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## DESCRIPTIONS OF NEW FORMS OF MAMMALS

By AUSTIN ROBERTS, D.Sc.

THE following descriptions of previously unknown species and subspecies of mammals represent some of the results of collecting undertaken by the author during an expedition lasting four months in South-west Africa and the north-western districts of the Cape Province. Mr H. L. Hare was good enough to accompany this expedition and rendered yeoman service in procuring numerous diurnal species, such as *Petromys*, Procaviidae, Leporidae, Macroscelididae and Otomyine rats, and Mr V. FitzSimons, Senior Assistant for Lower Vertebrates, who also accompanied the expedition, procured specimens upon occasion that neither Mr Hare nor the author came across. The expedition was made possible by the generous aid of Mr C. S. Barlow, after whom some of the animals have been named. During the expedition about 5600 miles was covered and the opportunity of thoroughly exploring any of the places visited was not possible, so that the variety and quantity of specimens procured exceeded expectations and the procuring of novelties was a surprise, in view of the extensive explorations undertaken in South-West Africa during the last decade by Captain G. C. Shortridge. A fuller report of this expedition will be published later.

While the expedition to South-West Africa was in progress, Messrs F. O. Noomé and A. G. White, Taxidermists of the Transvaal Museum, conducted an expedition to north-eastern Swaziland, and at the close of the year Mr A. G. White accompanied other members of the Museum staff on an expedition to Southern Rhodesia, both of which expeditions produced fine series of mammals, of which some are here described as new.

### *Macrosceldes typicus ausensis* n.subsp.

The palest form so far known, the buffy suffusion and brown-tipped hairs above reduced to a minimum, and even the ears pale owing to their being clothed with pale buffy hairs outside and whitish hairs inside; the hands and feet are white, which extends up the forearms and partly up the thighs. The skull is broken in the type, but the forepart, which is intact, shows it to be lighter than in *typicus* and most like that of *M. t. chiversi* Rbts (*Ann. Transv. Mus.* xv, p. 265, 1933, 76 miles north of Upington), which is a richly buffy-coloured form, with buffy forearms and hindlimbs. The tail is light brown, with short black bristles towards and at the tip.

Type: T.M. No. 8255, collector's No. 300, 20 miles north of Aus, South-West Africa, adult ♂, 30 July 1937. "Length of head and body 95, tail 130, hindfoot (s.u.) 35, ear 28." Skull: length of upper incisors to m<sup>3</sup> 15, width across m<sup>2</sup>11·2, nasals 11·2, lower i-m<sub>3</sub> 14·6, length of anterior section of tympanic bullae 11.

Note: The description of *Macroscelides melanotis* (Ogilby, *Proc. Zool. Soc. Lond.* 1838, p. 5) fits no specimens so far procured, either in colour or size, though specimens from South-West Africa have recently been referred to it by Thomas. The description reads: "Of rather larger size than the former [i.e. *alexandri*], large head, dark brown or black ears, rather sandy under lip, dunnish white throat and abdomen, but pale reddish brown chest; colour of the upper parts much the same, but rather more ashy; tarsi light brown; tail mutilated; length 6 inches."

#### ***Macroscelides typicus harei* n.subsp.**

A pale form having some resemblance to *M. t. ausensis* described above, but not so pallid, the flanks, forearms, thighs and sides of face less bleached and more buffy, the ears blackish, but clothed with some short buffy hairs behind and buffy white hairs in front; the tail light coloured at the base, then brownish and towards and at the tip with fairly long black bristles; the skull practically the same as in *M. t. typicus*, though the foremost upper incisor seems rather smaller and the tooth-row (i-m<sup>3</sup>) longer.

Type: T.M. No. 8256, collector's No. 446, Brosplan, between van Wyk's Vlei and Brandvlei, Cape Province, adult ♀, 31 August 1937. "Length of head and body 105, tail 120, hindfoot (s.u.) 36, ear 24." Skull: greatest length 35, basilar length 29, zygomatic width 21, width across the bullae 18.7, width across the meati 11.7, length of posterior section of bullae 13.5 and including the posterior section 18, length of upper tooth-row 16.1, of lower tooth-row 15.2, nasals 11, height of skull at bullae 15.7. Also another specimen collected at the same place.

#### ***Macroscelides typicus brandvleiensis* n.subsp.**

Another pale form, somewhat similar to *M. t. harei* described above, but still more buffy and brownish, but not approaching the rich buffy to be seen in *M. t. chiversi*. Skull the same as in *M. t. harei*.

Type: T.M. No. 8258, collector's No. 443, Brandvlei, Cape Province, adult ♀, 29 August 1937. "Length of head and body 115, tail 137, hindfoot (s.u.) 36, ear 22." Skull: greatest length 34.3, basilar length 28.7, zygomatic width 21.5, width across bullae 20, across meati 22.7, across m<sup>2</sup> 11.7, length of posterior half of bullae 12 and including the hinder part 18.3, length of upper tooth-row 15.6, of lower tooth-row 14.8, of nasals 10.3, height at bullae 16. Also three more specimens from the same place. In two from Carnarvon District in the Transvaal Museum collection, the precise locality not recorded, one is slightly darker and the other more like the next form from Calvinia District, seeming to indicate that they are from different localities.

#### ***Macroscelides typicus calviniensis* n.subsp.**

A darker form than the preceding, *M. t. brandvleiensis*, which occurs nearly 100 miles to the east, more brownish suffused over the back and head, with more black-tipped hairs, the sides darker buffy, the tail darker and the ears blackish outside. Typical specimens of *M. t. typicus* from Beaufort West are altogether darker grey above. The tail is dark from near the base on the mid-dorsal line to the tip and towards and at the tip has fairly long black bristles. The hind feet are white above, the hands duller and more buffy white, merging into the buffy of the thighs and forearms. Skull much the same as in *M. t. brandvleiensis*.

Type: T.M. No. 8262, collector's No. 438, 15 miles east of Calvinia town, Cape Province, old ♀, 27 August 1937. "Length of head and body 113, tail 132, hindfoot (s.u.) 36, ear 24." Skull: greatest length 33.7, zygomatic width 20.6, width at bullae 19.7, at meati 21.5, at  $m^2$  11, length of posterior portion of bullae 13.3, and including posterior portion 17.7, of upper tooth-row 15.7, of lower tooth-row 14.5, of nasals 10.5, height at bullae 15.5.

