

## ***Crossarchus ansorgei nigricolor*, a new subspecies of Ansorge's cusimanse (Carnivora, Viverridae) from south-central Zaire**

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### **Abstract**

Described a new subspecies of Ansorge's cusimanse. Recent observations of the little-known *Crossarchus ansorgei* were made in the rain forest of the south-central Zaire basin. Close to a hundred specimens were collected from the bush-meat markets in three localities. We studied the new material as well as the holotype and the museum collections. The result of this analysis shows that the ca 30 skins originating from the Zaire basin are characterized by the stability of their pigmentation as well as by a colour pattern differing from the holotype collected in Angola. According to these new morphological and biogeographical data, a new subspecies is described.

### **Introduction**

Until 1984 known only from two skulls and skins, Ansorge's cusimanse, described from a relic forest in northern Angola, was also found in the forests on the left bank of the Zaire/Lualaba River.

The holotype of *Crossarchus ansorgei* Thomas, 1910, whose type locality is Ndalatando (09° 15' S, 14° 52' E), is the only specimen collected in Angola. It is held in the British Museum (Nat. Hist.) No. 10.4.8.7, together with a second specimen (No. 11.10.19.10) for the first time mentioned by COETZEE (1977) and originating from Baringa (00° 45' N, 20° 52' E), a small village on the Maringa River in the Equator region of Zaire. Both skulls and skins are complete and in good condition.

Recent observations were made in Zaire in the Lomami/Lualaba forests by COLYN (1984) who collected 21 specimens in the region between the Kitcho-ya-tembo and Lusa Rivers on the Kisangani-Ubundu road. The field studies have been continued in this region, and altogether close to a hundred specimens were obtained from "bushmeat markets" (COLYN et al. 1988). *Crossarchus alexandri* and *C. ansorgei*, sympatric species, are very common in the above-mentioned region and take an important place in the dietary protein supply of the native human population.

From the locality situated on the Kisangani-Ubundu road (00° 04' S, 25° 17' E) as well as from the Yaenero Plantation (00° 12' N, 24° 47' E), 23 skins and a number of skulls have been obtained from the villagers. Furthermore four skins were collected in Kodoro (01° 16' N, 20° 06' E), situated in the basin of the Lopor/Maringa Rivers, and one skin originating from Ikela (01° 11' S, 23° 16' E) was discovered, while examining the *C. alexandri* collection in the Koninklijk Museum voor Midden-Afrika (KMMA).

The authors have compared the whole of this new material with the two specimens in the BMNH, and in particular with the holotype. It appears that all the skins originating from Zaire present a colouration with relative stable and identical characteristics, differing from that of the holotype from Angola.



## Results

### Genus *Crossarchus* F. Cuvier, 1825

*Crossarchus* F. Cuvier, 1825. Geoffroy Saint-Hilaire and F. Cuvier, Hist. Nat. Mamm., 47:3.

### *Crossarchus ansorgei* Thomas, 1910

*Crossarchus ansorgei* Thomas, 1910. Ann. Mag. Nat. Hist., (8)5:195 Holotype from Ndalatando, 800 m ASL, Angola; adult female; skin and skull (BMNH No. 10.4.8.7.).

### *Crossarchus ansorgei nigricolor* subsp. nov.

#### Diagnosis

Same size as the nominal subspecies but of a very dark general colouration. The limbs, underparts, and tail completely black. A light-coloured stripe on the side of the head differentiates it from the holotype from Angola.

#### Holotype

Adult female: skin and skull in good condition, deposited in the KMMA, Tervuren, Belgium, No. "Vert. Sect. 88-14-M-1".

#### Type Locality

Amadjabe (00° 04' S, 25° 17' E), between the Lusa and Kitcho-ya-tembo Rivers, Zaire.

#### Paratypes

From Amadjabe we selected 20 skins and 50 skulls. As the specimens were collected over a period of ca 18 months and as these skins and skulls were obtained from different villagers, we consider this a series of 70 different specimens (KMMA Nos. "Vert. Sect. 88-14-M-2 to 71").

