMUS AFER SUAHELICUS Neumann.

Eurystomus afer suahelicus NEUMANN, Journ. f. Ornith., 1905, p. 186 (Tschara, Tana River, British East Africa).

One of the Mombasa specimens recorded by Doctor Holland^a has been examined. It is apparently typical of the eastern race recently separated by Mr. Neumann.^b

Family MEROPIDÆ.

MEROPS SUPERCILIOSUS SUPERCILIOSUS Linnæus.

Merops superciliosus LINNÆUS, Syst. Nat., 12th ed., I, 1766, p. 183 (Madagascar).

Two specimens from Mombasa are apparently typical *M. superciliosus*, and show little or no approach to *Merops superciliosus donaldsoni* of Somali Land.^c

Family PLOCEIDÆ.

AMBLYOSPIZA ALBIFRONS ÆTHIOPICA Neumann.

Amblyospiza aethiopica NEUMANN, Ornith. Monatsber., 1902, p. 9 (Omo River, Malo, Abyssinia).

Two specimens from Mombasa examined belong to this race rather than to *Amblyospiza albifrons albifrons* to which they have been referred by Doctor Holland.^d

HYPHANTORNIS AUREOFLAVUS (Smith).

Plocus aureoqlarus SMITH, Ill. Zool. S. Afr., Aves, 1839, text to pl. xxx, fig. 1 (Sierra Leone! [locality erroneous?]).

Three specimens of this species from Taveta, British East Africa, were inadvertently referred by the present writer^e to *Hyphantornis bojeri*. In addition to other characters, *Hyphantornis aureoqlarus* may be distinguished from *H. bojeri* in nearly all plumages by the less golden—more greenish—shade of both upper and lower parts.

Family PYCNONOTIDÆ.

PYCNONOTUS LAYARDI MICRUS Oberholser.

Pycnonotus layardi micrus OBERHOLSER, Proc. U. S. Nat. Mus., XXVIII, 1905, p. 891 (Taveta, British East Africa).

Examples from Mombasa^f bear out the characters originally assigned to this race.

^a *Eurystomus afer* Holland, Ann. Carnegie Mus., III, 1905, p. 457.

^b *Eurystomus afer suahelicus* NEUMANN, Journ. f. Ornith., 1905, p. 186.

^c *Merops superciliosus donaldsoni* Oberholser, Proc. U. S. Nat. Mus., XXVII, 1904, p. 737 (Bar Madu, Ganana River, Somali Land).

^d Ann. Carnegie Mus., III, 1905, p. 460.

^e Proc. U. S. Nat. Mus., XXVIII, 1905, p. 877.

^f *Pycnonotus layardi* Holland, Ann. Carnegie Mus., III, 1905, p. 461.

Family TIMALIIDÆ.

BESSONORNIS SUBRUFESCENS INTERCEDENS Cabanis.

Bessonornis intercedens CABANIS, Journ. f. Ornith., 1878, pp. 205, 218 (Kitui, Ukamba, British East Africa).

A single adult male collected by Dr. W. L. Abbott at 5,000 feet altitude on Mount Kilimanjaro, July 22, 1888, was recently recorded as *Cossypha heuglini intermedia*.^a The present opportunity of comparing it with a series of true *Bessonornis* (= *Cossypha*) *heuglini intermedia*^b from Mombasa shows that it belongs to the other species (*B. rufescens*) which differs from *B. heuglini* in its darker and slate-colored instead of olive-brown upper surface; blackish middle tail-feathers, and less extensive white superciliary stripes that do not meet across the forehead as in *heuglini*. The original description of *Bessonornis subrufescens*^c was based on specimens from Caconda, Angola, and therefore represents the West African form, from which the *Bessonornis intercedens* of Cabanis^d seems to differ sufficiently in its smaller size and less blackish tail-feathers to stand as a subspecies.

Our attention has been called by Mr. W. E. C. Todd to the fact that *Cossypha*,^e the name in common use for the present genus, is preoccupied in entomology (Coleoptera) by *Cossyphus* Fabricius;^f it therefore will have to give way to *Bessonornis* Smith.^g

Family SYLVIIDÆ.

CISTICOLA HYPOXANTHA Hartlaub.

Cisticola hypoxantha HARTLAUB, Proc. Zool. Soc. Lond., 1880, p. 624 (Magungo, northeastern end of Lake Albert Nyanza, British East Africa).

