

mitted this specimen to Mr. R. Trimen, F.R.S., who had favoured him with the following remarks upon it:—

“On comparison of the specimen with the series in the British Museum, there can be no doubt at all that it is a veritable *Cossus ligniperda*, or ‘Goat-Moth.’

“It would be interesting to know the history of this example, for there can be no question that timber-burrowers are carried about the world more than most insects, and it seems possible that the larva of this *Cossus* may have travelled in logs to the Cape, and been developed there, and so been sent home as a South-African insect.

“It is also not altogether unlikely that the species may have been introduced into South Africa and have established itself there, as it feeds on several different trees, and the willow (one of its food-trees in Europe) is represented by a closely-allied *Salix* in South Africa.”

The following papers were read:—

1. On the Mammals collected during the Whitaker Expedition to Tripoli. By OLDFIELD THOMAS.

[Received March 26, 1902.]

(Plate I.¹)

Mr. J. I. S. Whitaker, F.Z.S., who has already done so much for the exploration of the Vertebrate Fauna of Northern Africa, and to whom our National Museum is indebted for important collections of Mammals from Sicily, Tunis, and Morocco, has long wished to send a collecting expedition into the little-known country of Tripoli. Last year, by the kind intervention of the Foreign Office, permission was obtained from the Sultan for Mr. Edward Dodson and a companion, Mr. Drake, to travel through that country, collecting specimens, and it is the Mammalian results of this expedition of which the present paper gives an account.

The expedition was carried out entirely at Mr. Whitaker's expense, and, as in the case of the previous Moroccan expedition, he has generously presented the great majority of the Mammals collected to the National Museum, to which they form a most valuable addition.

As so often happens in such cases, the material available for comparison with the Tripoli collection is most imperfect, and badly needs supplementing by specimens collected in modern fashion. Indeed, of Barbary Mammals the only modern specimens are those of Mr. Eaton from Biskra, and Mr. Dodson's own previous collections from Morocco. Zoologists, therefore, who spend their winters in the south would do a great service to

¹ For explanation of the Plate, see p. 13.

P.Z.S. 1902, vol. II. Pl. I.



J. Smit del. et lith.

LEPUS WHITAKERI.

Mintern Bros. imp.

Science and the Museum if they would collect any mammals, however common, at the places they go to.

Mr. Dodson left the town of Tripoli on April 2nd, 1901, and travelled southwards by way of Sokna to Murzuk, then returned to Sokna, and from there travelled north-eastwards to the Syrt district, where he worked eastwards along the coast to Ben-Ghazi.

His localities are thus divisible into four groups, as follows:—

I. Inland country north of Sokna. March 1901 and middle of June to middle of July. Specimens collected at Tarhuna, Wadi Sofedjin, W.¹ Nefed; W. Bey; Bonjem; Erdeul; Ain Hammam; W. Titti; W. Agarib; W. Wakis; Oumsinerma; Limhursuk; Gebel Binsertia.

This is a desert region, without marked elevations; interspersed with small oases.

II. Soda Mountain district just south of Sokna (28° 55' N., 16° 15' E.). Beginning of May and second week of June. *Localities.* Tamari-Ferdjan; W. Sultan; Getefa; Linzerat.

The Soda Mountains rise to about 3000 ft. above the general level of the plain, not high enough therefore to have any noticeable climatic or faunal peculiarity. There is a map of this district in Rohlf's 'Kufra' (1881).

III. Level and descending country southwards to Murzuk (sea-level or below). *Localities.* Shup; Oum el Abid; Zighen; Sebha; Ghodua; Murzuk.

IV. Coast district eastwards from Syrt towards Ben Ghazi. End of July and beginning of August. W. Aggar; Elcusher; Bon Cheifa; Sidi Sweya; Sidi Faradje.

From a geographical standpoint, therefore, the region traversed is of a very good representative character. But, zoologically, there must be many more species which, on account of the hurried nature of the march, and the difficulties in collecting in so wild and semi-hostile a country, must have been missed by Mr. Dodson's party. Indeed, under the circumstances it is surprising how admirable a collection has been made.

As might be expected from the position of Tripoli between Egypt and Algeria, and the homogeneous nature of all three regions, the mammals have no marked general affinity or peculiarity. Some, such as *Acomys*, *Gerbillus pyramidum*, *G. eatoni*, and *Dipodillus vivax*, are Egyptian in affinity; and others, notably the *Ctenodactylus*, are distinctly Algerian; but these affinities are evidently only the eastward and westward extensions, hitherto unknown, of Algerian and Egyptian forms, and there seems to be no special faunal relationship with either of the two countries more than the other.

