NOTE II.

ZOOLOGICAL RESEARCHES IN LIBERIA.

A LIST OF BIRDS,

collected by the Author and Mr. F. X. STAMPFLI during their last sojourn in Liberia.

ВУ

J. BÜTTIKOFER.

(Plate 5).

As I told in my previous paper on Liberian Ornithology 1), Mr. Stampfli and I left for Liberia at the end of October 1886, and arrived at Monrovia, after short stays at Hamburg, Madeira, Teneriffa, Gran Canaria and the Senegal, on the 26th of November.

The next day I proceeded in an open sailing boat to Grand Cape Mount to get the servants, which were already hired for me by Mr. Watson, the Liberian Superintendent at Robertsport. From this latter place I visited some of my former stations on the Fisherman Lake, the Japaca Creek and on the Mahfa River. 9) Everywhere I was very

¹⁾ N. L. M. 1886, p. 244.

²⁾ Erroneously written Marfa R. in my Notes of 1885. Mahfa signifies in the Vey language "not full" (mah = not, fa = full) on account of its being bordered by very high banks.

kindly received by the natives, who had not yet forgotten me and were much enjoyed to see me again. About medio December I returned with three Vey-boys and my old Liberian huntsman Jackson Demery to Monrovia and prepared for my removal to Schieffelinsville on the Junk River, where Mr. Stampfli meanwhile had hired a small Liberian farming house. As our outfit was very voluminous, I went to Schieffelinsville by sea with two sailing boats, entered near Marshall (a small Liberian settlement) the Junk River and reached, along this river, safely the place of my destination.

Schieffelinsville is a settlement of Americo-Liberians, most of which are coffee-farmers. The houses are surrounded by farms and hidden by plum-, orange- and other fruit-trees and plantain-bushes, and are therefore scattered over a wide area, so that hardly more than half a dozen can be seen at once. It lays on the back and the northern slope of a moderate elevation, which separates the Junk River from the sea and must be considered as the continuation of the promontory which forms the Cape Messurado. The environs of Schieffelinsville are in a high degree favorable for birdshooting, as there is a mixtum compositum of high forest. brushwood, coffee- and cassava-farms, grassy savannas with small bosquets, hills and valleys, and all that bordered on one side by the sandy beach, on the other by the Junk River with its extensive mangrove-swamps. The Junk River runs in parallel line with the beach and is separated from the latter by the already mentioned hilly range. It is tolerably deep and navigable, even for large rowing boats, from off its mouth up to the so-called Old Field, a very extensive savanna, which separates it from the Messurado River. The Junk River has two very important tributaries: the Du Queah 1) and the Farmington River. Both those rivers come far down from the interior and drain a vast

¹⁾ Du = river, Queah = the name of a tribe of natives, inhabiting this part of the country.

hilly country which is for a great deal thickly covered with primeval forest.

In the beginning of 1887 I removed to Hill Town, a small native town on the banks of the Du Queah. Here, in that thickly wooded country, I was much engaged in collecting large mammals, amongst which many rare species, as the Chimpansee, Antilope euryceros, Cephalophus doria, Hyrax dorsalis and Choeropsis liberiensis, and but little time was left for bird-shooting. Nevertheless I obtained many very interesting species and was able to state, for the second time in Liberia, the occurrence of Columba unicincta. From here I made an excursion by canoe to the falls of the Du Queah, where I found, under the same conditions as formerly on the St. Paul's River, Glareola megapoda, together with Motacilla vidua, and, peculiar enough, our common Sandpiper. Along all the rivers I happened to visit in Liberia, I looked out in vain for Aegialites forbesi, the W. African representative of A. tricollaris, which I the more expected to meet with, as it was discovered in about the same localities as the type of Glareola megapoda.

During February and March I resided at Schieffelinsville, while my friend Mr. Stampfli took my place at Hill Town. Unfortunately enough I suffered nearly all this time with malaria and dysentery, a disease which made me entirely unable to do any work and compelled me at last to remove to Monrovia. After having recovered a little, I was afraid to return immediately to the unhealthy station at Schieffelinsville and preferred to make a some weeks trip along the lower coast of Liberia. I had never visited this part of Liberia before, and though I did not expect collecting very much, I hoped to be able to make out how far down the many specific Liberian animals, as the small Hippopotamus, both species of Liberian white-nose-monkeys, Antilope doria and sylvicultrix, the Liberian gray Parrot and Agapornis swinderniana, Buceros semifasciatus and other interesting species would range. By steamer I went

to Grand Bassa, from there by sea in an open sailing boat to River Cess, with a similar opportunity to Sinoe and from there again by steamer to Cape Palmas. In Grand Bassa I went up the St. John's River as far as the first rapids, and the same I did on the Cess (Cestos)- and Sinoe River. Whereever I had an opportunity, I tried to get informations from Liberians and natives, and am now convinced that most of the mentioned species are to be found as far down as the Cavallo River east of Cape Palmas, or still farther towards the Ivory Coast. I was very sorry that heavy attacks of fever did not allow me to have a short stay on the Cavallo River, which is navigable much higher up than any other Liberian river, but compelled me to return on board a German steamer to Monrovia and shortly afterwards to Europe.

The results of my investigations are contained in the list of birds, to which these lines are to form a short introduction. I am sorry to say, that I am not fully satisfied with the ornithological part of our collections. Many questions I hoped to be able to make out in loco or at least to collect materials and facts to settle them after my return, are still to be called the attention of ornithologists upon. Some of them I hope to get materials for by my friend Mr. Stampfli, whom I left in Liberia and who at present, until next spring, is collecting on the Farmington River, the other large confluent of the Junk. The total number of species, found during my last visit to Liberia is 151, and, with the exception of some of the most common ones, all are represented in our collections by at least one specimen. The species, mentioned in my previous list (Notes 1886, p. 245) as collected by Mr. Schweitzer and others. but not yet found by us, is now reduced to a very small number, and several of those which are left, may afterwards turn out to be identical with other species. Our last collection contains the following species, not obtained during our previous investigations in Liberia:

- 1. Polyboroides typicus.
- 2. Bubo cinerascens.
- 3. » leucostictus.
- 4. Ispidina leucogastra.
- 5. Cinnyris sp.?
- 6. Hylia prasina.
- 7. Stiphrornis erythrothorax.
- 8. Cossypha cyanocampter.
- 9. » leucosticta.
- 10. Turdinus fulvescens.
- 11. Drymocataphus cleaveri.
- 12. Geocichla princei.
- 13. Ixonotus guttatus.

- 14. Trochocercus nitens.
- 15. Muscicapa lugens.
- 16. Smithornis rufilateralis.
- 17. Diaphorophyia castanea.
- 18. Cassinia finschii.
- 19. Laniarius multicolor.
- 20. » sulfureipectus.
- 21. Ploceus nigerrimus.
- 22. Megalaema atroflava.
- 23. Chrysococcyx klaasii.
- 24. Rallina oculea.
- 25. Corethrura pulchra.

The total number of species, at present known from Liberia, is 231, and others may be expected to be sent from the Farmington River by Mr. Stampfli.

1. Spizaetus coronatus.

Falco coronatus, Linn. S. N. I. p. 124 (1766).

Spizaetus coronatus, Hartl. Orn. W. Afr. p. 5 (1857); — Schlegel,
 Mus. P.-B. Astures, p. 3 (1862); — Sharpe, Cat. Birds Br.
 Mus. Vol. I. p. 266 (1874).

Spizaetus bellicosus, Bütt. N. L. M. 1885, p. 152.

An adult female; sent in young stage during my first stay in Liberia (1882) from that country to the Zoological Garden at Rotterdam and in September last, after its death, received for our collection, is decidedly a true coronatus, and therefore erroneously mentioned as a young specimen of bellicosus in my first enumeration of Liberian birds.

2. Nisus macroscelides (Hartl.).

Bütt. N. L. M. 1885, p. 153.

A female, very strongly spotted underneath, was collected at Weflah, near the falls of the Du Queah on February 6th, and two others, male and female, both with

the under surface nearly pure white, near the Farmington River, on July 2^d and August 9th.

The dark slaty brown upper surface will readily distinguish our five (with the two of my first journey) specimens from those from southern and eastern Africa, and even from those from the Gold Coast. A young female, all over spotted underneath, except the throat, which has a central longitudinal streak of brown, and the under tail-coverts, which are pure white, I received as a nestling and kept it alive for about six weeks. This specimen had the iris bluish grey, and the thighs begin already to get a rufous tinge. It died on the 19th of February.

The above cited full-grown female from the Du Queah has the under surface also strongly spotted and the throut striped, but the under tail-coverts are spotted like the rest of the lower surface, which latter has a slight fulvous hue, and the thighs are strongly tinged with rufous. Both male and female from the Farmington R. have the whole lower surface pure white, with the exception of the spotted sides of chest and the flanks, which are broadly barred with dark brown. The thighs of the male are very, those of the female less strongly tinged with rufous.

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	Measurements in cM.:			wing	L tail	tarsus
ď	St. Paul's R	•	•	18	15,5	5
ď	Farmington R			19	17	6
Ď	Buluma, not full grown				15,7	6
Q	Du Queah			20	18,2	5,8
Q	Farmington R		•	20,7	18,7	5,6

3. Nisus hartlaubii, Verr.

Bütt. N. L. M. 1885, p. 153; id. 1886, p. 246.