Note: A young specimen of this species from Kamaggas, Little Namaqualand is like another young one collected by C. H. B. Grant at Klipfontein and recorded by Thomas and Schwann (*Proc. Zool. Soc. Lond.*, 1904, p. 174) as *M. melanotis* Ogilby, but which seems to be my *M. t. langi* (*Ann. Transv. Mus.* xv, p. 265, 1933: Vlermuisclip, van Rhynsdorp District); but an old ♀ taken 25 miles east of Port Nolloth is decidedly paler, resembling *M. t. brandvleiensis* in colour, but with a longer tooth-row (16.3 above, 15 below) as in *langi*, which seems to show that the pale forms extend westwards along the dry Bushman Flats north of the Little Namaqualand mountains.

#### **Elephantulus barlowi** n.sp.

A very pale species having a very long and much bristled tail and long hindfoot, much like members of the *E. rupestris* group, but the whole of the upper parts of the bleached coloration so characteristic of the Namib birds and mammals. The whole of the upper parts whitish, except the area between and behind the ears, which is of a strongly contrasting rich buffy, merging into a pinkish shade on the forepart of the back, and the middle of the back, which is rather more ticked with black-tipped hairs than the sides; hands and feet white, like the under-parts of body, merging into the colour of the flanks and not forming the fairly well-defined differentiation to be seen in *rupestris*. Ears like the hind-neck, pale pinkish, rusty coloured on the hairy exposed part. Tail paler than in *rupestris*, but the apical part with fairly long black bristles. Skull much as in *rupestris*, but slightly shorter, as the figures given below will show.

Type: T.M. No. 8265, collector's No. 305, Aus, South-West Africa, adult ♂, 1 August 1937. Length of head and body, etc. are given below. Also another specimen collected at the same place.

#### **Elephantulus namibensis** n.sp.

Another pale species, having much resemblance to *E. intufi alexandri*, but with a longer tail and the skull and hindfoot between *E. barlowi* and *E. intufi* in length. Colour above hardly different from that of *E. intufi alexandri*, except that the tail is blackish above and clothed with numerous and fairly long black bristles. The general colour above rich buffy, the muzzle greyer, behind the ears and the hindneck more rufous, but the ears darker in contrast. Underparts of body conspicuously white. Eye-rings buffy white and completely encircling the eyes.

Type: T.M. No. 8267, collector's No. 298, 45 miles north of Aus, South-West Africa, adult ♀, 29 July 1938. Measurements are given hereunder for comparison.

#### **Elephantulus kobosensis** n.sp.

Another species having a strong resemblance to *E. intufi alexandri*, but with a longer tail, hindfoot and skull, and differing from *E. namibensis* in having a longer hindfoot and skull, the sides of body paler, nearly as pale as in *barlowi*, while the hindneck and postauricular area is much more rufous

buffy, showing up as a conspicuous rufous patch around the front and upper sides at the base of each ear. The tail is pale and not much bristled. Skull of much the same form as in *namibensis*, but with longer nasals, as will be seen from the figures given below.

Type: T.M. No. 8268, collector's No. 241, Kobos, south-west of Rehoboth, South-West Africa, young adult ♀, 18 July 1937. Both this specimen and another of *E. intufi alexandri* were procured by me amongst rocks at Kobos and they were taken to be of the same species until the skulls were examined, when they were seen to differ in that respect and also in shade of colour of the upper parts and on the tail. Other specimens of *E. intufi alexandri* were procured over a wide area, at Neudamm Government Karakul Farm, Okosongomingo (Waterberg), and Berseba, and are exactly like others previously in the Transvaal Museum collection from Okahandja District; but one from Barby farm is paler and may be named:

#### *Elephantulus intufi campbelli* n. subsp.

Differing from *E. intufi alexandri* (Ogilby, *Proc. Zool. Soc. Lond.* 1838, p. 5; Damaraland) in being paler buffy over the whole of the upper parts of head and body, but skull and hindfoot as in that species.

Type: T.M. No. 8269, collector's No. 292, Barby farm, west of Helmeringshausen, South-West Africa, adult ♀, 27 July 1937. Measurements are given below.

#### *Elephantulus rupestris tarri* n. subsp.

In colour and general characters like *E. r. rupestris* (A. Smith, *Proc. Zool. Soc. Lond.* 1830, p. 11 and *Ill. Zool. S. Afr.*, Mammals, pl. XI, 1938: "Mountains near the mouth of Orange River"), but consistently smaller. Length of head and body 108-115 (as compared with 117-135), tail 140-143 (140-156), hindfoot (s.u.) 34-35 (35-36), ear 24-28 (30). Skull: greatest length 35.5-36.7 (39), length of upper tooth-row (i-m<sup>3</sup>) 19.1-19.5 (21-21.5), of lower tooth-row 18-18.8 (20).

Type: T.M. No. 8275, collector's No. 268, Barby farm, Helmeringshausen, South-West Africa, adult ♂, 24 July 1937. Also another specimen from the same place and others from Brukaros Mountain and Great Karas Mountains.

It may be noted that a specimen of *Elephantulus capensis* Rbts (*Ann. Transv. Mus.* x, p. 62, 1924: Klaver, Cape Province) was procured at O'okiep in Little Namaqualand and a specimen of *E. vandami* Rbts (*loc. cit.* 1924; Cradock, Cape Province) at van Wyk's Vlei, Cape Province. Also that a specimen from Deelfontein referred to in that paper, when describing these two species, as *E. edwardii*, on the strength of its identification in the British Museum, differs in respect of not having "a bright rufous blotch" at the base of the ears, and I am therefore naming it:

#### *Elephantulus karoensis* n.sp.

A dark grey form much like *E. edwardii* as figured by A. Smith (*Ill. Zool. S. Afr.*, Mammals, pl. XIV, 1838: near Olifants River, Cape Province), except for the absence of a distinct rufous patch at the base of the ears, and the dimensions given by Smith indicating a rather larger animal than *rupestris*, whereas the present one is decidedly smaller; the tail is fairly well covered with bristles near the tip (which is broken off at the tip, however) as is described of *edwardii*, but is not the case in my *capensis*, which lacks also the rufous

patch behind the ears. The skull of *edwardii* was not described or figured, but on the external dimensions of the animal as recorded would probably be larger than in this more eastern species. Dimensions are tabled below.

Type: T.M. No. 688, Deelfontein, Cape Province, adult ♀, 22 March 1904.