The proportionate number of new forms in the collection is remarkable, the most notable being the *Ctenodactylus* and the fine Hare which I have named in honour of Mr. Whitaker, to whose enterprise and generosity the expedition is due, and who is to be congratulated on its very successful outcome.

¹ W. = Wadi.

1. *PIPISTRELLUS DESERTI*, sp. n.

71. ♂. Mursuk. 30/5/1.

A small buff-coloured desert ally of *P. kuhli*, with a particularly small skull.

Size smaller than *P. kuhli*, but the forearm-length not so much less than in that form as to be in proportion with the much smaller skull. General structure, of ears, wings, and dentition, as in *P. kuhli*. Ears and tragus pale transparent buffy, little darker than the general colour. Wings dark brown, the usual white edging very conspicuous. Interfemoral paler brown, white posteriorly.

Colour of fur pale buffy, between cream and pinkish buff of Ridgway, strikingly different from the colour in ordinary *kuhli*. The hidden bases of the hairs dull slaty. Belly-hairs blackish slaty basally, whitish buff terminally.

Skull very small and delicate; the total length, the breadth across brain-case, and the length of the tooth-series, all conspicuously less than in *P. kuhli*, whether from Europe, Morocco, Tunis, or Egypt.

Dimensions of the type:—

Forearm 29.5 mm.

Head and body (measured in flesh) 43; tail (do.) 33; ear (do.) 10; third finger, metacarpal 29, first phalanx 10, second phalanx 8.5; lower leg and hind foot (c.u.) 22.

Skull—greatest length 11.6, median length above 10, median length below 9; interorbital breadth 4.1; intertemporal breadth 3.1; breadth of brain-case 6.2; front of canine to back of m^3 4.3.

Type. Adult male. Original number 71.

Although with the general characters of *P. kuhli*, I do not feel justified in calling this Bat only a subspecies of that animal, for other North-African bats of this group, while tending towards *P. deserti* in colour, show no approach to its conspicuous reduction in size of skull. Examples of *P. kuhli* from Morocco (*Dodson*), Tunis (*Anderson*), and Egypt (*Anderson*), all have skulls of the full normal size.

Two names might have been thought to refer to it. Cretzschmar's *V. marginatus* from Nubia is paler in colour than usual, but Dr. Anderson's specimens show that the form from there is of the usual size.

Pipistrella minuta Loche¹, on the other hand, is so far smaller as either to be a totally different form, or, more probably, the young of some indeterminable species. Its locality is in the Algerian range of *P. kuhli*.

2. *HYÆNA HYÆNA* L.

43. Getefa, near Sokna. 5/5/1.

¹ Expl. Scient. Alg. p. 78 (1867).

3. *CANIS* sp.

Skull: "Found in ancient water-reservoir at Sidi Abdul Arbi."
Probably a domestic dog.

4. *VULPES* sp.

Skull: "Found in old reservoir at Sidi Faradje."

This skull is not distinguishable from that of a female *V. ægyptiaca* from the Lower Nile.

5. *GERBILLUS PYRAMIDUM TARABULI*, subsp. n.

15. 16. 28. 31. Ain Hammam. 27/4/1-2/5/1.

35. 36. 38. 41. Tamari-Ferdjan. 5/5/1.

42. Linzerat. 7/5/1.

47. 48. 49. 51. 52. Oum el Abid. 10/5/1.

56. 57. 58. 59. Zighen. 15/5/1.

67. 69. Ghodua. 23/5/1.

64. 65. 73. 74. 75. 76. Sebha. 19/5/1-5/6/1.

89. El Koshby. 18/6/1.

91. W. Sultan. 18/6/1.

92. 95. Ferdjan. 19-20/6/1.

98. 99. 102. 103. Ain Hamman. 24/6/1.

105. 106. 107. 109. 114. W. Agarib. 29/6/1-3/7/1.

154. W. Aggar. 25/7/1.

Size, proportions, and skull as in typical *G. pyramidum* from Lower Egypt, but the colour of the upper surface uniformly bright ochraceous buff, not darker or more brownish on the back. This same bright colour is present even in the young. Post-auricular white patch conspicuous.

