CONTRIBUTIONS
TO THE
KNOWLEDGE ABOUT THE MONKEYS
OF BELGIAN CONGO

BY
Einar LÖNNBERG

The knowledge about the African Monkeys cannot be said to be satisfactory, neither from a taxonomic, nor from a zoogeographical point of view. The material, on which the different authors have based their descriptions of the species or subspecies, has often been rather scanty, sometimes incomplete. In many cases the origin of the type-specimens has been uncertain. Especially this has been the case, when specimens in Zoological Gardens have been described. They were perhaps reported to have come from one country or the other, but they might have been traded from quite different places originally. A similar uncertainty prevails also when the « type » has consisted of a native skin. The variation of the different species cannot be understood, when only one, or a few specimens are at hand. Therefore individual variations have sometimes been regarded as subspecies, or even species. For similar reasons there has often been impossible to obtain any clear idea about the geographical distribution of the different forms.

Having had the great pleasure of studying the very rich material of this group of Mammals in the Congo Museum at Tervueren I hope to be able by the present paper to add something to our lacking knowledge about them, although I fully understand that these notes are incomplete and need many additions.

Before I begin the treatise of the different forms I wish, however, to express my very warm gratitude to D^r H. SCHOUTEDEN, to whom in the first rank the Congo Museum owes the admirable development of its zoological collections, for the great liberality, with which he has given my access to the collections, and for his untiring kindness in facilitating my work in every way.

It is chiefly Monkeys from Belgian Congo which are considered in the following, but in some instances regard has also been taken to some related forms from other parts of æquatorial Africa.

For determination of the colours I have used « Répertoire de Couleurs » by R. OBERTHÜR and H. DAUTHÉNAY, which has been quoted. It must be remembered, however, that in most cases the colours are not absolutely the same, but I have tried to come as near as possible, because in this group colour characters are of value even if they may vary f. i. between yellow and buff shades and so on.

Colobus (Piliocolobus) Ellioti DOLLMAN.

Mawambi (CHRISTY), n^{os} 1841, 1843, 1844, 1845, 1846, 1848, 2109, 2117, 2888; Lenda (CHRISTY), n^o 1836; (GRAUER, ex Mus. Wien), n^{os} 1211, 1212; Moera (CHRISTY), n^{os} 2803, 2804, 2807, 2808, 2809; Zambo-Beni-Mawambi (CHRISTY); Moera-Beni (CHRISTY), n^o 2797; Kokoba (PILETTE), n^{os} 1783, 1784, 1785, 1786; Ikanga (PILETTE), n^o 1788; Beni (PILETTE), n^o 1790; Kaniki (PILETTE), n^o 1795; Beni (BORGERHOFF), n^o 1027; Penghe (BEQUAERT), n^o 3404; Haut-Ituri (ANZELIUS), n^o 644.

The very rich and interesting material quoted above has only further convinced me about the variability of this species, as specimens from one and the same locality may be very differently

coloured. It is thus difficult to give a description of this species which holds good for all specimens. As a rule however, the upper parts of the head behind the black brow band, which sometimes is rather narrow, is red, from brickred to various shades of « Indian Chestnut red » (OBERTHÜR : 333, 1-4) and even « madder brown » (334). The neck and back are usually darker, although sometimes red (f. i. Indian Chestnut red 333.4 or « Mahogany » 335), very often mixed with black or nearly black. The flanks are paler in various shades of red, or in one specimen even brownish. The arms are mostly red, f. i. brickred, or light fawn and the hands most often, but not always (in red specimens), more or less blackish. The hind legs are never red, but have a peculiar smoky brownish grey (with a touch of « neutral tint ») colour, sometimes even resembling « otterbrown » (354.1) or « dark fawn » (307.4). The feet are sometimes blackened, in other cases not much darker than the legs. The lower side is always pale, in red specimens light buff to buffish white, in others ashy grey to greyish white ⁽¹⁾.

This wonderful variability has to begin with compelled various authors to give several names, which now appear to have to be withdrawn leaving *Ellioti* DOLLM. as the oldest which with full certainty can be applied to the red *Colobus* of the Ituri forest.

One specimen from Mawambi collected by D^r CHRISTY 7/3 1913 differs, however, so much from all others that it must be mentioned separately. It is « madder brown » (334.4) of the darkest shade on top of the head, blackish maroon on the nape and upper back, but gradually becoming brighter on the lower back, almost « fawn » (308.4), or somewhat darker than « dead leaf » (321). The arms are « fawn » (shading from 308.4 above to 308.1 distally) and the legs « brownish terra cotta » (322, 3 and 2), but the hands as well as the feet are sharply defined, jet black. The tail is fawn, somewhat mixed with black above, paler below. Cheeks and throat smoky grey, lower side otherwise pale buffish.

⁽¹⁾ Conf. also descriptions by MATSCHIE, *Ann. Soc. roy. Zool. Malac. Belg.*, t. XLVII, pp. 59-60; by LORENZ, *Akad. Wiss. Wien*, Jahrg. LI, 1914, p. 383; and by LÖNNBERG, *K. Vet. Akad. Handl.*, Bd 58, pp. 28-31. Stockholm, 1917.

