

ON A COLLECTION OF BIRDS FROM BRITISH EAST AFRICA OBTAINED BY
MR. GEORGE L. HARRISON, JR.

BY WITMER STONE.

The Academy of Natural Sciences of Philadelphia has recently received on deposit from Mr. George L. Harrison, Jr., a collection of birds obtained by him on his travels through Central East Africa in 1904. Through the courtesy of Mr. Harrison and the Academy I have had the privilege of studying this collection and of preparing a report upon it.

While only one of the species represented proves to be new to science, the collection illustrates many interesting points in connection with seasonal and sexual plumages. The specimens are beautifully prepared, and this fact, together with the fullness of the data which accompany them, renders the collection exceptionally valuable.

Mr. Harrison has favored me with the following outline of his route: "We left Nairobi on May 16, 1904, and arrived at Fort Hall on May 30, spending a few days there. From Fort Hall I took a trip down the Tana river, and should have made a much better collection but for the fact that both Camburn, my taxidermist, and myself suffered very severely with fever, and were laid up for some weeks. I got back to Fort Hall on July 9 and sent Camburn in from there to Nairobi. In the meantime I took a trip and met him at Naivasha on August 24. We then started along the Morandat river to El Bolossa swamp, thence to Pesi swamp and along the Guaso Nyiro, until well north of Mount Kenia. I then sent Camburn back over the Abedare range, which he crossed at an altitude of about 10,500 feet, while I got back to Nairobi on November 4."

On account of the lack of adequate material for comparison I have, as a rule, made no attempt to indicate subspecific relationship, although a number of forms here recognized certainly intergrade with others whose ranges they adjoin. In the sequence of families and genera I have followed Dr. Bowdler Sharpe's classification.

PHASIANIDÆ.

1. *Francoelinus schuetti* Cab.

Francoelinus (Scleroptera) schuetti Cab., J. F. O., 1880, p. 351. [Lunda, [Kongo.]

A pair from the Thika river, May 25 and 26. "Irides hazel, orbits and ears ochraceous, bill and feet coral red."

2. *Francolinus hildebrandti* Cab.

Francolinus (Scleroptera) hildebrandti Cab., J. F. O., 1878, p. 206, T. 4. [Teita Dist.]

Naivasha, August 12; Morandat river, August 26. "Irides hazel, orbits dull red, bill dusky, red at base, feet coral red."

3. *Francolinus coqui* (A. Smith).

Perdix Coqui Smith, Rep. Exped. Cent Africa, 1836, p. 55. [Kurrichaine.]

One specimen, Tana river, June 17. "Irides hazel; bill black, yellow at base of lower mandible and edges of upper; feet chrome yellow, ovaries large."

4. *Francolinus* sp.

One chick, Tana river, June 6, probably of the preceding or following species. "Irides hazel, bill and feet pale red."

5. *Francolinus granti* Hartl.

Francolinus grantii Hartl., P. Z. S., 1865, p. 655, Pl. 39, fig. 1. [Unyamuezi.]

Male and young from the Tana river, June 22 and 29. "Irides hazel, bill horn color, feet dull red."

6. *Pternistes infuscatus* Cab.

Pternistes infuscatus Cab., J. F. O., 1868, p. 413. [German E. Africa.]

A pair from Pesi swamp, October 3. "Irides hazel, orbits pale red, bare skin of throat lemon yellow, bill and feet black."

7. *Numida ptylorhyncha* "Licht" Less.

Numida ptylorhyncha "Licht" Less, Traité d'Orn., 1831, p. 498. [Africa.]

A pair from Pesi swamp, Laikipia plateau, October 8. "Irides hazel, throat black spotted with blue, cheeks and wattles pale blue, bill and horn horn-color, feet black."

TRERONIDÆ.

8. *Vinago nudirostris* Swains.

Vinago nudirostris Swains., Birds W. Afr., II, p. 205 (1837).

One from Tana river, June 18, and another on the Guaso Nyiro, October 19. "Irides pale ultramarine, bill ochraceous yellow at base, dull white at tip."

These specimens seem very close to *V. calva* and may be regarded as intermediates.

COLUMBIDÆ.

9. *Columba arquatrix* Temm.

Columba arquatrix Temm., Pigeons, 1, fam. seconde, p. 11, Pl. 5,¹ 1809. [W. Africa.]

¹ The copy of this work in the Academy's library contains not only the suppressed pages but the original covers of the Livraisons. The latter are dated as follows: 1 to 5, 1809; 6 to 8, 1810; 9 to 15, 1811, and it is stated that each Livraison consisted of six plates.

Five examples from El Bolossa swamp, August 31 to September 24. "Irides silver gray, orbits, bill and feet chrome yellow."

PERISTERIDÆ.

10. *Turtur senegalensis* (Linn.).

Columba senegalensis Linn., S. N., I, p. 283, No. 26, 1766. [Senegal.]

Three specimens from the Tana river. June 6 to 17. "Irides hazel, bill purplish black, feet vinaceous."

11. *Turtur damarensis* Finsch and Hartlaub.

Turtur damarensis Finsch and Hartl., Vög. Ost-Afr., p. 550, 1870.

Two from the Tana river, June 20 and 29. "Irides hazel, bill black, feet vinaceous."

12. *Turtur semitorquatus* (Rüpp.).

Columba semitorquata Rüpp., Neue Wirbelth. Vög., p. 66, t. 23, fig. 2, 1835. [Abyssinia.]

Thika river, May 22. "Irides chrome yellow, bill black, feet vinaceous."

13. *Tympanistria tympanistria* (Temm.).

Columba tympanistria [sic] Temm. and Knip., Pigeons, I, fam. seconde, p. 80. Pl. 36, 1810. [S. Africa.]

One from the Thika, May 25, and another from the Guaso Nyiro, October 21. "Irides hazel, bill dusky purple, feet vinaceous."

14. *Chalcopelia afra* (Linn.).

Columba afra Linn., S. N., I, p. 284, 1766. [Senegal.]

Pesi swamp, October 6. "Irides hazel, bill dark purple, feet vinaceous."

RALLIDÆ.

15. *Limnocorax niger* (Gmel.).

Rallus niger Gmel., S. N., II, p. 717, 1788. [Cape of Good Hope.]

Guaso Nyiro, October 21. "Irides and orbit crimson, bill greenish yellow, feet pale coral red."

16. *Gallinula chloropus* (Linn.).

Fulica chloropus Linn., S. N., p. 152, 1758. [Europe.]

Naivasha, August 13. "Irides crimson, bill coral red tipped with yellow, feet grass green, garter crimson."

17. *Porphyryla alleni* (Thomps.).

Porphyrio Alleni Thomps., An. and Mag. Nat. Hist., X, p. 204, 1842. [Idda W. Africa.]

Naivasha, August 25, shot among reeds on the edge of the lake. "Irides light brown, bill pale green, dusky on ridge and at base of upper mandible, feet greenish gray."

Sharpe and most authors quote this genus in the emended form *Porphyriola* from Sundevall, 1872. The original reference, however, is Blyth, *Cat. Birds, Mus. Asiat. Soc. Bengal*, p. 283. While the genus is not described, a type species, *Porphyrio chloronotus* [= *alleni*] is mentioned, which is all that is necessary. The date of Blyth's Catalogue on the title-page is 1849, which is also the year in which the type species was described by him; and from the fact that he leaves the page reference to *Jour. Asiat. Soc.*, XVIII, where the description occurs, blank, we should infer that it had not appeared when he proposed the new generic name. Furthermore, the very paper in which *P. chloronotus* is described is entitled a *supplement* to the Catalogue! This would seem to make *Porphyryula* untenable, being based on a *nomen nudum*. On the other hand, the appendix of the Catalogue, which has every appearance of being strictly a part of it, is dated 1852. If this is the real date of issue it will, of course, make the name *Porphyryula* available, but it will also raise the question of priority between it and *Ionornis*, which likewise dates from 1852.

Some additional light upon the actual date of publication of Blyth's Catalogue seems to be badly needed.

18. **Porphyrio porphyrio** (Linn.).

Fulica porphyrio Linn., S. N., I, p. 152, 1758.

Naivasha, August 21. "Irides red brown, shield and bill crimson, feet pink."

19. **Fulica cristata** Gm.

Fulica cristata Gm., S. N., II, p. 704, 1788. [Madagascar and Sina.]

Naivasha, August 16.

PODICIPEDIDÆ.