This species, based upon a single immature specimen, has hitherto been almost uniformly synonymized with *Cisticola rufa*, notwithstanding its widely separated range. Four specimens, however, collected by Mr. Doherty at Mombasa, and recorded by Doctor Holland^h as "*Cisticola aff. rufæ* (?), sp. nov. (?) vel. *rufæ* subspecies," prove beyond much doubt that it is quite distinct, differing from *Cisticola rufa* of western Africa in its less uniform upper surface, the pileum

^a Oberholser, Proc. U. S. Nat. Mus., XXVIII, 1905, p. 894.

^b *Bessonornis intermedia* Cabanis, von der Decken's Reisen, III, 1869, Pt. 1, p. 22, pl. XII (coast of East Africa).

^c *Cossypha subrufescens* Bocage, Proc. Zool. Soc. Lond., 1869, p. 436.

^d Journ. f. Ornith., 1878, p. 205.

^e Vigors, Zool. Journ., II, 1826, p. 396 (type, *Turdus vociferans* Swainson = *Muscicapula bicolor* Sparrman).

^f Ent. Syst., I, Pt. 2, 1792; p. 97.

^g Rep. Exped. Explor. Cent. Africa, App., 1836, p. 46 (misprinted *Dessonornis*; type *Dessonornis humeralis* Smith).

^h Ann. Carnegie Mus., III, 1905, p. 462.

being much more rufescent than the back and like it streaked with darker brown or blackish; in its lack of a perceptible superciliary stripe; much paler buffy breast, sides, and flanks; white, or at most only pale buffy lower tail-coverts; and buffy white instead of rufous inner margins of the wing-quills. It probably ranges over most if not all of British East Africa.

The adult of this species, which appears to have been hitherto unknown, may be described as follows:

Male, Cat. No. 8136, Carnegie Museum; Mombasa, British East Africa, September or October, 1900; William Doherty. Pileum and cervix mummy brown, the feathers of the former with darker centers; back, scapulars, and rump hair brown, rufescent anteriorly, the feathers, except on the rump, with dark brown shaft streaks; upper tail-coverts mummy brown; tail bistre brown, the middle pair of rectrices with an obsolete subterminal band of darker, the remaining ones with more or less extensive grayish or buffy tips and blackish subterminal bars; wings fuscous, the secondary coverts and tertials broadly margined with hair brown, more rufescent on the greater coverts; the primary coverts, primaries, and secondaries edged externally with rufescent bistre brown; lores, a narrow eye ring, cheeks, and auriculars buff, the last mixed with pale brownish; sides of neck brown like the nape, but considerably lighter; chin, middle of throat and abdomen, with lower tail-coverts, creamy white; remainder of under parts cream buff, deeper on sides and flanks; lining of wing pale cream buff; inner margins of wing-quills dull buffy whitish.

The immature bird, on which the original description of *melano-xantha* was based, and of which there are two specimens in the Doherty collection, differs from the adult in being almost uniformly pale yellowish below, and more uniform dull rufescent or yellowish brown on the upper parts, the pileum scarcely more rufescent than the back.

Measurements of this species are given below.

| Sex and age. | Locality. | Date. | Wing. | Tail. | Exposed culmen. | Tarsus. |
|--------------------|-------------------------------|-----------------------------|-------------|-------------|-----------------|-------------|
| Female adult..... | Mombasa, British East Africa. | September or October, 1900. | mm. 43.5 | mm. 34.5 | mm. 10.5 | mm. 18.0 |
| Do..... | do..... | do..... | 41.0 | 32.0 | 9.5 | 17.0 |
| Male juvenile..... | do..... | do..... | 47.5 | 41.0 | 9.5 | 17.0 |
| Female juvenile .. | do..... | do..... | 41.0 | 38.0 | 8.5 | 17.5 |
| Average..... | | | 44.8 | 36.4 | 9.5 | 17.4 |

SYLVIETTA WHYTII JACKSONI Sharpe.

Sylviella jacksoni SHARPE, Bull. Brit. Orn. Club, VII, 1897, p. vii (Kamassia, British East Africa).

A single specimen from Mombasa, recorded by Doctor Holland as *Sylviella micrura*,^a is identical with the example collected by Doctor Abbott at Taveta, and substantiates our remarks concerning the status of *Sylvietta whytii jacksoni*.^b

PRINIA MISTACEA Rüppell.