This specimen is thus conspicuously different from the whole series of *Ellioti*, above all by its red hindlegs and sharply defined black hands and feet.

It is possible that this specimen represents *Colobus Ellioti melano-chir* MATSCHIE. Unfortunately there is no skull to this interesting specimen. In size and stature it resembles the adult specimens of *Ellioti*, so that I dare not believe that it represents another race. Considering the wonderfully great variability of *C. Ellioti* it is most probably only an aberration of the same, one of the many!

Since the above already was written and the manuscript delivered to print, I got access to LORENZ' paper ⁽¹⁾: « Beiträge zur Kenntniss der Affen und Halbaffen von Zentralafrika », and find, that he regards not only *melano-chir*, but also *Anzeliusi* MATSCHIE and *variabilis* LORENZ as synonyms to *Ellioti*. I agree fully with him in this respect, but I think that still more names could be added to this list, among others *multicolor* LORENZ.

Colobus (Piliocolobus) Graueri DOLLMAN.

Baraka (PAUWELS), n^{os} 1062, 1063, 1064, 1065, 1066, 1067, 1068.

This species is easily recognized on the arrangement of the superciliary or frontal crest of long hairs extending backwards to the ears. Otherwise it bears a certain resemblance to *C. Ellioti*. It varies also like the latter a great deal as these specimens prove. The upper back may from chestnut become quite black. As a rule it is distinguished from *C. Ellioti* on its reddish hind legs, termed « cinnamon red » by ELLIOT. In one specimen, however, this cinnamon has given place to a smoky grey, so that the cinnamon only remains superficially as a faint tint, but it is more visible in the under fur, and it recurs also on the feet. The tail varies from fawn to maroon and even brown. In consequence of this variability it may be possible that *C. Graueri* may prove identical with *C. Foa* POUSARGUE which was described from an incomplete skin.

⁽¹⁾ *Ann. Naturhist. Hofmus.*, Wien, Bd 31, 1917.

This red *Colobus* evidently substitutes *C. Elliotti* in the country to the west of the northern half of Lake Tanganyika.

Colocus (Piliocolobus) Lovizettii MATSCHIE.

Mpe (MAES), n^{os} 2654, 2659; Kala (MAES), n^{os} 2573, 2576; Gona Erenge (MAES), n^o 2574; Bongo (MAES), n^o 2572; Kutu (MAES), n^o 2652; Bumbuli (MAES), n^{os} 2969, 2970, 2971, 2972.

Colobus Lovizettii MATSCHIE (D^r MAES phot.).

This species has on the whole a very constant appearance. Usually the top of the head behind the black brow band is « madder

brown » (OBERTHÜR, 334 — sometimes even « blood red brown » 337.4, in a young), nape and upper back similar or somewhat mixed with black, then follows on the lower back brighter red colours as « tan » (317.4), « dull brickred » (330.4) etc., shading through all shades of « neutral orange » (419.4 — 1) towards the lower side and inside of thighs. From its relatives further north east it differs especially in having the outside of the legs red. It has also much thinner fur than f. i. *Ellioti* (about 4-5 cm. on the back). Its nearest relative may be *C. nigrimanus* TROUESSART, but the latter differs in having the tail tufted and in having as well feet as hands broadly black. *C. Lovizettii* has no tailtuft, and, although the hands as a rule are more or less blackish, the feet are only partly blackish in four of the present specimens, and by far not to such an extent as TROUESSART's figure of *C. nigrimanus* indicates for that form. The latter is from Liranga on the opposite side of Congo river, whereas *C. Lovizettii* evidently is an inhabitant of the district of Lake Leopold II, north of Kasai river and east of Congo. That it never was found south of the river first mentioned, has expressively been ascertained by the collector.

Colobus (Piliocolobus) brunneus n. sp.

Sili (HUTEREAU), n° 1291; Penghe to Irumu (BEQUAERT), n° 3405; Buta (HUTEREAU), n° 977^{a-b}.

In the north of Belgian Congo appears to live a *Colobus* of rather aberrant type, which I venture to describe under the above name. As the type I select a specimen (n° 1291) from Sili in the « district du Haut-Uele ».

It has a narrow black brow band with the hairs directed more or less towards the sides from the middle and extending towards the ear. On the sides this band gradually blends with the grey whiskers, which are not very long and do not conceal the ears. Above and behind the latter a tuft of somewhat lengthened hairs is conspicuous, dark in front, light behind. The upper parts of the head and nape are « mineral brown » (OBERTHÜR 339.1 and 339.2).

The neck and upper back display a somewhat darker shade of brown, because the distal portion of the long hairs is dark, but provided with a subapical ring of a light shade of fawn (about 308.1), on the back the shade of brown becomes gradually somewhat paler and duller in consequence of the subapical rings becoming more buffish. Towards the flanks this colour gradually blends into a still paler brown which to a certain degree resembles OBERTHÜR'S « snuffbrown » (303.1), but is somewhat duller, perhaps something between the shade mentioned and « chocolate » (343.1). This brown colour goes without interruption into that of the outside of the fore legs, which is a little more dusky than « snuffbrown » (303.3), and that of the hind legs which resembles pale « chocolate » (343.1) with a distinct touch of « snuffbrown » (303.1). The tail is « snuffbrown » (303.2), grey below. The lower side and inside of legs are dirty whitish. The hands are blackish, and the feet somewhat mixed with the same.