An adult.male, collected at Schieffelinsville. Both our former specimens were females, of about the same size as a male (?) mentioned in Mr. Sharpe's Catalogue of the British Museum (Vol. I).

Our male specimen is considerably smaller and a very Notes from the Leyden Museum, Vol. X.

tiny bird, its wings measuring only 15 cM. (in one female 16, in the other 16,5 cM.).

In all our three specimens the lower surface, with the exception of the pure white chin and throat, is silvery gray with very faint and narrow vermiculations of ashy; the flanks and partially the thighs are showing the plain vinous chestnut of the fully adult, without any vermiculations. They have from six to ten whitish cross-bars on the inner web of the tailfeathers, except the innermost pair, which is entirely black on the upper surface and shows on the lower faint indications of three white spots.

4. Polyboroides typicus.

Polyboroides typicus, Smith, S. Afr. Q. J. I. p. 107 (1830); id. Zool. S. Afr. pl. 81, 82 (1849); — Hartl. Orn. W. Afr. pp. 2, 269 (1857); — Sharpe, Cat. Birds Br. Mus. I. p. 48 (1874); — Bocage, Orn. d'Angola, p. 7 (1881).

Nisus radiatus, Schl. Mus. P.-B. Astures, p. 54 (1862); id. Revue Accip. p. 100 (1873).

An immature male was obtained in the vicinity of Hill Town.

Iris, cere and bare parts round the eye orange red, bill black, feet yellow.

5. Dryotriorchis spectabilis (Schl.).

Bütt. N. L. M. 1886, p. 246.

Only one specimen of this beautiful species, an adult male, was procured. It was shot in the vicinity of Schieffelinsville, and as it had only a wing broken, we kept it alive for nearly two months, feeding it with small birds, especially with weavers.

6. Milvus aegyptius (Gm.).

Bütt. N. L. M. 1885, p. 155; id. 1886, p. 247.

Frequently found along the coast down to Cape Palmas.

Notes from the Leyden Museum, Vol. X.

7. Basa cuculoides (Sw.).

Bütt. N. L. M. 1885, p. 155; id. 1886, p. 247.

One adult specimen, obtained in the vicinity of Schieffelinsville.

8. Haliaetus angolensis (Gm.).

Bütt. N. L. M. 1885, p. 154; id. 1886, p. 246.

This bird seems to be common all over in the coast region, but purer white specimens are found farther down the coast than above Monrovia, where I never found specimens with the white parts of the plumage quite pure.

9. Bubo cinerascens.

Bubo cinerascens, Guér. Rev. Zool. 1843, p. 321; — Schl. Mus.
P.-B. Oti, p. 15 (1862); id. Revue Noctuae, p. 5 (1873); — Sharpe, Cat. Birds Br. Mus. II. p. 32 (1875).

One specimen (adult Q), acquired in Grand Cape Mount, where it was kept in captivity by a native. Died Dec. 10, 1886.

Iris dark brown, bill, toes and nails dark lead color. Wing 30 cM., tail 17, tarsus 6,5.

This specimen agrees in every respect with the six ones from N. E. Africa, already in our collection, and its color alone, especially the predominant grayish tinge with the narrow, brownish vermiculations above and below, is sufficient to distinguish it at once from B. leucostictus, which latter species, moreover, has the eyes yellow, as well as the tip of the bill.

Mr. Sharpe, in his above cited Catalogue, adds to the synonymy of B. cinerascens the B. maculosus in Hartl. Orn. W. Afr. p. 19. I cannot agree with this opinion and feel quite sure that Dr. Hartlaub's description is really that of the South African B. maculosus, which he erroneously

says to come from West Africa. The synonymy given by Hartlaub after the description is likewise that of the true B. maculosus.

10. Bubo leucostictus.

Bubo leucostictus, Hartl. J. f. O. 1855, p. 354 (ex Temm.); id. Orn.
W.-Afr. p. 18; — Schl. Mus. P.-B. Oti, p. 16 (1862); id. Rev.
Noctuae, p. 6 (1873); — Sharpe, Cat. Birds Br. Mus. II. p. 41 (1875).

Adult male, January 1, Hill Town; adult female, May 22, Schieffelinsville; nestling, February 2, Hill Town.

Iris yellow, bill yellow, black at the base, toes yellow, nails black. Wing 32,5 cM.

Both specimens do not differ from each other and agree tolerably well with the description given by Mr. Sharpe in his Catalogue.

The nestling was still in down when I received it, and all over pure white. The first plumage was also pure white, but each feather above and below banded across with brown. Iris yellow.

11. Syrnium nuchale, Sharpe.

Bütt. N. I. M. 1885, p. 151; id. 1886, p. 247.

Of an adult female, killed Dec. 24th on a Mangrove-shrub near the river-side, the stomach contained a quantity of remainders of beetles. A nestling I received alive at Hill Town, was covered with down of a pure white colour. It died Febr. 8th, after having been kept alive for about six weeks and then the feathers, which still had a downy appearance, were pale fulvous with white and dark brown cross-bands and broadly tipped with pure white. Wing- and tail-feathers had already the same color as in the adult bird. The tarsal feathers are whitish. In my first report (1885) I said the iris to be yellow. This

must have been a slip of the pen, as in my original notebook the eye is registered as dark brown. Both, adult and young, above mentioned specimens have the iris of the same color.

12. Scotornis longicauda (Drap.).

Bütt. N. L. M. 1885, p. 156; id. 1886, p. 248.

A very frequent bird in brushwood and coffee-plantations at Schieffelinsville.

13. Waldenia nigrita (Gray).

Bütt. N. L. M. 1885, p. 157.

Frequently found in pairs with nest and eggs on the Du Queah, from its mouth upward to the first falls, and on all the other rivers I happened to visit on my journey to Cape Palmas. The beautiful River Swallow is not easily got to leave the place which it once has chosen as nesting place, and will always keep within some hundred yards from it. On one of my first trips up the Du Queah, the 3rd of January, I found a nest with two fresh eggs in a hollow of a log, projecting about six feet above high water. The nest consisted of small stems of grass, ditto pieces of bark and a few feathers without any earthy substances, and contained two eggs. As it was a very fine nesting place, I sawed the end of the log down when passing a few days afterwards and carried it off with nest and eggs, which were then four in number. About two weeks afterwards I happened to pass the same spot again and found a new nest in the resting part of the hollow, probably built by the same pair of Swallows, but this time constructed of clay and mud in the way of our House Martin and stuck to the wall of the hollow. It was lined with some stems of grass and other soft materials and a few feathers of a pigeon, and contained three eggs. I again carried off nest and eggs

without troubling the birds which had disappeared for a moment. Some time afterwards I once more visited this spot and was not little estonished to find a new nest, built like the last one and containing one single egg. But this time I found it too cruel to carry off the nest again, and therefore ordered my boys to pull on and let the repeatedly vexed birds the pleasure of their breeding business.

The eggs are thickly spotted and speckled with reddish brown on a rosy white ground. Their shape is oviform, the size 19 mM. in length and 13 mM. in width.

14. Hirundo rustica, Linn.

Bütt. N. L. M. 1885, p. 158.

The Chimney Swallow was found in great number near Schieffelinsville from December to March.

15. Eurystomus afer (Lath.).

Bütt. N. L. M. 1885, p. 158; id. 1886, p. 248.

This species seems to be much more frequent than E. gularis, as I found it not only along the Messurado-, Junkand Du Queah Rivers, but also in all the places I visited down to Cape Palmas. At my station at Hill Town, I saw nearly every evening, about sunset, hundreds of these birds wheeling in the air and hunting for insects. With their long wings and thick heads they have, while flying, very much the appearance of a small Falcon. During day-time they are very lazy and sit for hours motionless on a dry twig exposed to the hot sun.

16. Halcyon badia, Verr.

Bütt. N. L. M. 1885, p. 165.

Only two specimens obtained (Du Queah).

17. Halcyon semicoerulea (Forsk.).

Bütt. N. L. M. 1885, p. 166; id. 1886, p. 249.

One specimen from the Du Queah.

18. Haleyon malimbica (Shaw).

Bütt. N. L. M. 1885, p. 162; id. 1886, p. 249.

Tolerably frequent along the Du Queah and Junk R.

19. Halcyon senegalensis (Linn.).

Bütt. N. L. M. 1885, p. 161; id. 1886, p. 249.

Very common on the Junk R. and its tributaries.

20. Ceryle maxima (Pall.).

Bütt. N. L. M. 1885, p. 160; id. 1886, p. 248.

Very sparsely distributed on the Junk-, Farmingtonand Du Queah R. On the latter I have shot a specimen as high up as Hill Town.

21. Ceryle rudis (Linn.).

Bütt. N. L. M. 1885, p. 161; id. 1886, p. 249.

Observed on the Junk R. and near the coast at Grand Bassa, but much less frequent than in the district of Grand Cape Mount.

22. Corythornis cyanostigma, Rüpp.

Alcedo cyanostigma, Bütt. N. L. M. 1885, p. 159; id. 1886, p. 248.

Tolerably common along the Du Queah, where it usually sits in low brushwood above the water.

23. Ispidina picta (Bodd.).

Alcedo picta, Bütt. N. L. M. 1885, p. 160.

