Notes on the *Praomys* of Angola with the description of a new species (Mammalia: Rodentia: Muridae)

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Abstract

A new species of the *Praomys tullbergi* species-complex, *P. coetzeei* **n. sp.**, is described and compared with the other species of this complex. In the northeast of Angola the species of the *P. tullbergi* complex and the *P. jacksoni* complex have a sympatric distribution.

K e y w o r d s : *Praomys*, Angola, new species.

Zusammenfassung

Eine neue Art aus der *P. tullbergi* Arten-Gruppe, *P. coetzeei* **n. sp.**, wird beschrieben und mit den Arten dieser Gruppe verglichen. In Nordost-Angola zeigen die Arten der *P. tullbergi*-Gruppe und der *P. jacksoni*-Gruppe eine sympatrische Verbreitung.

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1 Introduction

Van der Straeten & Dudu (1990) recognized four different species-complexes within the genus *Praomys*: the *P. jacksoni* group, the *P. tullbergi* group, the *P. delectorum* group, and the *P. lukolelae* group. In other publications I discussed the differences between these four species-complexes, with special emphasis on the *P. tullbergi* group (Van der Straeten & Verheyen 1981; Van der Straeten & Dieterlen 1987; Van der Straeten & Dudu 1990; Van der Straeten et al. 2003).

Only a few publications mention the presence of *Praomys* in Angola. Specimens of this genus were not recorded by Hill & Carter (1941). Sanborn (1952) was the first to locate *Praomys jacksoni jacksoni* in the Lunda District. This was confirmed by Hayman (1963) who identified his specimens as *Rattus (Praomys) morio jacksoni*. Musser & Carleton (1993) were the first to mention a second species, *Praomys tullbergi*, in the north of Angola. They claim that the distribution limits of *Praomys tullbergi* are unknown.

Crawford-Cabral (1998) gives an overview of the distribution of all Muroidea in Angola. His information is based on literature and specimens housed in museums in Lisboa and Angola and in the FMNH. He thinks that it is possible that *Praomys tullbergi* and *P. jacksoni* have allopatric distributions in Angola, respectively in the northwest and the northeast of this country.

During a stay in different museums I had the opportunity to study two interesting collections from the north of Angola: the specimens collected by Heinrich in 1954 (stored in FMNH), and the collection made by Feiler in 1983 (stored in SNSD). While studying the specimens, it was clear for me that the '*tullbergi*' specimens are a big representative of the *P. tullbergi* species-complex, related to *P. rostratus* and *P. petteri*. Further studies and biometrical analyses demonstrated that these specimens belong to a new species.

Acknowledgments

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2 Material and methods

For this study I examined *Praomys* specimens from the following museums, institutions and private collections:

CM	Carnegie Museum of Natural History, Pittsburgh
DUD	Collection A. Dudu, Kisangani (République Démocratique du Congo)
FMNH	Field Museum of Natural History, Chicago
KMMA	Koninklijk Museum voor Midden Afrika, Tervuren
MHNG	Muséum d'Histoire Naturelle, Genève
MNHN	Muséum National d'Histoire Naturelle, Paris
NHM	The Natural History Museum, London
RUCA	Departement Biologie, Universiteit Antwerpen
SMNS	Staatliches Museum für Naturkunde, Stuttgart
SNSD	Staatliche Naturhistorische Sammlungen, Dresden
ZFMK	Zoologisches Forschungsmuseum Alexander Koenig, Bonn

The following specimens were used:

Praomys coetzeei n. sp.

See list of type material in chapter 3.

Praomys cf. *jacksoni* de Winton, 1897

Angola: Dundo (NHM 63.1089–1092); Duque de Bragança (25 km N – 15 km E) (FMNH 81983–85, 81990–92, 82005); Luhanda (FMNH 82011, 81924); Uige (SNSD B14139–41).

Praomys misonnei Van der Straeten & Dieterlen, 1987

République Démocratique du Congo: Batiabongena (DUD 69, 95, 305, 379, 431, 440, 513, 515, 532, 544, 545, 615, 1052, 1804, 1861, 2216, 2225, 2556, 2561, 2584, 2596, 3088, 4354, 4355, 4390); Irangi (SMNS 10460, 10494, 10504–505, 10507, 10511, 10518, 10549, 10552, 10554, 10555 holotype, 10562, 10565, 10595, 10601, 10609, 10613, 10617, 10621, 10623, 10631, 10632, 10647, 10650, 10659, 10670, 20449, 20511, 20526, 20537, 20541, 20570, 20621).

Praomys petteri Van der Straeten, Lecompte & Denys, 2003

République Centrafricaine: Boukoko (MNHN 1963/587, 1963/592, 1963/1093, 1967/1557, 1967/1576, 1967/1581, 1971/518 holotype, 1971/519, 1979/113; ZFMK 70.146–47, 92.319–22); Ngueguey (MHNG 1686.51–53). – **Cameroun**: Metet (CM 4647); Mieri-Bimba (RUCA 2956/0/19, 0/27/10); Nkolbisson (MNHN 1970/326); Yaoundé (MNHN 1969/111, 1975/430–431); Yokadouma (MNHN 1952/445, 1952/448); Zoatoupsi (MNHN 1983/32–33); locality unknown (RUCA 2.867). – **Congo**: Béna (MNHN 1991/105–108); Kuilela (MNHN 1991/431–437, 1991/439–442); M'Bila (MNHN 1965/70); Ménengué (MNHN 1991/109); Tchissanga (MNHN 1991/104, 1991/110–113, 1991/115); locality unknown (MNHN 1991/1110).