Another specimen (n° 3405) from « Muhako (entre Penghe et Mukoko Irumu) », collected by D^r BEQUAERT is very similar, but the upper parts of the head are a little brighter, and the flanks have to some degree a more yellowish tint, perhaps an addition of « chamois » (325.4) to the « snuffbrown ».

This species of *Colobus* differs strikingly from all others, which I have seen, by its brown colour and ringed hairs. The brown colour appears to remind about *C. Oustaleti* TROUESSART from « Youmba, dans le bassin de l'Oubangui », and this may be a related form. *C. Oustaleti* differs however, by the absence of ear-tufts, by its strongly elongated hairs ⁽¹⁾ on throat, fore-neck, shoulders and upper breast, by its broadly black hands and feet and, at least partly, blackish tail, etc.

From its neighbour in the Ituri forest, *C. Elliotti* DOLLMAN, this new species differs much in colour, by the absence of red shades on the back, flanks and especially fore legs. But even the hind legs are much different in colour. The fur is much softer and longer in *Elliotti* than in *brunneus* and so on.

(¹) *C. umbrinus* MATSCHIE is also said to have elongated hairs as *Oustaleti*.

The fur of *C. brunneus* is rather coarse and has a length on the back of about 4 cm. only.

The length of the type specimen from the upper lip to the anus is about 67 cm., and the tail without hairs is subequal. The skin of the other specimen is about 67 cm. and the tail 1 cm. longer. The type is an adult male with well developed crests on the head and formidable tusks.

Greatest length of skull	111 mm.
Condylbasal length of skull	92.3 »
Basal length of skull	84 »
Breadth across middle of orbits	69.5 »
» of brain case	60 »
Least postorbital width	41.5 »
» interorbital width	10.3 »
Length of upper molar series	33 »
» of upper molars only	23.2 »
» of lower molar series	40 »
Occipitonasal length	94 »
Palate length (inside incisors)	39.3 »

Two specimens collected 80 km. east of Buta (n° 977^{a-b}) must be referred to this species as well, even if they may represent a local aberration, or perhaps race. The main difference is that they have a little longer fur, and that the colour of the back and flanks more inclines to fawn, and the colour of the legs to a pale shade of « dark fawn » (307.1). The tail is also darker than in the typical *brunneus*. The ringing of the hairs is, however, very well visible, especially on the lower back, and the general resemblance with *brunneus* apparent. From *C. Elliotti* they differ strikingly by the colour of their legs.

This brownish-looking *Colobus* evidently succeeds *C. Elliotti* in the Uele district. MATSCHIE has given the name *Colobus Schubotzi* ⁽¹⁾ to a brown race with the lower side whitish. It is from a

(1) Sitzbr. Ges. Naturf. Freunde Berlin, 1914, p. 345.

locality situated further West (Koloka, between Likati and Bima rivers), but it might nevertheless be identical with the one described above, but as MATSCHIE's original description is so short, it is impossible to express any opinion about this. He had only a skin without skull at his disposition when giving the name quoted.

Colobus palliatus mawambicus MATSCHIE.

Mawambi (CHRISTY), n^{os} 1838, 1839, 2116, 2232; GRAUER (ex Mus. Wien), n^o 1124.

This subspecies is easily recognized on the absence of white frontal band ⁽²⁾ and absence of any white on the perineal region. The long white hairs do not extend to the back of the upper arm.

It appears to be an inhabitant of the great Ituri forest.

Probably it is substituted already in the Kivu region by a somewhat different race which to some extent approaches the following. This hypothesis is based on the fact that the Congo Museum possesses a native skin (n^o 794) collected by PAUWELS in « région du lac Kivu », which differs from *mawambicus* in having the mantle of white hairs extending so far that it just for a few centimetres encroaches upon the most proximal portion of the upper arm. In addition to this there are also some few white hairs on the perineal region. These do not, however, form a stripe as in *Weynsi*, but are more broadly scattered. The first of these two characteristics is also found in a specimen from « région des Lacs » (probably north of Tanganyika) collected by GRAUER. This latter has not, however, any white perineal hairs. Both specimens agree therein that they hardly have anything pure white on the tail. In the Kivu-specimen only the distal quarter of the tail is speckled with mixed black and greyish white hairs, the latter increasing in number towards the tip. In GRAUER's specimen the speckling with greyish white

(2) LORENZ has recently (*Ann. Naturhist. Hofmus.*, Wien, Bd 31, 1917) united *mawambicus* with *Cottoni* LYD., but as none of the present specimens show any trace of white hairs indicating a brow band, I prefer to retain the above name.

begins at the middle of the tail and increases distally, so that the tip is entirely light grey.

The specimen from Kivu is probably identical with *Colobus Adolphi-Friderici* MATSCHIE, but it belongs undoubtedly to the *C. palliatus* series.

***Colobus palliatus* (?) *Weynsi* MATSCHIE.**

Mpe (MAES), n° 2660; Tolo (MAES), n°s 2746, 2748, 2749; Inongo (MAES), n° 2577; Bumbuli (MAES), n°s 2968, 2976, 2978, 2979; Oshwe (MAES), n° 2770. (Type in Tervueren Museum.)