Still more common than the former and found in the same localities. Specimens of this species I also found on the St. John's- and Since River.

24. Ispidina leucogastra.

Halcyon leucogaster, Fraser, P. Z. S. 1843, p. 4; id. Zool. Typ. pl. 32.
 Ispidina leucogastra, Hartl. Orn. W. Afr. p. 35; — Sharpe, Mon. Alced. pl. 50.

Only one specimen of this species was collected on the Du Queah.

Iris black, bill and feet red.

25. Alcedo quadribrachys, Temm.

Bütt. N. L. M. 1886, p. 248.

Tolerably common on the banks of the Du Queah and Farmington River.

26. Merops albicollis, Vieill.

Bütt. N. L. M. 1885, p. 166; id. 1886, p. 249.

Whole flocks of these birds found at Schieffelinsville, but less frequent on the Du Queah.

27. Merops erythropterus, Gm.

Bütt. N. L. M. 1885, p. 167; id. 1886, p. 249.

Collected at Paynesville on the Messurado River.

28. Merops gularis, Shaw.

Bütt. N. L. M. 1885, p. 167; id. 1886, p. 249.

Met with near Schieffelinsville and on the Du Queah, but nowhere in great number.

29. Cinnyris venustus (Shaw).

Bütt. N. L. M. 1885, p. 169; id. 1886, p. 250.

Frequently met with in maniok-plantations near Schief-felinsville and on the Du Queah.

30. Cinnyris chloropygius (Jard.).

Bütt. N. L. M. 1885, p. 169; id. 1886, p. 250.

Several times collected near Schieffelinsville and Hill Town, where it is, however, by far not as common as near Grand Cape Mount.

31. Cinnyris fuliginosus (Shaw).

Bütt. N. L. M. 1885, p. 168; id. 1886, p. 251.

Collected at Schieffelinsville, near our station, where it visited, together with other species, as *C. cyanolaemus* and *C. verticalis*, a flowering Cotton-tree.

32. Cinnyris obscurus (Jard.).

Bütt. N. L. M. 1886, p. 251.

Very frequently found on flowering brushwood and especially on the beautiful tulipe-shaped flowers of the Cotton-trees from December to February.

33. Cinnyris cyanolaemus (Jard.).

Bütt. N. L. M. 1886, p. 251.

Three specimens, collected at Schieffelinsville.

34. Cinnyris sp.?

One specimen, No. 86, sex not mentioned, but probably a young female, from Schieffelinsville, does not agree with

any description of Sun-Birds, nor with a specimen in our collection. The whole upper surface is dark brown, the feathers on the head faintly, those of back, upper tail-coverts, scapulars and wing-coverts broadly margined with olive-green; quills and tail-feathers broadly edged with olive-yellow. Tail-feathers dark brown, with paler tips, which are largest on the outermost pair. Sides of head dark grayish brown, like the front, without any superciliary stripe. Lower surface grayish olive-green, with the exception of the throat which is yellowish white, especially on the moustachial streaks; under wing-coverts gray, inner ones tinged with olive; pectoral tufts wanting.

Iris dark brown, bill black, angle and base of lower nandible orange-red, feet dark brown.

Wing 61 mM., tail 42, tarsus 15, bill from front 23.

35. Anthreptes rectirostris (Shaw).

Bütt. N. L. M. 1886, p. 251.

Collected near Schieffelinsville and Hill Town.

36. Prinia mystacea, Rüpp.

Bütt. N. L. M. 1885, p. 171; id. 1886, p. 252.

One specimen collected in a maniok-plantation on the River Cess, during my journey along the coast to Cape Palmas.

37. Hylia prasina.

Sylvia prasina, Cass. Proc. Acad. Philad. 1855, p. 325.
 Sliphrornis superciliaris, Hartl. J. f. O. 1855, p. 355 (ex Temm. M. S.).
 Chloropeta superciliaris, Hartl. Orn. W. Afr. p. 60; id. J. f. O. 1860, p. 129; — Boc. Orn. d'Angola, pp. 285, 555 (1881); — Sharpe, Cat. Birds Br. Mus. VII. p. 172 (1883).

Three specimens collected at Schieffelinsville.

Iris dark brown, bill black, feet grayish green. No difference in color between male and female.

38. Stiphrornis erythrothorax.

Stiphrornis erythrothorax, Hartl. J. f. O. 1855, p. 355 (ex Temm. Mus. Lugd.); id. Orn. W. Afr. p. 63; — Sharpe, Cat. Birds Br. Mus. VII. p. 173, pl. VI. fig. 1 (1883).

Two adult \circ , one jun. \circ , one adult \circ . Junk- and Du Queah River.

Both adult males have the cheeks and moustaches grayish black, especially the latter; one of them has moreover a more brownish tinge on its upper surface and the wingcoverts grayish black instead of ashy gray. The younger male (No 145) has the cheeks pale ashy, and no dark moustachial streak at all. The whole chin and throat is orange-rufous, greater wing-coverts and secondaries tipped with rufous, the latter edged with the same color. The female has the cheeks uniform ashy, and no dark moustachial streak. As it wants the rufous markings on the wings entirely, I consider it to be a fully adult specimen.

Iris brown, bill black, in the younger male yellowish at the gape, feet flesh-color.

This species lives in thick brushwood and in the undergrowth of low forest. Its song is soft and agreeable.

39. Motacilla vidua, Sundev.

Bütt. N. L. M. 1885, p. 173; — Sharpe, Cat. Birds Br. Mus. X. p. 488 (1885).

Found on the Du Queah, the St. John's-, Cess- and Sinoe River, along the rapids and falls, like on the St. Paul's R. during my first visit to Liberia.

40. Motacilla flava, Linn.

Bütt. N. L. M. 1885, p. 174; id. 1886, p. 253; — Sharpe, Cat. Birds Br. Mus. X. p. 516 (1885).

At the same localities as M. vidua, and somewhat farther down the rivers.

41. Anthus pyrrhonotus (Vieill.).

Bütt. N. L. M. 1885, p. 174; id. 1886, p. 253; — Sharpe, Cat. Birds Br. Mus. X. p. 555 (1885).

'This species is spread over whole Liberia, as I found it in all the places I visited between Grand Cape Mount and Cape Palmas, from which latter place it is moreover recorded by Fraser.

42. Pitta angolensis, Vieill.

Bütt. N. L. M. 1885, p. 175.

Only a few specimens procured in Hill Town. Two specimens of this beautiful bird, which were caught in snares, I kept alive for a few weeks, together with Francolinus lathami, and fed them with the larvae of Termes mordax, which were very abundant in the forests of that country.

43. Cossypha cy ano campter.

Bessonornis cyanocampter, Bp. Consp. I. p. 301. Cossypha cyanocampter, Hartl. J. f. O. 1855, p. 360; id. Orn. W.

Afr. p. 76; - Sharpe, Cat. Birds Br. Mus. VII. p. 40 (1883).

This bird is an inhabitant of brushwood and low forest, but seems to be very rare on the Du Queah, only one specimen being obtained.

Iris brown, bill black, feet grayish brown.

44. Cossypha poënsis, Strickl.

Bütt. N. L. M. 1885, p. 176; id. 1886, p. 253.

Only one specimen procured at Schieffelinsville.

45. Cossypha leucosticta.

Cossypha leucosticta, Sharpe, Cat. Birds Br. Mus. VII. p. 44, pl. 1 (1883).

A nestling, received from a native at Hill Town.

Upper surface black, with a broad rusty red band across

Notes from the Leyden Museum, Vol. X.

each feather, leaving a black terminal bar of one mM. in width and thus giving the upper surface the appearance of being rusty red and banded across with black, with the exception of rump and upper tail-coverts, which are entirely rusty red. Quills and wing-coverts black, the primaries narrowly bordered on the outer web and tipped with silvery gray, the secondaries broadly with rusty red, upper wing-coverts with a cordiform or oval spot, surrounded by jet black, on the outermost feather of the greater and median series this spot is pure white instead of red. No white alar speculum, on account of the quills not being sufficiently developed. The tail-feathers are sooty black, the outermost pair very broadly, the next one faintly tipped with white. Lores blackish, superciliary streak pale rusty, a ring of feathers round the eye white, cheeks grayish rusty, chin and upper throat whitish, sides and lower throat fulvous, each feather tipped with black, flanks and under tail-coverts fulvous, breast and abdomen whitish. Iris brown, bill black, feet pale yellow.

46. Alethe diademata (Bp.).

Bütt. N. L. M. 1886, p. 254.

Two specimens, adult and young male, collected in low forest near Hill Town.

Iris grayish brown, bill black, lower mandible and gape yellowish, feet greenish gray.

47. Alethe poliocephala (Temm.).

Bütt. N. L. M. 1885, p. 177.

One specimen from Schieffelinsville, another from the Du Queah.

48. Crateropus atripennis, Sw.

Bütt. N. L. M. 1885, p. 178; id. 1886, p. 254.

An adult male from Schieffelinsville.

49. Turdinus gularis, Sharpe.

Bütt. N. L. M. 1885, p. 178; id. 1886, p. 254.

An adult male from Schieffelinsville.

50. Turdinus fulvescens.

Turdirostris fulvescens, Cass. Proc. Acad. Philad. 1859, p. 54. Turdinus fulvescens, Sharpe, Cat. Birds Br. Mus. VII. p. 545 (1883).