20. **Colymbus cristatus** Linn.

Colymbus cristatus Linn., S. N., I, p. 135, 1758.

Naivasha, August 13. "Irides crimson, bill dark slate, feet mottled black and greenish yellow."

LARIDÆ.

21. **Hydrochelidon hybrida** (Pallas).

Sterna hybrida Pallas, Zoogr. Russ. Asiat., II, p. 338, 1811. [S. Volga and Sarpa.]

Naivasha, August 12. "Irides hazel, bill and feet dark crimson."

22. **Larus cirrhocephalus** Vieill.

Larus cirrhocephalus Vieill., Nov. Dict. d'Hist. Nat., XXI, p. 502, 1818. [Brazil.]

Naivasha, August 12. "Irides hazel, bill and feet dull brick red, bill dusky at tip."

CHARADRIIDÆ.

23. *Hoplopterus speciosus* (Wagl.).

Charadrius speciosus Wagler, Isis, 1829, p. 649. [Kaffirland.]

A pair, Naivasha, August 16 and 21. "Irides crimson, bill and feet black."

24. *Stephanibex coronatus* (Bodd.).

Charadrius coronatus Bodd., Tabl. Pl. Enl., p. 49, 1783. [Cape of Good Hope.]

Naivasha, August 11. "Irides dark straw, bill rose pink at base, black at tip, feet rose pink."

25. *Ochthodromus asiaticus* (Pall.).

Charadrius asiaticus Pall., Reis. Russ. Reichs II, p. 715, 1773. [S. Tartary.]

A pair, Pesi swamp, Laikipia, October 5. "Irides hazel, bill dusky, feet ochraceous green."

26. *Ægialitis tricoloris* (Vieill.).

Charadrius tricoloris Vieill., Nov. Dict. d'Hist. Nat., XXVII, p. 147, 1818. [Africa.]

Tana river, June 16. "Irides golden brown, orbits chrome red, bill rose pink at base, tip dusky, feet flesh color."

SCOLOPACIDÆ.

27. *Totanus stagnalis* Bechst.

Totanus stagnalis Bechst., Orn. Taschenb., II, p. 292, 1803.

Naivasha, August 21. "Irides hazel, bill dark olivaceous, feet ochraceous green."

28. *Aotitis hypoleucis* (Linn.).

Tringa Hypoleuca Linn., S. N., p. 149, 1758. [Europe.]

Nairobi, July 21. "Irides hazel, bill dusky, feet pale ochraceous."

29. *Glottis nebularis* (Gunner.).

Scolopax nebularis Gunner., Leem. Lapp. Beschr., p. 251, 1767.

El Bolossa swamp, September 9. "Irides hazel, bill ash gray, dusky at tip, feet ashy green."

30. *Ryaophilus glareola* (Linn.).

Tringa Glareola Linn., S. N., I, p. 149 1758. [Sweden.]

Naivasha, August 21. "Irides hazel, bill dusky greenish, feet ochraceous green."

31. *Actodromas minuta* (Leisl.).

Tringa minuta Leisl., in Bechst Naturg. Deutsch. Nacht., I, p. 74, 1812. [Germany.]

A pair, El Bolossa swamp, September 14. "Irides hazel, bill black, feet very dark brown."

32. *Gallinago nigripennis* Bp.

Gallinago Nigripennis Bp., Icon. Faun. Ital., text to Pl. 43, p. 4, 1832.
[Cape of Good Hope.]

El Bolossa swamp, September 1. "Irides hazel, bill ochraceous green, dusky at tip, feet olivaceous."

33. *Rostratula capensis* (Linn.).

Scolopax capensis Linn., S. N., I, p. 246, 1766. [Cape of Good Hope.]

Tana river, June 16. "Irides hazel, bill greenish gray at base, dull brick red at tip, feet ashy green."

CEDICNEMIDÆ.

34. *Cedicnemis vermiculatus* Cab.

Cedicnemis vermiculatus Cab., J. f. O., 1868, p. 413. [Interior E. Africa.]

Tana river, June 29. "Irides golden yellow, nares and gape yellow, bill black. feet greenish yellow."

OTIDIDÆ.

35. *Eupodotis kori* (Burch.).

Otis Kori, Burch., Travels in S. Afr., I, p. 393, 1822. [Ky Gariep.]

Naivasha. October 29. "Irides gold flecked with black, bill yellowish white, dusky on ridge, feet yellowish white."

GRUIDÆ.

36. *Balearica gibbericeps* Reich.

Balearica gibbericeps Reich., J. f. O., 1892, p. 126. [E. Africa.]

Pesi swamp, October 3. "Irides white, bill black, bare skin purplish red with a creamy white patch on the cheeks, feet black."

IBIDIDÆ.

37. *Ibis æthiopica* Lath.

Ibis æthiopicus Lath., Ind. Orn., II, 1790, p. 706. [Æthiopia.]

Naivasha. August 12. "Irides red brown, bill black, feet dull purple."

38. *Hagedashia hagedash* (Lath.).

Tantalus Hagedash Lath., Ind. Orn., II, p. 1790, p. 709. [Cape of Good Hope.]

Guaso Nyiro, October 19.

39. *Plegadis autumnalis* (Hasselq.).

Tringa autumnalis Hasselq., Reise nach Paläst. Deutsche Ausg., 1762, p. 306.

Naivasha, August 12 and 13. "Irides hazel, bill dark olivaceous, bare skin olivaceous edged with gray, feet olivaceous."

CICONIDÆ.

40. *Pseudotantalus ibis* (Linn.).

Tantalus Ibis Linn., S. N., I, p. 241, 1766. [Egypt.]

Tana river, June 19. "Irides silver gray, bill ochraceous, duller and darker at the tip, bare skin bright red fading to yellow in front of the feathers, feet ashy green, thighs paler with a broad garter of magenta red."

41. *Leptoptilus crumeniferus* (Less.).

Ciconia crumenifera Less., Traité d'Orn., p. 585, 1831. [Senegal.]

El Bolossa swamp, September 2. "Irides hazel, bill dirty greenish white, bare skin on head dull red spotted and mottled with black, neck purplish flesh spotted with black, a patch of pale vermilion at base between shoulders, feet black."

ARDEIDÆ.

42. *Ardea purpurea* Linn.

Ardea purpurea Linn., S. N., I, p. 236, 1766. [Asia.]

Naivasha, July 18. "Irides pale straw, bill yellow deepening to orange at tip and brown along ridge of upper mandible, a brown patch below and in front of the eye, orbit greenish yellow, tarsus greenish yellow, metatarsus brown in front, greenish yellow at back, toes brown chrome yellow beneath."

ANATIDÆ.

43. *Chenalopex ægyptiacus* (Linn.).

Anas ægyptiacus Linn., S. N., I, p. 197, 1766. [Egypt]

Naivasha, August 12 and 22; Pesi swamp, October 8. "Irides dark straw, bill flesh mottled with black, nail black, feet flesh color."

44. *Sarkidiornis melanota* (Penn.).

Anser melanota Penn., Ind. Zool., p. 12, Pl. XI, 1769.

Tana river, June 16. "Irides hazel, bill black, feet ash."

45. *Anas undulata* Dubois.

Anas undulata Dubois, Orn. Gall., p. 119, Pl. 77, 1839. [Cape of Good Hope.]

A pair from Naivasha, August 12 and 18. "Irides hazel, bill chrome, with triangular black spot at gape, black nail and patch on ridge, feet brown."

46. *Nettion punctatum* (Burch.).

Anas punctata Burch., Travels, I, p. 283 (note), 1822. [Zak river.]

Naivasha, August 12; El Bolossa swamp, September 17. "Irides blue gray, bill blue gray, black along the ridge, feet stone gray."

47. *Pœcilonetta erythrorhyncha* (Gmel.).
Anas erythrorhyncha Gmel., S. N., I, Pt. II, p. 517, 1788. [Cape of Good Hope.]
 Naivasha, August 12; El Bolossa swamp, September 1. "Irides crimson, bill purplish red, feet dark gray."
48. *Nyroca brunnea* Eyt.
Nyroca brunnea Eyton, Mon. Anat., p. 161, Pl. 23, 1838. [S. Africa.]
 Naivasha, August 16 and 18. "Irides crimson, bill stone gray, nail black, feet ochraceous gray."
49. *Thalassornis leuconota* "Smith" Eyt.
Thalassornis leuconota "Smith" Eyton, Mon. Anat., p. 168, 1838. [Cape of Good Hope.]
 Naivasha, August 12. "Irides hazel, bill black spotted with yellow."