Praomys tullbergi Thomas, 1894

Côte d'Ivoire: Adiopodoumé (KMMA 80.009M0002, 80.009M0003, 80.009M0005, 80.009M0006, 80.009M0008, 80.009M0010, 80.009M0011, 80.009M0013, 80.009M0018, 80.009M0019, 80.009M0021–80.009M0025, 80.009M0028, 80.009M0030, 80.009M0032, 80.009M0033, 80.009M0035–80.009M0038, 80.009M0040, 80.009M0047, 80.009M0052, 80.009M0055, 80.009M0063, 80.009M0067, 80.009M0068, 80.009M0070); Lac Lallié (KMMA 989); Lamto (KMMA 1268, 1342).

The other species of the *Praomys tullbergi* complex were not included in this study. *P. morio* Trouessart, 1881 is closely related to *P. tullbergi* but has a very restricted distribution: it is only found on Mount Cameroun above 1000 m and on higher parts (above 1200 m) of Bioko. A biometrical comparison of *P. morio* and *P. tullbergi* indicates that they can be considered as two different species. *P. rostratus* is only found in West-Africa, west of the Dahomey Gap. Also *P. hartwigi* Eisentraut, 1968 and *P. obscurus* Hutterer & Dieterlen, 1992 were not used for this study since they also have a very restricted distribution; they are only known from Mount Oku in Cameroun and Gotel Mountains in Nigeria.

Statistical methods, definitions and descriptions of measurements (see Tab. 1) follow Van der Straeten & Van der Straeten-Harrie (1977) and Van der Straeten & Dieterlen (1987). For the canonical analysis (Seal 1964) I used the method, terminology and programs adapted by Hebrant (1974). This analysis maximizes the between groups variation in relation to the within groups variation. The original variables are transformed to a new set of canonical variables. Thereto eigenvalues and eigenvectors are calculated. This permits representation of the specimens and of the group centroids. For a specimen each original variable (measurement) is multiplied by its corresponding coefficient of the eigenvector and the obtained values are added up. This must be done for all specimens in each of the canonical variates. Now, using the obtained values, each specimen can be plotted in a diagram of canonical variates represented as an abscissa or an ordinate. Neighbouring groups are biometrically more related than distant ones (Van der Straeten & Dieterlen 1987). External body measurements were recorded from specimen labels. Specimens were divided into arbitrary age groups using the degree of wear on the first and second upper molars (Verheyen & Bracke 1966). These age groups were tested to evaluate their statistical integrity.

3 Description of *Praomys coetzeei* n. sp.

Holotype: Adult male (age class 5), skin and skull, FMNH 81981 [original number 8217], Angola, Duque de Bragança (25 km N – 15 km E), collected by G. Heinrich, 26.V.1954.

Paratypes (listed as follows: locality, total number in parentheses, sex and specimen number associated with museum acronym): Angola (17): same data as holotype (6), male FMNH 81989, 81993, 82002, 82004, female FMNH 81994, 82003; Gabela, 30 km S (1) male FMNH 83843; Luhanda (4) male FMNH 82006, 82013, female FMNH 82012, 82015; Sanza Pombo (1) SNSD B14135; Uige (5) male SNSD B14130–32, female SNSD B14133, B14136.

Etymology

I name this new species of *Praomys* in honour of my friend and colleague Neels Coetzee to express my appreciation for his contributions to the knowledge of the mammal fauna in southern Africa.

Diagnosis

Praomys coetzeei n. sp. has the typical characters of the *P. tullbergi* species-complex. It is one of the large members of this complex and is related to *P. rostratus* and *P. petteri*. Compared with *P. petteri*, the rostrum of *P. coetzeei* is shorter and less high. *P. coetzeei* has a long foot of 24–28 mm, the same as in *P. petteri*; in *P. tullbergi* the length of the foot is 23–26 mm, in *P. misonnei* 21.0–25.5 mm and in *P. rostratus* 25–29 mm.