One specimen (Q), collected at Hill Town.

Iris brown, bill horny brown, lower mandible paler, feet flesh-color. Wing 6 cM., tail 2,5.

This specimen is considerably smaller than mentioned by Cassin and Mr. Sharpe. The latter, however, whom I sent this bird with some others for comparison, kindly informs me that it really belongs to *T. fulvescens*, a species which was hitherto not represented in our Museum.

51. Drymocataphus cleaveri.

Drymocataphus cleaveri, Shelley, Ibis, 1874, p. 556; — Sharpe, Cat. Birds Br. Mus. VII. p. 556 (1883).

One specimen, sex not mentioned, from Hill Town. Iris reddish brown, bill grayish brown, lower mandible whitish, feet pale flesh-color.

52. Geocichla princei.

Chamaetylas princei, Sharpe, P. Z. S. 1873, p. 625. Geocichla princei, Seebohm, Cat. Birds Br. Mus. V. p. 164, pl. XII (1881).

An immature female, Du Queah.

This is, as far as I am aware, the first specimen which comes to our knowledge since the type, an adult specimen from Denkera, has been described by Mr. Sharpe.

Our young specimen differs from the description of the type by having the feathers on head, hind neck, intersca-Pulary feathers and 'some of the scapulars marked with a

white shaft-line and both the latter moreover with a broader, rufous shaft-streak. The outer webs of the primaries are much paler than those of the secondaries, the primary coverts and bases of secondaries pure black although both series of wing-coverts, with the exception of the outermost feather of the greater ones, the outer web of which is pale sandy brown, like those of the primaries. Most of the greater wing-coverts are tipped with pure white, like in the adult stage, whilst the resting ones and all the median wing-coverts are broadly tipped with very pale rufous.

Chin, breast, abdomen and under tail-coverts ochraceous, both latter intermixed with pure white feathers, centre of breast, whole chest and a narrow moustachial streak russet brown, each feather with paler centre; a few feathers on the centre of the chest with dark brown centres, the two outermost tail-feathers very faintly tipped with white. Iris dark brown, bill brown, basal half of lower mandible whitish, feet flesh-color.

Wing 12 cM., tarsus 3,2, bill 1,8.

53. Xenocichla syndactyla (Sw.) 1).

Bütt. N. L. M. 1885, p. 179; id. 1886, p. 255.

Several specimens from Schieffelinsville and Hill Town. The males in all our specimens are larger than the females, and the bill about 3 mM. longer and more compressed.

1) Dr. Hartlaub, the Author of the generic name Xenocichia, has not given any diagnosis of the genus, but as he separates X. syndactyla, which is to be considered the type of the genus, from Trichophorus on account of its straight, compressed bill, these latter characters must be made the chief characters of the genus. Hartlaub describes the bill of X. syndactyla as rectius culo, compressed, while the type of the genus Trichophorus, T. barbatus, has the bill bent downwards, broad at the base and only towards the point somewhat compressed. (Conf. Temm. Pl. Col. Vol. 111. pl. 88, and Heine, J. f. O. 1860, p. 138). With regard hereupon I consider Criniger eximius of Authors to be a Xenocichia, and Xenocichia simplex as well as Leucopleura and indicator of Mr. Sharpe (Cat. Birds Br. Mus.) to be true members of the genus Criniger.

54. Xenocichla eximia (Hartl.).

Bütt. N. L. M. 1885, p. 179; id. 1886, p. 255.

Amongst the few specimens, collected at Schieffelinsville and Hill Town, there is an immature female (N°. 35) from the latter place with a very interesting transitional stage of plumage. The specimen has nearly assumed the plumage of the adult bird, but some feathers on hind neck, scapulars, the greater wing-coverts and primary-coverts entirely and the rest of the wing-coverts partially, as well as the tips to the quills and some feathers on the back, are rusty red. A reddish tinge is also visible on the flanks, on some feathers of the throat and on the fore-head. One might therefore conclude that in young birds the whole plumage will have a rusty red color. The whole first half of the bill and the edges of the bill entirely, are yellow, iris brown, feet pale flesh-color.

Like in the former species the male is always larger than the female and this difference is especially striking in the size of the bill.

55. Xenocichla canicapilla (Hartl.).

Bütt. N. L. M. 1885, p. 178; id. 1886, p. 255.

Several specimens from Schieffelinsville and Hill Town.

56. Criniger barbatus (Temm.).

Bütt. N. L. M. 1885, p. 178; id. 1886, p. 255.

Adult male and female, Hill Town.

57. Criniger verreauxi.

Trichophorus gularis, Swains. B. W. Afr. II. p. 266 (1837) (nec Horsf.); — Hartl. Orn. W. Afr. p. 82.

Criniger verreauxi, Sharpe, Cat. Afr. B. p. 21 (1871); id. Cat. Birds Br. Mus. VI. p. 73, pl. 4. (1881).

Two adult females, from Schieffelinsville and Hill Town. Iris brown, bill and feet grayish horn-color.

In brushwood and low forest.

58. Criniger simplex.

Trichophorus simplex, Hartl. J. f. O. 1855, p. 356 (ex Temm.); id. Orn. W. Afr. p. 83.

Xenocichla simplex, Sharpe, Cat. Birds Br. Mus. VI. p. 99 (1881). Criniger simplex, Bocage, Orn. d'Ang. p. 550 (1881).

An adult female, Schieffelinsville.

Iris grayish brown, bill blackish, feet dark brown.

59. Criniger leucopleurus (Cass.).

Bütt. N. L. M. 1885, p. 179; id. 1886, p. 255.

Several specimens collected near Schieffelinsville and Hill Town.

60. Criniger tricolor.

Trichophorus icterinus, Bp. (nec. Strickl.) Consp. I. p. 262 (1850) (ex Temm. Mus. Lugd.); — Hartl. Orn. W. Afr. p. 83.

Trichophorus tricolor, Cass. Proc. Acad. Philad. 1857, p. 33; — Hartl. Orn. W. Afr. p. 265; — id. J. f. O. 1861, p. 164.

Criniger tricolor, Finsch, J. f. O. 1867, p. 25; — Sharpe, Cat. Birds Br. Mus. VI. p. 82 (1881).

One specimen (ad. 3) collected in brushwood near Hill Town.

Iris brown, bill blackish horn-color, tip and lower mandible whitish, feet dark flesh-color.

61. Criniger indicator, Verr.

Bütt. N. L. M. 1886, p. 255.

Schieffelinsville. Like in Xenocichla syndactyla the male is considerably larger than the female. Difference in length of the bill 2 mM., of wing 5.

62. Andropadus latirostris, Strickl.

Butt. N. L. M. 1885, p. 180; id. 1886, p. 256.

Four specimens, Junk River.

While staying in Liberia, I was very anxious to settle Notes from the Leyden Museum, Vol. X. the question how to distinguish specifically A. latirostris and A. virens.

The author of the name *latirostris*, Strickland, and with him Dr. Hartlaub, consider the yellow moustached birds to be the adult and those in which the moustaches are wanting, to be the young birds, while Mr. Sharpe in the Catalogue of Birds, Vol. VI. p. 107, believes that the yellow moustachial streaks are a specific character of A. *latirostris* in both adult and immature stages of plumage.

Unfortunately enough I arrived too late on my hunting grounds to find the birds breading, which takes place in September and October, and no nestlings, together with their parents, could be obtained. This would, however, have been the only way to settle the question. I have collected eight specimens together, four with, and four without the yellow moustaches, and amongst the latter I believe to have adult and immature specimens, while among the first I cannot find any difference in age. On Jan. 30 I have shot in the vicinity of Schieffelinsville three yellow-streaked specimens, all three being females with well-developed ovaries (Nos 71, 74, 75).

Together with the specimens, making already part of our Museum Collection, I have now before me nine yellow-moustached specimens, viz. six from Liberia (St. Paul's-and Junk R.), one from the Gold Coast (Rio Boutry), one from Fernando Po and one only labelled West Africa.

Until we get materials fit to settle the question thoroughly, I accept Mr. Sharpe's opinion, who considers only the monstached birds to belong to the species A. latirostris, while the others, as far as they are known from West Africa North of the Congo, would belong either to A. virens or curvirostris.

Among the moustached specimens collected in Liberia, there is not much difference in color, all having wing-coverts and outer edge of quills olive-green, while in that from the Gold Coast these parts are decidedly reddish brown, which is considered as a mark of immaturity. The

length of the wing varies from 7,3 to 8 cM. The size of the bill is in all the specimens about the same, and in adult and somewhat younger birds the inside of the bill, the angle, and edges as well as the nasal grooves are yellow, the feet yellowish flesh-color. These peculiarities may thus not be considered to be characteristical for immature birds only.

63. Andropadus virens.

Andropadus virens, Cass. Proc. Acad. Philad. 1857, p. 34; — Hartl.
Orn. W. Afr. p. 264; — Sharpe, Cat. Birds Br. Mus. VI. p. 109
(1881); — Boc. Orn. d'Angola, p. 249 (1881).

Four specimens, Junk River.