PHALACROCORACIDÆ.

50. *Phalacrocorax africanus* (Gmel.).
Pelecanus africanus Gmel., S. N., I, Pt. II, p. 577, 1788. [Africa.]
 Naivasha, August 12. "Irides crimson, bill yellow, dusky at tip and along ridge, gape and orbits yellow, feet black."

PELECANIDÆ.

51. *Pelecanus onocrotalus* Linn.
Pelecanus onocrotalus Linn. S. N., I., p. 132, 1758. [Africa and Asia.]
 Naivasha, August 13. "Bill blue, terminal portion of lower and margins and nail of upper mandible mottled red and yellow, pouch and bare skin round the eye yellow, feet flesh color."
52. *Pelecanus rufescens* Gmel.
Pelecanus rufescens Gmel., S. N., I, Pt. II, p. 571, 1788. [W. Africa.]
 Naivasha, August 13. "Bill ochraceous gray, nail yellow ochre, pouch ochraceous gray marked with fine parallel lines of pale yellow, bare skin round eye ochraceous gray with darker spot before and behind the orbit, feet ochraceous flesh color."

VULTURIDÆ.

53. *Neophron pileatus* (Burchell).
Vultur pileatus Burch., Travels, II, p. 195, 1824. [S. Africa.]
 Tana river, June 6. "Irides dark hazel, bill dusky, darker at tip, scale at base pink, feet bluish white, bare skin of head and neck bluish white flushed with pink in patches, wattles cream color."

FALCONIDÆ.

54. *Melierax gaber* (Daud.).
Falco gaber Daud., Traité, II, p. 87, 1800. [River Swart Kop, S. Africa.]
 Pesi swamp, October 7. "Irides crimson, bill black, cere and feet pale coral red."

55. *Buteo augur* (Rüpp.).

Falco (Buteo) augur Rüpp., Neue Wirb. Fauna Abyss. Vögel, p. 38, Taf. 16, 1835. [Abyssinia.]

El Bolossa swamp, September 24; Guaso Nyiro, October 15. "Irides hazel, bill dark slate, feet yellow."

56. *Milvus ægyptius* (Gmel.).

Falco ægyptius Gmel., S. N., I, p. 261, 1788. [Egypt.]

Tana river, June 8; Naivasha, August 23. El Bolossa swamp, September 1; near the Guaso Nyiro, October 14. "Irides brown, bill dusky in young, yellow in adults, feet, cere and orbits yellow."

57. *Elanus cæruleus* (Desf.).

Falco cæruleus Desf., Mém. Acad. Sci., 1787, p. 503, Taf. 15.

"Irides bright crimson, bill black, feet, cere, etc., chrome yellow."

BUBONIDÆ.

58. *Glaucidium perlatum* (Vieill.).

Strix perlata Vieill., Nov. Dict. d'Hist. Nat., VII, 1817, p. 26. [Senegal.]

Tana river, June 19. "Irides bright yellow, bill ochraceous."

PSITTACIDÆ.

59. *Pœocephalus meyeri* Rüpp.

Pœocephalus meyeri Rüpp., [in Cretzschmar's Atlas, p. 18, Taf. 11, 1826. [Kordofan.]

Four from Pesi swamp, October 1 and 9. "Irides chrome red, bill and feet black." These are probably *P. matschiei* Neum., but the variability in the color of the under parts makes me doubtful as to the validity of this species.

60. *Pœocephalus massaicus* Fisch. and Reich.

Pœocephalus massaicus Fisch. and Reich., J. f. O., 1884, p. 179. [Cross Aruscha.]

El Bolossa swamp, August 31 and September 1. "Irides scarlet, orbits and cere ochraceous, upper mandible flesh lower dusky, feet ochraceous spotted with black."

CORACIIDÆ.

61. *Coracias caudata* Linn.

Coracias caudata Linn., S. N., I, p. 160, 1766. [Angola.]

Fort Hall, Maranga, May 29; Tana river, June 29; El Bolossa swamp, September 4. "Irides hazel, bill dusky, feet greenish ochre."

ALCEDINIDÆ.

62. *Ispidina picta* (Bodd.).

Todus pictus Bodd., Tabl. Pl. Enl., p. 49, 1783. [Juida.]

Tana river, July 5. "Irides hazel, feet and bill coral red."

63. *Halcyon chelicuti* (Stanley).

Alaudo [sic] Chelicuti Stanley, in Salt's Exped. Abyss. App., p. lvi, 1814.
[Abyssinia.]

Tana river, June 9. "Irides hazel, bill dusky, lower mandible dull red, feet pinkish horn color, dull red beneath."

64. *Halcyon semicæruleus* (Forskål).

Alcedo semicærulea Forskål, Descrip. Anim, 1775, p. 2. [Yemen.]

Tana river, June 24. "Irides hazel, bill and feet coral red."

BUCEROTIDÆ.

65. *Bycanistes cristatus* (Rüpp.).

Buceros cristatus Rüpp., Neue Wirb., Fauna Abyss. Vögel, p. 3, Pl. 1, 1835.
[Zana See.]

Two from Guaso Nyiro, October 23 and 24. "Irides hazel, bill horn color, horn yellowish pink, feet black."

UPUPIDÆ.

66. *Upupa epops* Linn.

Upupa epops Linn., S. N., p. 183, 1766. [Europe and India.]

Guaso Nyiro, October 22. "Irides hazel, bill dusky, feet ochraceous."

IRRISORIDÆ.

67. *Irrisor jacksoni* Sharpe.

Irrisor Jacksoni Sharpe, Ann. and Mag. Nat. Hist., VI, p. 503, 1890. [Kikuyu.]

El Bolossa swamp, September 21. "Irides hazel, orbits, bill and feet coral red."

68. *Irrisor viridis* (Licht.).

Upupa viridis Licht., Cat. rer. Nat. Hamb., p. 22, 1793.

Tana river, June 22. "Irides hazel, bill and feet coral red."

69. *Rhinopomastus schalowi* Neumann.

Rhinopomastus schalowi Neumann, J. f. O., p. 221, 1900 [Usandawe, E. Africa.]

Pesi swamp, September 30. "Irides hazel, bill black, feet dusky."

70. *Rhinopomastus cabanisi* (De Filippi).

Irrisor cabanisi De Filippi, Rev. and Mag. de Zool., p. 289, 1853. [White Nile.]

Tana river, June 24. "Irides hazel, bill dusky, feet black."

MEROPIDÆ.

71. *Mellitophagus bullockoides* (Smith).

Merops bullockoides Smith, S. Africa Jour. (2), II, p. 320, 1834.

Five from Naivasha, July 21 and 29. "Irides hazel, bill black, feet dusky black."

72. *Mellitophagus oreobates* Sharpe.

Mellitophagus oreobates Sharpe, Ibis, p. 320, 1902. [Elgon.]

Two from Pesi swamp, Laikipia, October 3 and 10. "Irides crimson, bill black, feet horn color." One is immature with green under tail coverts and green down the middle of the breast.

73. *Mellitophagus cyanostictus* (Cab.).

Merops cyanostictus Cabanis, von der Decken's Reisen, III, p. 34, 1869.
[Mombasa and Dschagga.]

Tana river, June 3 and 22. "Irides crimson, bill and feet black."

CAPRIMULGIDÆ.**74. *Caprimulgus frænatus* Salvad.**

Caprimulgus frænatus Salvadori, Ann. Mus. Civ. Gen., p. 118, 1884. [Shoa.]

Two specimens from the Tana river, June 6, appear to belong here. "Irides hazel, bill dusky, feet pinkish brown."

75. *Caprimulgus poliocephalus* Rüpp.

Caprimulgus poliocephalus Rüpp, Neue Wirbelth. Vögel, p. 106, 1835.
[Kulla, Abyssinia.]

El Bolossa swamp, September 6. "Irides dusky, bill hazel, feet pinkish horn."

COLIIDÆ.**76. *Colius leucotis affinis* (Shelley).**

Colius affinis Shelley, Cat. Bds. Brit. Mus., XVII, p. 342, 1892. [White Nile to E. Africa.]

Three adults from Thika river, May 25, and three young in the juvenal plumage from the Tana, June 9. "Irides dark hazel, bill ash gray, upper mandible black except at the base of the ridge, feet red."

