

CHAPTER 17

CRYPTOMYS BEIRAE (THOMAS & WROUGHTON) 1907

This species was first collected by Mr. C.H.B. Grant during one of his many exploratory trips in Southern Africa, in the vicinity of Beira, Mocambique and was described by Thomas and Wroughton (1907, 780). The authors pointed out the fact that although Beira and vicinity has been known as a paradise for sportsmen, no scientific collection of mammals appeared ever to have been made until Grant first collected this mole-rat species there.

The validity of the specific rank accredited to this form is open to question but I have retained it as a valid species in the present work. Unfortunately, this species is poorly represented in study collections in South African museums. Future research may demote this species to subspecific rank, or it may even be usurped entirely in the species darlingi as a synonym.

As here understood, C. beirae is a monotypic species, occurring mainly in the vicinity of Beira. Further particulars about its geographical distribution is at present unknown although it has been recorded in the Gorongosa district in Portuguese East Africa (Roberts, 1951, 390). The species C. zimbatiensis, described by Roberts (1946, 315) is treated as a synonym of beirae in the present work.

Cryptomys beirae (Thomas & Wroughton)

Georychus beirae Thomas & Wroughton, Proc.zool.Soc.,

Lond.,

p.780/...

p. 780, 1907. Type locality: Beira,
Mocambique.

Cryptomys zimbitiensis Roberts, Ann. Transv. Mus., 20:
315, 1946. Type locality: Zimbiti, about
20 miles inland from Beira, Mocambique.

Type specimen:

British Museum, No. 7.6.2.98. Collected by
C.H.B. Grant, Nov. 28th, 1906. Adult male.

Type locality:

Beira, Portuguese East Africa.

Distribution: (Fig. 17.1).

Although the type locality was given as
Beira, Portuguese East Africa, Ellerman et.al. (1953,
232) state that it occurs south of the Zambezi river
i.e. north of Beira. Apart from being recorded in
the Gorongosa district, no further information about
its geographical distribution is available at present.

Diagnostic characters:

Specimens belonging to this species are
slightly larger than C. darlingi, C.B. M = 35.8 mm.,
(unsexed specimens) but smaller than C. damarensis.
The dorsal surface is described as 'ecru-drab' to
'drab-grey'. Ventral colour the same as
above (Thomas & Wroughton, 1907, 781).

Colour:

The general colour above is stated to be
between 'ecru-drab' and 'drab-grey'. The individual
hairs are slate-grey at their bases and have fawn-
coloured tips. Thomas & Wroughton (loc. cit.)
described the ventral colouration as being the same as
that on the dorsal side while the fawn tips of the
hairs are less conspicuous.

A white occipital patch is usually present showing a great amount of variation in shape. Thomas & Wroughton state the size of the patches to be approximately half an inch in diameter in the specimens used for describing the species.

Size:

The sample available for study to me consisted of four unsexed specimens, showing the following mean values:

H.B.	No data.
T.	No data.
H.F.	No data.
C.B.	33.6-38.9 mm., M = 35.8 mm.
B.C.	14.8-15.4 mm., M = 15.0 mm., (41.8% of C.B.)
I.W.	8.1-8.4 mm., M = 8.2 mm., (22.9% of C.B.)
Z.W.	26.5-27.0 mm., M = 26.7 mm., (74.5% of C.B.)
M.W.	7.5-9.3 mm., M = 8.2 mm., (22.9% of C.B.)
U.T.R.	5.7-6.0 mm., M = 5.8 mm., (16.2% of C.B.)
L.J.	21.4-24.9 mm., M = 23.1 mm., (64.5% of C.B.)
L.T.R.	5.4-6.6 mm., M = 6.1 mm., (17.0% of C.B.)

Skull and dentition:

According to Thomas and Wroughton (1907, 781), the skull is but slightly smaller than that of 'G. lugardi' (i.e. C. damarensis), and slighter in construction in specimens of corresponding age. Nasals reasonably well developed, not pointed anteriorly. Ascending processes of premaxillaries not projecting beyond posterior nasals to a great extent (cf. C. nimrodi). The lambdoid crest makes a re-entering angle where it meets the sagittal crest. There appear to be no diagnostic features attached to the dentition.