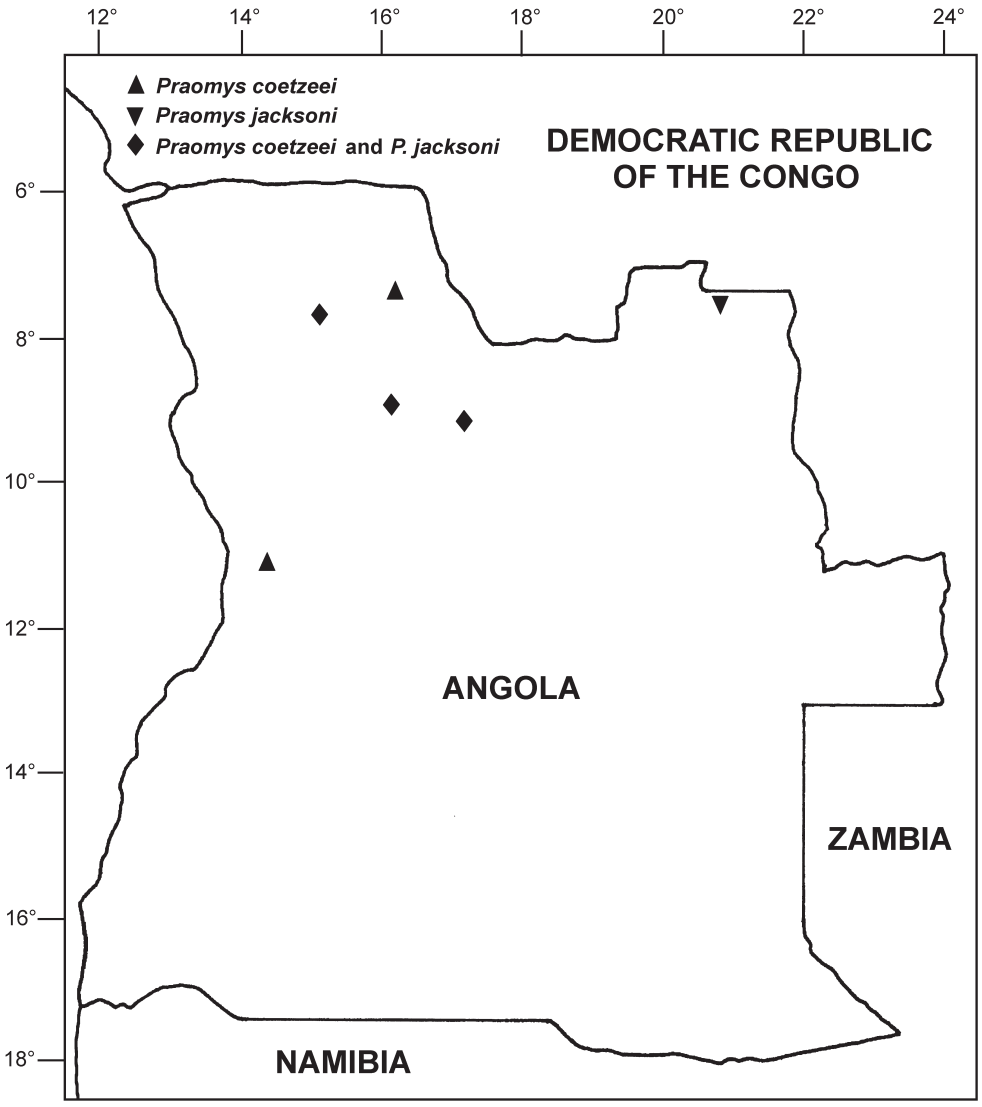

Fig. 1. Distribution of *Praomys coetzeei* n. sp. and *P.* cf. *jacksoni* in Angola (specimens housed in FMNH, NHM and SNSD).

P. coetzeei can easily be characterized by a canonical analysis using skull measurements (Figs. 3, 4).

Distribution

This species is known only from the northwest of Angola. In this region it occurs sympatrically with *Praomys* cf. *jacksoni* (Fig. 1). However, I do not exclude that it is also present in the northeast of Angola. Only a throughout study of specimens in the Instituto Superior de Ciências da Educação, Lubango and the Museo do Dundo, both in Angola, can solve this problem.

Following the museum labels specimens were captured in primary wood, secondary wood, gallery wood and a tropical wood stripe along a river.

Description

P. coetzeei has all the characteristics of the *P. tullbergi* species-complex. The t^3 on M^1 is obsolete or difficult to detect; very few specimens have a trace of a t^3 on M^1. On M^2 the t^3 is small or very small; t^3 is absent in M^3. The t^9 is clearly present in M^1 and M^2 Mostly the t^7 is present as a faint ridge in M^1 and M^2. The supra-orbital ridges are weak and not at all raised (but angular in older specimens) and the interorbital constriction is smooth and has a slightly amphoral pattern. The anterior palatal foramina reach up to the front edge of the first root of M^1. Skull see Fig. 2.

