

## EXPLANATION OF PLATE V.

The figures are drawn by Miss O. F. Tassart, with guidance from the author's sketches and under his direction.

The magnification given is linear and is only approximate.

Fig. 1. <i>Syntaphus wheeleri</i> , sp. n., holotype.	I. 8744.	× 7·7.
Fig. 2. Ditto, paratype.	I. 9325.	× 7·7.
Fig. 3. <i>Euponera (Mesoponera) crawleyi</i> , sp. n., holotype.	I. 8675.	× 7·3.
Fig. 4. <i>Ponera minuta</i> , sp. n., holotype.	I. 9734.	× 5·4.
Fig. 5. <i>Emplastus emeryi</i> , sp. n., holotype.	H. 129.	× 4·2.
Fig. 6. <i>Dolichoderus vectensis</i> , sp. n., holotype.	I. 9198.	× 5·1.
Fig. 7. <i>Dolichoderus gurnetensis</i> , sp. n., holotype.	I. 9755.	× 7.
Fig. 8. <i>Leucotaphus gurnetensis</i> (Cockerell).	I. 9756.	× 7·3.
Fig. 8a. Ditto, cocoon.	I. 9343.	× 2·8.
Fig. 8b. Ditto, worker.	I. 9744.	× 4·5.
Fig. 9. Ditto.	I. 9796.	× 7·3.
Fig. 10. <i>Leucotaphus cockerelli</i> , sp. n.	I. 8517.	× 5·3.
Fig. 11. <i>Oecophylla megarche</i> , Cockerell, wing.	I. 8882.	× 2·7.
Fig. 12. Ditto, dealated female.	I. 8702.	× 4.
Fig. 13. <i>Camponotus (Colobopsis) brodiei</i> , sp. n., holotype.	I. 9551.	× 6.

VI.—*On a Collection of Mammals from the Dinka Country, Bahr-el-Djebel.* By MARTIN A. C. HINTON and P. S. KERSHAW.

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IN 1918 and 1919 Major J. Stevenson Hamilton made a collection of mammals from the banks of the Bahr-el-Djebel, northwards from Lado. He presented his specimens to the Wellcome Research Laboratory at Khartoum, and they have now been sent to the British Museum for determination. The collection is one of considerable interest, and it materially increases our knowledge of the fauna of this region.

1. *Eidolon helvum*, Kerr.

♂. 181 (immature). Duk.  
Dinka name "Alik."

2. *Nycteris hispida*, Schreb.

♂. 79, 83, 84, 85, 86, 87, 88, 89; ♀. 80, 81, 82. Kon-gor, 60 miles north of Bor.

♂. 95, 96, 97. Duk Fagwil, Dinka Country.

♂. 157, 158. Duk Fadiat.

♂. 91; ♀. 90, 92. Dinka Country, 40 miles north of Bor.

Dinka name "Alik."

3. *Rhinolophus fumigatus eloquens*, K. Andersen.

♀. 119. Yei, Lado Enclave, 70 miles west of Nile and 150 miles from Lake Albert.

4. *Lavia frons affinis*, And. & Wrought.

♂. 56, 57, 60; ♀. 58, 61. Mongalla.

♂. 145. Duk.

♀. 190. Conglei.

Dinka name "Alik."

Generally found in trees, but occasionally in huts. The contents of the stomachs of two specimens were examined, and found to consist of mosquitos and small flies.

5. *Chærephon pumilus*, Cretzsch.

♂. 23, 35, 50, 51, 55, 65; ♀. 9 a, 52, 53, 63. Mongalla.

♂. 70, 71, 111, 114; ♀. 112, 113. Bor.

♂. 9 b (mummy).

All caught in houses or huts.

6. *Taphozous hamiltoni*, Thos.

♀. 118 (the type). Mongalla.

This species was described from this collection by Mr. Thomas last January (*supra*, p. 142).

7. *Crocidura nyansa*, Neumann.

♂. 72, 125, 127, 138, 143; ♀. 136, 146, 185. Bor.

♀. 44. Mongalla.

The material is not sufficient to allow of more precise determination.

8. *Crocidura sericea*, Sund.

♀. 18. Badigeru Swamp, east of Mongalla.

♀. 25, 37. Mongalla.

♂. 171, 179; ♀. 170, 177. Duk.

Dinka name "Yëñ."