Prinia mistacea RÜPPELL, Neue Wirb. Faun. Abyss., Vögel, 1835, p. 110 (Gondar, Abyssinia).

Immature birds of this exceedingly variable species differ considerably from the adults in their paler upper surface, more rufescent wing margins, and pale bills, this last a characteristic of both male and female, as is shown by two specimens from Mombasa.^c

Family MUSCICAPIDÆ.

BATIS SENEGALENSIS ORIENTALIS (Heuglin).

Platystira orientalis HEUGLIN, Ornith. Nordost-Afr., I, 1871, p. 449 (Abyssinia).

A specimen from Mombasa^d is typical of this form.

PLATYSTEIRA CRYPTOLEUCA Oberholser.

Platysteira cryptoleuca OBERHOLSER, Proc. U. S. Nat. Mus., XXVIII, 1905, p. 913 (Usuri River, plains of Mount Kilimanjaro, British East Africa).

Specimens from Mombasa, recorded by Doctor Holland as *Platysteira peltata*,^e agree with the type of *cryptoleuca* in having the large concealed patch of white on the nape, but both male and female sometimes have concealed white spots on the rump, from which it appears that their absence is not constantly diagnostic of *cryptoleuca*, as supposed.

TCHITREA FERRETI Guérin.

Tchitreia ferreti GUÉRIN, Rev. Zool., 1843, p. 162 (Abyssinia).

Examination of considerable additional material since the publication of my previous notes on *Tchitreia suahelica*^f seems to throw light on the relationships of *Tchitreia suahelica*, *T. perspicillata*, and *T. viridis* (= *T. cristata* Authors).

^a Ann. Carnegie Mus., III, 1905, p. 463.

^b Proc. U. S. Nat. Mus., XXVIII, 1905, p. 906.

^c These are numbers 8131 and 8132, Carnegie Museum, which were inadvertently recorded by Doctor Holland (Ann. Carnegie Mus., III, 1905, p. 462) under "*Cisticola aff. rufus*."

^d *Batis senegalensis* Holland, Ann. Carnegie Mus., III, 1905, p. 458.

^e Ann. Carnegie Mus., III, 1905, p. 458.

^f Proc. U. S. Nat. Mus., XXVIII, 1905, p. 915.

There seems to be little doubt that the birds from Abyssinia and other parts of northeastern Africa, which represent *Tchitreia ferreti* Guérin,^a are identical with those from East Africa which Doctor Reichenow has called *T. suahelica*;^b and the proper name for both is therefore *Tchitreia ferreti* Guérin. Mr. Oscar Neumann in a recent connection^c has revived this name for the Abyssinian bird, which he found to differ from the west African *T. viridis*, and of which he made it a subspecies, but he appears to be unacquainted with Reichenow's *T. suahelica*, or at least not to have suspected its relationship to *T. ferreti*.

The present study has but confirmed the opinion previously expressed^d that *Tchitreia ferreti* (i. e., *Tchitreia suahelica*) is a perfectly distinct species, although in some respects intermediate between *T. perspicillata* and *T. viridis*, or, as it might possibly be more accurately stated, combining their characters. In its chestnut-backed plumage, of all stages except the very young, and even before the long central tail-feathers appear, it differs from *Tchitreia perspicillata* in its more blackish wing-quills; black primary coverts and outermost secondary coverts; broad white instead of rufous edgings to the exterior webs of most of the primaries, secondaries, primary coverts, and outer secondary coverts; more bluish head and upper throat; less purely white lining of wings, and less whitish abdomen. In its white plumage, to which there seems to be no corresponding stage in *T. perspicillata*, it of course differs additionally by reason of its white back and tail. From *Tchitreia viridis* of western Africa it may readily be distinguished in rufous-backed plumage, by the white or at most very pale rufous lower tail-coverts; much less uniform lower surface, the abdomen being much paler—on the anal region sometimes even whitish—and the metallic bluish of the throat less extended posteriorly; grayish or rufescent white instead of plain slate-colored lining of wings, including axillars; and more extensive white margins of the wing-quills and coverts. In the white-backed plumage, however, these two species are, like some of the oriental forms of this genus, much more difficult to distinguish, but *T. ferreti* may be identified by its paler abdomen, less posterior extension of the metallic blue of the throat, white lower tail-coverts, more whitish lining of wing, and rather broader and more extensive white margins of the wing-quills and coverts, although it must be said that all of these characters, excepting the first two, are to some extent uncertain.