MUSOPHAGIDÆ.**77. *Turaeus hartlaubi* (Fisch. and Reich.).**

Corythæix Hartlaubi Fisch. and Reich., J. f. O., p. 52, 1884. [Meru Berg, Massai.]

Two from El Bolossa swamp, September 5, and two from Guaso Nyiro, October 19. "Irides hazel, orbits crimson, bill dull red, feet dark horn."

78. *Chizærhis leucogaster* (Rüpp.).

Chizærhis leucogaster Rüpp., P. Z. S., p. 9, 1842. [Abyssinia.]

Tana river, June 21. "Irides hazel, bill and feet black."

CUCULIDÆ.**79. *Chrysococcyx klaas* (Steph.).**

Cuculus Klaas Steph., Gen. Zool., IX, p. 128, 1815. [Senegal.]

Morandat river, July 28; Pesi swamp, September 1 and 27. "Iris hazel, orbits pale green, bill green, dusky at tip, feet greenish ash."

80. Centropus superciliosus Hempr. and Ehrh.

Centropus superciliosus Hempr. and Ehrh., Symb. Phys., fol. V, 1828. [Arabia and Ethiopia.]

Tana river, June 20 and 22; Naivasha, August 10; Pesi swamp, Laikipia, October 6. "Irides crimson, bill black, feet bluish ash."

81. Centropus monachus Rüpp.

Centropus monachus Rüpp., Neue Wirb. Vögel, p. 57, Pl. 21, fig. 2, 1835. [Kulla, Abyssinia.]

Guaso Nyiro, October 21. "Irides crimson, bill black, feet dark gray."

INDICATORIDÆ.

82. Indicator variegatus Less.

Indicator variegatus Less., Traité, p. 155, 1831. [Africa.]

El Bolossa swamp, August 31. "Irides hazel, bill dusky, feet ochraceous gray."

CAPITONIDÆ.

83. Tricholæma masaicum (Reich.)

Pogonorhynchus masaicus Reich., J. f. O., p. 59, 1887. [Massai Land.]

Four from Naivasha, July 29 to August 3. "Irides hazel, bill and feet black."

PICIDÆ.

84. Dendromus neumanni Reich.

Dendromus neumanni Reich., Orn. Monatsber., p. 132, 1896. [Naivasha.]

Pesi swamp, October 10. "Irides silvery gray, bill dark slate, feet pale grayish green."

85. Dendromus nubicus (Gmel.).

Picus nubicus Gmel., S. N., p. 439, 1788. [Nubia.]

Tana river, June 18 and July 3. "Irides crimson, bill dark slate, feet greenish." These specimens seem to be typical *nubicus*.

86. Dendropicus lafresnayi Malh.

Dendropicus Lafresnayi Malh., Rev. de Zool., p. 533, 1849. [Africa.]

El Bolossa swamp, September 19. "Irides crimson, bill dark slate, feet greenish gray."

87. Dendropicus guinensis massaicus Neum.

Dendropicus guinensis massaicus Neumann, J. f. O., p. 206, 1900. [Ndalalani.]

Pesi swamp, October 10. "Irides crimson, bill dark slate, feet greenish gray."

88. Thripias namaquus (Licht.).

Picus namaquus Licht., Cat. rer. Nat. Hambr., p. 17, No. 179, 1793.

Tana river, June 17 and 21. "Irides crimson, bill black, feet greenish."

89. *Mesopicus spodocephalus* Bp.

Mesopicus spodocephalus Bp., Conap. Gen. Av., I, p. 125, 1850. [W. Africa.]

Naivasha, August 10; Morandat river, August 26. "Irides hazel, bill dark slate, feet greenish gray."

90. *Iynx ruficollis* Wagl.

Iynx ruficollis Wagler, Hist. Nat. de Amph., p. 118, footnote, 1830. [Kaffirland.]

Morandat river, August 28; El Bolossa swamp, September 22. "Irides light brown, bill horn, feet ochraceous."

HIRUNDINIDÆ.**91. *Riparia cincta* (Bodd.).**

Hirundo cincta Boddaert, Tabl. Pl. Enl., p. 45, 1783.

El Bolossa swamp, September 9. "Irides hazel, bill dusky, feet dark horn color." One is an old bird just beginning to molt the body plumage, but with no indications of molting the flight feathers. The other is a bird of the year.

92. *Riparia minor* (Cab.).

Clivicola minor Cab., Mus. Hein. Th., I, p. 49, 1850. [N. E. Africa.]

Naivasha, May 19 and August 21; Tana river, June 6. "Irides hazel, bill black, feet black." The May specimen has just completed the wing molt, and both it and one of the August specimens are obviously young of the year. The other August bird is in the midst of the molt of the flight feathers, while the body molt is nearly completed. It presents an entirely different appearance from the spring adult, being dark plumbeous instead of brown, with white tips to the tertials. The resemblance of the June specimen in the brown breeding plumage to the North American *Stelgidopteryx serripennis* is remarkable.

93. *Hirundo smithii* Leach.

Hirundo Smithii Leach, App. Tuckey's Voy. Congo, p. 407, 1818. [Off Chisall Island.]

Tana river, June 24; Naivasha, August 2. "Irides hazel, bill and feet black."

94. *Hirundo senegalensis* Linn.

Hirundo senegalensis Linn., S. N., I, p. 345, 1766. [Senegal.]

Nairobi, July 21. "Irides hazel, bill black, feet horn color." This specimen is molting; the new feathers are all glossy blue on the body, glossy green on the tail and wing, tertials narrowly tipped with pale buff, old flight feathers dull blackish. The tail shows the outline of the superimposed feathers still glossy, only the exposed terminal portion being worn and dull.

95. *Hirundo griseopyga* Sundev.

Hirundo griseopyga Sundevall, Oefv. K. Vet. Akad. Förh. Stockh., p. 107, 1850. [Natal.]

Nairobi, May 19; Naivasha, August 21. "Irides hazel, bill black, feet dusky."

96. *Hirundo puella abyssinica* Guerin.

Hirundo abyssinica Guerin, Rev. Zool., p. 322, 1843. [Abyssinia.]

Tana river, June 8 and 29. "Irides hazel, bill and feet black."

97. *Hirundo emini* Reich.

Hirundo emini Reichenow, Berl. allg. deutsch. Orn. Ges., XI, p. 2, 1892. [Bussisi and Bukoba.]

Tana river, June 3 and 6. "Irides hazel, bill and feet black."

98. *Psalidoprocne orientalis* (Reich.).

P. petiti orientalis Reichenow, J. f. O., p. 277, 1889. [Usambara.]

El Bolossa swamp, September 22. "Irides hazel, bill black, feet horn color." Wing 4.40 inches, under wing coverts sooty, plumage with an oily green gloss.

MUSCICAPIDÆ.

99. *Melæornis ater* (Sund.).

Bradyornis ater Sundevall, Oefv. Vet. Ak. Förh. Stock., p. 105, 1850. [Kaf-firland.]

Fort Hall, May 31; Tana river, June 3. "Irides dark hazel, bill and feet black."

100. *Bradyornis murinus* Hartl. and Finsch.

Bradyornis murinus Hartlaub and Finsch., Vög. Ost. Afr., p. 866.

Thika river, July 18; Naivasha, August 6; Pesi swamp, October 6. "Irides hazel, bill dusky, feet horn color."

101. *Dioptrornis fischeri* Reich.

Dioptrornis fischeri Reichenow, J. f. O., p. 53, 1884. [Maern Berg, Massai.]

Fort Hall, July 11; Naivasha, August 2; El Bolossa swamp, August 31 to September 8. "Irides hazel, bill ashy, black at tip, feet black." The July adult is in the molt, as are also two young birds obtained August 31 and September 3. The juvenal plumage is strikingly different from that of the adult, being mottled black and white both above and below; the breast feathers are white with black edges, while those of the upper surface are gray at the base with the terminal portion black surrounding a triangular white spot.

102. *Pogonocichla orientalis* (Fisch. and Reich.).

Tarsiger orientalis Fischer and Reichenow, J. f. O., p. 57, 1884. [Pangani, Küstengebeit.]

Kiangop Mts., 10,000 ft., October 26. "Irides hazel, bill black, feet ochraceous gray."

103. Parisoma jacksoni Sharpe.

Parisoma jacksoni Sharpe, Bull. B. O. C., X, p. xxviii, 1899. [Mt. Elgon.]