These specimens agree with the original description with regard to the extension of the white mantle to the back of the upper arms and the presence of a narrow white perineal band. From the more southern *Sandbergi* LÖNNB. they differ in having less white on the tail, considerably less than the distal half. With regard to MATSCHIE's expression about *Weynsi*: « Die Stirnbinde ist nur an den Seiten vorhanden, dort aber sehr deutlich », may be said concerning the present specimens (except the type), that the white, at least in some of them, projects somewhat from the sides in a point more or less above the eye. This is however, not always easy to see and evidently variable. In none of the specimens it is so well visible as in the type. The origin of the latter is not exactly known. It is possible therefore, that it is from same other tract of Lower Congo, and the identification above is accordingly somewhat hypothetical.

C. p. Weynsi is to judge from the present material, if correctly identified, an inhabitant of the district of Lake Leopold II to the north of Kasai river.

***Colobus palliatus angolensis* SCLATER.**

Kisantu, between Léopoldville and Matadi (GOOSSENS), n° 735.

MATSCHIE has regarded this specimen as a typical *angolensis*. It differs only little from the specimens from the district of Lake Leopold II.

Colobus palliatus cf. **Sandbergi** LÖNNB.

Kinda (DE BAILLET-LATOUR), n° 4159.

A specimen from Kinda in Katanga differs plainly from those mentioned above. It has long, soft fur (plainly softer than in *C. p. Weynsi*), no white brow-band; the white mane extends on the upper parts of the upper arm; there is a group of white hairs in the perineal region. The tail is considerably longer than head and body and is pure black only on its proximal third, then follows a speckled grey portion which gradually passes into a dirty white which occupies not quite fully the distal half. The short extension of the black on the basal portion of the tail reminds about *C. p. Sandbergi*, and, even if it is not identical with the same, this specimen from Kinda evidently forms a transitory link to it. More material ought, however, to be expected before any decision is made in this question (¹).

The specimen from Kinda is an adult male with the total length of the skull 106.3 mm., basal length 78 mm., breadth of braincase 61 mm., least postorbital width 46.5 mm., least interorbital width 11.5 mm. length of nasals 16.5 mm., breadth across middle of orbits 66.5 mm., length of upper molar series 28.6 mm.

Colobus occidentalis ROCHEBRUNE.

Kwesi (BAYER), n° 923; Dungu (HUTEREAU), n° 1197^{a-b}; GRAUER (ex Mus. Wien), n°s 1215, 1216; Lesse (PILETTE), n° 1780; Mawambi (CHRISTY), n°s 2108, 2115, 2118; Moera (CHRISTY), n°s 2798, 2800, 2801, 2805; Alimasi (CHRISTY), n° 2884; Irumu (CHRISTY), n° 2720; Lesse (BONNEVIE), n° 3319; Kalumendo (BONNEVIE), n° 3320; Beni (BONNEVIE), n° 3321; Penghe-Irumu (BEQUAERT), = Mukoko, n°s 3401, 3406; Penghe (BEQUAERT), n° 3407; Mawambi (CHRISTY), n° 2119 : transition to *ituricus*.

(¹) It may be observed, that some native skins of *Colobus*, in the R. Nat. Hist. Mus., Stockholm, have more black on the proximal portion of the tail than the type of *C. Sandbergi*.

In spite of the fact the several names have been given to Guerezas from various parts of the Congo forest. I venture to include all these specimens under the above name. It is of importance to remember that the development and appearance of the tail is individually different. This is partly due to the simple fact, that the tail tuft is subjected to be strongly worn. Among these specimens there are some which have only comparatively short hairs at the end of the tail, but a closer examination of these will reveal, that the hairs are all broken and worn, and thus have been considerably longer. Another thing is, that at one and the same locality specimens may be obtained in which the extension of the clothing with white hairs along the end of the tail is quite different. To prove this the following facts may be quoted about three specimens which all have been collected at Moera by CHRISTY (¹). In n° 618 the tail is clothed with white hair along 32 cm. of its end, in n° 641 this same measurement is only about 22 cm., and finally in n° 626 the white hairs grow only along 15 cm. of the end of the tail. Nevertheless this last one is an adult and well developed male specimen. Of two specimens from Sangha ne (n° 3492) has short and worn white hair along approximately 19 cm., and the other (n° 3491) rather long hair along 26 cm. of the tail, and so on.

This does not hinder, that in certain localities where the Guerezas have plenty of suitable food, and other conditions of life well filled, larger and finer specimens with perhaps more often extensive tail-tufts may be developed than in others, where food is more scanty, or of less nourishing quality. But if thus perhaps the Guerezas of the primeval forest display a somewhat more luxuriant growth than in some detached, or outlying forests, this cannot be regarded as justifying the establishment of subspecies, because it is not a constant enough quality. Still less this is the case with features of individual variation.

(¹) Conf. also : LÖNNBERG, K. *Vet. Akad. Handl.*, vol. 58, n° 2, pp. 27-28.

Miopithecus talapoin Pilettei n. subsp.

Ruwenzori, 2500 m. a. s., Kabawaki (A. PILETTE), n° 1800, ♂.