9. *Crocidura turba nilotica*, Heller.

♂. 17. Badigeru Swamp, east of Mongalla.

♂. 29. Mongalla.

10. *Crocidura lutrella*, Heller.

♂. 2, 66. Mongalla.

11. *Genetta stuhlmanni*, Matsch.

♂. 156; ♀. 150. Duk.

♀. 99. Duk Fagwil.

♀. 75. Bor.

Dinka name "Angong;" Nuer name "Ngong."

12. *Genetta aequatorialis*, Heugl.

♂. 39, 73. Mongalla.

♀. 41. Luri River, 10 miles west of Lado.

13. *Civettictis civetta*, Schreb.

183. Bor.

14. *Herpestes ichneumon*, Linn.

♂. 54, 64. Mongalla.

♀. 149, 151, 152. Duk.

Nuer name "Lunchi."

It is possible that these should be referred to Osgood's *H. i. funestus*; the following are the dental measurements of no. 64:—canine to  $\frac{m.3}{m.2}$  34.2 mm;  $\frac{p.2}{m.2}$  5.3 × 2.8;  $\frac{p.4}{m.2}$  10.3;  $\frac{m.1}{m.2}$  8.7;  $\frac{m.2}{m.2}$  3.8 × 3.

15. *Herpestes sanguineus*, Rüpp.

♂. 26. Mongalla.

16. *Ichneumia albicauda leucura*, Hemp. & Ehr.

♂. 128; ♀. 129. Bor.

A skin collected at Khartoum by Mr. H. H. King.

The Khartoum specimen is small, light-coloured, with a white tail. Those from Bor are large, dark-coloured, with black tails; their cranial and dental measurements are as follows:—

	Condyllo-basal length.	Canine to $\frac{m.3}{m.2}$ .	$\frac{p.4}{m.2}$ .	$\frac{m.1}{m.2}$ .	$\frac{m.2}{m.2}$ .
128....	105	41	9.8	8.4	6.6 × 4.1 mm.
129....	101.8	39.2	9.2	8.1	6.3 × 3.9

17. *Mungos gotnehi*, Fitz.

♂. 93. Bor.

♀. 182. North of Bor.

Dinka name "Ador."

Pocock (P. Z. S. 1916, p. 349) has shown that the African banded mongooses are not congeneric with *Crossarchus*, and he therefore revived Gray's *Ariela* for their reception. But quite recently Allen (Journ. of Mamm. i. p. 27) has recalled the fact that the genus *Mungos* was primarily established upon an African banded mongoose. Therefore *Mungos* becomes the generic name of the animal called in recent years "*Crossarchus fasciatus*" and its allies; while the time-honoured *Herpestes* is restored to the true mongooses.

18. *Canis thooides*, Hiltz.

♀. 109. Bor.

For the determination of this specimen we are indebted to Mr. Thomas. It has been transferred to the National Collection by the Wellcome Research Laboratory, and it is a noteworthy accession, because this interesting Jackal was previously unrepresented in the British Museum.

19. *Heliosciurus multicolor madogæ*, Heller.

2 a. A skin collected by Mr. J. H. Miller at Kajo Kaji, on the west bank of the Bahr-el-Djebel, 15 or 20 miles from the river and 60 miles south of Rejaf.

Practically pototypical.

20. *Taterona benvœnuta*, sp. n.

♂. 47; ♀. 20, 21, 24, 27, 28, 33, 34, 48, 49. Mongalla.

♂. 94. 40 miles north of Bor.

♂. 98; ♀. 100. Duk Fagwil.

♂. 164, 168, 178, 180. Duk.

♀. 194. Lang.

Dinka name "*Ayom*." Caught in grass and undergrowth. The following specimens, presented by Mr. A. L. Butler to the British Museum, are also referable to this species:—

♂. 8. 7. 13. 3. Bor; collected by Dr. Wenyon.

♀ ad. and juv. 8. 4. 2. 20-21. Chak-chak, Bahr-el-Ghazal.

*Hab.*—Bahr-el-Djebel; ranging south to Lake Albert and west to the neighbourhood of Dem Zubeir, Bahr-el-Ghazal.

*Type.*—An adult female (B.M. 20. 4. 26. 27; original no. 49) collected at Mongalla, Jan. 18, 1918, by Major J. Stevenson

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Hamilton; presented to the British Museum by the Wellcome Research Laboratory.