Amongst these four specimens there is so much difference in size and color, that I only with much hesitation came to the conclusion that they all must belong to this one species. Especially in the size of the bill the variation is so striking, that were no intermediate links between the most different forms, those differences would nearly be sufficient to base different genera upon. The many specimens, already contained in our Museum, have also not been able to throw more light upon the question. One of my four specimens (N° 184) has a very broad and short bill and is undoubtedly a true A. virens. An immature male (N°. 185) with more rusty red wings and a tolerably slender bill, which has the tip, the cutting edge and base yellow, agrees with Dr. Hartlaub's A. erythropterus, said by Mr. Sharpe (Cat. B. Br. Mus., Vol. VI. p. 110) to be the young of A. virens. Both these specimens have the feet ochraceous flesh-color.

The two other specimens (N°. 90 and 179) have the feet dark brown, and the bill is still more slender than in the previous specimen, conspicuously compressed towards the tip and somewhat bent downwards, resembling much that of *Chrysococcyx*. The crown in both specimens is conspicuously darker than the back, i.e. grayish olive-brown in-

stead of green, and chin and throat are strongly tinged with gray. Three other specimens, belonging to the Museum Collection and of which one is from the Gold Coast (Pel), the second from the Gaboon (Duchaillu) and the third from unknown locality, show the same peculiarities, and very likely they might belong to the species A. curvirostris Cass, or minor Boc.

Before I have seen, however, a true specimen of those species, I prefer to range them amongst the specimens of A. virens.

64. Ixonotus guttatus.

Ixonotus guttatus, Verr. Rev. et Mag. de Zool. 1851, p. 306; — Hartl. Orn. W. Afr. p. 88; — Sharpe, Cat. Birds Br. Mus. VI, p. 119 (1881).

Two specimens from Schieffelinsville.

Iris yellowish white, bill horny brown, cutting edge of mandibles and basal half of lower mandible whitish, feet leaden gray. Lives in brushwood.

65. Pycnonotus barbatus (Desf.).

Bütt. N. L. M. 1885, p. 180; id. 1886, p. 256.

· Very common along the whole coast of Liberia.

As its peculiar song is heard very early in the morning about the Liberian settlements, it is said to have the duty to wake up the lazy schoolboys and therefore sings with loud voice: *quick, come up, wash your face, go to school, lazy boy."

66. Terpsiphone nigriceps (Hartl.).

Bütt. N. L. M. 1885, p. 181; id. 1886, p. 256.

Adult male and female from Schieffelinsville.

67. Trochocercus nitens.

Trochocercus nitens, Cass. Proc. Acad. Philad. 1859, p. 50; id. Journ. Acad. Philad. 2nd series, Vol. IV 4°, p. 325, pl. 50, fig. 4; — Sharpe, Cat. Birds Br. Mus. III. p. 300 (1879).

Terpsiphone atrochalybea Q, Sharpe, Ibis 1874, p. 61 (nec Thomson). Terpsiphone nigrimitrata, Reichenow, J. f. O. 1874 p. 110.

Three specimens, adult male and female with their young, obtained in low forest near Hill Town.

I happened to shoot both parents while feeding the young, which had already left the nest The young has the color of the adult female. Both adult male and female agree with our specimens from the Gold Coast, collected by Nagtglas.

Iris brown, upper mandible black, lower mandible and angle of the mouth bluish, feet blue.

68. Muscicapa lugens.

Butalis lugens, Hartl. P. Z. S. 1860, p. 110; id. J. f. O. 1861, p. 169.
Muscicapa lugens, Finsch & Hartl. Vög. Ost Afr. p. 302; — Reichenow,
J. f. O. 1875,p.22; — Boc. Orn. d'Ang. p. 203; — Sharpe, Cat.
Birds Br. Mus. IV. p. 155 (1879).

Three specimens, ad. of, Q and young, altogether killed by one shot, on the Du Queah, Febr. 5th 1887.

Both adult specimens agree perfectly with the description of the type of the species, given by Sharpe in his Catalogue. Wing in the male 70 mM., in the female 65 mM. — Tail in male 54, in female 50 mM.

The young specimen, which short before must have left the nest, shows a distribution of colors about similar to the young $M.\ grisola$.

The whole upper surface is strongly spotted with fulvous. This color occupies in the fashion of a round spot the terminal part of each feather, except, a narrow edge, which is left black. The edge of the wing, the tips to the greater wing-coverts, the broad edges and tips to the secondaries, the tips to the black primaries and tail-feathers are of the same color, the latter however inclining to white. Chin and throat are grayish white, abdomen and under tail-coverts pure white, chest grayish fulvous, faintly mottled with black. Bill black, inside, edges and base of lower mandible yellow.

Considering the geographical range of the West African Muscicapidae, it is peculiar that the Liberian specimens belong to a species hitherto only known as far north as the Cameroon, and not to Mr. Sharpe's subspecies cinerascens from the much nearer Gold Coast. This fact however is far from standing alone, as the same thing is the case with many other species found in Liberia.

This species is, as already stated by Dr. Reichenow (l. c.), a regular inhabitant of the river banks and will never be found anywhere else. It is not shy at all and sits on dead limbs and sticks close to the surface of the water.

69. Smithornis rufilateralis.

Smithornis rufilateralis, Gray, P. Z. S. 1864, p. 143, pl. 16; — Sharpe, Cat. Birds Br. Mus. IV. p. 389 (1879).

Two adult males, shot in high forest near Hill Town and near Weflah.

These small birds call the attention of the huntsman by an extremely loud noise, sounding like Kerr, Kerr, and remembring exactly the call of Dendrohyrax dorsalis. They sit, while calling, always in the dense undergrowth of high forest and use to fly up and immediately come back to the same twig again.

Iris dark brown, upper mandible black, lower whitish, feet green.

70. Diaphorophyia castanea.

Platistira castanea, Fraser, P. Z. S. 1842, p. 141; id. Zool. Typ. pl. 34, fig. 2.

Platystira leucopygialis, Fraser, P. Z. S. 1842, p. 142; — Hartl. Orn. W. Afr. p. 95.

Diaphorophyia castanea, Sharpe, Ibis 1873, p. 172; id. Cat. Birds Br. Mus. IV, p. 140 (1879).

Adult male and female, shot in brushwood near Hill Town, another male at Schieffelinsville.

Iris reddish brown, wattles red, bill black, feet purplish gray.

71. Cassinia finschii.

Cassinia finschi, Sharpe, Ibis 1870, pp. 53, 474, pl. 2. fig. 2; id. Cat. Birds Br. Mus. IV. p. 467 (1879).

Adult male and female, killed in low forest near Hill Town. Iris reddish brown, bill black, feet flesh-color. No difference in color between male and female.

72. Dicrurus atripennis, Sw.

Bütt. N. L. M. 1885, p. 183; id. 1886, p. 257.

Collected near Hill Town.

73. Dicrurus modestus, Hartl.

Bütt. N. L. M. 1885, p. 183; id. 1886. p. 257.

Amongst my specimens from Hill Town there is a half-grown male, which shows the same coloration as the adult bird, so that it could impossibly be mistaken for his Liberian congener *D. atripennis*.

Both species of this genus are very lively and noisy birds, which sometimes live in flocks of twelve to twenty specimens in low forest. Their voice is very harsh.

74. Fraseria cinerascens (Hartl.).

Bütt. N. L. M. 1885, p. 184.

An adult male from Hill Town.

75. Sigmodus caniceps, Bp.

Bütt. N. L. M. 1886, p. 257.

Several specimens from Hill Town and Schieffelinsville.

76. Laniarius multicolor.

Laniarius multicolor, Gray, Gen. B. I. p. 299, pl. 72; — Cass. Proc. Ac. Philad. 1855, p. 439; — Hartl. Orn. W. Afr. p. 108; — Gadow, Cat. Birds Br. Mus. VIII. p. 158 (1883).

Two specimens, a fully adult female and male, were Notes from the Leyden Museum, Vol. X. collected; the first on a small confluent of the Junk River a short distance above the Du Queah, the second near the Farmington River.

Iris in both specimens purplish blue, bill glossy black, feet grayish brown.

Unfortunately the first specimen got destroyed by one of our live monkeys, but before making the skin I wrote down a description of the fresh specimen, which agrees with that given by Mr. Gadow in the above cited Catalogue.

In an observation at the foot of this description Mr. Gadow tells us, that two probably very old specimens in the Brit. Mus. differ from the adult *L. multicolor* by having the whole body below brilliant orange. These two specimens very likely might belong to Dr. Reichenow's *L. melamprosopus*, which was collected by Mr. Schweitzer in Liberia (Journ. f. Orn. 1878, p. 209), a species which is nowhere mentioned in Dr. Gadow's Catalogue.

77. Laniarius sulfureipectus.

Tschagra sulfureopectus, Less. Traité Orn. p. 373.

Laniarius superciliosus, Hartl. Orn. W. Afr. p. 108.

Laniarius sulfureipectus, with full synonymy, see Gadow, Cat. Birds Br. Mus. VIII. p. 159 (1883).

An adult female, Du Queah. Iris blue, bill black, feet gray.

78. Nicator chloris (Less.).

Bütt. N. L. M. 1885, p. 185; id. 1886, p. 258.

Several specimens, from Schieffelinsville and Hill Town, amongst which a very small nestling, which peculiarly enough shows not the slightest difference in color from the plumage of the adult bird.

.79. Corvus scapulatus, Daud.