The pelage is soft and without underfur. The colour of the dorsal pelage is brown, slightly darker than in *P. tull-*

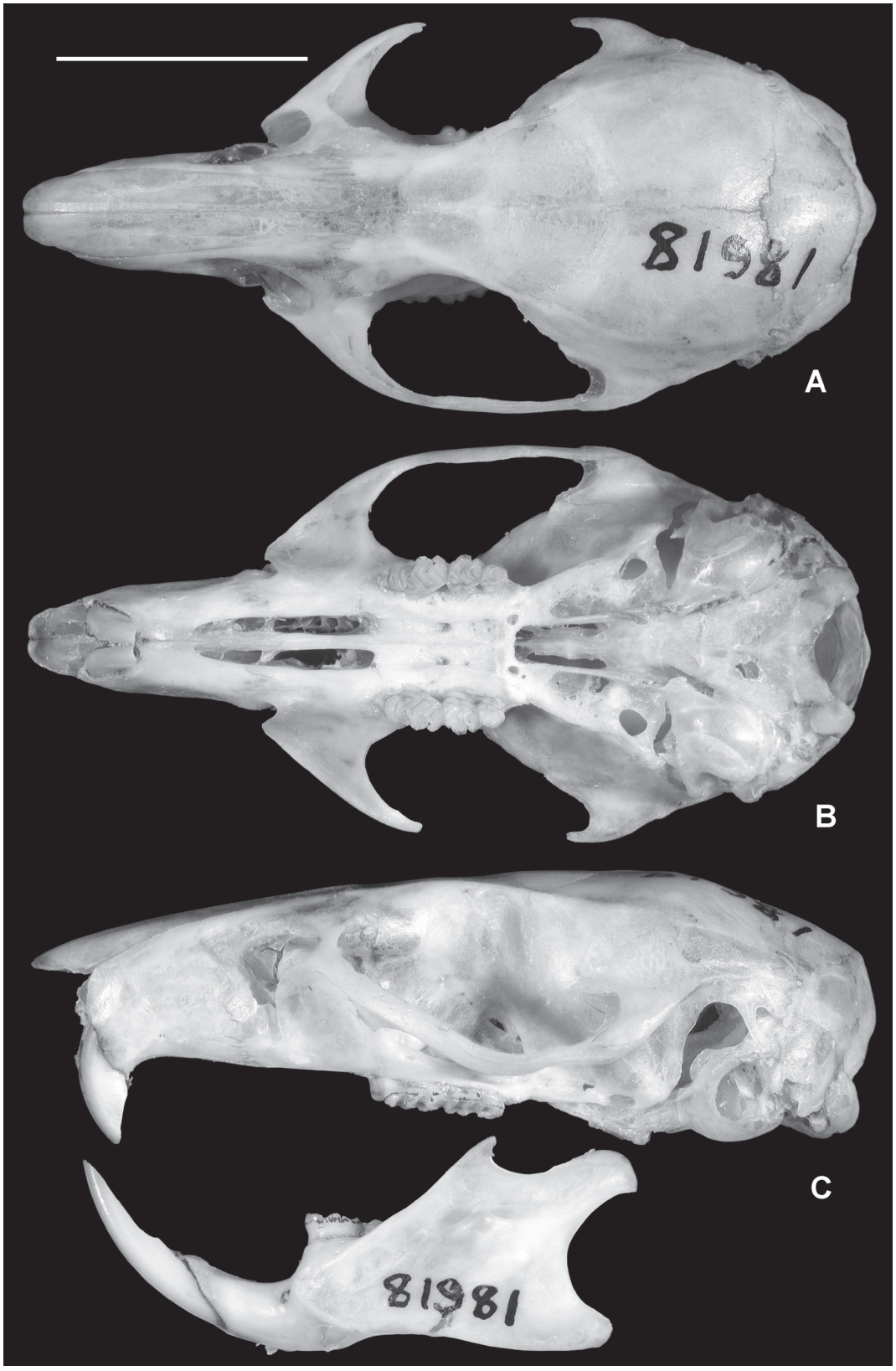

Fig. 2. *Praomys coetzeei* n. sp., holotype, skull, dorsal view (A), ventral view (B), lateral view (C) (photo R. Banasiak). – Scale: 10 mm.

bergi or *P. misonnei*. The dorsal hairs in the mid back are 9–10 mm. In adult specimens the ventral colour is greyish. Only the top of the hairs is white and the basis has a grey colouration. In some specimens the belly is a bit more white than grey; however it is never as white as in *P. tullbergi*. None of the studied specimens has a complete white patch or stripe on the crest or belly, a character found in most other *Praomys* (including *P. rostratus* and *P. petteri*). The tail is normally unicoloured. Dorsal side of hands and feet covered with white hairs.

There are two pairs of inguinal and one pair of pectoral mammae, 2(1–2).

I have no information on the palatal ridges and the plantar pads of the hind foot.

For measurements of the type and the paratypes see Tab. 1. For measurements of other species in the *P. tullbergi* species-complex see Van der Straeten & Verheyen (1981) (*P. tullbergi* and *P. rostratus*), Van der Straeten & Dieterlen (1987) (*P. misonnei*) and Van der Straeten et al. (2003) (*P. petteri*).

Comparisons

Biometrically *P. coetzeei* is closely related to *P. rostratus* and *P. petteri*, both large species of the *P. tullbergi* complex. During the preliminary studies of the biometrical data I compared the skull and external measurements of all species of the *P. tullbergi* species-complex, using a t-test. *P. coetzeei* is highly significant larger (1 % significance level) than *P. misonnei* and *P. tullbergi* for all measurements with the exception of CHOA.