*Measurements of Elephantulus specimens mentioned above*

	<i>E. rupestris rupestris</i> ♂, Kamaggas, C.F.	<i>E. rupestris tarvi</i> ♂ (type), Barby farm	<i>E. barlowi</i> ♂ (type), Aus, S.W.A.	<i>E. namibensis</i> ♀ (type), N. of Aus, S.W.A.	<i>E. kobosensis</i> ♀ (type), Kobos, S.W.A.	<i>E. intufi alexandri</i> ♀, Kobos, S.W.A.	<i>E. intufi campbelli</i> ♀ (type), Barby farm	<i>E. capensis</i> ♀, Okiep, C.P.	<i>E. vandami</i> ♀, van Wyk's Vlei, C.P.	<i>E. karcoensis</i> ♀ (type), Deelfontein
Head and body	117·0	108·0	120·0	100·0	118·0	110·0	108·0	115·0	120·0	105·0
Tail	156·0	143·0	160·0	140·0	140·0	117·0	129·0	135·0	135·0	135·0
Hindfoot (s.u.)	35·0	35·0	37·0	34·5	36·0	34·0	34·0	34·0	35·0	32·0
Ear	30·0	28·0	25·0	24·0	25·0	25·0	25·0	32·0	25·0	27·0
Skull:										
Greatest length	39·0	36·7	37·4	35·0	36·0	34·6	35·0	36·8	38·5	34·9
Zygomatic width	22·5	20·0	19·2	20·2	20·2	20·2	19·2	19·7	20·5	19·6
Width of brain case	15·3	15·5	15·5	15·0	15·0	15·3	14·8	15·7	15·0	15·0
Tympanic bullae	7·5	7·9	8·2	8·0	7·8	8·2	8·0	7·2	8·3	8·5
Length of nasals	15·5	15·3	15·2	14·0	15·5	13·5	13·7	14·0	14·5	13·5
Length of i-m <sup>3</sup>	21·0	19·1	20·1	18·0	18·7	17·5	17·8	19·0	20·5	18·3
Length of i-m <sup>2</sup>	20·0	18·8	19·0	16·9	18·0	16·2	17·0	18·0	19·5	17·0
Height at bullae	14·3	14·5	14·0	13·5	14·0	14·2	13·5	13·5	14·2	12·5

*Cynictis penicillata karasensis* n.subsp.

A small pale form like *C. p. bradfieldi* Rbts (*Ann. Transv. Mus.* x, p. 69, 1924: Quickborn, Okahandja District, South-West Africa), but rather more bleached yellowish, with little grey, on the face, but with a distinct orange tint on the hinder part of the back and root of tail, contrasting with the pale yellowish of the sides of the back; ears decidedly paler, with only the middle part of the back of the ears blackish. In *C. p. cinderella* Thomas (*Proc. Zool. Soc. Lond.* 1927, p. 375: Ondongwa, Ovamboland), of which a series was obtained at Oshikanga, 40 miles north of Ondonga on the present expedition, there is hardly a trace of orange in the yellowish general coloration above. In size as in *bradfieldi* apparently, but the tail and hindfoot longer.

Type: T.M. No. 7885, collector's No. 333, young adult ♀, Kochena, Great Karas Mountains, 12 August 1937. "Length of head and body 270, tail 254, hindfoot (s.u.) 71, ear 27 × 36." Skull: greatest length 60, condylobasal length 59, basilar length 54, width at bullae 26·7, interorbital constriction 13, intertemporal constriction 16, length of bullae 17, c-m<sup>1</sup> length 23, greatest diameter of p<sup>4</sup> 7.

*Calogale cauii dasilvai* n.subsp.

Much like *C. c. kaokensis* (Rbts, *Ann. Transv. Mus.* xv, p. 2, 1932: Okorosave, North Kaokoveld, South-West Africa), of which two specimens were procured by the present expedition at Kamanjab, but with the forehead

lighter coloured and the back without chestnut tipping to the hairs; the tail (which was not measured but in the skin measures 35.5) has the yellow on the under side extending in a thin line from the black tip to the base.

Type: T.M. No. 7861, adult ♂, Ondjiwa, Southern Angola, donated by Dr V. da Silva, together with an immature ♀ from the same place. The skull is like that of *kaokensis*, measuring: greatest length 62.3, basilar length 58, zygomatic width 32, width of brain case 24, interorbital constriction 12.5, intertemporal constriction 10.2, width across incisors 6.5, palate length 31, width at m<sup>2</sup> 21, p<sup>4</sup> length 6.5, its greatest diameter 7.7, m<sup>1</sup> length 6.3, c-m<sup>2</sup> length 22.5, length of bullae 14.2, length of mandible 40.2.

#### ***Heterohyrax welwitschii tsumebensis* n.subsp.**

An altogether darker brown form than *H. w. welwitschii*, of which nine specimens were procured at Kamanjab on the present expedition, and *H. w. volkmanni*, of which two were procured at Huab River and one at Kalkfeld, four adults obtained showing a fair uniformity, especially about the head, which is speckled dark brown and yellow, with very little white behind the ears. In all the specimens of the species examined of the other two forms, the hair of the back varies in individuals, in some the blackish of the basal part, occupying about five-sixths of its length, on the hinder part of the back extending much farther forward along the back than in others; but in the present form it is the subterminal part of the hair which is darker and gives a general dark effect. In the skull it differs also in averaging rather longer (83.5-85.5, as compared with 80-82.5), the brain case averaging wider (32-33.5, as compared with 30.2-32), width across the outside of m<sup>2</sup> 27.5-29.5 as compared with 27-28.8, width across outside of p<sup>2</sup> 20.5-22, as compared with 18.5-20.5, width of m<sup>1</sup> 6.5-7.2 as compared with 6.2-7.

Type: T.M. No. 8329, collector's No. 58, Guinas Waterhole, Tsumeb District, South-West Africa, adult ♂, 23 May 1937. "Length of head and body 470, hindfoot (s.u.) 70, ear 25."

#### ***Paraxerus cepapi tsumebensis* n.subsp.**

A dark form like *P. c. kalaharicus* Rbts (*Ann. Transv. Mus.* xv, p. 10, 1932: Mabeleapud, Ngamiland) in colour, but smaller in external and cranial measurements, the muzzle and nasals shorter, the nasals of the same shape, the lateral margins straight. The arms and legs are yellower. It is very markedly distinct from *P. c. phalaena* Thomas (*Proc. Zool. Soc. Lond.* 1926, p. 296: Ovamboland), which is uniformly paler and has a larger skull.