Bütt. N. L. M. 1885, p. 186.

Met with along the Junk-, St. John's-, Cestos- and Sinoe River, especially in the coast-region.

80. Oriolus brachyrhynchus, Sw.

Bütt. N. L. M. 1885, p. 186; id. 1886, p. 258.

Common in the forests near Schieffelinsville and Hill Town.

81. Ploceus cucullatus (P. L. S. Müller).

Hyphantornis textor, Bütt. N. L. M. 1885, p. 190.

Ploceus cucullatus, id. 1886, p. 259.

(For further references conf. Shelley, Ibis 1887, p. 36).

Common in all the places visited by me from Cape Mount down to Cape Palmas.

82. Ploceus castaneofuscus, Less.

Bütt. N. L. M. 1885, p. 192; id. 1886, p. 258.

Common throughout Liberia.

83. Ploceus tricolor, Hartl.

Hyphantornis tricolor, Bütt. N. L. M. 1885, p. 193.

An adult female, collected in brushwood, near our station at Schieffelinsville.

This was the only specimen I chanced to meet with, notwithstanding all my efforts to obtain more of them. It is similar in color and size to the adult male.

During my short stay at Robertsport in December 1886, I visited the two places which formerly had furnished me my specimens of *P. aurantius* (Notes 1885, p. 188), but though it was the breeding-time, I could not find any, and therefore suppose that they must have left the places.

84. Ploceus nigerrimus.

Ploceus nigerrimus, Vieill. N. D. Vol. 34, p. 130. (1819); — Shelley, Ibis 1887, p. 38.

Sycobius nigerrimus, Hartl. Orn. W. Afr. p. 133; — Boc. Orn. d'Angola, p. 333 (1881).

During my stay at Schieffelinsville, I found a colony Notes from the Leyden Museum, Vol. X.

of about 20 nests, all hanging close together from one (the lowest) branch of a huge Cotton-tree near our station. The other parts of the crown were occupied by a large colony of P. cucullatus, the members of which continually attacked the nests of the former and used the materials for the construction and reparation of their own nests. I killed three specimens of the first species, viz. adult male and female and a somewhat younger male, altogether on one day. Male and female were similar in color. In all three specimens the bases to the feathers of the hind neck were conspicuously ashy white. — Unfortunately all three skins got destroyed by drivers (travelling ants) in the following night, and as I left for Hill Town the next morning, I had no chance to obtain other specimens. When I visited the same place again after some weeks, the whole colony had left the place, evidently driven away by their intolerant congeners.

85. Pyromelana flammiceps (Sw.).

Bütt. N. L. M. 1885, p. 194.

Tolerably common on the grassy plains behind Schieffelinsville; also observed at Oldfield.

86. Quelea erythrops (Hartl.).

Ploceus erythrops (Hartl.), Bütt. N. L. M. 1885, p. 194.

Adult male and female, collected in brushwood and coffee-plantations near Schieffelinsville.

An adult male, recently obtained from the Zoological Garden at Rotterdam, has the head considerably darker red than wild specimens, chin and upper throat are of the same red color as the other parts of the head, the dark brown basal part of the feathers being very small, and a great part of the feathers on the lower surface, the edge of the wing, the edges to the wing-coverts, to some of the feathers of the mantle and of the tail-feathers are strongly tinged with rosy.

87. Nigrita emiliae.

Nigrita emiliae, Sharpe, Ibis 1869, p. 384, pl. 11, fig. 2. Nigrita canicapilla, Bütt. N. L. M. 1886, p. 261.

Collected in an abandoned plantation near Hill Town.

When I wrote my above cited note on Mr. Stampfli's collection, immediately before I was to leave for Liberia, I in the haste overlooked Mr. Sharpe's N. emiliae, the more as our four Museum specimens of this latter species were determined as N. canicapilla, which latter species is not represented in our Museum.

A young specimen from Schieffelinsville may shortly be described as follows:

Entire head, neck, back and lower surface uniform dark slaty gray, somewhat tinged with smoky brown, wings and upper wing-coverts smoky brown, lower wing-coverts white, upper tail-coverts and tail black. Iris yellowish white, bill black, feet smoky brown.

88. Malimbus malimbicus (Daud.).

Sycobius rubricollis, Bütt. N. L. M. 1885, p. 195; id. 1886, p. 259. Malimbus malimbicus, Shelley, Ibis 1887, p. 40.

Several specimens from Schieffelinsville and Hill Town.

89. Malimbus nitens, Gray.

Bütt. N. L. M. 1885, p. 196.

Three specimens, Schieffelinsville and Hill Town.

One of both specimens from the first place, a male (N°. 103, 7 February), has the black crown and sides of the head intermixed with numerous red feathers.

90. Malimbus scutatus, Cass.

Bütt. N. L. M. 1885, p. 196; id. 1886, p. 259.

Several specimens from Schieffelinsville and Hill Town, from the latter place also two large, retorte-shaped nests of this species.

91. Vidua principalis.

Bütt. N. L. M. 1885, p. 197; id. 1886, p. 259.

Tolerably common near Schieffelinsville and Marshall.

92. Coliuspasser macrourus (Gm.).

Bütt. N. L. M. 1885, p. 197; id. 1886, p. 259.

In the same localities as Vidua principalis.

93. Spermospiza haematina (Vieill.).

Bütt. N. L. M. 1885, p. 198; id. 1886, p. 260.

Amongst the specimens from Schieffelinsville and Hill Town there is a, as I think, adult male with the upper tail-coverts broadly tipped with red, a character, which Capt. Shelley (Ibis 1886, p. 316) ascribes to the male of S. guttata.

94. Pyrenestes personatus, Du Bus.

Bütt. N. L. M. 1885, p. 199; id. 1886, p. 260.

One specimen, ad. O, from Schieffelinsville, with the same chocolate-brown plumage as all the former, hitherto collected in Liberia. I feel quite sure that no black specimens are found between Cape Mount and the Junk River and that therefore the specimen from Monrovia, mentioned by Cassin as P. coccineus, is identical with our P. personatus.

95. Pytilia schlegeli, Sharpe.

Bütt. N. L. M. 1885, p. 201.

This specimen agrees with that, described in the above cited Notes as the adult female, the throat and chest however being still stronger tinged with ochre. Breast and abdomen black, and spotted with white, like in adult male.

96. Spermestes fringilloides (Lafr.).

Bütt. N. L. M. 1885, p. 201; id. 1886, p. 261.

Collected near Schieffelinsville.

97. Spermestes bicolor (Fras.).

Bütt. N. L. M. 1885, p. 202; id. 1886, p. 261.

Collected in plantations at Schieffelinsville, where they live together in flocks, of about 20 specimens.

98. Corythaix macrorhynchus, Fras.

Bütt. N. L. M. 1885, p. 202; id. 1886, p. 262.

Collected in the forests near Schieffelinsville and Hill Town. Also observed on the Cestos (Cess)- and Sinoe River.

99. Turacus cristatus (Vieill.).

Bütt. N. L. M. 1886, p. 262.

Collected in high forest along the upper Du Queah.

100. Buceros elatus, Temm.

Bütt. N. L. M. 1885, p. 204; id. 1886, p. 262.

Collected in the forests along the Du Queah, and observed on the Cess- and Sinoe River.

A young specimen I had a long time alive at Schieffelinsville, was very tame and extremely noisy, so that nobody, not even the bare-footed natives, could approach our station without being observed and loudly, with a plaintive voice, announced by this excellent watchman. It was tolerably large when I got it, but we had to cram the food into its bill during about two months, before it was able to help itself. We fed it with butter-pears, Persea gratissima, and very ripe plantains, but it was always a very helpless bird and could hardly walk on flat ground. When it slept it had always the tail clapped to the back. Unfortunately it died from cold during my return to Europe.

The color of its plumage as well as of the naked parts of the skin were the same as in the adult stage, the horn however very slightly developed.

101. Buceros atratus, Temm.

Bütt. N. L. M. 1885, p. 205.

Collected at Hill Town.

102. Buceros cylindricus, Temm.

Bütt. N. L. M. 1885, p. 206.

Only the skull of a very old specimen obtained during a trip to the falls of the Du Queah.

103. Buceros fistulator, Cass.

Bütt. N. L. M. 1885, p. 206; id. 1886, p. 262.

One specimen, Du Queah.

104. Buceros albocristatus, Cass.

Bütt. N. L. M. 1885, p. 207; id. 1886, p. 262.

Several specimens from Schieffelinsville and Hill Town.

105. Buceros semifasciatus, Temm.

Bütt. N. L. M. 1885, p. 208; id. 1886, p. 262.

Met with in all the places I visited.

106. Buceros camurus (Cass.).

Bütt. N. L. M. 1885, p. 210; id. 1886, p. 262.

Collected near Hill 'Town.

107. Psittacus timneh, Fras.

Bütt. N. L. M. 1885, p. 212.

Obtained at Schieffelinsville and Hill Town; observed on the St. John's-, Cess- and Sinoe River.

In March I received a nearly naked nestling from a native, and was happy enough to keep it alive until, shortly before my return to Europe, it got killed by rats at Monrovia. The feathers in the very young stage of plumage are of a fulvous tinge, the tail-feathers nearly as brown as in the adult stage. I said, in my above cited paper, this species to be not as intelligent as erythacus, but if my specimen did not make an exception, I must state that there is absolutely no difference in the intellectual capacities between both species.