Compared with *P. petteri*, *P. coetzeei* is highly significant larger for INT, breadth of M^1 and LOTE. *P. coetzeei* is highly significant smaller for HEPA, DIA1, DIA2, LNAS, DIN, ROH, and PCPA.

The most distinguishing measurements between *P. coetzeei* and *P. petteri* are the length of diastema and the interorbital breadth.

Canonical analysis

I executed several canonical analyses but present only two of them. The other analyses were pairwise compari-

Tab. 1. Measurements in mm of holotype (FMNH 81981) and adult specimens of *Praomys coetzeei* n. sp. from Angola. Numbers represent sample size, mean, range and standard deviation, respectively. Measurements used in the canonical analysis are indicated with an *; 20 = analysis one with 20 measurements; 18 = analysis two with 18 measurements.

Code	Variable	Holotype	All adult specimens	20	18
HB	head and body length	130.0	18; 117.8 (90.0–140.0) 10.7	–	–
HL	length of tail	163.0	15; 150.2 (123.0–163.0) 10.8	–	–
HL+N	length of hind foot + nail	26.0	16; 26.5 (24.0–28.0) 1.4	–	–
EL	length of ear	21.0	17; 18.6 (14.0–21.0) 2.3	–	–
GRLE	greatest length of skull	33.10	16; 33.20 (31.30–35.20) 1.62	*	*
PRCO	prosthion-condylion (condylobasal length)	30.30	16; 30.72 (29.30–33.30) 1.19	*	*
HEBA	henselion-basion (basilar length)	26.45	16; 26.51 (25.45–28.40) 0.95	*	*
HEPA	henselion-palation (palatilar length)	14.90	17; 15.06 (14.25–16.25) 0.66	*	*
PAF	length of palatal foramina	7.10	18; 7.28 (6.65–8.00) 0.42	*	*
DIA1	length of diastema	9.75	17; 9.76 (8.95–11.10) 0.63	*	*
DIA2	distance between the anterior border of the alveolus of M^1 and the edge of upper incisor	10.50	17; 10.48 (9.55–11.95) 0.70	*	–
INT	interorbital breadth	5.05	17; 5.12 (4.95–5.55) 0.16	*	*
ZYG	zygomatic breadth on the zygomatic process of the squamosal	15.55	16; 15.39 (14.70–16.35) 0.44	*	*
PAL	palate breadth between M^1–M^1	3.30	16; 3.09 (2.80–3.35) 0.18	–	–
UPTE	length of upper cheekteeth	5.10	18; 5.19 (4.90–5.45) 0.17	*	*
UPDE	breadth of upper dental arch (breadth across M^1–M^1)	6.80	17; 6.33 (5.95–6.80) 0.21	*	*
M^1	breadth of first upper molar (crown breadth)	1.55	18; 1.49 (1.40–1.60) 0.05	*	*
ZYPL	breadth of zygomatic plate	4.00	17; 3.83 (3.40–4.30) 0.27	*	*
BNAS	greatest breadth of nasals	3.30	17; 3.57 (3.25–4.10) 0.24	*	*
LNAS	greatest length of nasals	12.75	17; 12.95 (11.65–14.60) 0.78	*	*
LOTE	length of lower cheekteeth	5.00	18; 4.95 (4.75–5.15) 0.12	*	*
CHOA	breadth of choanae (mesopterygoid fossa)	1.50	17; 1.40 (1.20–1.75) 0.15	–	–
BUL	length of auditory bulla	4.35	16; 4.61 (4.35–4.90) 0.14	*	*
BRCA	braincase breadth	12.60	16; 12.58 (12.00–13.05) 0.31	–	–
DIN	depth of incisors	1.65	17; 1.66 (1.35–1.90) 0.13	*	–
ROH	rostrum height at anterior border of M^1	7.50	17; 7.33 (6.75–7.85) 0.34	*	*
ROB	rostrum breadth at anterior border of zygomatic plate	5.40	17; 5.45 (4.80–5.95) 0.29	*	*
PCPA	distance between the extreme points of coronoid process and angular process	9.50	15; 9.64 (9.05–10.45) 0.44	–	–