Discussion/...

Discussion:

In view of the very small sample of this species, available for study purposes, comparison with other species is greatly hampered. Ellerman et.al. (1953, 232) have placed beirae as a subspecies of hottentotus while Roberts (1951, 390) has maintained it as a separate species.

Thomas & Wroughton (1907, 780) have commented upon the geographical distribution of this species, and their conclusion was that it appears to be more closely allied to 'G. lugardi' (i.e. pale colour phase of C. damarensis) found in the west than to C. darlingi of Mashonaland intermediate in geographical position. As far as I am concerned, this conclusion does not seem to be justified. Phenotypically speaking, there is very little difference between the colouration of C. darlingi and C. beirae and the overall lighter and yellower colouration of the latter species can only be demonstrated if a number of specimens are compared simultaneously. In fact, specimens from Salisbury (C. darlingi) also show a similar lighter colouration compared to other specimens of C. darlingi and it is virtually impossible to distinguish the two species on the basis of colour alone. Furthermore, 'G. lugardi' (i.e. C. damarensis) was first described by de Winton (1898, 253) as 'seal brown', while the Beira specimens are decidedly between 'ecru-drab' and 'drab-grey'. C. darlingi shows a similar colouration.

Furthermore, C. beirae is decidedly smaller than the larger C. damarensis while only slightly larger than C. darlingi. On comparing all the data obtained/...

obtained for the various skull measurements, it appears that all the values for C. beirae are slightly larger than those of C. darlingi but in all instances, they do not lie outside ± 1.5 S.D. above the values obtained for C. darlingi. The only exception is the length of the L.T.R. It is evident that there is a considerable amount of overlap between the skull parameters of both species, and that I have only retained C. beirae as a species due to lack of suitable comparative material. Its retention is therefore tentative.

The inclusion of C. zimbithiensis Roberts under C. beirae seems to be justifiable however, although, here again, there is a serious paucity of material. C. zimbithiensis was described by Roberts in 1946 on a few specimens collected at Zimbithi, about 20 miles inland from Beira. He described the colour as being altogether yellower than C. beirae, which, on comparison with specimens of C. beirae, is not at all evident to the present author. The specimens from Zimbithi are described as having a large white mark on their throats which is also seen in C. beirae. The structure of the infraorbital foramen is very similar in both forms while Roberts states that the bullae in zimbithiensis are more swollen. On comparison of the bullae of C. beirae, it is evident that this is a very relative feature. The various measurements of the skulls (based on the type, an old specimen and on two others) correspond virtually entirely to the sizes obtained for C. beirae. If the series of C. beirae were large enough, it would undoubtedly overlap all the values of C. zimbithiensis.

Apart/...

Apart from size considerations, it is not clear why another species should suddenly crop up 20 miles inland from Beira where the climatic, vegetational, and other conditions are similar. I can therefore see no justification for the retention of C. zimbitiensis as a separate species and it is suggested that only one species, C. beirae (itself not easily distinguishable from C. darlingi) exists in the area between Beira and the Zambezi river, and the vicinity of Gorongosa.

Ellerman et.al. (1953, 234) have not placed C. zimbitiensis in synonymy with C. beirae probably due to the fact that they have not seen the specimens from Zimbiti.

A further interesting point is that Roberts has taken as the type of C. zimbitiensis, a specimen collected by Grant in the vicinity of Beira - i.e. C. beirae. In fact, Grant's number given to this specimen (7.6.2.97) is just one figure below that number which serves as the type of C. beirae (7.6.2.98) in the British Museum. If it is assumed that this specimen is an example of C. zimbitiensis it may be compared to specimens known as beirae: when such a comparison is made, it is clear that there is absolutely no difference between the supposed zimbitiensis and beirae forms.

Biological:

Very little is known about biological aspects of this species. Thomas and Wroughton (1907, 776) postulated that the scarcity of mammals (especially the smaller ones) could be explained by the fact that there is an annual flooding of the country/...

country resulting in large numbers being drowned during the rainy season. Any additional biological information regarding this species is non-existent however.

Phylogenetic:

No information available at present.

List of localities:

Beira, 4 (TM), Zimbiti, 5 (TM),
Gorongosa, (Roberts, 1951, 390).