#### Description

The new subspecies is a small mongoose showing the same form and external measurements as *C. a. ansorgei* with which it has the nuchal crest in common. The general colouration is sepia black. The back, flanks, neck, and head are speckled with hairs annulated with white or yellow ochre. A darker dorsal medial line extends from the nuchal crest to the base of the tail. The underparts, tail, and limbs are completely blackish. Chin and muzzle are dirty white. A white to yellow-ochreous stripe extends from the corner of the mouth under the external ear to the side of the neck (Fig. 1). A whitish tuft decorates the internal base of the ear.

After comparison of the museum specimens and also of the male and female kept in captivity (COLYN 1984), it appears that the tail of the male is more bushy than that of the female.

#### Skull measurements

The skull of *C. a. nigricolor* is similar in all measurements to that of *C. a. ansorgei* (Table 1).

#### Etymology

The name *nigricolor* is the Latin adjective for "coloured black" and refers to the dark overall colour distinguishing it from the nominal subspecies.



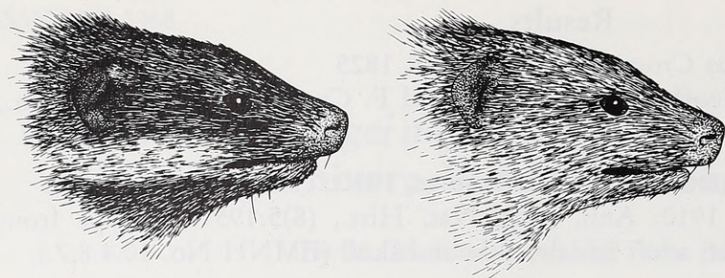


Fig. 1. Left: *Crossarchus ansorgei nigricolor* – Right: *Crossarchus ansorgei ansorgei*

Table 1. Skull measurements (in mm)

Variables	<i>C. a. ansorgei</i> holotype BMNH 10.4.8.7	<i>C. a. nigricolor</i> holotype KMMA 88-14-M-1	<i>C. a. nigricolor</i> Baringa, Zaire BMNH 11.10.19.10	<i>C. a. nigricolor</i> 50 paratypes		
				Min.	Max.	$\bar{X}$
GSL	63.2	65.9	64.3	60.3	66.9	64.1
CBL	62.5	63.5	63.1	59.4	65.9	62.6
ROL	20.6	20.4	19.9	18.1	21.0	19.7
PAL	29.4	29.8	27.5	26.0	30.9	28.9
MAX	20.5	21.2	20.8	19.7	22.9	21.4
TYM	13.1	13.6	–	12.4	14.3	13.2
CAN	11.5	12.4	12.2	10.8	12.7	11.6
ROB	15.6	15.4	15.5	14.1	16.6	15.2
IOB	12.6	13.0	12.8	11.1	13.7	12.4
PAB	19.3	19.5	19.2	17.5	20.8	19.1
ZYG	32.9	34.7	33.4	31.2	35.2	33.4
BRB	24.6	26.4	25.0	23.8	26.5	25.3
MAS	26.2	28.6	27.3	25.1	28.7	27.0
BRH	20.7	21.7	20.4	19.5	22.3	21.0
MAL	42.6	43.2	42.6	39.3	45.0	42.5
MAN	24.0	23.8	23.0	22.1	25.0	23.7
CMH	17.8	15.7	16.8	14.1	18.1	16.5