Type: T.M. No. 8009, collector's No. 70, Guinas Waterhole, Tsumeb District, adult ♂, 24 May 1937. "Length of head and body 145, tail 150, hindfoot (s.u.) 38, ear 17." Skull: greatest length 39, basilar length 30.5, zygomatic width 24.4, width of brain case 19.5, interorbital constriction 11.9, nasals 10.5 × 5.4, length of upper back teeth 7.3, of lower back teeth 7.1, length of bullae 8.7, diastema 8.

#### ***Heliosciurus congicus damarensis* n.subsp.**

Differing from *H. c. oenone* Thomas (*Proc. Zool. Soc. Lond.* 1926, p. 297: Rua Cana Falls, Cunene River) in being darker on the crown, tail and back, owing to a greater amount of dark brown being present in the subterminal bands. The skull is rather smaller, too, but this may be due to age, the type being not quite adult, though it has been compared with specimens of *oenone* from Huab River that are of the same age.

Type: T.M. No. 7994, collector's No. 61, Guinas Waterhole, Tsumeb District, South-West Africa, immature ♀, 24 May 1937. "Length of head and body 120, tail 130, hindfoot (s.u.) 34, ear 16." Skull: greatest length 35, basilar length 26, zygomatic width 20, width of brain case 17, interorbital constriction 9.2, nasals  $10 \times 4.8$ , length of upper back teeth 5.9, bullae 8.

***Gliriscus kaokoensis* n.sp.**

A grey species that differs from *G. rupicola* Thomas (*Proc. Zool. Soc. Lond.* 1925, p. 232: Karibib, Damaraland) in having a whiter face and dark ocular rings, in size smaller. Colour: above grey, the base of the hair black, terminally white and with longer hairs black, the mixture of white and some black giving a general grey effect. It is darker than typical specimens of *Claviglis woosnami*. The ears are dark brownish to black and a black ocular ring, which extends in a line to the sides of the snout, contrasts sharply with the white cheeks, lips and chin, while the area between these dark marks, from the top of the nose to the base of the ears is greyish white, much lighter than the top of the head, neck and back. The grey of the back extends over the upper, outer, part of the limbs to the wrists and ankles, but the hands and feet are white, like the underparts of body, which are whitest about the cheeks and throat. The long moustachial bristles (the longest of which measure about 45 mm.) are white when springing from the white area, black when from the black area, but with the terminal half white. The tail is thick for its whole length, in colour like the back, except for a much greater quantity of white-tipped hair that is conspicuous as a fringe at the sides and at the tip. Hair of the back about 10 mm. in length, at the tip of the tail about 30.

Type: T.M. No. 8018, collector's No. 172, Kamanjab, Kaokoveld, South-West Africa, adult ♂, 19 June 1937. Also a ♀ from the same place. "Length of head and body 98 (♀ 98), tail 103 (90), hindfoot (s.u.) 19.5 (20), ear 16.5 (15.5)." Skull: greatest length 31 (30.7), in the type of *rupicola* 32.5, condylo-basal length 27.6 (27.3), in *rupicola* 29, zygomatic width 17.3 (16.7), width of brain case 14.5 (14), in *rupicola* 15.7, interorbital constriction 5 (4.7), length of upper back teeth 3.5 (3.4), diastema 6.8 (6.5), greatest diameter of bullae 11 (10.7), nasals  $12 \times 4$ , height at bullae 10.5 (10), length of mandible 18.3, its height 8.

These two specimens were trapped in rock crevices on an isolated hill above the police camp.

***Claviglis schneideri* n.sp.**

Having a considerable resemblance externally to *C. woosnami* of the Kalahari Desert, except that the tail is less white, the basal colour of the hair above a slightly rufous grey, with some white tipping, the rest, including half the length of the hairs at the end of the tail, white-tipped. The tail is thickly haired to the base. In the skull, however, it differs quite markedly in its flatness—as in the genus *Gliriscus*—and its small size. Although the tail is thick to the base and the skull flat like that of *Gliriscus*, the foremost upper premolar is as in *woosnami* and the whiskers are short (only about 33 mm.) as in that species. The skull is small, much the same length as in *murinus*, but the molars are smaller, the skull interorbitally much narrower and the nasals longer as well as flatter.

Type: T.M. No. 8016, collector's No. 37, Okosongomingo, Waterberg, South-West Africa, adult ♂, 15 May 1937. "Length of head and body, 95,

tail 90, hindfoot (s.u.) 15, ear 15." Skull: greatest length 27.7, condylo-incisive length 24.8, zygomatic width 15.6, width of brain case 12, interorbital constriction 3.8, length of upper back teeth 2.7, diastema 5.6, greatest diameter of bullae 9.3, nasals  $14 \times 3.2$ , height at bullae 9.3.

This species has been named after our host, Mr R. H. A. Schneider of Okosongomingo, to whose good offices I am indebted for instructing his native servants to collect specimens, this new species being among the number procured.

#### *Claviglis woosnami etoschae* n.subsp.

A very pale grey form related to *C. woosnami* (Dollman, *Ann. Mag. Nat. Hist.* (8), VI, p. 393, 1910: Okwa River, Kalahari Desert), but differing in being considerably lighter grey above and whiter about the cheeks and below, a pallor that seems characteristic of many species of birds and mammals of the Etosha Pan area. The type is a young specimen, but has been compared with specimens of the same age from the Kalahari Desert and the colour and skull are not the same. Hands and feet white; ears light yellowish brown, very thinly haired; lower whiskers white, upper ones black to the tips; tail darker grey above and the white tip clearly marked; the hairs at the tip white to the base, whereas in *woosnami* the base of the hairs is not white and the tip merges with the grey. There is a black ring around the eyes, but it does not extend much forward. The tail is short-haired at the base, but becomes longer-haired gradually to midway, and at the tip the hairs measure about 17.5. Hair of the back about 8, whiskers 28. The skull is of the normal shape, not flattened.

Type: T.M. No. 8015, collector's No. 137, Itota Dune, 40 miles south of Ondonga, Ovamboland, immature ♂, 9 June 1937. "Length of head and body 78, tail 80, hindfoot (s.u.) 15, ear 17." Skull: greatest length 25.7, condylo-incisive length 22.3, zygomatic width 14.2, width of brain case 12, interorbital constriction 3.7, nasals  $10.3 \times 2.6$ , greatest diameter of bullae 9.3, length of upper back teeth 3, height at bullae 9.7.

This specimen was trapped at the base of a mopani tree in some sand dunes.