104. Chloropeta massaica Fisch. and Reich.

Chloropeta massaica Fischer and Reichenow J. f. O., p. 54, 1884. [Tschaga, Fuss des Kilimanjaro.]

Tana river, June 3; Guaso Nyiro, October 21. "Irides hazel, bill dusky, feet dark slate."

105. Batis puella Reich.

Batis puella Reichenow, Jarb. Hamb., p. 19, 1893. [Mrabbo.]

Tana river, June 9. "Irides straw, bill and feet black."

106. Tchitrea perspicillata suahelica (Reich.).

Terpsiphone perspicillata suahelica Reichenow, Werth. Mittl. Hochl., p. 275, 1898.

Fort Hall, Maranga, May 30; Naivasha, August 2. "Irides dark brown, bill, orbits and feet cobalt blue."

107. Cryptolopha mackenziana Sharpe.

Cryptolopha mackenziana Sharpe, Ibis, p. 153, 1892. [Kikuyu and Mt. Elgon.]

Nyeri, October 24. "Irides light brown, bill dusky, feet ash gray."

CAMPOPHAGIDÆ.**108. Campophaga quiscalina** "Finsch" Sharpe.

Campophaga quiscalina "Finsch" Sharpe, Ibis, p. 189, 1869. [Fantee country.]

Nyeri, October 13. "Irides hazel, bill black, feet very dark brown."

109. Campophaga nigra Vieill.

Campophaga nigra Vieill., Nov. Diet. d'Hist. Nat., X, p. 50, 1817. [Africa.]

Pesi swamp, October 1; Tana river, June 22 (?). "Irides hazel, bill and feet black."

PYCNONOTIDÆ.**110. Pycnonotus layardi** Gurney.

Pycnonotus layardi Gurney, Ibis, p. 390, 1879. [Rustenburg, Transvaal.]

Thika, May 22; Fort Hall, May 31 and July 11; El Bolossa swamp, September 3. "Irides hazel, bill and feet black."

TIMALIIDÆ.**111. Argya rufula** Hengl.

Argya rufula Henglin, N. O. Afr., II, p. cccxii (Index), note.

Tana river, June 20. "Irides straw, bill dusky, feet grayish flesh color."

112. Crateropus sharpei Reich.

Crateropus sharpei Reichenow, J. f. O., p. 432, 1891. [Kakoma, Umamuesi.]

Pesi swamp, Laikipia, September 30. "Irides very pale straw, bill black, feet very dark brown."

113. *Crateropus buxtoni* Sharpe.

Crateropus buxtoni Sharpe, Ibis, p. 445, 1891. [Turquel, Suk country.]

Pesi swamp, October 6. "Irides dark straw, bill and feet black."

114. *Crateropus*.

One is juvenal plumage, Tana river, July 6, which I cannot identify with certainty.

TURDIDÆ.**115. *Cossypha iolæma* Reich.**

Cossypha iolæma Reichenow, Ornith. Monats. Ber., VIII, p. 5, 1900. [German E. Africa.]

Naivasha, July 28. El Bolossa swamp, September 5 and 14. "Irides hazel, feet and bill black." *C. mawensis* Neum. does not seem separable.

116. *Cossypha heuglini* Hartl.

Cossypha Heuglini Hartlaub, J. f. O., p. 37, 1866. [Keren.]

Pesi swamp, September 26 and October 6. "Irides hazel, bill black, feet dark brown."

117. *Merula elgonensis* Sharpe.

Merula elgonensis Sharpe, Ibis, p. 445, 1891. [Mt. Elgon.]

El Bolossa swamp, August 31, September 3. "Irides hazel, orbits yellow, feet horn color." One of the August specimens is in full juvenal plumage.

118. *Pratincola axillaris* Shelley.

Pratincola axillaris Shelley, P. Z. S., p. 556, 1884. [Kilimanjaro.]

Naivasha, August 6; Markham Downs, August 29; El Bolossa swamp, September 5 and 10; Guaso Nyiro, October 23. "Irides hazel, bill and feet black." I fail to distinguish this from *P. emmæ* Hartl., J. f. O., 1890, p. 152, but Neumann and Sharpe recognize both.

119. *Myrmecocichla cryptoleuca* Sharpe.

Myrmecocichla cryptoleuca Sharpe, Ibis, p. 445, 1891. [Kikuyu.]

Nairobi, May 16; Thika river, July 18. "Irides brown, bill and feet black."

120. *Saxicola isabellina* Cretzschm.

Saxicola isabellina Cretzsch., Rüpp., Atlas Vög., p. 32, Pl. 34, fig. 1, 1826 [Nubia.]

El Bolossa swamp, September 14 and 20; Pesi swamp, October 6. "Irides hazel, bill and feet black."

121. *Saxicola schalowi* Fisch. and Reich.

Saxicola schalowi Fischer and Reichenow, J. f. O., p. 57, 1884. [Naiwascha.]

Naivasha, August 4 and 29. "Irides hazel, bill and feet black."

122. *Campicola livingstonei* Tristr.

Campicola livingstonei Tristram, P. Z. S., p. 888, 1867. [Zambesi.]

Naivasha, July 28 and 31; Markham Downs, August 29; El Bolossa swamp, September 23. "Irides hazel, bill and feet black." Much grayer on the back than the South African bird, *C. pileata*. These specimens are topotypes of Neumann's *C. albinotata* which I fail to separate from *livingstonei*.

SYLVIIDÆ.

123. *Melocichla orientalis* (Sharpe).

Cisticola orientalis Sharpe, Cat. Bds. B. M., VII, p. 245. [Pangani R.]

Tana river, June 3 and 6, July 3. "Irides pale straw, bill dusky, feet slate gray."

124. *Cisticola tinniens* (Licht.).²

Malurus tinniens Licht., Verz. Samuel Kaffernl, p. 13, No. 70 (1842).

El Bolossa swamp, September 9 and 10. "Irides brown, bill dusky, feet horn color."

125. *Cisticola robusta nuchalis* (Reich.).

Cisticola nuchalis Reichenow, Orn. Monats., I, p. 61, 1893. [Kagera.]

Nairobi, May 16 and 17; Thika river, May 21; Tana river, June 6; Guaso Nyiro, October 22. "Irides light brown, bill dusky, feet flesh color."

126. *Cisticola chiniana* (Smith).

Drymoica chiniana Smith, Ill. Zool., S. Afr. Aves, Pl. 79, 1843. [North of Kurrichane.]

Tana river, June 18. "Irides light brown, bill dusky, feet flesh color."

127. *Cisticola hindii* Sharpe.

Cisticola hindii Sharpe, Bull. B. O. C., VI, p. 7, 1896. [Machakos Sta.]

Fort Hall, June 2; Tana river, June 6; Pesi swamp, October 1. "Irides light brown, bill dusky, feet flesh color."

128. *Cisticola rufopileata* Reich.

Cisticola rufopileata Reichenow, J. f. O., p. 69, 1891.

Fort Hall, Maranga, July. "Irides light brown, bill dusky, feet flesh color."

129. *Cisticola harrisoni* sp. nov.

Two specimens of a *Cisticola* obtained in El Bolossa swamp, September 5 and 19, appear to belong to an undescribed form. In its slender bill and long tail it is evidently related to *C. prinioides* Neuman, but apparently differs in coloration.

² I am under obligations to Mr. Harry C. Oberholser, of the U. S. Department of Agriculture, for aid in identifying the species of this difficult genus.

The type specimen (No. 381 Coll. G. L. Harrison, Jr., El Bolossa swamp, Brit. E. Africa, September 19, 1904, ad. ♂) is nearly uniform above, the dark shaft stripes being but faintly indicated. The prevailing color is sepia, with the edges of the feathers lighter, the head slightly more tawny than the back, being about raw umber of Ridgway's *Nomenclature of Colors*. The edges of the flight feathers are russet, the tail bistre with lighter edgings. Below grayish white, darker and inclining to buff on the sides and flanks, only approaching pure white on the throat, chin and middle of the abdomen, thighs russet. Length (skin) 155 mm., wing 61, tail 71.

The other specimen is in the juvenal plumage and is uniform russet brown above the under surface more suffused with buff than in the adult.

The species is named in honor of Mr. George Leib Harrison, Jr.