GSL: greatest skull length, from the anterior edge of I1 to posterior edge of occipital bone; CBL: condylobasal length of the skull, from anterior edge of I1 alveolus to posterior edge of occipital condyle; ROL: length of rostrum, from lateral base of hamular process of lacrimal to most anterior edge of premaxillae; PAL: length of palate, from posterior edge of I1 alveolus to posterior edge of palatine; MAX: greatest crown length of maxillary toothrow; TYM: greatest length of tympanic bulla, not along longitudinal axis of skull; CAN: breadth of canines, distance between labial crown edges of C1–C1; ROB: breadth of rostrum, distance between lateral base of hamular process of lacrimals; IOB: least interorbital breadth; PAB: breadth of palate, distance between labial crown edges of M1–M1; ZYG: greatest zygomatic breadth; BRB: breadth of braincase, greatest breadth of braincase at the right angle to longitudinal axis of

skull; MAS: mastoid breadth; BRH: height of braincase, distance from occipital bone between bullae to parietal, excluding sagittal crest; MAL: mandible length from anterior edge of I1 alveolus to posterior surface of mandibular condyle; MAN: greatest crown length of mandibular toothrow; CMH: mandible height, perpendicular distance from dorsal edge of coronoid process to line from angular process to ramus.

Distribution

*C. a. nigricolor* is actually known from two localities of the Lomami/Lualaba forest. Moreover, one specimen of the KMMA (No. 17217) originated from Ikela on the other bank of the Lomami River and we have collected four skins from Kodoro in the Lopor-Yekokoro fluvial system. The only other known skin originated from Baringa and is mentioned in the introduction (Fig. 2).

The distribution of *C. a. nigricolor* is probably limited to the forest blocks between the Zaire/Lualaba and Kasai Rivers. COLYN (1984) found its supposed distribution to “central Kivu, west of Lake Kivu” (COETZEE 1977) highly improbable in view of the numerous faunal surveys in this region, which never resulted in an observation or collection of a specimen.

The distribution pattern of the two subspecies, *C. a. ansorgei* and *C. a. nigricolor*, in which the Kasai River seems to act (or have acted) as a barrier, is also typical for other mammalian species: this is, among others, the case for numerous primate species as