#### *Claviglis woosnami dasilvai* n.subsp.

Above a buffy-toned grey, the hairs dark slate at the base, then white and brown, with comparatively little blackish, even along the mid-dorsal line; the tip of the tail markedly white, though not so much so as in *etoschae*, and not extending along the sides of the tail from the tip as in that form. The cheeks and underparts are white in contrast with the upper parts, the nose paler than the forehead, the dark ocular rings present, though not very conspicuous, and extending slightly forward towards the nose. The ears are very light coloured. The hairs are short for about half an inch at the base of the tail, thereafter increasing in length to the tip, where they measure about 29 mm. The hair of the back measures about 8 and the whiskers about 32 mm.

Type: T.M. No. 8010, Ondjiwa (Villa Pereira de Ca) Southern Angola, donated by Dr V. da Silva, together with several more from the same place. Not measured in the flesh, but another is given as "Length of head and body 94, tail 94, hindfoot (c.u. ?) 18, ear 17." Skull: greatest length 29.5, condylo-incisive length 26.3, zygomatic width 16.5, width of brain case 13, interorbital constriction 4, nasals  $11 \times 3.5$ , greatest diameter of bullae 10.5, length of upper back teeth 3.1, height at bullae 11.



***Tatera schinzi waterbergensis* n.subsp.**

Considerably darker above than *T. schinzi* (Noack, *Zool. Jb.* iv, p. 134, 1889: Kalahari), owing to the presence of black-tipped hairs on the upper parts, especially the rump and tail, the terminal half of the latter with a decidedly black stripe and the basal half browner than in *schinzi*. The skull as in *schinzi*, smaller than in the *lobengulae* forms, but with larger bullae.

Type: T.M. No. 8113, collector's No. 46, Waterberg, South-West Africa, adult ♂, 19 May 1937. "Length of head and body 118, tail 140, hindfoot (s.u.) 33, ear 20.5." Skull: greatest length 37, basilar length 28, zygomatic width 19, width of brain case 15.3, interorbital constriction 5.7, nasals 14, upper back teeth 5.6, diastema 10, palatal foramina 7, bullae 10. Also two more specimens from the same place, captured in grass and bushes on the border of the citrus plantation. Typical specimens of *schinzi* were taken at Itota Dune, Ovamboland, and there are also others from Namutoni in the Transvaal Museum collection, all of them consistently paler than these from Waterberg.

***Petromyscus shortridgei kaokensis* n.subsp.**

Differing from *P. shortridgei* Thomas (*Proc. Zool. Soc. Lond.* 1926, p. 302; Rua Cana Falls, Cunene River) in being coloured like *collinus*, but the skull as in *shortridgei*, the palatal foramina not reaching the level of the anterior molars, their length only 4.3 as against 5 in the type of the species.

Type: T.M. No. 8185, collector's No. 166, Kamanjab, Kaokoveld, South-West Africa, adult ♂, 18 June 1937. "Length of head and body 75, tail 85, hindfoot (s.u.) 12.5, ear 23.5." Skull: greatest length 25.7, basilar length 19, zygomatic width 12.2, width of brain case 11, interorbital constriction 4, nasals 10.2, height at bullae 8.5, length of upper back teeth 3.7, diastema 6.9, length of palatal foramina 4.3, bullae 3.5.

A dark coloured specimen, agreeing with the description of typical *shortridgei*, was procured at Guinas, Tsumeb, and a specimen of *P. collinus collinus* Thomas at Huab River.

***Aethomys namaquensis waterbergensis* n.subsp.**

A darker coloured form than that previously known from South-West Africa, the upper parts altogether more suffused with black-tipped hairs, the underparts of body with sometimes a trace of greyish at the base of the hair, but on the whole much whiter than typical *namaquensis*, of which a specimen was procured at O'okiep, Little Namaqualand. Elsewhere, in the Kaokoveld was obtained the pallid, long-tailed *A. n. siccatus* Thomas, and also at Otjikoto Waterhole, while not far off at Guinas dark specimens like the present one from Waterberg were procured. In the south, at Neudamm Government Karakul farm, Kobos and Barby farm, specimens are most like the shorter-tailed *A. n. calarius*. This dark form would therefore seem to occur in mountains of northern Damaraland, the paler ones in the plains and drier hills.

Type: T.M. No. 8155, collector's No. 28, Okosongomingo, Waterberg, South-West Africa, adult ♀, 14 May 1937. "Length of head and body 105, tail 155, hindfoot (s.u.) 25, ear 16." Skull: greatest length 30.7, zygomatic width 14.7, nasals 13 × 3.2, upper back teeth 5, bullae 5.

**Saccostomus anderssoni angolae** n.subsp.

In colour matching *S. a. pagei* Thomas & Hinton (*Proc. Zool. Soc. Lond.* 1923, p. 495: Lehutitung, Kalahari), but altogether smaller, as shown in six skins and skulls compared with a larger number from the Kalahari Desert.

Type: T.M. No. 8023, Ondjiwa, Southern Angola, donated by Dr V. da Silva, together with five others from the same place, none of them measured in the flesh. Skull: greatest length 30.7, basilar length 25, zygomatic width 15, width of brain case 12.5, interorbital constriction 4.5, nasals 12 × 3.6, upper back teeth 4.6, diastema 9, palatal foramina 6.6, bullae 6.2.

**Petromys cunealis guinasensis** n.subsp.

A large form of much the same size as *P. cunealis* Thomas (*Proc. Zool. Soc. Lond.* 1926, p. 307: Rua Cana Falls, Cunene River), but much darker in colour, owing to the much greater amount of dark grey-brown at the ends of the hairs, but still with a fair amount of buffy tipping subterminally; the hands and feet like the flanks, but tips of hind toes blackish; tail mainly dark brown, nearly black, but ticked with some yellowish at the basal third.

Type T.M. No. 7931, collector's No. 60, Guinas, Tsumeb District, South-West Africa, adult ♂, 23 May 1937. "Length of head and body 190, tail 148, hindfoot (s.u.) 33, ear 13.5." Skull: greatest length 47.7, basilar length 35.2, zygomatic width 25.6, width of brain case 19.2, width across the meati 22.5, interorbital constriction 10.4, length of nasals 19, width of nasals 6, greatest diameter of bullae 12, length of upper back teeth 9.8, of lower back teeth 10; height of skull at bullae 14.7. Also five more specimens.