So far as *Tchitreia perspicillata* is concerned with *T. viridis*, there is comparatively little real need for comparison, as it differs much more

^a Rev. Zool., 1843, p. 162.

^b *Terpsiphone perspicillata suahelica* Reichenow, Werth. Mittl. Hochl. deutsch. Ost-Afr., 1898, p. 275.

^c Journ. f. Ornith., 1905, pp. 211-213.

^d Oberholser, Proc. U. S. Nat. Mus., XXVIII, 1905, p. 915.

than from *T. ferreti*, or than even does the latter from *T. viridis*. However, from *T. viridis* in rufous-backed stage, *T. perspicillata* may readily be distinguished by its brown instead of black wing-quills; uniform rufous wing without white edgings or black coverts; extensively white lining of wing; whitish abdomen; white under tail-coverts; paler breast; and more greenish metallic shade of head and throat, which color is less extended posteriorly on the lower surface.

The geographical distribution of these three species is about as follows:

Tchitrea perspicillata (Swainson).—Southeastern Africa, north to near the Zambesi River.

Tchitrea ferreti Guérin (= *Tchitrea perspicillata suahelica* [Reichenow]).—Eastern and northeastern Africa, from the Zambesi River to Abyssinia and Somali Land.

Tchitrea viridis (Müller) (= *Tchitrea cristata* [Gmelin]).—Western Africa, from Senegambia to Gabun.

Family LANIIDÆ.

POMATORHYNCHUS SENEGALUS ARMENUS, new subspecies.

Chars. subsp.—Similar to *Pomatorhynchus senegalus senegalus* in size and general color, but upper parts more rufescent, the anterior portion of the superciliary stripe tinged with ochraceous instead of being pure white; lower surface more washed with buffy.

Description.—Type, adult male, No. 118,148 U.S.N.M.; Plains of Taveta, British East Africa, June 28, 1888; Dr. W. L. Abbott. Pileum, lores, and postocular streak black; superciliary stripe ochraceous buff, paler anteriorly; upper and lower eyelids white; cheeks buffy whitish; auriculars and sides of neck tawny clay color; cervix, back, and scapulars reddish chestnut, the last with broad brownish black centers; rump and upper tail-coverts hair brown; middle tail-feathers broccoli brown, numerous and narrowly barred with darker brown; remaining rectrices black, with broad white tips which increase in size on the outer feathers, the two outermost also narrowly margined with whitish on the distal portion of their outer webs; wing-quills fuscous, broadly edged externally with ferruginous, the tertials also bordered on both webs with a lighter shade of the same; superior wing-coverts ferruginous, the greater series with narrow shaft markings of blackish; ventral surface white, washed with buffy, particularly on the lower tail-coverts; the breast, sides, and flanks more or less shaded with grayish; edge of wing white; lining of wing and inner edges of wing-quills basally tawny.

Two of the specimens on which the description of this form is based were recently recorded as *Pomatorhynchus senegalus senegalus*,^a but

^a Oberholser, Proc. U. S. Nat. Mus., XXVIII, 1905, p. 923.

the comparison of further material shows that the bird from South Africa and most of East Africa differs subspecifically from that of western and northwestern Africa, as above set forth. Apparently this southern race has hitherto received no name that can be used for it, since all the synonyms of the species are otherwise applicable. The original *Lanius senegalus*^a was of course based on the bird from Senegal; *Lanius erythropterus* Shaw,^b in so far as it relates to the present species, is from the same region, as indicated by the description and part of the synonymy cited, i. e., "La Pie-Grièche rousse à tête noire du Sénégal" of Daubenton,^c although it is evident that Shaw had confused the two species *Pomatorhynchus senegalus* and *Pomatorhynchus tschagra*; *Tschagra senegalensis* Lesson^d is also from Senegal; and *Lanius coronatus* Vieillot^e from an unknown locality is evidently applicable to the same form; while the *Pomatorhynchus orientalis* of Cabanis,^f from Mombasa, is subspecifically different from both *senegalus* and the present race, as shown below.