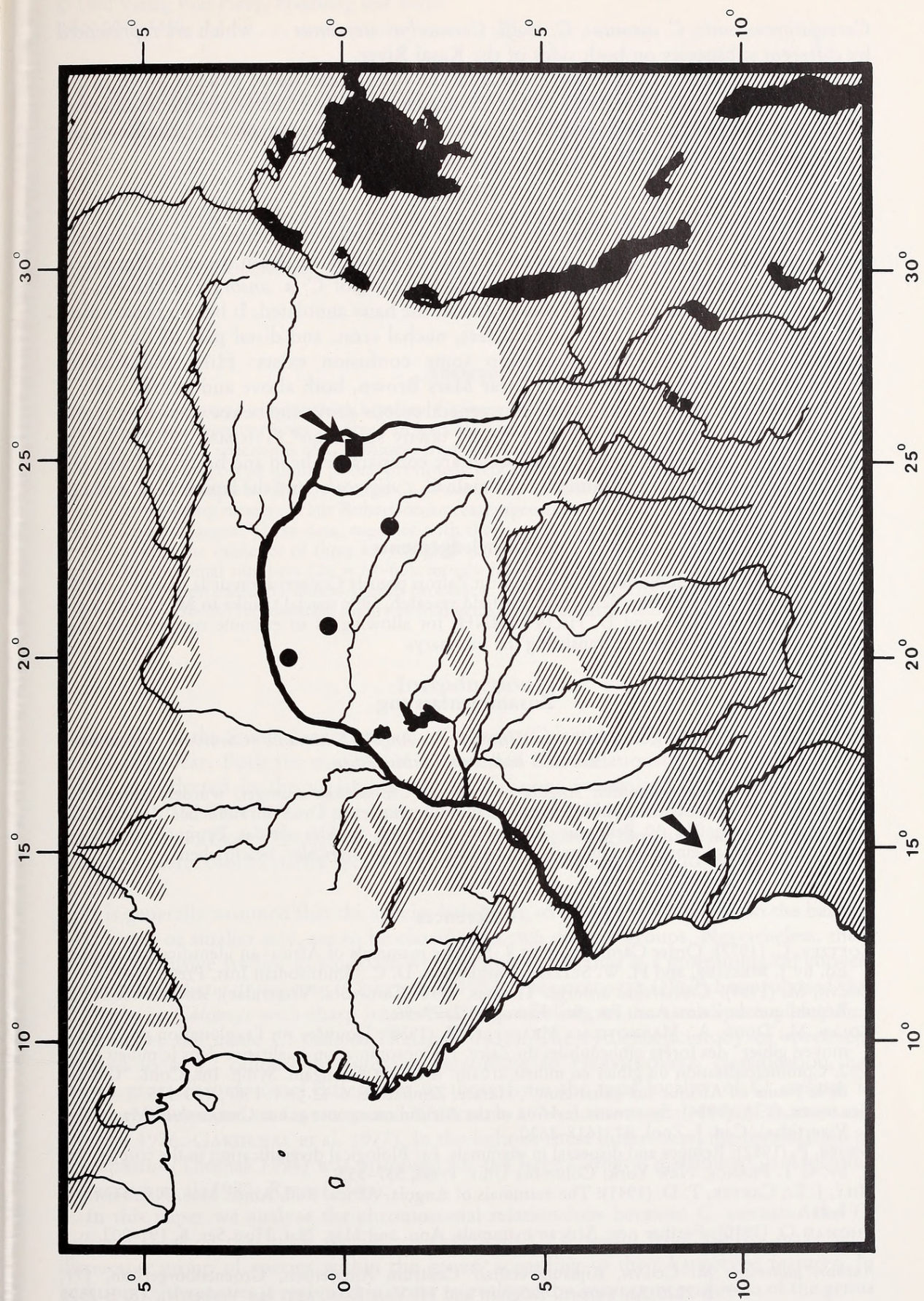


Fig. 2. Distribution of *Crossarchus ansorgei*. Type locality of *C. a. ansorgei* (triangle) and of *C. a. nigricolor* (square). Hatched parts indicate non-forest regions



*Cercopithecus mitis*, *C. ascanius*, *C. wolffi*, *Cercocebus aterrimus* . . . which are represented by different subspecies on both sides of the Kasai River.

More to the south, *C. a. ansorgei* inhabits the forests and forest patches north of the Cuanza River, Angola (GOLDMAN 1984). *Crossarchus ansorgei*, including the populations of the Angolan relic forests, is typically endemic for the biogeographical "south-central" region as defined by GRUBB (1982).

### Affinities

The stable colouration of the 29 specimens of *C. a. nigricolor* has incited us to differentiate the populations inhabiting the forests north of the Kasai River from those of Angola, of which, unfortunately, only one specimen, the holotype of *C. a. ansorgei* is known. The latter has a reddish-brown general colour and all the hairs annulated. It has no facial stripe, and only the forearms, toes of the hind feet, nuchal crest, and distal part of the tail are blackish. About its general colouration some confusion exists: HILL and CARTER (1941:132) also described the colour "near Mars Brown, both above and below"; this in contrast with the original description: "the general colour above and below coarsely grizzled blackish, as in *C. obscurus*, but with a strong tawny suffusion" (THOMAS 1910:195). The measurements (in mm) of both the subspecies are comparable: head and body: 342 and 320, tail: 208 and 212, hind foot: 70 and 60, for a male *C. a. nigricolor* and the female *C. a. ansorgei* respectively.

### Acknowledgements

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### Zusammenfassung

*Crossarchus ansorgei nigricolor*, eine neue Unterart der Angola-Kusimanse (Carnivora, Viverridae) aus dem südlichen Zentral-Zaire

Von der bisher wenig bekannten Angola-Kusimanse (*Crossarchus ansorgei*) wurden nahezu 100 Exemplare (Felle oder Schädel) auf Märkten von drei verschiedenen Orten im südlichen Zentral-Zaire erworben. Die ungefähr 30 Felle aus Zaire sind durchweg dunkler als das Typus-Exemplar aus Angola. Für sie wird eine neue Unterart, *Crossarchus ansorgei nigricolor*, beschrieben.

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