**Petromys typicus windhoekensis** n.subsp.

A smaller form than *P. c. guinasensis* described above from Tsumeb District, and not so dark coloured, but still darker than any of the other forms of this southern species. As compared with *P. t. tropicalis* Thomas & Hinton (*Proc. Zool. Soc. Lond.* 1925, p. 241: Karibib, Damaraland) much darker and with the terminal third of the tail above and two-thirds below black, the base orange buffy above and becoming mixed with the black increasingly backwards; the snout, hands and feet are uniform orange buffy, much darker than in *tropicalis*. Although the animal is smaller, the teeth average larger, the length of the upper back teeth 10.5–11 mm.

Type: T.M. No. 7943, collector's No. 226, Neudamm Government Karakul Farm, Windhoek, South-West Africa, adult ♂, 14 July 1937. "Length of head and body 173, tail 145, hindfoot (c.u.) 32, ear 13." Skull: greatest length 43.5, basilar length 33.8, zygomatic width 26.7, width of brain case 17.5, meatal width 23, interorbital constriction 11, nasals 15.5 × 5.7, greatest diameter of bullae 11.2, length of upper back teeth 11, of lower back teeth 11, height at bullae 14. Also a series of eight more from the same place, and an immature specimen from near Windhoek.

**Petromys typicus kobosensis** n.subsp.

Closest to *P. t. windhoekensis* described above, but lighter coloured throughout, the upper parts more buffy and the tail blackish only on the terminal quarter, the fingers and toes normally lighter buffy than the hands and feet; the skull is of the same average size as in the typical form.

Type: T.M. No. 7950, collector's No. 242, Kobos, 45 miles south-west of Rehoboth, South-West Africa, adult ♂, 18 July 1937. "Length of head and body 170, tail 145, hindfoot (s.u.) 33, ear 14." Skull: greatest length 42.5, basilar length 33.7, zygomatic width 26, width of brain case 16.8, meatal width 21.5, interorbital constriction 9.2, nasals 16.5 × 5.7, greatest diameter of bullae 11.7, length of upper back teeth 10.2, of lower back teeth 9.8, greatest height at bullae 14.5. Also seven more specimens from the same place.

***Petromys typicus barbiensis* n.subsp.**

Somewhat like *P. t. kobosensis*, but darker about the head and forepart of body, with the snout, hands, feet and base of tail more reddish buffy. Skull as in *kobosensis*.

Type: T.M. No. 7957, collector's No. 273, Barby farm, Helmeringshausen, South-West Africa, adult ♂, 24 July 1937. "Length of head and body 175, tail 155, hindfoot (s.u.) 33, ear 14." Skull: greatest length 42.3, basilar length 32.7, zygomatic width 26.3, width of brain case 17.8, meatal width 23, interorbital constriction 11.3, nasals 16.5 × 6.2, greatest diameter of bullae 11.8, length of upper back teeth 10.2, of lower back teeth 10.5, height at bullae 14. Also two more specimens from the same place. Five from the Great Karas Mountains come very close to these.

***Petromys typicus ausensis* n.subsp.**

Somewhat like *P. t. tropicalis* from Karibib, but with the lower back yellower and the head and forepart of body darker. The skulls the same, but it may be noted that in two specimens the teeth are larger, measuring 10–10.3, and in a third specimen only 9 mm., thus linking up with the Namaqualand form next to be named.

Type: T.M. No. 7961, collector's No. 302, Aus, South-West Africa, adult ♀, 30 July 1937. "Length of head and body 170, tail 165, hindfoot (s.u.) 30, ear 14." Skull: greatest length 43, basilar length 31.7, zygomatic width 25, interorbital constriction 10.5, nasals 16 × 6, greatest diameter of bullae 12, upper back teeth 10.3, lower back teeth 10.6, height at bullae 14.5.

***Petromys typicus namaquensis* n.subsp.**

In respect of the head and forepart of body above somewhat like *P. t. typicus* A. Smith (*S. Afr. Quart. J.* 1, p. 11, 1831: Little Namaqualand), but lighter coloured, and the hinder half of the upper parts yellowish, but not so sharply differentiated as in those found farther south; the tail is yellowish and only partly blackish in the terminal third, whereas in *typicus* the greater part of the tail is entirely black. Apparently also rather smaller in size, the back teeth only about 8.5–9.5, and the skulls small in proportion.

Type: T.M. No. 7980, collector's No. 351, 15 miles south-west of Warmbad, South-West Africa, adult ♀, 13 August 1937. "Length of head and body 145, tail 135, hindfoot 33, ear 12." Skull: greatest length 37.5, basilar length 30.5, zygomatic width 23.5, width of brain case 17.5, meatal width 21.7, interorbital constriction 9.2, nasals 13 × 5.5, greatest diameter of bullae 12, upper back teeth 9.3, lower back teeth 9.7, height at bullae 14.7. Also specimens from Seeheim, Brukaros, but not the Great Karas Mountains, appear to be referable to the same form, though the skulls are larger.

All the above specimens have been compared with topotypical material of the previously described forms collected by Captain Shortridge, and about a dozen specimens of *typicus* collected by the present expedition in various places in Little Namaqualand and at Goodhouse on the Orange River.

***Pedetes caffer fouriei* n.subsp.**

A paler form than even *P. c. damarensis* Rbts (*Ann. Transv. Mus.* xi, p. 261, 1926: Quickborn, Okahandja District, South-West Africa) the whole of the upper parts of head and body being distinctly lighter coloured and the rusty tinge very faint; also apparently slightly smaller.

Type: T.M. No. 8213, collector's No. 147, Itota Pan, 40 miles south of Ondonga, Ovamboland, South-West Africa, adult ♂, 10 June 1937. "Length of head and body 385, tail 435, hindfoot (c.u.) 160, ear 72." Skull: greatest length 87.5, basilar length 60.5, greatest width 53.8, width at bullae 44, length of upper tooth-row 18, nasals 34 × 22, height at bullae 31, height behind incisors 29. Also another specimen from Ovamboland, collected some years ago and donated by Dr L. Fourie. The very pallid coloration is in conformity with the same characteristic seen in many species of birds and mammals found in the Etosha Pan and Ovamboland areas.

***Pronolagus caucinus kobosensis* n.subsp.**

In colour and general characters matching *P. caucinus* Thomas (*Proc. Zool. Soc. Lond.* 1929, p. 109: Karibib, Damaraland), of which four specimens were procured on the present expedition at Kamanjab, Kaokoveld, but smaller in size in external and cranial measurements, as the figures given below will show.