Dimensions of the type, measured in the flesh:—

Head and body 105 mm.; tail 149; hind foot (s.u.) 30; ear 15.

Skull—greatest length 32·7; basilar length 25; greatest breadth 17·2; nasals, length 13; interorbital breadth 6·6; diastema 9; palatal foramina 6; length of upper molar series 4.

Hab. of type. Sebha.

Type. Female. No. 76. Killed June 5, 1901.

The typical *G. pyramidum*, although its sides are bright ochraceous, has the dorsal area, at least posteriorly, darkened and more or less lined with brown. In the Tripolitan series the ochraceous covers the whole upper surface. The Nubian *G. pygargus*, on the other hand, of which the Museum has a fine series from Shendy, obtained by the Hon. N. C. Rothschild, although similar to *G. p. tarabuli* in colour, is markedly smaller, both in skull and foot.

No representative of *G. pyramidum* has as yet been found in Algeria.

6. *GERBILLUS GERBILLUS* Oliv.

24. 30. Ain Hammam. 28-29/4/1.

63. Attieh Louileh. 5/1.

70. Ghodua. 23/5/1.

- 77.78. Loumoulieh. 6-7/6/1.
 80.81.82. Shup. 8-9/6/1.
 101. Ain Hammam. 24/6/1.
 154. W. Aggar. 25/7/1.

I can find no satisfactory distinction between these specimens and topotypes from Lower Egypt.

The Algerian representative of *G. gerbillus* is Lataste's *G. hirtipes*. A specimen in his collection—No. 1595—one of the co-types labelled by him, has the molars 1.4 mm. in breadth. Should he prove to have mixed up any other form among his rather diverse series, this skull, the length of which (28.5 mm.) was given in the original description, might be considered as the type.

7. GERBILLUS EATONI, sp. n.

113. W. Agarib. 3/7/1.
 147.148.149.151. Elcusher. 24/7/1.
 159. W. Aggar. 26/7/1.

A representative of the Egyptian *G. andersoni* de Wint.

General colour comparatively dark, finely lined with brown, very different to the brilliant clear tone of *G. hirtipes*. Feet short and stout, shorter than in *G. hirtipes*. Tail with its crest short, but distinctly blackened, the longest hairs about 4 mm. in length.

Skull with a larger and more rounded, bulbous, brain-case than in *G. andersoni*; bullæ also rather larger than in that species.

Dimensions of the type:—

Head and body 93 mm.; tail 128; hind foot (s. u.) 25; ear 13.

Skull—greatest length 29; basilar length 21; zygomatic breadth 16; nasal length 10.6; interorbital breadth 5.7; brain-case, breadth 14; diastema 7.3; palatal foramina 5.1; length of upper molar series 4.1; greatest diameter of bulla 10.8.

Hab. of type. Elcusher.

Type. Male, not old. Original number 149. Killed 24 July, 1901.

This Gerbille represents the Egyptian *G. andersoni* de Wint., and is distinguished from that animal by its larger and more bulbous brain-case.

Besides their other differences in colour and proportions, the three forms of Hairy-footed Gerbille obtained by Mr. Dodson are distinguishable by the breadth of their molars, *G. p. tarabuli* having these about 1.7 across the broadest part of m^1 , *G. eatoni* 1.5 or 1.6, and *G. hirtipes* 1.4. An old specimen with worn teeth, collected by Mr. O. V. Aplin in Tunis in 1895, and also presented to the Museum by Mr. Whitaker, seems likewise to be referable to *G. eatoni*.

I have named this pretty Gerbille in honour of the Rev. A. E. Eaton, to whose collections from Algeria our ability to work out any North-African Muridæ is largely due. The old inaccurately labelled material is of little use, and Mr. Eaton's specimens are the only ones in the Museum from Algeria collected in proper

style. It is to be hoped that they may be soon further supplemented.

8. *DIPODILLUS DODSONI*, sp. n.

6. 8. 9. W. Nefed. 14-15/4/1.

18. 21. 22. 23. 25. 29. Ain Hammam. 27-29/4/1.

34. 37. 39. Tamari-Ferdjan. 5/5/1.

46. 50. 55. Oum el Abid. 11-14/5/1.

68. Grodua. 23/5/1.

79. 83. 84. Shup. 8-10/6/1.