Through the courtesy of the U. S. National Museum I have received through Dr. Chas. W. Richmond a series of *C. prinoides*, collected by Dr. W. L. Abbott on Mt. Kilimanjaro, for comparison with this specimen. I find that *C. harrisoni* is at once distinguished by the more uniform, less striped back, by the brighter, more ochraceous tone of the upper parts and the lack of decided contrast between the color of the head and back. The bill is moreover distinctly more slender.

Another Kilimanjaro specimen, identified by Mr. Oberholser³ as *C. hunteri*, is also before me, and appears to be more nearly allied to *C. prinoides* than to *C. harrisoni*, differing in its duller, more sooty coloration. While all three are closely related, *C. harrisoni* stands at one extreme of the series well removed from the other two.

130. *Cisticola cisticola* (Temm.).

Sylvia cisticola Temm., Man. d'Orn., I, p. 228, 1820. [Portugal and Spain.]

Nairobi, May 17; Naivasha, July 31; El Bolossa swamp, September 10. "Irides brown, bill dusky, feet flesh color."

131. *Cisticola lugubris* Rüpp.

Sylvia (Cisticola) lugubris Rüpp., N. W., p. 111, 1835. [Gondar, Abyssinia.]

Nairobi, May 17; Naivasha, June 8.

132. *Schœnicola apicalis* Cab.

Schœnicola apicalis Cabanis, Mus. Hein. Th., I, p. 43 note, 1850. [Kaffirland.]

Thika river, May 22; Tana river, June 3. "Irides light brown, bill dusky, feet flesh color."

³ Cf. *Proc. U. S. Nat. Mus.*, XXVIII, p. 902.

133. *Bradypterus salvadorii* Neum.

Bradypterus salvadorii Neumann, J. f. O., p. 304, 1900. [Gurui.]

El Bolossa swamp, September 10. "Irides hazel, bill dusky, feet horn." I have no specimens from Abyssinia for comparison, but I take the specimen to be this rather than *cinnamomeus*.

134. *Apalis porphyrolæma* Reich. and Neum.

Apalis porphyrolæma Riechenow and Neumann, Orn. Monats., p. 75, 1895. [Eldoma Sta. Mau.]

El Bolossa swamp, September 6. "Irides light brown, bill black, feet pale horn."

135. *Apalis pulchra* Sharpe.

Apalis pulchra Sharpe, Ibis, p. 119, 1891. [Mt. Elgon.]

Guaso Nyiro, October 22. "Irides light brown, bill black, feet silvery gray."

136. *Eminia lepida* Hartl.

Eminia lepida Hartl., P. Z. S., p. 625, 1880. [Magungo.]

Naivasha, August 10. "Irides red brown, bill black, feet flesh color."

137. *Euprinodes golzi* Fisch. and Reich.

Euprinodes Golzi Fischer and Reichenow, J. f. O., p. 182, 1884. [Gross Aruscha.]

Nairobi, August 6. "Irides pale golden brown, bill black edged with slate, feet flesh color."

138. *Sylviella whytii* Shelley.

Sylviella whytii Shelley, Ibis, p. 13, 1894. [Zomba.]

Naivasha, August 2 and 4. "Irides light brown, bill dusky, feet flesh." Clearly this species, according to Grant's Key, *Ibis*, p. 156, 1900. *S. jacksoni* Sharpe is a synonym according to Grant, but is recognized by Sharpe in his *Hand List*.

139. *Camaroptera brevicaudata* "Cretzschm." Rüpp.

Sylvia brevicaudata Cretzschmar, Rüpp., Atlas Vög., p. 53, Pl. 35b, 1826. [Kordofan.]

Tana river, July 5; Naivasha, August 2; Pesi swamp, September 30. "Irides light brown, bill black, feet flesh." I fail to distinguish this from specimens so identified by Dr. R. Bowdler Sharpe in Dr. Donaldson Smith's collection. Cassin's type of *C. tineta* is the same, but *C. griseigula* Sharpe, *Ibis*, p. 158, 1892, I do not know.

140. *Prinia mystacea* Rüpp.

Prinia mystacea Rüpp., Neue Wirbelth. Vögl., p. 110, 1835-40. [Gondar, Abyssinia.]

Fort Hall, Maranga, May 31. "Irides light brown, bill dusky, feet flesh color."

PRIONOPIDÆ.

141. *Eurocephalus rüppelli* Bon.

Eurocephalus rüppelli Bon., Rev. Mag. Zool., p. 440, 1853. [White Nile, Schoa.]

Tana river, June 24. "Irides hazel, bill and feet black."

LANIIDÆ.

142. *Lanius humeralis* Stanley.

Lanius humeralis Stanley, Salt's Travels App., p. li, 1814. [Abyssinia.]

Fort Hall, July 11; Naivasha, July 28 and August 21. "Irides hazel, bill and feet black."

143. *Lanius caudatus* Cab.

Lanius caudatus Cabanis, in V. d. Decken's Reis. Ost-Afr., III, p. 28, Pl. V, 1869. [Mombasa.]

Thika river, May 27; Fort Hall, May 29; Tana river, June 17. "Irides dark hazel, bill and feet black."

144. *Dryoscopus cubla hamatus* (Hartl.).

Dryoscopus hamatus Hartlaub, P. Z. S., p. 106, 1863. [Kazeh, E. Africa.]

Tana river, June 17, July 3 and 5. "Irides chrome red, bill black, feet blue gray." Reichenow regards this as a subspecies of *cubla*, while Sharpe places it in another section of the genus.

145. *Laniarius poliocephalus* Licht.

Laniarius poliocephalus Licht., Vertz Doubl., p. 45, 1823.

Tana river, July 3. "Irides yellowish gray, bill black, feet greenish gray."

146. *Laniarius æthiopicus* (Gmel.).

Turdus æthiopicus Gmelin, S. N., II, p. 824, 1788. [Abyssinia.]

Naivasha, August 10; El Bolossa swamp, September 20 and 22. "Irides hazel, bill black, feet ashy gray." One of these has only white scapulars and white at the nostril.

147. *Pomatorhynchus senegalus* (Linn.).

Lanius senegalus Linn., S. N., I, p. 137, 1766. [Senegal.]

Tana river, June 18 and 24, July 3. "Irides hazel, bill black, feet pale gray."

PARIDÆ.

148. *Parus albiventris* Shelley.

Parus albiventris Shelley, Ibis, p. 116, 1881. [Ogogo.]

El Bolossa swamp, September 3; Pesi swamp, September 30. "Irides hazel, bill black, feet ash."

ZOSTEROPIDÆ.

149. *Zosterops jacksoni* Neuman.

Zosterops jacksoni, Orn. Monatsb., p. 23, 1909. [Mau.]

Naivasha, August 10; El Bolossa swamp, September 1. "Iris hazel, bill black, feet ash gray."

150. *Zosterops kikuyensis* Sharpe.

Zosterops kikuyensis Sharpe, Ibis, p. 444, 1891. [Kikuyu Forest.]

Kiangop Mountain, alt. 10,000 feet, October 26. "Irides brown, bill black, feet blue gray." This specimen differs from the preceding species in the greater extent of yellow on the forehead, the white eye ring, and the distinctly narrower bill. The two seem to be quite distinct.

NECTARINIIDÆ.

151. *Drepanorhynchus reichenowi* Fischer.

Drepanorhynchus reichenowi Fischer, J. f. O., p. 56, 1884. [Naiwascha-see.]

Naivasha, July 28; El Bolossa swamp, September 14. "Irides hazel, bill and feet black." One specimen shows green reflections on the back predominating over the copper; none are fully adult, the head and back being to a considerable extent dull black.

152. *Nectarinia pulchella* (Linn.).

Certhia pulchella Linn., S. N., I, p. 187, 1766. [Senegal.]

El Bolossa swamp, September 6. "Irides hazel, bill and feet black."

153. *Nectarinia kilimensis* Shelley.

Nectarinia kilimensis Shelley, P. Z. S., p. 555, 1884. [Kilimanjaro.]

Fort Hall, May 31 to July 11; Naivasha, August 6 and 21; Pesi swamp, October 5. "Irides dark hazel, bill and feet black." The females or young are much yellower above and below than *N. tacazze*. One of the July specimens is molting.

154. *Nectarinia tacazze* "Stanley" Shelley.

Nectarinia tacazze Stanley, Shelley, Mon. Nect., p. 19, Pl. 7, 1877.