Type: T.M. No. 8219, collector's No. 252, Kobos, south-west of Rehoboth, South-West Africa, adult ♀, 19 July 1937. "Length of head and body 400 (in *caucinus* from Kamanjab 435-470, the smaller figure being of a younger animal as also in the figures quoted hereafter in brackets), tail 100 (90-110), hindfoot (s.u.) 80 (91-108), ear 100 (80-107)." Skull: greatest length 88 (92.5-98.5), condylo-incisive length 78 (82-88.7), basilar length 68 (73-77.7), width of brain case 31 (31-31.5), nasals 43 × 17 (41.5-45 × 15.7-18), length of upper tooth-row 15.5 (16-17), diastema 28.5 (29.7-32), palatal foramina 26.6 × 8 (28.7-29.5 × 9-10.7), width of bullae 11.3 (11-12), length of bullae including the meati 15.2 (15-16), length of mandible and incisors 70.7 (74.2-79), length of lower tooth-row 15.2 (16-17.5), width of foremost upper premolar 4.7 (5-5.8).

***Pronolagus caucinus fitzsimonsi* n.subsp.**

Similar in colour and general characters to *P. caucinus kobosensis* described above, though more pinkish about the face, neck, underparts of body and on forelegs, but even smaller, in size approaching *P. melanurus* (Rüppel, *Mus. Senck.* III, p. 147, 1842; Orange River), but differing from it in having the fine processes present in the middle of the interorbital constriction, a character peculiar to both *caucinus* and *randensis* (of western Transvaal), but absent in *melanurus*. The tail is long, bushy and dark brown with some rufous only at the base in both *caucinus* and *melanurus*, whereas in *rupestris* (A. Smith, *S. Afr. Quart. J.* II, p. 174, 1834: South Africa) the tail is rufous at the base and only the tip is blackish. In this small new form the ears are long in proportion to the size of the animal.

Type: T.M. No. 8220, collector's No. 271, Barby farm, Helmeringshausen, South-West Africa, adult ♀, 24 July 1937. "Length of head and body 405, tail 90, hindfoot (s.u.) 88, ear 105 from the notch, from the base of skull 120." Skull: greatest length 83.7; condylo-incisive length 75, basilar length 65,

posterior zygomatic width 38, anterior width 34.5, width of brain case 28, nasals  $38.5 \times 14$ , length of upper back tooth-row 13.5, diastema 28, palatal foramina  $26 \times 8.5$ , width of bullae 10, length of bullae including the meati 15.5, length of mandible and incisors 66, length of lower tooth-row 12.7, width of foremost upper premolar 4. There were two pairs of lateral mammae when the specimen was examined in the flesh and local inquiry showed that it was of normal adult size. Mr V. FitzSimons procured the specimen amongst rocks on a stony hill-side.

***Pronolagus crassicaudatus mulleri* n.subsp.**

A red-tailed form in which the whole tail is pinky rufous with barely a trace of black at the ends of the hairs at the tip. In colour above intermediate between the very grey *P. c. australis* Rbts (*Ann. Transv. Mus.* xv, p. 270, 1933: Clan William, Cape Province), and the very pinky rufous coloured *P. c. curryi* Thomas (*Ann. Mag. Nat. Hist.* (7), x, p. 245, 1902: Boshof, Orange Free State): top of head brownish with some pinkish subterminally and showing through, the base of the hairs dark ashy; sides of face greyer, with a small rufous patch on the lower side of the eye; ears dark brown on the external anterior surface, paler on the lower, outer border, the short hairs inside grey and only slightly buffy, the longer fringe-hairs more buffy. Rufous of hind-neck darker at the tips of the hairs than the basal part; rest of the upper parts of body pinkish for the basal four-fifths, then with a band of dark brown and tips blackish or buffy white. Sides merging from the darker speckled colour above to pale pinky rufous below; forelimbs pinkish rufous, darker than underparts of body, the toes paler; hindlimbs like the forelimbs, becoming paler on upper surface of feet and still paler on the toes; tail coloured like the legs, with a slight trace of blackish at the extreme tip. Sides of neck more rufous than sides of face, owing to the pinky rufous base of the hair showing through, the collar below also greyish, but slightly more pinky than sides of neck, the base of the hair being greyish pinky. Top of nose rufous yellow and patches around the nostrils and the lips clearer yellow; chin whitish.

Type: T.M. No. 2158, Klaver, Cape Province, adult ♂, 21 September 1917. "Length of head and body 400, tail 55, hindfoot (s.u.) 75, ear 94." Skull: greatest length 75.5, condylo-basal length 67.5, basilar length 58, zygomatic posterior width 36.7, anterior width 34.5, width of brain case 28, nasals  $35.8 \times 15.5$ , length of upper back tooth-row 13.3, diastema 23, palatal foramina  $21 \times 7.8$ , width of bullae 10.5, length of bullae including meati 1.7, width of upper foremost premolar 3.5.

This form has been previously taken to represent *Pronolagus crassicaudatus rupestris* (A. Smith), but Smith quite clearly states that the tip of the tail is black, whereas there is only a trace of this in the present form, and *P. c. curryi* agrees best with the description in that respect, though not in others. Smith gave no locality so that the type may have come from anywhere in the Cape Province which he had traversed up to 1834, and it remains to be seen from future material procured exactly where he collected the specimen, or specimens, he mentions.

***Rhynchogale melleri langi* n.subsp.**

Differing from *Rhynchogale melleri melleri* (Gray, *Proc. Zool. Soc. Lond.* 1864, p. 575: Zambesi River) in its lighter grey coloration and in respect of the teeth, which are smaller, in the case of  $m_2$  in not a single specimen equal

in length to  $m_1$ . Colour: in general greyish, the feet darker and half the tail blackish. Hairs of the back about 40 mm. in length, banded in five equal parts, brown at the base, then whitish, brown, whitish and brown; at the base of the tail the hair measures 70 mm. and the brown at the base is eliminated, so that the bands are broader and white, brown, white and at the tip blackish, the bands of about the same width in all; in the terminal third of the tail the bands are whitish for the inner half, blackish for the outer half; and at the extreme tip the hairs are entirely blackish. The back is slightly darker than the sides and below still lighter, but not strikingly so.

Skull: apparently much the same as in the typical form, as figured by Thomas in *Proc. Zool. Soc. Lond.* 1882, pl. III; but the teeth much smaller than the figures recorded by Thomas in the same paper. In two cases an extra premolar is present on one side only, between the canine and  $p^2$ , a peculiarity that is recorded of the type of *melleri* and which gave rise to some speculation. In eight others of the present series, however,  $p^1$  is normally present or has been broken off. In the ten specimens examined of this form the hindmost lower molar is smaller than its companion, but the size of the teeth is somewhat variable, both above and below,  $p^4$  length in ten specimens measuring 5.2-6.3, greatest diameter of the same tooth 6-7, width of  $m^2$  3.6-5.1, length of  $m_1$  5.5-7, of  $m_2$  5.1-6.2.