Measurements of *Pomatorhynchus senegalus armenus* are as follows:

| Sex. | Locality. | Date. | Wing. | Tail. | Exposed culmen. | Tarsus. |
|------------|---|---------------|-------|-------|-----------------|---------|
| | | | mm. | mm. | mm. | mm. |
| Male | Plains of Taveta, British East Africa, ^a | June 28, 1888 | 82 | 93 | 19.5 | 29 |
| Do | Taveta, British East Africa | May 1, 1888 | 87 | 101 | 19.5 | 28 |
| | South Africa | | 86 | 103 | 20.0 | 33 |
| | Average | | 85 | 99 | 19.7 | 30 |

^aType.

POMATORHYNCHUS SENEGALUS ORIENTALIS Cabanis.

Pomatorhynchus orientalis CABANIS, von der Decken's Reisen, III, 1869, p. 27, in text (Mombasa, British East Africa).

A series of eight specimens from Mombasa, the type locality, shows that this form, hitherto usually considered inseparable from *Pomatorhynchus senegalus*, is well worthy of recognition. It differs from true *P. senegalus* of western Africa in its inferior size, more slender bill, and decidedly paler upper surface; and from *P. senegalus armenus* by reason of its smaller size, much paler, more grayish upper surface, and less buffy lower parts.

^a Linnaeus, Syst. Nat., 12th ed., I, 1766, p. 137.

^b Gen. Zool., VII, Pt. 2, 1809, p. 301.

^c Pl. Enl., pl. ccclxxix, fig. 1.

^d Traité d'Ornith., 1831, p. 373.

^e Nouv. Diet. d'Hist. Nat., XXVI, 1818, p. 140.

^f Von der Decken's Reisen, III, 1869, p. 27, in text.

Measurements are as below:

| Sex. | Locality. | Date. | Wing. | Tail. | Exposed culmen. | Tarsus. |
|------------|-------------------------------|-----------------------------|-------------|-----------|--------------------|-------------|
| Male | Mombasa, British East Africa. | September or October, 1900. | mm. 71.0 | mm. 75 | mm. 17.5 | mm. 25.0 |
| Do | do | do | 77.5 | 85 | 20.0 | 28.0 |
| Do | do | do | 86.0 | 92 | 21.0 | 29.0 |
| Do | do | do | 81.0 | 89 | 20.0 | 29.0 |
| Do | do | do | 83.5 | 91 | 21.0 | 29.5 |
| | Average | | 79.8 | 87 | 19.9 | 28.1 |

There are thus three forms of *Pomatorhynchus senegalus*, whose names and geographical ranges are as follows:

Pomatorhynchus senegalus senegalus (Linnaeus).—Western and northwestern Africa.

Pomatorhynchus senegalus armenus Oberholser.—South Africa and eastern Africa north to the Kilimanjaro region.

Pomatorhynchus senegalus orientalis Cabanis.—Coast region of British East Africa, and probably northward.

Family NECTARINIIDÆ.

CINNYRIS OLIVACEA RAGAZZII (Salvadori).

Eleocerthia ragazzii SALVADORI, Ann. Mus. Stor. Nat. Genova, Ser. 2^a, VI (XXVI), 1888, p. 247 (Fekerie Ghem forest, Shoa, Abyssinia).

Specimens from Mombasa^a are identical with those from Kilimanjaro, and serve even more clearly to emphasize the distinctness of this race.

Family HIRUNDINIDÆ.

HIRUNDO PUELLA ABYSSINICA Guérin.

Hirundo abyssinica GUÉRIN, Rev. Zool., 1843, p. 322 (Abyssinia).

Specimens from Mombasa^b are very typical of this eastern subspecies, and agree perfectly with birds from Mount Kilimanjaro.

Family FRINGILLIDÆ.

PASSER SWAINSONI GONGONENSIS (Oustalet).

Pseudostruthus gongonensis OUSTALET, Le Naturaliste, 1890, p. 274 (Gongoni, near Mombasa, British East Africa).

This large, pale form replaces true *Passer swainsoni* in southern Somali Land and in British East Africa, but is quite certainly only subspecifically distinct. A specimen in the Doherty collection, from Mombasa,^c belongs to this race.

^a *Chalcomitra obscura ragazzii*, Holland, Ann. Carnegie Mus., III, 1905, p. 462.

^b *Hirundo puella* Holland, Ann. Carnegie Mus., III, 1905, p. 457.

^c *Passer swainsoni* Holland, Ann. Carnegie Mus., III, 1905, p. 461.