El Bolossa swamp, September 5 and 6. "Irides hazel, bill and feet black." I fail to distinguish *N. jacksoni* Neumann. Molting individuals show that the juvenal plumage is mouse gray like the adult female, except that the center of the abdomen is yellowish. The adult plumage of the male is acquired in September.

155. *Nectarinia famosa cupreoniteus* (Shelley).

Nectarinia cupreoniteus Shelley, Mon. Nect., p. 17, Pl. 6, fig. 1, 1876. [Abysinia.]

El Bolossa swamp, September 5. "Irides hazel, bill and feet black.'

156. *Cinnyris falckensteini* Fisch. and Reich.

Cinnyris Falckensteini Fischer and Reichenow, J. f. O., p. 56, 1884. [Naivasha.]

Naivasha, July 28 and 29, August 6. Guaso Nyiro, October 22. "Irides hazel, bill and feet black." The female is dull olive brown, lighter yellow in the middle of the belly.

157. *Chalcomitra acik* Antin.

Nectarinia Acik Antinori, J. f. O., p. 205, 1866. [Djur Territory.]

Fort Hall, Maranga, July 11. "Irides hazel, bill and feet black." Specimen immature.

MOTACILLIDÆ.**158. *Motacilla vidua* Sund.**

Motacilla vidua Sund., Oefv. Vet. Ak. Förh., p. 128, 1850. [Kaffirland.]

Tana river, July 3. "Irides hazel, bill and feet black."

159. *Budytes campestris* (Pall.).

Motacilla campestris Pallas, Reise Russ. Reichs, III, Anh., p. 696, 1776. [S. Tartary.]

El Bolossa, September 17 and 23. "Irides brown, bill dusky, lighter at base, feet very dark brown." Two of the four examples are adult, the others are in the juvenal (?) plumage, beginning to acquire a few yellow feathers.

160. *Anthus pyrrhonotus gouldi* (Fraser).

Anthus Gouldi Fraser, P. Z. S., p. 27, 1843. [Cape Palmas.]

Pesi swamp, October 9. "Irides hazel, bill dusky, feet ochre-flesh."

161. *Anthus rufulus cinnamomeus* (Rüpp.).

Anthus cinnamomeus Rüpp., Neue Wirb., p. 103, 1835. [Abyssinia.]

Naivasha, July 29 and 31, August 4; El Bolossa swamp, September 9. "Irides hazel, bill dusky, feet flesh." The Naivasha birds are just finishing a complete molt, while the September specimen is in worn plumage and is just beginning to molt. It is evidently an adult, while I take the others to be birds of the year.

162. *Macronyx croceus* (Vieill.).

Alauda crocea Vieill., Nov. Dict. d'Hist. Nat., I, p. 365, 1816.

Thika river, May 22; Tana river, June 3; Pesi swamp, October 3. "Irides hazel, bill dusky, feet ochraceous flesh." The June specimen in full juvenal plumage, while the others are all adults and all in the midst of a complete molt, showing that this species has two complete molts a year.

ALAUDIDÆ.

163. *Mirafra albicauda* Reich.

Mirafra albicauda Reichenow, J. f. O., p. 223, 1891. [Schluss der Sitzung.]

Near Nairobi, May 17. "Irides hazel, bill dusky, feet flesh."

164. *Mirafra athi* (Hartert).

Mirafra africana athi Hartert, Nov. Zool., p. 46, 1900. [Athi plain, Nairobi.]

Near Fort Hall, May 29; Naivasha, July 29, August 6 and 23; Pesi swamp, September 26. "Irides hazel, bill dusky, feet flesh."

165. *Tephrocorys cinerea saturatior* Reich.

Tephrocorys cinerea saturatior Reichenow, Vög. Afr., III, p. 378, 1904. [Angola.]

Naivasha, July 29 and 31. "Irides hazel, bill dusky, feet horn color." Three of the four specimens are in full molt and appear to be young of the year, which in this family have a complete molt when changing from the juvenal to the first winter plumage.

166. *Alseonax murina* Fischer and Reich.

Alseonax murina Fischer and Reichenow, J. f. O., p. 54, 1884. [Fusse, Maern-berg.]

El Bolossa swamp, September 1 and 22. "Irides hazel, bill and feet dark brown."

FRINGILLIDÆ.

167. *Crithagra albifrons* Sharpe.

Crithagra albifrons Sharpe, Ibis, p. 118, 1891. [Kikuyu.]

El Bolossa swamp, September 3. "Irides hazel, bill dusky, feet horn color."

168. *Anomalospiza imberbis* (Cab.).

Crithagra imberbis Cabanis, J. f. O., p. 412, 1868. [Inner E. Africa.]

Naivasha, July 29, August 4; Pesi swamp, September 30. "Irides hazel, bill greenish, feet dusky."

169. *Petronia pyrgita* (Heugl.).

Xanthodina pyrgita Heuglin, J. f. O., p. 30, 1862. [Abyssinia.]

Tana river, June 17. "Irides hazel, bill pale horn, feet grayish brown."

170. *Passer rufocinctus* Fischer and Reich.

Passer rufocinctus Fischer and Reichenow, J. f. O., p. 55, 1884. [Naivasha.]

Naivasha, August 2 and 6. "Irides pale straw, bill black, feet horn color."

171. *Serinus reichenowi* Salvad.

Serinus reichenowi Salvadori, Ann. Mus. Civ. Gen., p. 272, 1888. [Cialalaka.]

Naivasha, August 4. "Irides hazel, bill dusky, feet horn."

172. *Serinus flaviventris* (Blanf.).

Crithagra flaviventris Blanford, Geol. and Zool. Abyss., p. 414, Pl. VII, 1870.
[Abyssinia.]

El Bolossa swamp, September 3 and 8. "Irides hazel, bill dusky, feet dark horn color."

173. *Chrysomitris melanops* (Heugl.).

Fringilla melanops Heuglin, J. f. O., p. 92, 1868. [Gondar (?), Abyssinia.]

Fort Hall, June 2, July 11. "Irides brown, bill dusky, feet horn."

174. *Sp. ?*

A young finch in juvenal plumage.

PLOCEIDÆ.

175. *Hypochæra ultramarina* (Gmel.).

Fringilla ultramarina Gmelin, S. N., I, p. 927, 1788. [Abyssinia.]

Guaso Nyiro, October 24. "Irides hazel, bill pearl white, feet salmon pink."

176. *Lagonosticta brunneiceps* Sharpe.

Lagonosticta brunneiceps Sharpe, Cat. Bds. Brit. Mus., XIII, p. 277, 1890.
[Maragaz.]

Fort Hall, June 10. "Irides dull red, orbits yellow, bill dusky, edged with red, feet horn color."

177. *Coccopygia kilimensis* Sharpe(?).

Coccopygia kilimensis Sharpe, Cat. Bds. Brit. Mus., XIII, p. 307, 1890.
[Kilimanjaro.]

El Bolossa swamp, September 22. "Irides brown, bill black, feet dark horn color." This is a female, and is referred to this form on the ground that Nairobi specimens were so identified by Shelley. Without a male it is impossible to be sure of its relationship.

178. *Estrilda rhodopyga* Sundev.

Estrilda rhodopyga Sundevall, Oefv. K. Vet. Akad. Förh. Stockh., p. 126, 1850. [E. Africa.]

Tana river, June 18, July 5. "Irides brown, bill dusky, feet horn color."

179. *Estrilda minor* (Cab.).

Habropygga minor Cabanis, J. f. O., p. 229, 1878. [Voi River.]

Near Nairobi, May 17; Fort Hall, May 29; Tana river, June 9 (?). "Irides light brown, bill bright red, feet dusky." The Tana river specimen is young, and I am not sure that it belongs here.

180. *Uræginthus bengalus* (Linn.).

Fringilla bengalus Linn., S. N., p. 323, 1766.

One specimen without data.

181. *Uræginthus ianthinogaster* Reich.

Uræginthus ianthinogaster Reichenow, Ornith. Centrabl., p. 114, 1879.

Naivasha, August 6. "Irides brick red, bill dull crimson, feet grayish black."

182. *Spermestes cucullatus* Sw.

Spermestes cucullatus Swainson, Bds. W. Afr., I, p. 201, 1837. [Senegambia.]

Fort Hall, July 11. "Iris hazel, upper mandible black, lower pearl gray."

183. *Nigrita schistacea* Sharpe.

Nigrita schistacea Sharpe, Ibis, p. 118, 1891 (251). [Sotik.]

El Bolossa swamp, September 1. "Irides pale straw, bill black, feet horn color."