Nose clothed with black hair; on the upper lip short yellow hairs are overlaid by longer black. Hairs on cheeks golden yellow (OBERTHÜR : 26,1), partly blackish at the tips. These hairs are directed downwards, and gradually more and more backwards, so that behind the ear they are directed quite backwards. A black streak from the posterior corner of the eye halfway towards the ear; from that black band on either side of the forehead a group of black hair rises forming a shiny black patch which is very conspicuous as otherwise the dominating colour of the forehead is yellow. In front of the middle of the ear the hairs radiate upwards, forwards and downwards. The centre of this whirl is yellowish white, the longer hairs becoming golden yellow in their distal parts, and some are also black-tipped. The hairs of this whirl, which are directed downwards, become confluent with the whiskers of the cheeks, those of the upper part skirt the above mentioned lateral black patch of the forehead. All upper parts from the forehead to the root of the tail have the same speckled dark olive yellow appearance, although the yellow dominates on the head and the sides of the body, but the black on the middle of the back. This colour is produced by the hairs being greyish black on their basal parts, distally black with a subapical golden yellow (26,2) band, which is narrower than the black tip on the back. On the shoulders and arms the yellow dominates, but shades somewhat in ochraceous towards the hands. On the hind legs as well the yellow dominates, but has there a somewhat more olive shade, while the feet gradually assume a pale brownish tint. The lower parts and inside of limbs are white. The anal callosities are surrounded with pale buff hairs. The tail differs somewhat in colour from the back, because the light rings of the hairs are paler, yellowish white. This is the case with the basal half of the tail, the distal parts are in the type specimen brownish grey, but this depends no doubt on the fact that the hairs there are much worn and broken.

The lower side of the tail is grey with sharp line of demarcation.

Unfortunately there is no skull to the specimen.

From the description above may be seen that this pretty little Guenon from Ruwenzori is very similar in colour to the typical form from Benito river, Kamerun. The small differences f. i. the black marks on the forehead, the absence of yellow below the tail, etc., may, however, together with the very great distance in geographical distribution suffice as reason for the establishment of a new subspecies, which I take the pleasure of naming after the collector, Mr. ANDRÉ PILETTE.

The discovery of a *Talapoin* on Mt. Ruwenzori is of very great zoogeographical interest, and it is one of the examples which have been forthcoming during later years, as well among mammals ⁽¹⁾ as among birds, proving that the West African forest-fauna formerly has had a much wider and continuous distribution. The remnants of this fauna are now in some cases scattered wide apart and show a so to say « insular » distribution. A rather striking instance of such one is offered by the three known *Talapoin* forms, one at Benito river, S. Kamerun, and at Como, Gaboon, a second at Canhoca, Angola, and the third now reported from Ruwenzori. Such an « insular » distribution which is known for several birds as well as mammals has, of course, once been continuous but has been broken by the change of the natural conditions. The relicts have been able to survive up to the present time only in such place, where either no change has taken place, or where it has not been greater than that the animals could adapt themselves in accordance with the same.

Erythrocebus.

This genus is in the collections from Congo only represented by the type specimens of

Erythrocebus patas poliomystax MATSCHIE, n° 568, Uele, and

Erythrocebus patas albosignatus MATSCHIE, n° 15, Uele.

⁽¹⁾ F. i. *Idiurus* at Masisi (K. Vet. Akad. Handl., Bd. 58, n° 2, Stockholm, 1917).

Cercopithecus ascanius AUDEBERT.

Lekana (MAES), n° 2238; Mpa (MAES), n° 2567; Erobo (MAES), n° 2568; Tua (MAES), n°s 2234, 2236; Lekana (MAES), n°s 2240, 2241; Atene, Kwango (CHARLIERS), n°s 1006, 1008, 1009, 1010. Eastern race? : Lake Alb. Edward (PILETTE), n° 1794.

The type locality of *C. ascanius* is unknown, and it prevails thus some uncertainty what is to be understood under this name. It is quite evident, that at different opportunities different subspecies have been made known under this name. The authors appear to agree that following characteristics belong to the typical form : a white nasal spot; a well developed black brow-band; yellowish white cheeks bordered below by a broad black band; tail above red or maroon, proximally like the back, but beneath white or whitish grey at the base, and red on the outer parts. So far the above recorded specimens are correct, but what is the colour of the limbs? Pocock says ⁽¹⁾ : « Fore leg blackish only sparsely and faintly speckled. Hindleg also blacker than in *C. petaurista* ». ELLIOT ⁽²⁾ states : « Limbs black; arms above elbows and hind limbs sparsely speckled with ochraceous ». As far as the arms are concerned this may have its application on the present specimens, but what is the colour of the hind legs? Ought they also to be black, then these specimens cannot be referred to the typical *ascanius*, because they have the hind limbs dark grey, and especially the thighs much speckled with yellow or buff rings as the back. Until better knowledge is won, and an *ascanius* is found, which more fully agrees with the original description I prefer to regard the above quoted specimens as representing *C. ascanius ascanius*.

This species as here understood appears to be at home chiefly to the south of the Kasai river, but two of the localities viz. Mpa and Erobo are strange enough situated to the north of the same river, and thus within the same district as the much different *C. ascanius kassaicus*. The colour of the back is somewhat variable.