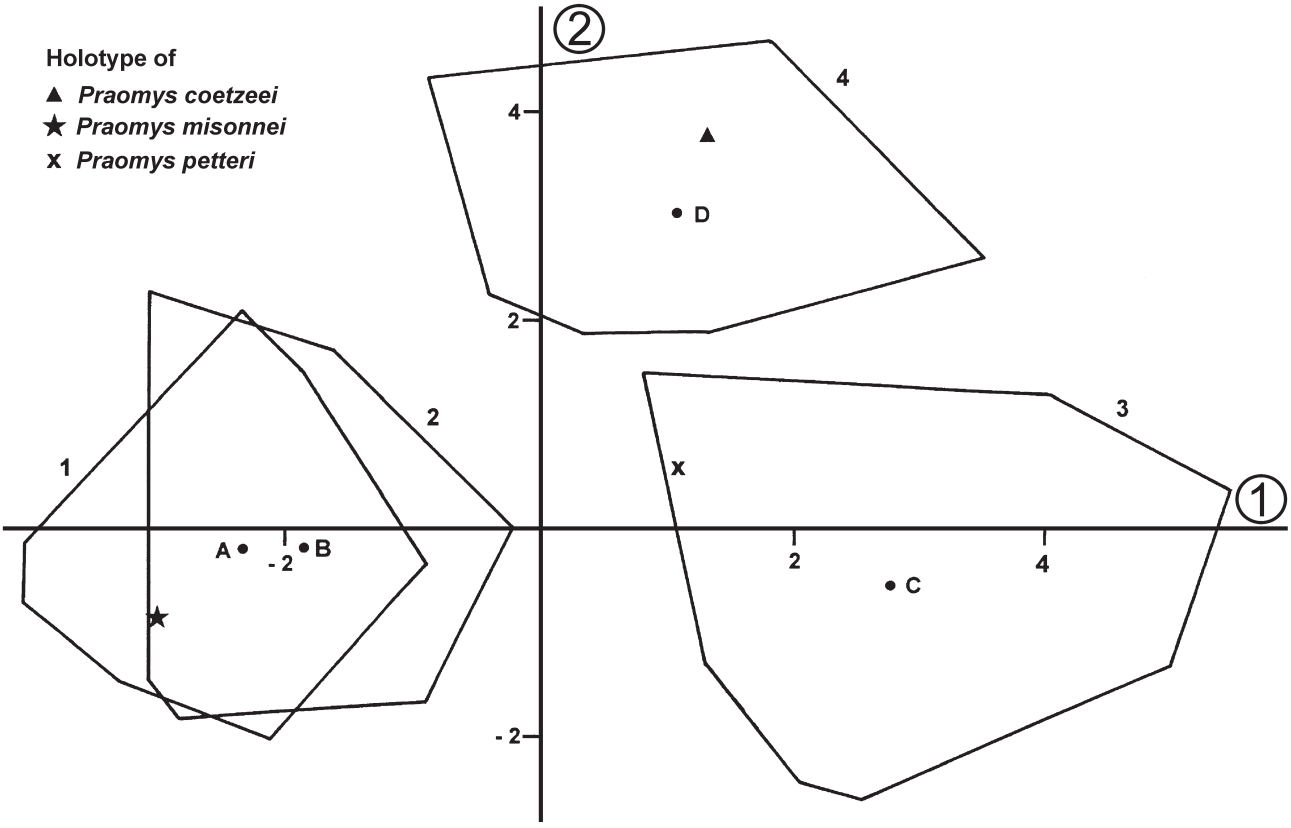

Fig. 3. Canonical analysis of *Praomys* using 20 measurements. Canonical variates 1 and 2; group centroids and extreme limit of each scatter of points are indicated. – 1-A: *P. misonnei* (from Irangi; holotype and paratypes). 2-B: *P. misonnei* (from Batiabongena). 3-C: *P. petteri* (holotype and paratypes). 4-D: *P. coetzeei* n. sp.

sons of the different species, analyses with other combinations of species and with other combinations of measurements. They include discriminant analyses, principle component analyses and correlation analyses. All results were broadly similar.

P. petteri is included in both analyses as this species is biometrically closely related to *P. coetzeei*.

The first analysis focussed on the specimens of *P. coetzeei*, *P. petteri* and *P. misonnei*. In this analyses 20 skull measurements (see Tabs. 1, 2) and 110 specimens were used, divided into four groups: *P. misonnei* from Irangi (holotype and paratypes): 33, *P. misonnei* from Batiabongena: 22, *P. petteri* (holotype and paratypes): 40, and *P. coetzeei*: 15.

In Tab. 2 are given the eigenvectors for the 20 variables, regarding the first two canonical variates. Fig. 3 shows the graphical presentation of the first and second canonical variate, using the eigenvectors of Tab. 2. For each group the centroid and the most extreme values are indicated by a polygonal delimitation. The first canonical variate contains 74.4% of the total variance and the second 19.0%; both together represent 93.4% of the total variation. This analysis shows a clear difference among the three species. There is a good separation between the three different species and an almost complete overlap between the *P. misonnei* specimens from Irangi and Batiabongena. The first canonical variate clearly separates *P. misonnei* from both other species The separation of *P. coetzeei* is mainly caused by the differences following the second canonical variate in combination with the first canonical variate.

The second canonical analysis focusses on the differences between *P. coetzeei*, *P. petteri* and *P. tullbergi*. To optimize the number of *P. tullbergi* specimens only 18 measurements were used (see Tabs. 1, 3). The 86 specimens used, are divided into the following three groups: *Praomys tullbergi* (from Ivory Coast): 30, *Praomys petteri* (holotype and paratypes): 41, and *Praomys coetzeei*: 15.

As the result I give the eigenvectors for the 18 measurements in the two first canonical variates (Tab. 3). The two canonical variate axes contain 78.2% and 21.8% of the variation respectively. The graphical presentation of these two canonical variates is presented in Fig. 4. The first canonical variate clearly separates *P. tullbergi* from the two other species. The second canonical variate separates *P. coetzeei* and *P. petteri* without any overlap.