184. *Vidua serena* (Linn.).

Emberiza serena Linnæus, S. N., p. 312, 1766.

Fort Hall, July 11; Guaso Nyiro, October 23 and 24. "Irides hazel, bill coral red, feet dusky gray."

185. *Quelea æthiopica* (Sundev.).

Ploceus sanguinirostris var. *æthiopica* Sundev., Oefv. K. Vet. Akad. Förh., p. 126, 1850; Pl. 10, fig. 5, 1890. [Senaar.]

Naivasha, July 31. "Irides brown, bill pale red, feet flesh color."

186. *Philetairus arnandi* (Bonap.).

Nigrita arnandi Bonaparte, Conspect., I, p. 444, 1850. [White Nile.]

Pesi swamp, October 3. "Irides hazel, bill black, feet flesh color."

187. *Coliuspasser delamerei* Shelley.

Coliuspasser delamerei Shelley, Bull. B. O. C., XIII, p. 73, 1903.

El Bolossa swamp, September 9; Pesi swamp, October 8 and 9. "Irides hazel, bill pearl white, feet horn color."

188. *Coliuspasser jacksoni* (Sharpe).

Drepanoplectis jacksoni Sharpe, Ibis, p. 246, Pl. 5, 1891. [Kikuyu.]

Nairobi, May 16; Markham Downs, August 30. "Irides hazel, bill black splashed at the tip with white feet, dark brown." These two specimens are adult males in the black plumage; four birds from Naivasha, August 21, and two from El Bolossa swamp, September 24, are in the striped plumage and appear to belong to this species.

189. *Coliuspasser laticauda* (Licht.).

Fringilla laticauda Lichtenstein, Verg. Doubl., p. 24 footnote, 1823. [Nubia.]

Nairobi, May 16; on the Daruku, May 20; Thika, May 21 to 25; Fort Hall, May 30; El Bolossa, September 5; Guaso Nyiro, October 23 and 24. "Irides hazel, bill black, feet black."

190. *Penthetria eques* (Hartl.).

Vidua eques Hartlaub, P. Z. S., p. 106, Pl. XV, 1863. [Kazch.]

On the Daruku, May 20; Thika river, May 22; Fort Hall, July 11. "Irides dark hazel, bill pearl white, feet black."

191. *Orynx xanthomelas* (Rüpp.).

Euplectes xanthomelas Rüppell, Neue Wirb. Vög., p. 94, 1835-40. [Temben and Simen.]

Fort Hall, June 2; Tana river, June 3; Naivasha, July 29 to August 6. "Irides dark hazel, bill white splashed with black on upper mandible, feet horn color."

192. *Hyphantornis spekei* Heugl.

Hyphantornis spekei Heuglin, Peterm. Geogr. Mitt., p. 24, 1861.

Naivasha, August 6; Laikipia plateau northeast of Nairobi, October 19. "Irides pale straw, bill dusky tinged with red, feet horn color."

193. *Hyphantornis nigriceps* Layard.

Hyphantornis nigriceps Layard, S. Afr., p. 180, 1867. [Kuruman.]

Fort Hall, June 10; Guaso Nyiro, October 24. "Irides crimson, bill black, feet horn color."

194. *Hyphantornis ocularis crocatus* (Hartl.).

Hyphantornis crocata Hartlaub, Abb. Bremen, p. 100, 1881.

Naivasha, August 2; Pesi swamp, October 10; Laikipia plateau northeast of Nairobi, October 22. "Irides pale straw, bill black, feet ash gray."

195. *Othyphantes reichenowi* (Fischer).

Sycobrotus Reichenowi Fischer, J. f. O., p. 180, 1884. [Gross Aruscha.]

Fort Hall, May 31, July 11; Naivasha, August 2; El Bolossa swamp, September 1; Pesi swamp, October 3. "Irides pale straw, bill black, feet horn color."

196. *Xanthophilus xanthops* (Hartl.).

Hyphantornis xanthops Hartlaub, Ibis, p. 342, 1862. [Angola.]

Fort Hall, July 11. "Irides pale straw, bill dusky, feet horn."

197. *Ploceipasser melanorhynchus* Rüpp.

Ploceipasser melanorhynchus Rüppell, Syst. Uebers., p. 78, 1845. [Schoa.]

Thika river, June 15; Tana river, July 6. "Irides hazel, bill black, feet dark gray."

198. *Amblyospiza unicolor* (Finsch and Reich.).

Pyrenestes unicolor Finsch and Reichenow, Orn. Centralb., p. 88, 1878. [Mombasa and Zanzibar.]

Tana river, June 3. "Irides hazel, bill dusky splashed with yellow, feet black."

199. *Dinemellia dinemelli* "Horsf." Rüpp.
Textor Dinemelli "Horsf." Rüppell, Syst. Uebers., pp. 72, 76, T. 30, 1845.
 [Schoa.]
 Tana river, June 17. "Irides hazel, bill and feet black."

ORIOOLIDÆ.

200. *Oriolus larvatus* Licht.
Oriolus larvatus Lichtenstein, Vertz. Doubl., p. 20. [Kaffirland.]
 Tana river, June 21. "Irides crimson, bill dull brick red, feet dusky black."

DICRURIDÆ.

201. *Dicrurus afer fugax* (Peters).
Dicrurus fugax Peters, J. f. O., p. 132, 1868. [Inhambane, Mosambique.]
 Naivasha, August 6. "Irides crimson, bill and feet black."

STURNIDÆ.

202. *Pholidauges verreauxi* Finsch and Hartl.
Pholidauges verreauxi Finsch and Hartlaub, Orn. Afr., p. 867, 1876.
 El Bolossa swamp, September 3. "Irides pale straw, bill black, yellow at tip, feet dark horn."
203. *Pholia sharpii* (Jackson).
Pholidauges sharpii Jackson, Bull. B. O. C., LVIII, Dec., 1898. [Nandi, Equatorial Africa.]
 El Bolossa swamp, August 31. "Irides dark straw, bill black, feet very dark horn."
204. *Lamprotornis viridipectus* Salvad.
Lamprotornis viridipectus Salvadori, Mem. R. Acad. Sci. Torin, p. 560, 1894. [Elgeyn.]
 Tana river, June 17. "Irides hazel, bill and feet black."
205. *Lamprocolius chalybeus* (Ehr.).
Lamprotornis chalybeus Ehrenberg, Symb. Phys., fol. y, Pl. 10, 1828. [Donegala.]
 Naivasha, July 28. "Irides dark straw, bill and feet black."
206. *Malaconotus olivaceus hypopyrrhus* (Hartl.).
Malaconotus hypopyrrhus Hartlaub, Verz. Ges. Mus. Brem., p. 61, 1844.
 Tana river, July 3. "Irides yellow gray, bill black, feet greenish gray."
207. *Spreo superbus* (Rüpp.).
Lamprotornis superbus Rüppell, Syst. Uebers., pp. 65, 75, Taf. 26, 1845.
 [Schoa.]
 Naivasha, July 29, August 6 and 21. "Irides pale straw, bill and feet black."

208. *Perrisornis carunculata* (Gmel.).

Gracula carunculata Gmelin, S. N., I, p. 399, 1788. [Cape of Good Hope (?).]
Naivasha, August 6. "Irides hazel, bill white dusky at base, feet pale horn, bare skin on throat purplish flesh color, behind the eye lemon yellow."

209. *Buphaga erythroryncha* (Stanley).

Tanagra erythroryncha Stanley, Salt's Voy. Abyss., Append., p. lix, 1814.
[Abyssinia.]
Naivasha, August 6; Morandat river, August 26. "Irides dark straw, orbits chrome yellow, bill coral red, feet black."

CORVIDÆ.**210. *Corvultur albicollis* (Lath.).**

Corvus albicollis Latham, Ind. Orn., p. 151, 1790. [Africa.]
Fort Hall, May 29; Tana river, June 4; Markham Downs, August 29.
"Irides dark hazel, bill black white at tip, feet black."

211. *Corvus scapulatus* Dand.

Corvus scapulatus Daudin, Traité, II, p. 232, 1800. [Asia and Africa.]
Tana river, June 4 and 9. "Irides hazel, bill and feet black."

212. *Heterocorax minor* (Heugl.).

Heterocorax minor Heuglin, Syst. Uebers., p. 35.
El Bolossa swamp, September 17. "Irides hazel, bill and feet black."