⁽¹⁾ *Pr. Zool. Soc. London*, 1907, p. 720.

⁽²⁾ *Rev. Primates*, vol. II, p. 303.

The specimens from Atene are most rufous looking, but some from Tua are similar. The rings of the hairs on the head are in some specimens paler yellow in others more buff, but this is without importance as being quite individual.

As I have formerly stated ⁽³⁾ the existence of this species at Mukimbungu, it appears to extend its distribution to Lower Congo and the districts near the coast.

***Cercopithecus ascanius kassaicus* MATSCHIE.**

Inongo (MAES), n^{os} 2556, 2579, 2583, 2586-2588; Tedengolo (MAES), n^o 2566; Luakere (MAES), n^o 2569; Kala (MAES), n^o 2581; Kutu (MAES), n^{os} 2644, 2647, 2648, 2650; Mpe (MAES), n^{os} 2653, 2658; Bokoro (MAES), n^{os} 2736, 2737, 2740, 2741; Oshwe (MAES), n^{os} 2758, 2762; Tolo (MAES), n^{os} 2743, 2747; Bumbuli (MAES), n^{os} 2974, 2975, 2977, 2980, 2982-2984.

There is a very large series of specimens from different localities within the district of Lake Leopold II which agree with MATSCHIE's description of this subspecies. Very characteristic is the maize yellow (OBERTHÜR 36) to buff (309.1) nasal spot, and the practically absent black brow-band, as these features form such a contrast to the white nasal spot and the broad black brow-band of the true *ascanius*, which appears to live partly within the same district. The colour of the upper side of the tail is somewhat variable, but usually it is like the back proximally, then more or less maroon on the middle, and blackish at the end. The lower cheek stripe of this race is not strong, by far not as in the typical form, and the anterior dilatation at the sides of the nasal spot is not much pronounced, sometimes not at all, and sometimes only as a shadow.

***Cercopithecus ascanius katangae* n. subsp.**

Kinda (DE BAILLET-LATOUR), n^{os} 3504 to 3514.

Not less than 11 specimens from Kinda in Katanga agree with

⁽³⁾ *Ark. för Zool.*, Bd. IV, Stockholm, 1908.

each other, but differ from other forms of *C. ascanius*, so that I think they must be regarded as forming a separate local race to be named as above.

The nasal spot looks often quite white, but a close examination reveals sometimes a faint maize yellow tint on the upper half. This may in some cases be stronger, and in one female specimen the upper third of the nasal spot is yellowish buff, while the other part is only faintly tainted. Unlike the case in the typical *ascanius*, there is no black, frontal band, at most in some specimens a black spot behind the eyes. The interorbital, black stripe is, however, well developed and encroaches often on the nasal spot, sometimes in the shape of a prominent triangle. The black lower cheek-band begins (unlike in *C. a. kassaicus*) with a very broad patch at the sides of the nasal spot, but narrows suddenly and dwindles usually away under the ears. It is only formed by the black tips of the longer lower hairs of the whiskers, which have a subapical, yellow ring and otherwise are white to the base (not greyish as in *kassaicus*). The hairs of the upper side of the head are banded with yellow, sometimes a pale shade of yellowish buff. Otherwise the hairs of the upper side are banded with « brownish terra cotta » (322.2), so that the back looks rather rufous. Upper arms and thighs are like the back, lower arms almost black, only little sprinkled, lower legs blackish grey, a little sprinkled with yellow, hands black, feet blackish grey. The tail is on its upper side proximally coloured like the back, but becomes then black to the end without any maroon-coloured middle part. On the lower side it is proximally white and becomes then gradually fawn and finally black at the tip. The most vivid red colour is between the black and white along the line of demarcation. Sometimes the lower side of the tail is blood red brown inside the black tip. Young and old specimen of both sexes show a great conformity.

	♂ ad.	♀ ad.
Greatest length of skull	98 mm.	96.2 mm.
Condylbasal length	74.8 »	72 »
Basal length	65.5 »	62.5 »
Zygomatic breadth	65 »	63.8 »

	♂ ad.	♀ ad.
Breadth of brain case	58.7 »	55 »
» across middle of orbits	55 »	53.5 »
Least postorbital width	44.5 »	41.5 »
» interorbital width.	5 »	5 »
Length of palate with spine ⁽¹⁾ ⁽²⁾	35.5 »	35.5 »
» of upper molars series	23.7 »	22 »
» of upper true molars	16 »	15.4 »

As usually is the case among monkeys the dimensions of the skull vary. Another adult male skull has f. i. a greatest length of 94 mm., and the length of its upper molar series is only 20.2 mm. The shape of the orbits is also variable, as I have proved to be the case in *Cercopithecus schmidtii enkamer*.

***Cercopithecus ascanias cirrhorhinus* MATSCHIE.**

Tshoppo, n^{os} 246, 248, 249, 347, 350, 353, 354, 357, 358.