*Description.*—This is a medium-sized sober-hued species, differing externally from *T. robusta* and its allies by having no tuft to the tail and in its skull by the more nearly orthodont incisors and truncated rostrum, the nasals ending almost flush with the anterior surfaces of the incisors instead of projecting noticeably beyond them.

Size medium (average of ten adults: head and body 138 mm.; tail 155; hind foot 32).

Tail clothed throughout with short stiff hairs (black or dark brown above, pure white below), which do not completely conceal the annulations on the upper surface. At the tip these hairs become a little longer and finer, projecting for 2 to 3 mm. beyond the last vertebra; but there is no pencil or dorsal fringe as in *robusta* or *macropus*.

Colour of upper surface much duller than in the species with fringed tails. Ground-colour near "clay-colour," much darkened by black hair-tips on top of head and along mid-dorsum; gradually brightening on flanks to dull buff. Underparts sharply contrasted, pure white. Feet and hands white above. Tail dusky above, dirty white below.

*Skull.*—With nearly orthodont, rather broad, shallowly grooved upper incisors. Anterior blades of premaxillæ, between incisors and nasals, little developed. Nasals relatively short, not projecting far in advance of anterior faces of incisors; occipito-nasal and nasal lengths respectively equal to 108–110 % and 43–45 % of condylo-incisive length; in *robusta* the corresponding dimensions are equal to 114–115 % and 49–52 %. Brain-case relatively narrow and deep.

*Dimensions of type* and of no. 94 (an old ♂, in parentheses):—Head and body 169 (158) mm.; tail 175 (—); hind foot (on skins) 34 (35); ear 19 (21).

*Skull:* condylo-incisive length 37.2 (39.7); occipito-nasal length 41.1 (42.8); nasals 16.6 × 3.9 (17.8 × 3.8); zygomatic breadth 20.8 (—); interorbital breadth 6.1 (6.5); cranial width 16.8 (16.8); median occipital depth 10.9 (11.1); bullæ 11.6 × 6.8 (12 × 7); dental length 20.6 (22); molars (crowns) 6.3 (6.4).

*Remarks.*—One of us lately has been paying much attention to this difficult genus. In the countries bordering the Nile and in East Africa *Taterona* shows a tendency to split into two well-marked groups. In one of these groups the tail is fringed and the coloration usually bright or intense; and these external characters are correlated with protruding nasals, large premaxillary outgrowths, opisthodont incisors, and small cheek-teeth. In the other the tail has no fringe

and the colour is dull, while the skull has a truncated rostrum, with short nasals and small premaxillary outgrowths, orthodont incisors, and large molars. *T. robusta* (including *murinus*, Sund.), *macropus*, *nigricauda*, and *mombase* are typical members of the first group; while *benvenuta*, *flavipes*, *soror*, and *liodon* (with its nearest allies) are representative of the second. In South Africa the distinction between the two groups seems to break down or is less marked. This may, however, be merely an appearance, for it is possible that one of the two groups may be missing from the country south of the Zambezi. If such be the case, the group actually present there must fill all the accommodation available for the genus; and therefore it would not tend to be specialized in either of the two directions as is necessitated elsewhere by competition. The absence of rivals weakens allegiance.

*T. flavipes* and *soror*, described from the banks of the Blue Nile by Mr. G. M. Allen, are clearly nearly related to *benvenuta*. In the absence of material from the Blue Nile we are unable to make a proper comparison; *flavipes* is, however, a considerably larger form than ours, while *soror* would seem to be smaller, brighter in colour, and to have relatively smaller bullæ.

We would take this opportunity to describe

21. *Taterona benvenuta lucia*, subsp. n.

*Hab.*—Musisi River, Lake Albert. Altitude 2400 feet.

*Type.*—An old female (B.M. 11. 12. 9. 34), collected with a male in February 1911, and presented to the British Museum by Mr. Gilbert Blaine.

This differs from the typical form of the Bahr-el-Djebel by its smaller size, shorter tail, and darker colour.

With regard to the difference in size, the hind foot measures 30–31 mm., instead of about 34 as in adults of the typical form; and the condylo-incisive length of the very old female skull is 37·8 instead of about 40 mm.

The tail is about equal to the length of the head and body, instead of being appreciably greater. The back is much more completely and extensively darkened by the black hair-tips than in true *benvenuta*.