100. Ain Hammam. 24/6/1.

100. W. Agarib. 1/7/1.

Essential characters of *D. campestris*, but larger, more desert-coloured, and with a longer and more heavily tufted tail.

Size larger than in the true *D. campestris* of the coast-lands.

Fur longer and looser. General colour above sandy buff, varying from light ochraceous buff to a dull isabella. Usual orbital and postauricular white patches present. Under surface pure white, the line of demarcation less sharply defined than in the closer-haired *D. campestris*. Ears of medium size, naked; clear greyish. Hands and feet white; palms and soles naked; six sole-pads present. Tail very long, heavily tufted in its terminal half, the hairs of the tip attaining about 15 mm. in length; its base sandy above, white below, the tuft brown above, duller white below.

Skull quite like that of *D. campestris*, but rather larger in all dimensions.

Measurements of the type:—

Head and body 101 mm.; tail 143; hind foot 28 (range 26-29); ear 15.

Skull—greatest length 31; basilar length 22.2; zygomatic breadth 16.5; length of nasals 12; interorbital breadth 5.1; diastema 8; palatal foramina 5.5; upper molar series 4.1.

Typical locality. Ain Hammam.

Type. Adult male. Original number 29. Killed 29 April, 1901.

This fine tufted-tailed Gerbille is the representative of *D. campestris* south of the Atlas, and was not distinguished by Lataste from that species. But the true *D. campestris* of the coast-lands of Algeria is rather smaller, much browner in colour, and its tail has far less tuft than *D. dodsoni*. The type locality was Philippeville, on the coast of Constantine, and examples from the coast as far westward as Mogador practically agree with those from this district. On the other hand, on the south side of the mountains, desert Algerian examples, obtained by Mr. Eaton at Biskra, are referable to the Tripolitan *D. dodsoni*.

Of the four species of Loche and Levailant said with doubt by Lataste to belong to the *campestris* group:—

No. 69, *Gerbillus deserti*, is clearly not this species, being far too short-tailed. It is perhaps a young *G. hirtipes* or *G. simoni*.

No. 70, *G. gerbii*, comes from Beni Sliman, about 40 miles south of Algiers. Therefore north of the mountains, and within the area of true *G. campestris*.

No. 72, *Psammomys minutus*, is possibly *D. dodsoni*, but the name is unavailable, being based on the totally different *Dipus minutus* Geoffr.

No. 80, *Mus chamæropsis*, is clearly a *Mus*, as its smooth incisors testify.

9. *DIPODILLUS VIVAX*, sp. n.

27. Ain Hammam. 29/4/1.

66. Sebha. 19/5/1.

Closely allied to the Egyptian *D. quadrimaculatus* Lat. and *amœnus* de Wint., which it no doubt replaces in Tripoli.

Size as in *D. amœnus*. General colour above bright uniform ochraceous buff, scarcely lined with brown. Belly and limbs pure white. Upper whiskers brown, lower white. Usual white face-marks well defined. Tail about as long as in *D. amœnus*, pencilled above terminally, the hairs about 10 mm. in length; pale fawn lined with brown above, the pencil-lines brown, below paler, or whitish fawn.

Skull very like that of *D. amœnus*, rather smaller than that of *D. quadrimaculatus*; differing from both by its decidedly larger bullæ, and the consequent narrowness of the basioccipital between them.

Dimensions of the type:—

Head and body 75 mm.; tail damaged (of the second specimen 106); hind foot 21; ear 12.

Skull—greatest length 26·7; basilar length 19·7; zygomatic breadth 14·5; nasal 9·7; interorbital breadth 4·4; breadth of brain-case 12·6; diastema 6·7; palatal foramina 4·2; greatest diameter of bullæ 10·1; length of upper molar series 3·2; width of m^1 1·2.

Typical locality. Sebha.

Type. Male. No. 66. Killed 19 May, 1901.

This Tripolitan representative of the *quadrimaculatus*-group is readily distinguishable from its Egyptian allies by its larger bullæ and brighter and more uniform ochraceous buffy colour. No members of the group have been recorded from Algeria.

10. *MERIONES SHAWI* Rozet.

2. Tarhuna. 6/4/1.

4. 5. 7. 11. W. Nefed. 14–15/4/1.

146. 150. Elcusher. 24/7/1.

152–153. 156. 157. 158. W. Aggar. 25–26/7/1.