Tab. 2. Eigenvectors of 20 variables for the first two canonical variates.

Variable symbol	1	2
GRLE	0.0684	-0.0743
PRCO	0.1146	-0.0033
HEBA	0.3028	0.2441
HEPA	0.5487	-0.0930
PAF	-0.1488	0.4271
DIA1	0.4606	-0.2907
DIA2	0.1080	-0.0569
INT	0.0122	0.4404
ZYG	0.1549	0.2025
UPTE	0.0707	0.0704
UPDE	0.0068	0.2733
M^1	0.2467	0.0773
ZYPL	0.3146	0.2457
BNAS	0.0239	0.0224
LNAS	0.3173	0.0194
LOTE	0.1597	0.4467
BUL	0.0737	0.0781
DIN	0.0480	-0.1468
ROH	0.1414	-0.2166
ROB	0.0073	0.0099

Tab. 3. Eigenvectors of 18 variables for the first two canonical variates.

Variable symbol	1	2
GRLE	0.0804	-0.0968
PRCO	0.1084	-0.0589
HEBA	0.4446	0.0853
HEPA	0.4291	-0.2439
PAF	-0.2299	0.3317
DIA1	0.2842	-0.4118
INT	0.1401	0.4862
ZYG	0.3262	0.0928
UPTE	0.0640	0.0324
UPDE	0.2134	0.3320
M^1	0.2305	-0.1784
ZYPL	0.0799	0.1457
BNAS	-0.1864	0.0300
LNAS	0.2162	-0.1229
LOTE	0.2781	0.3590
BUL	0.1456	-0.0125
ROH	-0.2254	-0.2924
ROB	-0.0203	-0.0314

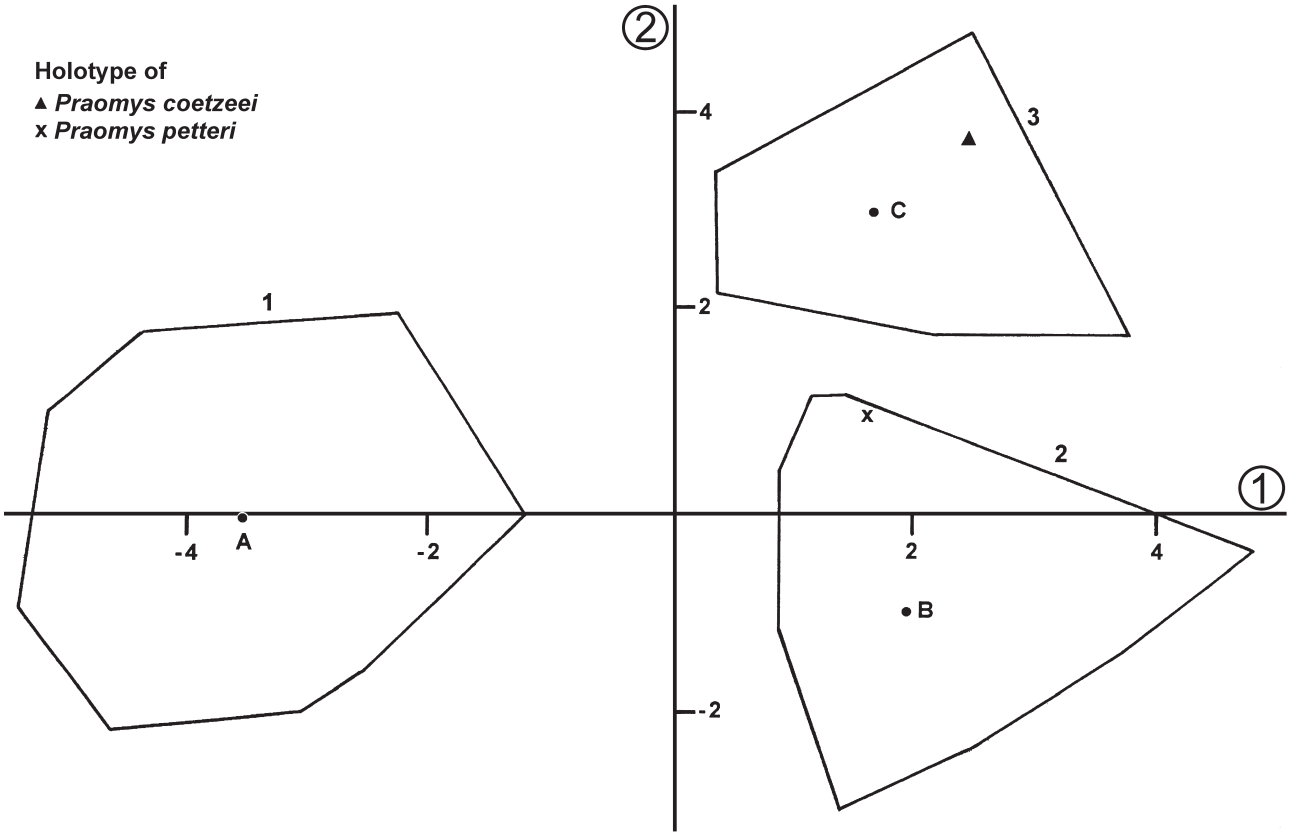

Fig. 4. Canonical analysis of *Praomys* using 20 measurements. Canonical variates 1 and 2; group centroids and extreme limit of each scatter of points are indicated. – 1-A: *P. tullbergi* (from Ivory Coast). 2-B: *P. petteri* (holotype and paratypes). 3-C: *P. coetzeei* n. sp.