Type: T.M. No. 8367, Ranches Limited, north-east Swaziland, adult ♂, 13 June 1937, Museum Expedition. "Length of head and body 1 ft. 7 in. (481 mm.), tail 1 ft. 4 in. (405 mm.), hindfoot (s.u.)  $3\frac{3}{4}$  in. (95 mm.), ear  $1\frac{3}{4}$  in. (45 mm.)." Skull: greatest length 92, condylo-basal length 89, basilar length 82.5, zygomatic width 49, width of brain case 33, interorbital constriction 18.5, intertemporal constriction 20.3, length of palate 47, width across  $m^1$  29, length of  $p^4$  5.7, greatest diameter of same 7, width of  $m^2$  5.1, length of  $m_1$  7 and of  $m_2$  6.

This animal was first collected by Messrs H. Lang and F. O. Noomé on "Perkeo", Pilgrimsrest District, then by Mr White on the Olifants River near Klaserie and now eight have been collected by Noomé and White in north-east Swaziland. These ten specimens show considerable uniformity in colour.

#### *Pronolagus whitei* n.sp.

A species apparently most closely related to *Pronolagus nyikae* Thomas (*Ann. Mag. Nat. Hist.* (7), x, p. 244, 1902: Nyika Plateau, Nyasaland), but smaller, with the anterior premolars crenulated as in *P. ruddi* Thomas and Schwann (*Proc. Zool. Soc. Lond.* 1905, p. 272: Sibudeni, Zululand), the palatal foramina narrower than the palatal bridge and the anterior wings of the zygomata, though broad, not projecting any farther forward than in *ruddi*. In colour, as described, shortness of feet and ears, showing relationship to *nyikae*.

Type: T.M. No. 8369, adult ♀, Vumba, Southern Rhodesia, 10 December 1937, collected by A. G. White on a Transvaal Museum Expedition. "Length of head and body 362, tail 57, hindfoot 76, ear 48." Skull: greatest length 76, condylo-basal length 67, zygomatic width 36.7, anterior width of same 36, width of brain case 28, interorbital constriction 14, intertemporal constriction 13.5, nasals  $36.7 \times 17$ , length of palatal foramina  $21 \times 7$ , width of palatal bridge 8, length of upper grinding teeth (alveoli) 13.5, diastema 23, width of bullae 10.5, length of bullae including meati 13.5, width of upper incisors 4.8, length of mandible and incisors 58.5, length of lower grinding teeth (alveoli) 13.3 width of foremost upper premolar 3.2.

***Aethomys silindensis* n.sp.**

Having an extraordinary likeness to *Aethomys chrysophilus* (de Winton, *Proc. Zool. Soc. Lond.* 1896, pp. 801 and 807: Mazoe, Southern Rhodesia), which was procured at the same time and place as the present species, but considerably larger and more robust and in the skull differing in having the supraorbital ridge extending backwards across the parietal and slightly converging to a point inside the outer angle of the interparietal, this ridge in *chrysophilus* extending only to the edge of the parietal where it extends downwards. The teeth are larger and the anterior cusp of  $m^3$  is large and isolated in the type and another specimen procured at the same place. In colour as in *chrysophilus*: above rusty, or buffy, brown, below white, the upper and underparts merging gradually, the base of the hair dark slaty; hands and feet white; tail yellowish brown, ears brown with a thin covering of buffy hair; chin and lips whitish. Hair of back about 13 mm. Scale rings on the tail distinct and about 22 to the inch (25 mm.).

Type: T.M. No. 8370, adult male, Mount Silinda, Southern Rhodesia, 28 December 1937, collected by A. G. White on a Transvaal Museum Expedition. "Length of head and body 160, tail 194, hindfoot (s.u.) 32, ear 21." Skull: greatest length 41.5, condylobasal length 39, basilar length 33.8, zygomatic width 21, width of brain case 16.2, interorbital constriction 5.6, nasals  $17 \times 5.3$ , upper molars 6.6, diastema 11.6, palatal foramina  $9.3 \times 2.5$ , bullae 7.

***Grammomys silindensis* n.sp.**

In general somewhat like *G. cometes* (Thomas and Schwann, *Proc. Zool. Soc. Lond.* 1908, p. 550: Inhambane), but altogether darker above, brownish instead of uniform "clay colour"; below the white does not extend so widely across between the fore- and hindlimbs, but well defined; the tail also darker and with fairly long buffy to brown bristles for the terminal third; hands and feet buffy white. The skull much as in *cometes*, but the bullae smaller and molars slightly larger.

Type: T.M. No. 7753, adult ♀, Mount Silinda, Southern Rhodesia, 17 December 1935, Museum Expedition, per A. G. White. "Length of head and body 112, tail 186, hindfoot (s.u.) 25, ear 19." Skull: greatest length 31, basilar length 25, zygomatic width 15.2, width of brain case 12.8, length of molar series 4, width of  $m^1$  1.4, length of palatal foramina 7.5, bullae 5.5. Also another specimen from the same place.

***Grammomys vumbaensis* n.sp.**

A species that resembles *G. dolichurus* (Smuts, *Enum. Mamm. Cap.* 1832, p. 39, pl. II: Cape Town), which extends to the eastern Cape Province and as a subspecies in Zululand (*G. d. tongensis* Rbts, *Ann. Transv. Mus.* xiv, p. 234, 1931: Manaba, Ubombo), but more rusty reddish on the rump and hindquarters, and in size smaller; the tail is also not very heavily bristled. In the skull the difference is seen mainly in the smaller bullae and teeth.

Type: T.M. No. 8372, adult ♀, Vumba, Southern Rhodesia, 13 December 1937, Museum Expedition, per A. G. White. "Length of head and body 105, tail 170, hindfoot (s.u.) 22, ear 16." Skull: greatest length 30, basilar length 22.8, zygomatic width 14.5, width of brain case 12.7, length of nasals 12, of palatal foramina 6.8, of upper molar series 4, width of  $m^1$  1.0, bullae 4.8. Also another ♀ from Vumba and 1 ♂, 2 ♀♀ and 1 juv. ♀ from Mount Silinda. In the 4 ♀♀ there are two pairs of inguinal and one pair of pectoral mammae easily discernible in the skins, whereas in the 2 ♀♀ of *G. silindensis* the pectoral mammae are absent.