162. Bou Cheifa. 2/8/1.

In spite of the large number of localities at which one or other of the two species were taken, it is noticeable that at no single place did Mr. Dodson catch both *M. shawi* and *M. schousboei*. Perhaps they will prove to be mutually exclusive, as they are so

alike in size and general characters. Indeed it is almost impossible to distinguish them externally from each other, though *M. shawi* has on the average a rather duller or more drab tone than *M. schousboei*. Nor are the skulls less alike, except for the characteristic difference in the size of the bullæ.

11. *MERIONES SCHOUSBOEI* Loche.

Gerbillus schousboei Loche, Expl. Sci. Alg., Mamm. p. 105 (1867),

20. 26. 33. Ain Hammam. 28/4-2/5/1.

40. Tamari-Ferdjan. 5/5/1.

53. 54. Oum el Abid. 13-14/5/1.

60. Zighen. 15/5/1.

72. Serir, Mursuk. 1/6/1.

88. Koshby. 16/6/1.

93. 94. 96. 97. Ferdjan. 19-21/6/1.

112. W. Agarib. 3/7/1.

115. 116. W. Wakis. 7/7/1.

121-135. 138-142. G. Limhersuk. 14-19/7/1.

143-144. Gebel Binsertia. 20/7/1.

163. Sidi Sweya. 5/8/1.

Although the group is too difficult to be worked out in detail, the name adopted seems the best to use for the Barbary representative of the *M. erythrurus*-group. Its reference to that group is accepted on the authority of Lataste.

12. *PSAMMOMYS TRIPOLITANUS*, sp. n.

155. W. Aggar. 25/7/1.

160. W. Cheggar. 28/7/1.

161. Bou Cheifa. 1/8/1.

Size fairly large, though smaller than in *P. algiricus*. Median facial and dorsal area dark buffy (something between "wood-brown" and "pinkish-buff"). Sides and belly yellow. Cheeks pale greyish. Upper surface of hands and feet yellowish white. Tail strong buffy, the crest and pencil black; terminal hairs of pencil attaining about 14 mm.

Skull smaller and more delicately built than in the other large species, though markedly larger than in *P. roudairei*. See dimensions below. Bullæ small and narrow; the part that appears on the top of the squamosal particularly small.

Dimensions of the type:—

Head and body 157 mm.; tail 135; hind foot 35; ear 14.

Skull—greatest length 41.5; basilar length 34.3; zygomatic breadth 24; nasals 15.3; interorbital breadth 6.5; least breadth between ridges on parietals 10.5; breadth between anterior lips of meatus 24; length of exposed upper area of bulla 5.4; diastema 12.1; greatest diameter of bulla 14.3, lesser diameter, from anterior lip of meatus, 11.5; length of upper molar series 6.8.

Typical locality. Bou Cheifa, on the coast.

Type. Old male. No. 161. Killed 1 August, 1901.

As shown elsewhere¹, the species of *Psammomys*, apart from *Ps. elegans*, which I do not know, and the much smaller *Ps. roudairei*, fall readily into four distinguishable forms respectively inhabiting Algeria, Tripoli, Lower Egypt, and Palestine. They are distinguished mainly by size and the relative development of their bullæ, their external appearance being all very much the same.

13. *PSAMMOMYS ROUDAIREI* Lat.

14. ♀. Bonjem. 20 April, 1901.

117. ♀. W. Wakis. 7 July, 1901.

I have always considered M. Lataste was unnecessarily hasty in withdrawing his name *Psammomys roudairei*, for there are clearly two species—a larger darker, and a smaller paler one—living together in Algeria and Tripoli; and, although undoubtedly immature, his two type specimens (of which the British Museum possesses one) evidently belong to the smaller form. The name itself would have stood in any case, for, as has already been seen, the large western *Psammomys* is different from *Ps. obesus*, and has not hitherto had a tenable name applied to it.

The second specimen above recorded is only doubtfully placed here, as it is immature, and members of this group are almost impossible of satisfactory determination unless fully adult.

14. *MUS MUSCULUS ORIENTALIS* Cr.

1. Tarhina. 5 April, 1901.

15. *ACOMYS VIATOR*, sp. n.

90. ♀. Wadi Sultan, near Sokna. 18/6/1.