108. Psittacula swinderniana, Kuhl.

Bütt. N. L. M. 1885, p. 214; id. 1886, p. 263.

A few specimens from Schieffelinsville, shot on May 10th while feeding on a large fig-tree, out a flock of about twelve specimens.

109. Pogonorhynchus hirsutus (Sw.).

Bütt. N. L. M. 1885, p. 215; id. 1886, p. 263.

Some few specimens from Schieffelinsville.

110. Megalaema suķsulphurea.

Bucco subsulphureus, Fras., P. Z. S. 1843, p. 3; id. Zool. Typ. pl. 52. Barbatula subsulfurea, Hartl. Orn. W. Afr. p. 172.

Megalaima subsulphurea, Goffin, Mus. P.-B. Buccones, p. 44 (1863)) (without enumeration of specimens).

Megalaema leucolaema, Bütt. N. L. M. 1885, p. 216; id. 1886, p. 263.

1) Mr. Goffin, in his Catalogue of the Buccones of the Leyden Museum, has given careful descriptions of the allied species M. subsulphurea and leuco-laima, but unfortunately in the enumeration of the specimens these latter got

An adult male, collected in brushwood, near Schieffelinsville.

Iris black, bill black, feet gray.

111. Megalaema atroflava.

Bucco atroflavus, Blumenb. Abbild. naturh. Gegenst. pl. 65 (1810). Barbatula atroflava, Hartl. Orn. W. Afr. p. 172 (1857). Megalaima atroflava, Goffin, Mus. P.-B. Buccones, p. 42 (1863).

An adult male from Schieffelinsville. Iris and bill black, feet gray.

112. Megalaema scolopacea (Bp.).

Bütt. N. L. M. 1885, p. 217; id. 1886, p. 263.

Several specimens, collected in brushwood near Schieffelinsville.

113. Trachyphonus coffinii (Schl.).

Bütt. N. L. M. 1885, p. 218.

Several specimens from Schieffelinsville and Hill Town.

114. Gymnobucco calvus (Lafr.).

Bütt. N. L. M. 1885, p. 217; id. 1886, p. 263.

Collected near Schieffelinsville.

confounded by mistake, so that those of leucolaima are mentioned after the description of subsulphurea and vice versa. We have thus six catalogued specimens of M leucolaima, and only four of M. subsulphurea. Moreover all the pale-and yellow-throated specimens and the young one, mentioned on p. 45 of that Catalogue, belong to M. leucolaima, instead of to subsulphurea. My determination of the specimens, mentioned in my above cited papers, was based upon comparison with the wrongly labelled specimens in our Museum, and only the field determination of the specimen, collected during my last journey, which I afterwards found to be identical with the former specimens, has led to the discovery of Mr. Goffin's mistake.

Notes from the Leyden Museum, Vol. X.

115. Indicator variegatus, Less.

Bütt. N. L. M. 1885, p. 219.

An adult female, collected near Hill Town, is exactly similar to the specimen which I obtained at Soforé Place during my first journey.

116. Mesopicus pyrrhogaster (Malh.).

Bütt. N. L. M. 1885, p. 219; id. 1886, p. 263.

Shot from a dead Cotton-tree at Schieffelinsville.

117. Campothera caroli (Malh.).

Bütt. N. L. M. 1885, p. 221.

Shot in the same locality as the former species.

118. Chrysococcy x klaasii.

Cuculus Klaasii, Steph. Gen. Zool. IX. Prt. I., p. 129; — Schl. Mus. P.-B.; Cuculi, p. 30 (1864).

Chrysococcyx Claasii, Hartl. Orn. W. Afr. p. 190; — Boc. Orn. d'Angola, p. 144.

An adult male from Hill Town. Iris brown, bill blackish, feet grayish blue.

119. Centropus francisci, Bp.

Bütt. N. L. M. 1885, p. 222; id. 1886, p. 264.

Schieffelinsville and Hill Town.

120. Centropus senegalensis (Linn.).

Bütt. N. L. M. 1885, p. 223; id. 1886, p. 264.

Schieffelinsville.

121. Treron calva (Temm.).

Bütt. N. L. M. 1885, p. 226; id. 1886, p. 264.

During my stay at Hill Town in January, the green Pigeons came almost every morning in whole flocks upon a Fig-tree close to my station, where I easily killed one or two, whenever I was out of fresh meat. My »strangerfather", the Chief of the place, was very estonished seeing that I never shot more than I just needed, but after I had told him, that if I disturbed them too much, they would never come back, he said to some of his people in the usual corrupted English: »You fools! Them white man clever pass (is more clever than) we all! Them tree be him provision-box, to day two, to morrow two, bamby (by and by) all!"

122. Columba unicincta, Cass.

Bütt. N. L. M. 1885, p. 226, pl. 6.

On the fourth of January, just after I had settled at Hill Town, a native brought me a specimen of this rare pigeon, but unfortunately the head of it was shot to pieces. As he promised to bring soon more specimens of the same species, I thought that at length I had found a place, where they would be numerous, and therefore neglected to preserve the mutilated specimen. I am sorry to say that afterwards I never met with the bird again.

123. Columba iriditorques, Cass.

Bütt. N. L. M. 1885, p. 227; id. 1886, p. 264.

Several specimens from Du Queah and Junk River.

124. Peristera puella, Schl.

Bütt. N. L. M. 1885, p. 228; id. 1886, p. 265.

Only now and then met with in low forest near Hill Notes from the Leyden Museum, Vol. X.

Town. One of the collected specimens (N° 10, immature female) has the gray feathers on the head, especially on front, sides of head and chin, strongly intermixed with rusty brown ones, which latter must be considered as the remainders of the plumage of the first year, which would thus be entirely brown. The quills, especially the secondaries, the wing-coverts and scapulars are, as far as they are reddish brown, banded across with black. The metallic spots on the wings, so characteristical in the adult stage, are entirely wanting.

125. Peristera afra (Linn.).

Bütt. N. L. M. 1885, p. 229; id. 1886, p. 265.

Plentiful on the Old Field and near Schieffelinsville.

126. Peristera tympanistria (Temm.).

Bütt. N. L. M. 1885, p. 229.

Found in high forest near Hill Town.

127. Numida cristata, Pall.

Bütt. N. L. M. 1885, p. 230.

Collected at Hill Town.

128. Agelastes meleagrides, Temm.

Bütt. N. L. M. 1885, p. 230.

A small number of specimens, amongst which a half-grown female, were obtained at Schieffelinsville.

To what I have said in my above cited paper I have to add, that the red color of the naked parts in the adult bird is considerably darker on the occiput and hind neck, and that in live specimens the skin on the lower neck, partially covered with white feathers, is beautiful

milky white, but changes into dark blue immediately after death, and afterwards into black.

The half-grown specimen had, when obtained, partially assumed the plumage of the adult stage. To conclude from the remainders of the first plumage, this latter must be very much different from that of the adult bird. The whole head and neck, naked in the adult stage, is tolerably thickly covered with short, downy, blackish brown feathers, only the superciliary region is separated from the occipital one by a narrow band of fulvous feathers, beginning on the front and ending on the neck. The white collar, so characteristical in the adult stage, is wanting, and the feathers of these parts are blackish brown, without vermiculations. The rest of the plumage is of the same color, somewhat paler underneath, with rusty brown tip and zigzag crossbands to each feather. The quills and probably also the tail-feathers, are marbled with rusty red on the tip and outer web. The centre of the abdomen is pure white, while in adult specimens this part is dark mouse-gray.

The bird seems to get both the red and milky color on head and neck after having lost the feathers on these parts. The bill is dark brown, the feet olivaceous brown.

129. Francolinus lathami, Hartl.

Bütt. N. L. M. 1885, p. 231; id. 1886, p. 265.

Several specimens from Hill Town and Weflah on the Du Queah.

Two eggs, similar to that mentioned in the first of my above cited notes, as possibly belonging to F. ahantensis, I received at Hill Town, and I am convinced of their belonging to F. lathami.

130. Glareola megapoda, Gray.

Bütt. N. L. M. 1885, p. 233, 256.

Collected on the Fisherman Lake, near the falls of the Du Queah, St. John's and Cestos River.

When re-visiting my old stations Bendo and Buluma on the Fisherman Lake in December 1886, I was very anxious to see what had become of the small colony of Glareolas, which I formerly knew to have settled on some mangrove-covered and bare rocks in the Lake between both aforesaid stations. I really found on the same spot six specimens — there were formerly never more than eight together — of which I killed two in one shot.

Again I found the same species along the rapids of the Du Queah, on my journey to the falls, in February 1887, but was not able to get any eggs. On the rocks in the St. John's River, above the first rapid, I shot three specimens, viz. an adult male and female with their young. The plumage of the latter is slaty gray with a fulvous tip to each feather, preceded by a narrow black cross-band, the quills and tail-feathers included; the abdomen is pure white, the rusty red collar, so characteristical in the adult bird, not yet developed.

131. Vanellus inornatus, Sw.

Bütt. N. L. M. 1885, p. 235; id. 1886, p. 265.

Met with in flocks of 5—10 specimens in the savannas of the Old Field after the grass was burnt off.