In the Congo Museum I have had the opportunity of seeing type and cotypes of this race, the type of which is said to have come from the « province of Stanley Falls ». It has as a rule the nasal spot paler and more « honey yellow » (OBERTHÜR 35.1) than is the case in *C. a. kassaicus*. Otherwise both are very similar and the lower side of the latter is certainly often fully as pure white as in *cirrhorhinus*. Both differ from *Whitesidei* THOMAS by the practical absence of a black brow-band. As *C. a. Whitesidei* is said to be from Lulonga, it is possible that it has its distribution north of *C. a. kassaicus* and to the west of the region inhabited by *C. a. cirrhorhinus*. For this interpretation speaks also the fact that a mounted specimen (n° 310) from the « district de l'Équateur » has a well developed black brow-band and might be referable to *Whitesidei*, although its nasal spot is almost white.

(1) Without, 32,5 mm.

(2) Without, 30 mm.

To the east of *C. a. cirrhorhinus* may again live another race of *ascanius*, because a specimen (♂, n° 1794) collected by PILETTE 29-IX-1919 at Lake Alber Edward has a nasal spot which resembles that of *kassaicus*, and on the same there can also be traced a black brow-band especially on the sides. On the other hand the lower cheek-band is very faint and only represented by black tips to the somewhat yellowish white hairs of the whiskers, but, unlike in *Schmidt*i, this band may be followed all way to the snout, where it also widens, although in the same indefinite manner. The tail is, of course, white below in its basal portion.

It may also be mentioned here, that Dr BAYER has presented to the Congo Museum a female specimen (n° 2169) from British East Africa signed, « Zuwani river, Campi Simba », which proves to be a *Cercopithecus ascanius* with a white nasal spot, a very broad jet black brow-band and a well pronounced, black lower cheek-stripe, which runs forwards to, and up along the sides of the white nasal spot. This cheek-stripe is not so broad as in typical *ascanius*, and it is not widened at the sides of the nasal spot in any very perceptible degree. On the other hand it meets the black interorbital stripe which is very well developed in this form and broadens at the nasal spot, the upper margin of which it covers along its whole length in a very characteristic manner. The cheek-patch is greyish white (not showing any yellow shade). The rings of the hairs on the head are « honey yellow » (OBERTHÜR : 35), those of the back something between « fawn » (308.2) and « tan » (317.1 and 317.2). By this the general appearance is rather dark rufous. The upper arms and thighs are speckled like the back. Otherwise the fore limbs are black, and the hind limbs dark grey, darker than f. i. in *ascanius* specimens from Lake Leopold II. The lower side is quite white. The tail is unfortunately missing.

Although the specimen thus is somewhat incomplete, I think that the very distant habitat together with the characteristics mentioned may give sufficient reason for recognising it as a representative of a separate race, ***Cercopithecus ascanius orientalis***, an eastern offshoot of this otherwise western species.

Dr BAYER has kindly informed me, that « Campi Simba » was the

place where this specimen was preserved and labeled, but that it might have been shot at some distance from that place in some of the gallery forests, although he cannot recall in its memory the exact place.

Cercopithecus Schmidtii MATSCHIE.

Zobia (HUTEREAU), n° 980^a; E. de Buta (HUTEREAU), n° 980^b, 30 kil.; N. Niangara : Bafuka (HUTEREAU), n° 1283; Uelé (DEGREEF) : albinos, n° 2729.

Three specimens from as many different places in the Uele region viz. one (n° 1283) from the neighbourhood of Niangara, Haut-Uele, another (n° 980^a) from Zobia and the third (n° 980^b) Buta, Bas-Uele, agree with MATSCHIE's description of the main form with regard to the light grey (« eisengrau ») colour of the proximal parts of the lower side of the tail etc. As the type-specimens were obtained in Uganda at Mengo it is of interest to state, that the Uganda fauna extends westwards to the forests round Uele river to the north of the great forest of Ituri etc. with among others this representative. In the latter forest again the following form is found.

A very interesting albino specimen (n° 2729) from Uele must, no doubt, belong to this species. It is almost completely white, only a little dusky on top of the head (especially on the brow-band) and on the fore legs. The red of the tail has a buffish shade.

Cercopithecus Schmidtii enkamer MATSCHIE. = *corridorhinus*

Équateur (WEYNS), n° 310; Ituri (ANZELIUS), n° 645; Kilo (THÉLIE) n° 1117; Lesse (PILETTE), n°s 1778-1779; Beni (PILETTE), n° 1791; Kasindi (PILETTE), n° 1810^a; Lenda (CHRISTY), n° 1837; Mawambi (CHRISTY), n° 1849; Beni (BONNEVIE), n°s 3301, 3304, 3305; Masisi (BONNEVIE), n°s 3302-3303, 3307; Penghe (BEQUAERT), n° 3408; Kilo (THÉLIE), n° 1876; Rutshuru (PAUWELS), n° 2271; Barika (CHRISTY), n° 2886; Alimasi (CHRISTY), n° 2887; Kalumendo

(BONNEVIE), n° 3305; Mambaka (CHRISTY), n° 1562; Pili-pili (CHRISTY), n° 1561; Stanleyville to Bafwaboli (CHRISTY), n° 1563; Kinzi (PILETTE), n° 1781^a.

A great number of specimens proves, that the dark grey under the proximal portion of the tail is fairly constant. Specimens from the Ituri forest and Rutshuru are similar, although in both there is a certain amount of variation. Thus some have the rings of the hairs on the head more yellow, others more ochraceous, some have the hindlegs more grey, others more blackish (¹).