Size fairly large. Spines of back about 11 mm. long, by barely half a millimetre broad. General colour above pale slaty grey anteriorly, changing to dull pale rufous posteriorly. Individually the dorsal spines are pale grey (near smoke-grey of Ridgway), with their extreme points dark brown, and with a narrow pale rufous subterminal band; under surface pure white throughout. Head and shoulders plain grey, the spines narrower and grey throughout, without darkened points. Ears rather small, pale greyish, a white spot below their outer base. Hands and feet white. Tail of medium length, greyish brown above, white below.

Skull smaller than in *A. dimidiatus*, the brain-case of medium size and its ridges not conspicuously heavy or broadened. Palatal foramina to the posterior third of m^1 . Opening of posterior nares 2.3 mm. behind back of m^3 . Bullæ smaller than in *A. dimidiatus*, their antero-external-postero-internal breadth 4.2 mm.

Dimensions of the type:—

Head and body 110 mm.; tail 107; hind foot 19.5; ear 19.

Skull—greatest length 29; basilar length 21.5; zygomatic breadth 14; nasals, length 11; interorbital breadth 4.6; breadth

¹ Ann. Mag. N. H. (7) ix. p. 363 (1902).

of brain-case 12.2; palate, length 13.5; diastema 7.4; palatal foramina 7; length of upper molar series 4.1.

Habitat and *Type* as given above.

This species is smaller and greyer than *A. dimidiatus*, paler and more rufous than *A. cahirinus*. It represents the most westerly recorded locality of the genus *Acomys* in Northern Africa.

Mr. Dodson tells me that these Spiny Mice, comparatively dark among their pallid neighbours, resemble the small blackish stones which lie about among the Soda Mountains, but were not elsewhere met with in the region traversed.

16. JACULUS GERBOA Oliv.

164. ♂. Sidi Faradje. 6/8/1.

17. JACULUS JACULUS L.

62. Attich Loumonileh.

118. 120. Oumsinerma. 10-12/7/1.

As usual, Jerboas are far less numerous in the collection than Gerbilles, and at present material does not exist for an exact comparison of Algerian, Tripolitan, and Egyptian specimens.

Mr. de Winton has pointed out to me that the names *Jaculus* for the genus and *Jaculidæ* for the family must stand instead of *Dipus* and *Dipodidæ*.

18. CTENODACTYLUS VALI, sp. n.

13. Wadi Bey. 19/4/1.

104. W. Titti, east of Sokna. 27/6/1.

External characters very much as in *C. gundi*. General colour approximately pinkish buff above, nearly white below, the hairs dull slaty basally. Face rather paler than body. Ears light cream-colour, their edges scarcely blackened. Upper surface of hands and feet and whole of tail pale cream-colour. Tail thin, shorter than the foot, its terminal hairs about 20 mm. in length.

Skull in general shape as in *C. gundi*, but with enormous bullæ, as in *Massoutiera mzabi*. Nasals long and narrow, little broadened in front. Anteorbital projections comparatively delicate. Interparietal of medium size, less broad than in *gundi*. Bullæ enormous, but the opening of the meatus is visible outside them in an upper view; anteriorly above they reach forward nearly to touch the well-developed postero-external projection of the zygomatic process of the squamosal; medially their anterior half extends on the upper surface to within 7 mm. of the middle line, and their posterior half to within 4.5 mm.; posteriorly they project far behind the occipital plane, which is only 7 mm. wide between them. Paroccipital processes comparatively small. Palatal foramina as in *C. gundi*. Posterior nares narrow, angular. Molars small and delicate, shorter antero-posteriorly than in *C. gundi*, the last molar less distinctly L-shaped than in that species, and to that extent marking a slight step towards the condition in *Massoutiera*.

Dimensions of the type:—

Head and body 187 mm.; tail 20; hind foot 34; ear 14.

Skull—greatest median length 47·5; basilar length 35·5; gnathion to most posterior point of bulla 49; zygomatic breadth 31; nasals $18 \times 5\cdot5$; interorbital breadth 12·2; interparietal $8\cdot8 \times 1\cdot1$; diastema 11; palatal foramina 8×4 ; upper molar series 8·2; greatest oblique diameter of bullæ below 18·1; greatest oblique diameter, as seen from above, nearly at right angles to last 17·2; vertical height of bullæ 17; height of lower jaw, from condyle, 10·5.

Typical locality. Wadi Bey, just northwest of Bonjem.

Type. Old female. No. 13. Killed 19 April, 1901.

This animal is the most distinct from its allies of all the species found by Mr. Dodson, and bearing in mind the fewness of the members of the *Ctenodactylinae*, the discovery of so well-marked a new form is a matter on which Mr. Whitaker may well be congratulated.