In both analyses *P. coetzeei* is clearly separated from the others. From these analyses it is clear that on biometrical characteristics *P. coetzeei* cannot be identified as one of the described species of the *P. tullbergi* species-complex.

4 Discussion

The description of *Praomys coetzeei* brings the number of species within the *P. tullbergi* complex to eight: *P. coetzeei*, *P. hartwigi*, *P. misonnei*, *P. morio*, *P. obscurus*, *P. petteri*, *P. rostratus* and *P. tullbergi*. *P. hartwigi* and *P. obscurus* have a very restricted distribution as they are only known from Mount Oku in Cameroun and Gotel Mountains in Nigeria. The other species can be separated in a larger and a smaller form. The smaller species are *P. misonnei*, *P. morio* and *P. tullbergi* which have an allopatric distribution. *P. coetzeei*, *P. petteri* and *P. rostratus* belong to the large form. These are sibling species with an allopatric distribution. *P. rostratus* is present in all forest zones west of the Dahomey gap (from Ghana to Senegal). The skulls of the *P. rostratus* specimens become larger going from east to west. The exact distribution of *P. petteri* is unknown. Specimens were found in Cameroun, Congo and the Central African Republic. For the moment no specimens are known from Nigeria and the Democratic Republic of Congo. *P. tullbergi* was captured together with *P. rostratus* (for example in Adiopodoumé, Ivory Coast) and with *P. petteri* and *P. jacksoni* (Van der Straeten et al. 2003). *P. coetzeei* is the only species of the *P. tullbergi* complex found south of the Congo river and is for the moment only known from the northwest of Angola. In the collections of the kmMA there are no specimens of the *P. tullbergi* complex collected south of the Congo river. An important *Praomys* collection from Kikwit (Democratic Republic of the Congo; 245 specimens) only contains *P. jacksoni* (Van der Straeten in Leirs et al. 1999). So it seems that *P. coetzeei* has a very restricted distribution.

Van der Straeten & Dudu (1990) recognized four different species-complexes within the genus *Praomys*: the *P. jacksoni* complex, the *P. tullbergi* complex, the *P. delectorum* complex, and the *P. lukolelae* complex. Each of these species-complexes is clearly defined and well marked. A molecular study of a subset of lowland forest species (Nicolas et al. 2005) also supported the first two complexes. The *P. tullbergi* complex consists of eight species. Also, for the *P. jacksoni* complex the number of species is eight: *P. degraaffi*, *P. jacksoni*, *P. minor*, *P. montis*, *P. mutoni*, *P. peromyscus*, *P. sudanensis* and *P. viator*, with at least one undescribed species (Van der Straeten & Kerbis Peterhans 1999). The *P. delectorum* species-complex contains four species, *P. delectorum*, *P. melanotus*, *P. octomastis* and *P. taitae*, and the *P. lukolelae* species-complex has two species including *P. lukolelae* and *P.*

Tab. 4. Geographical data of the localities.

Country	Locality	Geographical coordinates
Angola	Dundo (included Parque Carrisso)	7°22'S 20°50'E
	Duque de Bragança (25 km N – 15 km E)	± 8°52'S 16°03'E
	Gabela (30 km S)	± 11°01'S 14°27'E
	Luhanda	9°14'S 17°12'E
	Sanza Pombo	7°19'S 16°01'E
	Uige	7°37'S 15°03'E
Cameroun	Metet	2°11'N 11°00'E
	Mieri-Bimba	4°15'N 13°59'E
	Nkolbisson	3°51'N 11°37'E
	Yaoundé	3°52'N 11°31'E
	Yokadouma	3°26'N 15°06'E
	Zoatoupsi	3°49'N 11°23'E
Congo (Brazzaville)	Béna	4°02'S 11°50'E
	Kuilele	not located
	M'Bila	3°12'S 13°20'E
	Ménengué	4°16'S 11°47'E
	Tchissanga	4°32'S 11°46'E
Côte d'Ivoire	Adiopodoumé	5°19'N 4°08'W
	Lac Lallié	5°15'N 4°08'W
	Lamto	6°12'N 4°58'W
République Centrafricaine	Boukoko	3°54'N 17°56'E
	Ngueguey	not located
République Démocratique du Congo	Batiabongena	0°36'N 25°13'E
	Irangi	1°54'S 28°27'E

verschureni. This means that the genus *Praomys* contains 22 species, but not all are recognized by MUSSER & CARLETON (2005).

5 Geographical data of the localities

The geographical data of the localities mentioned in the present paper are listed in Tab. 4. The arrangement is alphabetical.

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