132. Ardea alba, Linn.

Bütt. N. L. M. 1885, p. 238; id. 1886, p. 265.

One specimen killed near the mouth of the Junk River.

At several times I saw single specimens on the mudbanks of the Messurado River.

133. Ardea gularis, Bosc.

Bütt. N. L. M. 1885, p. 238; id. 1886, p. 266.

Only once met with when on a trip along the Barguay River.

134. Ardea atricapilla, Afz.

Bütt. N. L. M. 1885, p. 239; id. 1886, p. 266.

Very common in the whole mangrove-district and even higher up along the banks of the rivers, where we usually found them sitting in shadowy places on old logs close to the surface of the water. When disturbed, they move with noiseless flight to another conveniant place close by.

135. Botaurus leucolophus (Jard.).

Bütt. N. L. M. 1885, p. 240; id. 1886, p. 266.

Two specimens obtained tolerably high up the Du Queah, where they use to sit in trees close to the banks.

136. Ciconia episcopus, Bodd.

Bütt. N. L. M. 1885, p. 242.

A beautiful adult specimen shot at the confluence of the Junk- and Du Queah River.

As it was not severely wounded, I kept it alive for several weeks. Food: lizards, frogs, fish and small birds. The skin on the under surface of the wings, on bare places as well as in those covered with feathers, was blood-red in the live specimen.

137. Ibis olivacea, Du Bus.

Bütt. N. L. M. 1885, p. 242.

A very frequent bird along the Du Queah as far as the forest-region extends. Especially short after daybreak and before sunset it is found in small flocks of 5—12 specimens, roosting on or flying round high silk-cottontrees on the river-banks, where they sometimes make an awfulnoise, still more tremendous and harsh than that of a flock of crows. It is very shy and not easy to get within shot.

138. Numenius phaeopus (Linn.).

Bütt. N. L. M. 1885, p. 243.

Common on the sand- and mud-banks of the Junk River at ebb-tide.

139. Totanus canescens (Gm.).

Bütt. N. L. M. 1885, p. 244; id. 1886, p. 266.

Large flocks along the Barguay River, and on every suitable place in the coast-region.

140. Totanus hypoleucos (Linn.).

Bütt. N. L. M. 1885, p. 244; id. 1886, p. 266.

Single specimens of this Sandpiper were met with along the Du Queah until up to the falls, as well as on all the other rivers I visited during my stay in Liberia.

141. Tringa subarquata (Güld.).

Bütt. N. L. M. 1885, p. 244.

One specimen shot in a brackwater-lagoon on the Barguay River.

142. Rallina oculea.

Gallinula oculea, Hartl. (ex Temm. M. S.) J. f. O. 1855, p. 357. Rallus oculeus, Hartl. Orn. W. Afr. p. 241. Rallina oculea, Schl. Mus. P.-B. Ralli, p. 20 (1865).

An adult male, shot in a swampy inlet of the Du Queah, near Hill Town.

Iris reddish brown, bill green, feet brown, soles yellow.

143. Corethrura pulchra.

Crex pulchra, J. E. Gray, Zool. Misc. I, p. 13; — Schl. Mus. P.-B. Ralli, p. 26 (1865).

Ortygometra pulchra, Hartl. Orn. W. Afr. p. 241.

One specimen, Hill Town, in low, swampy forest. Iris red, bill grayish green, feet reddish brown.

144. Himantornis haematopus, Temm.

Bütt. N. L. M. 1885, p. 245; id. 1886, p. 266.

Several specimens obtained on the Junk River and the Du Queah, one of them in the Mangrove about 200 yards off our station at Schieffelinsville.

145. Heliornis senegalensis (Vieill.).

Bütt. N. L. M. 1886, p. 267.

Tolerably rare on the Junk River, but more common on the Du Queah as far up as Hill Town and still higher.

I found most of them solitary or at least not more than two together, slowly swimming on the river. They are very shy and watchful, and as soon as they observe an approaching canoe, they row with full speed to gain the banks, where they hide themselves under the branches and thick foliage of overhanging shrubs. They are very hard to get on the wing, and only when they have no time enough to reach the bank by swimming, they flutter hastily away, keeping so close to the surface of the water as to beat it continually with wings and feet. While swimming they sit very deep and are therefore not easily killed in that position, the less as they are difficult to get within gunshot, but never, not even when I happened to catch a wounded specimen with the hand, I saw it make an attempt to dive. Its habits are much like those of our common Coot. On 31 Dec. I happened to shoot a male specimen, sitting on a low mangrove-bush near the banks of the Junk River.

The dress of this specimen is so much different from all the other specimens of H. senegalensis before me, and on the other hand so similar to that of our only specimen of H. petersi from Mosambique, and the description of a specimen from Chiloango in Bocage, Birds of Angola, p. 488, that I feel obliged to give a detailed description of

it. The whole upper surface is much darker than in any specimen of the western form I have before me 1), and even darker than in the specimen from Mosambique. The front, crown, hind neck and mantle are black with an intense greenish gloss, the feathers of the hinder part of the mantle, all the upper wing-coverts and the secondaries black and broadly margined with chocolate-brown, the primaries entirely black, the lower back and upper tailcoverts chocolate brown, unspotted, tail-feathers sooty brown, much faded and the white tips nearly worn off, some young, nearly half-grown tail-feathers black and conspicuously tipped with pure white. Some of the scapulars, the lesser wing-coverts and some of the greater, have one, some of the lesser wing-coverts two, pure white, lanceolate or arrow-shaped spots on the shaft of the feather, while those spots in the common plumage of H. senegalensis are more numerous, also on the interscapulary feathers, and more rounded, eye-shaped, and surrounded by black or glossy green. The under wing-coverts are not as largely spotted with white as in the common plumage. The entire chin, throat and fore-neck are slaty gray, which color is separated from the glossy green crown and hind neck by a row of slaty gray feathers, which are broadly tipped with white, forming a narrow but conspicuous line of white, which runs from the hind angle of the eye down to the sides of the chest. Some feathers of the throat are also tipped with white. The feathers of the chest are black. broadly banded across and tipped with white, and also are those of the flanks, thighs and under tail-coverts. The greatest peculiarity of this plumage however is, that the entire breast and abdomen, even in the centre, is spotted with black, each feather being white, with a black spot on each web, forming together a tolerably broad, incomplete crossband.

¹⁾ Three specimens from the Senegal and one from the Gold Coast, making part of the Museum collection, and seven specimens from Liberia (Junk- and Du Queah River).

The iris of this bird was reddish brown, the bill coralred with black ridge, feet and claws coral-red. Wing 19 cM., tail 15, tarsus 4, bill from the feathered part of the base 4.

As I said already, our only specimen of *H. petersi* from Mosambique differs from this specimen only by having the hind parts of its upper surface more olive-brown, and amongst the banded feathers on breast and abdomen are many pure white ones. The measurements of this specimen are exactly similar to those of the above described bird and also of some of the smaller male specimen of *H. senegalensis*.

As far as I know, *H. petersi* is separated from senegalensis on account of its superior size, the darker color of the upper surface and the smaller white speckles on scapulars and wing-coverts, but as I consider, on account of the red bill and black throat, our bird from Mosambique to be an adult male, though in a very peculiar stage, these characters would not be strong enough to base a new species upon, the less, as the darker form is now also found in Liberia and, by Lucan and Petit, near the mouth of the Congo. The plate with male and female of *H. petersi* in Sharpe's Birds of South Africa could, with the exception of the smaller white speckles on the wing-coverts, safely pass for *H. senegalensis*.

When bringing forward these facts, I have no intention to reunite as yet the eastern with the western form, but as I have called the attention of Mr. Stampfli upon this question, I hope soon to receive more well labelled specimens and to be able to make out what the different plumages now before me have to signify. Certainly we cannot say to know this peculiar species fully until we possess enough specimens as to represent the species in all the different stages of age, sex and seasons of the year.

146. Querque dula hartlaubi, Cass. Bütt. N. L. M. 1886, p. 267.

The only place where I was happy enough to observe Notes from the Leyden Museum, Vol. X.

this duck, was a forest of high mangrove- and other trees at the head of the Junk River near the Old Field. Nearly every time, I passed this forest by canoe, I saw two or more, sitting on some overhanging branches of trees, and only once I found a couple swimming, retiring however to their elevated sitting places as soon as they heared the noise of our canoe.

147. Sterna cantiaca, Gm.

Bütt. N. L. M. 1885, p. 249; id. 1886, p. 267.

One specimen killed at Marshall, near the mouth of the Junk River. Also observed at Grand Bassa and River Cess.

148. Hydrochelidon nigra (Briss.).

Bütt. N. L. M. 1885, p. 250; id. 1886, p. 267.

Very large flocks I found near Fish Town, Grand Bassa, on the sand-banks before the mouth of the Bissaw River.

149. Stercorarius cephus (Brünn.).

Bütt. N. L. M. 1886, p. 267.

An adult live specimen obtained short before my return at Monrovia.

150. Plotus levaillantii, Licht.

Bütt. N. L. M. 1885, p. 251; id. 1886, p. 268.

Several specimens, sitting on Pandanus- and Mangrovebushes along the Junk River.

151. Graculus africanus (Gm.).

Bütt. N. L. M. 1885, p. 252.

In the same localities as the former. Also observed on all the rivers I visited lower down the coast.