19. LEPUS WHITAKERI, sp. n. (Plate I.)

3. Wadi Sofedjin. 12/4/1.

61. Timinint. 17/5/1.

111. W. Agarib. 2/7/1.

A very handsome pinkish-buff Hare, quite distinct from all its allies.

Size medium. General colour a rich pinkish buff, richer and more pinkish than in *L. æthiopicus*, the species to which *L. whitakeri* has the greatest external resemblance. On the back the general colour is more or less lined with black, but on the forehead it is clear and rich, not greyer as is often the case. Nape rather deeper in colour, approaching "vinaceous buff" in the darkest specimen. Eyes with indistinct whitish rings, but scarcely a trace of the pre- and postorbital white patches present in *L. æthiopicus*. Ears long, buffy, the marginal hairs whitish buffy; back of tips rather browner, but no distinct terminal patch. Sides and chest rich pinkish buffy; chin and belly white, not sharply defined laterally. Limbs buffy, the inner side of the arms and thighs whitish; long hairs of palms and soles yellow or reddish. Tail black above, pure white on the sides and below.

"Irides yellow-ochre."

Skull not unlike that of *L. æthiopicus*, but rather narrower, and with less broadly expanded supraorbital wings. Enamel of incisors forming a simple angular notch, not penetrating deeply into the tooth, and not filled up with cement. In this last respect *L. whitakeri* agrees rather with the very differently coloured Algerian species than with *L. æthiopicus* and its allies.

Dimensions of the type:—

Head and body 420 mm.; tail 70; hind foot 100; ear (measured dry) from crown 140, from notch 121.

Skull—greatest length 83; basilar length 67; zygomatic breadth 38·5; nasals, oblique length 34, greatest breadth 17·5, least

breadth 11·5; interorbital breadth inside wings 17, between tips of wings 27; inter-temporal breadth 10·7; breadth of brain-case 27; posterior breadth between lips of meatus 35; diastema 24; palate length 29·5; palatal foramina 21×10 ; length of cheek-tooth series (alveoli) 14·5; antero-posterior diameter of bulla 13.

Typical locality. Wadi Agarib, just N.W. of Sokna.

Type. Male. No. 111. Killed 2 July, 1901.

This fine Hare, which is named in honour of Mr. Whitaker, to whose enterprise and generosity the whole of the Tripoli collection is due, is readily distinguishable from all its allies by its remarkable colour and the character of its incisors.

This species seems widely distributed in Tripoli, from Wadi Sofedjin in the north, to Timinint, near Sebha, in the south.

20. *GAZELLA DORCAS*, L.

12. ♀. Erdeul. 18/4/1.

44. ♀. Linzerat. 7/5/1.

45. ♀. Oum el Abid. 11/5/1.

85. 86. 87. ♀ ♂ ♂. El Koshby. 15/6/1.

119. 136. 137. 3 ♀. Limhursuk. 15-16/7/1.

21. *AMMOTRAGUS LERVIA* Pall.

108. ♂. W. Agarib. 29/6/1.

EXPLANATION OF PLATE I.

Lepus whitakeri, p. 12.

2. A List of the Fishes, Batrachians, and Reptiles collected by Mr. J. H. J. Darlington in Mashonaland, with Descriptions of new Species. By G. A. BOULENGER, F.R.S.

[Received April 14th, 1902.]

(Plates II.-IV.¹)

The fauna of Rhodesia is still so imperfectly worked out that all zoologists will feel grateful to Mr. Darlington for the trouble he has taken in forming collections in the part of the country in which he has been residing for the past few years, viz. the district about Salisbury. The series of Fishes, Batrachians, and Reptiles, the names of which follow, was collected at Mazoë and between Umtali and Marandellas, and presented by him to the British Museum. Two Fishes, a Frog, a Tortoise, and a Lizard are new to science.

FISHES.

1. *LABEO DARLINGTONI*, sp. n. (Plate II. fig. 1.)

Body compressed, its depth nearly equal to the length of the head and contained 4 times in the total length. Head $1\frac{1}{2}$ as long as

¹ For explanation of the Plates, see p. 18.



Thomas, Oldfield. 1902. "On the mammals collected during the Whitaker expedition to Tripoli." *Proceedings of the Zoological Society of London* 1902, 2–13.

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