*Skull.*—General form as in true *benvenuta*, but smaller and with relatively broader brain-case; incisors with still weaker grooves.

*Dimensions of the type* and ♂ (in parentheses):—Head and body 150 (151) mm.; tail 151 (152); hind foot 30 (31); ear 19 (21).

*Skull*: condylo-incisive length 37·8 (36·9); occipito-nasal length 40·7 (40·2); nasals 17·2×4·5 (16×4·1); zygomatic breadth 20·8 (20·3); inter-orbital breadth 6·8 (6·4); cranial width 17·1 (17·1); median occipital depth 10·7 (10·4); bullæ 11·3×6·7 (11·3×6·9); dental length 21·1 (20·6); molars (crowns) 6·3 (6·7).

22. *Taterillus emini*, Thos.

♀. 132. Aliab Country, west of Nile. Caught in forest near river.

23. *Cricetomys gambianus*, subsp.?

195. Loka, west of Rejaf.

No skull. One of the harsh-furred group.

24. *Rattus alghazal*, Wrought.

♀. 42. Luri River, 10 miles west of Lado.

♀. 43. Luaba, 2 miles west of Lado.

25. *Rattus (Mastomys)* sp.

♂. 159, 160, 161, 162, 165, 166, 167, 173, 175, 176 ;

♀. 154, 155, 163, 169, 172, 174. Duk.

♂. 77, 101, 102, 107, 110, 140, 184, 186 ; ♀. 74, 76, 105, 131, 144. Bor.

♂. 4, 13, 16 a, 31, 117 ; ♀. 15, 32. Mongalla.

♀. 133. Aliab Country, west of Nile, opposite Bor.

♀. 134. Kenisa.

♀. 141. Rengko.

♀. 148. Kongor.

♀. 40. Luri River, 10 miles west of Nile, near Lado.

Dinka name "Lok" (that given for 148 is "Kun"). Captured in or near villages.

26. *Grammomys macmillani gazellæ*, Thos.

♂. 36. Mongalla ; captured in long grass.

♀. 139. Bor ; captured in forest about 1 mile from river.

27. *Leggada bella* (subsp.?).

♂. 122. Kenisa, Bahr-el-Djebel.

♀. 120. Duk.

Caught in grass near forest.

These differ a good deal from each other and may represent distinct subspecies.

28. *Acomys wilsoni argillaceus*, subsp. n.

38. Mongalla.

♀. 108. Bor.

*Type*.—B.M. 20. 4. 26. 15, original no. 38. Collected 2nd June, 1918, by Major Stevenson Hamilton; presented to the National Collection by the Wellcome Research Laboratory.

Captured in scrub and undergrowth.

Size a little less than in *Acomys wilsoni*, Thos., from which it also differs in its less rufous colouring. Spines thick, annulated, their extreme tips being "seal-brown," succeeded by a broad band of "clay-colour," which is followed by "grey" (no. 6, Ridgway) to the base. General colour very similar to that of *A. w. ablutus*, Dollm., but lighter owing to the clay-coloured annulations being broader in our animal.

Skull very much as in *A. wilsoni*, conspicuously larger than in *A. w. ablutus*.

*Dimensions of the type* (measured in the flesh):—Head and body 76 mm.; tail 51; hind foot 12; ear 10.

*Skull*, type and no. 108 (in parentheses): condylo-incisive length 22·4 (23·2); occipito-nasal length 24·6 (—); zygomatic breadth 12·1 (12·1); interorbital constriction 4·5 (4·5); breadth of brain-case 11·1 (11·1); length of anterior palatal foramina 6 (5·7); dental length 11·8 (12); molars (crowns) 3·5 (3·8).

*Remarks*.—This member of the *wilsoni* group is geographically isolated, its nearest neighbours on the north and south being *A. witherbyi* and *A. hystrella*, from both of which it differs widely in size and colour.

29. *Arvicanthis abyssinicus rubescens*, Wr.

♂. 6, 7, 8, 959; ♀. 3, 5, 10, 11, 12, 13, 14, 30, 45, 46, 124. Mongalla.

♂. 103, 105, 123, 126; ♀. 104, 135, 137. Bor.

30. *Lemniscomys zebra*, Heugl.

♂. 16, 19. Badigeru Swamp, 20 miles east of Mongalla.

♂. 62. Mongalla.

♀. 121. Rejaf.