The black of the lower cheek-stripe is developed in a various degree in different specimens. A couple of specimens from Masisi have it especially well marked and extending forward to the nose spot, but it appears hardly probable that a separate race should live there. The lower side of the proximal portion of the tail of these specimens is quite dark grey as in *enkamer*, which they also resemble in other respects.

This race has evidently a very wide distribution in the eastern forest region of Belgian Congo. LORENZ (l. c. 1917) named specimens from Rutshuru as a separate subspecies *C. s. rutshuricus*. A comparison with a large series as the one in the Congo Museum will easily prove, that the for *rutshuricus* quoted characteristics do not hold good. There are f. i. specimens from localities within the Ituri forest, which have just as black limbs as specimens from Rutshuru etc.

Cercopithecus cephus LIN.

Luali (BEQUAERT), n° 2419^{a-b}; Sangha, n°s 3477-3480; Kakongo (CABRA), n° 167; Bas-Congo Cataractes, n°s 16, 18.

This monkey appears to be confined to the coastal region as the two specimens in the collection are from Luali. There are also mounted specimens from « Bas Congo ».

(¹) Cf. also about the variation of this monkey : LÖNNBERG, *K. Vet. Akad. Handl.*, vol. 58, n° 2, Stockholm, 1917.

In addition to these there are some native skins from French Congo, « région de la Sangha ». One of these latter has the cheeks rather rich yellow, in all the others they are pale, sometimes almost whitish.

Cercopithecus L'hoesti SCLATER.

Mawambi (CHRISTY), n° 2891; Congo, n° 2985; Tshoppo (WEYNS), n° 307.

Of the three specimens, which may be regarded as typical, one (juv. n° 307) is from Tshoppo north of Stanleyville, another (♀, n° 703) is collected by CHRISTY at Mawambi and the third has been delivered from the zoological Garden of Antwerp (n° 2985). The last is not so rich rufous on the back as the Mawambi specimen, which may depend upon its life in confinement.

Cercopithecus L'hoesti Thomasi MATSCHIE.

Kivu (MOULRON), n° 1271; Masisi (BONNEVIE), n° 3315.

Of the two specimens, which I consider as belonging to this « subspecies », one has been collected in the typical locality, viz. near Lake Kivu, the other somewhat further northwest, at Masisi. The latter is quite young, but shows already just as well as the adult from Kivu the white below the eye, so that this characteristic may hold good.

Otherwise these specimens agree so closely, that it is impossible to understand why ELLIOT has regarded *L'hoesti* and *Thomasi* not only as separate species, but even placed these « species » in separate subgenera! One of these is the peculiar « *Allochrocebus* » with the diagnose : « General colour various, size small. » With regard to the last expression it may be remarked that *C. L'hoesti* is not very small. The specimen, which has lived in the zoological Garden of Antwerp, had obtained a length of about 130 cm. (half of which comes on the tail), and in natural condition it may thus

grow to still larger size. The *C. L'hoesti Thomasi* from Kivu is about 160 cm. with similar proportions between tail and body.

When, however, ELLIOT refers « *Thomasi* » to the *albigularis* group, I think he is more correct. It appears to me, that *C. L'hoesti* might be regarded as a member of the *albigularis* series with rich colours, as they develop in the æquatorial forest, and an excessive growth of the whiskers. The form *Thomasi* appears to have, as far as is known hitherto, a somewhat more southern distribution than the typical *L'hoesti*.

Further material may, however, decide whether they might be kept apart or not.

Cercopithecus Brazzæ MILNE EDW.

N. Niangara-Bafuka (HUTEREAU), n° 1287; Zobia (HUTEREAU), n° 982; Lokongo (MAES), n° 2589; Oshwe (MAES), n^{os} 2767, 2768, 2769; Mushie (MAES), n° 2564; Lekana (MAES), n° 2239; Congo (Jardin Zool.), n° 1221; Stanleyville, 244; Sangha, n^{os} 3488, 3499; Luluabourg (CALLEWAERT), n° 2958.

The specimens in this collection, which are from various places in the district of Lake Leopold II and further one from Kasai and a mounted one from Stanleyville, are quite typical in every respect.

Two specimens from the Uelle districts, viz. one (n° 982) from the neighbourhood of Zobia, and another (n° 1287) from Bafuka north of Niangara differ from the others, but are similar inter se. Both are apparently fully adult males. They have the ochraceous semi-lunar, frontal band perhaps a little better bordered with black in front, at the same time as it is decidedly paler than in typical specimens and in its posterior part whitish in consequence of the long white tips to the hairs. The posterior black band is strongly developed.

It might be possible that this signifies a separate geographical race from Uele, but as the knowledge about the variation of these monkeys is insufficient, I think it is best to wait for more material, before the question is decided.

It might be added that some native skins of this species from French Congo have the ochraceous frontal band normally coloured.

POST-SCRIPTUM. — Since the above was already printed, the Congo Museum has received a specimen of *Cercopithecus Brazzæ*, collected at Poko, in the Uele district, by Dr. CHRISTY. This specimen agrees completely with those collected by Comm^r HUTE-REAU with regard to the colouration of the frontal band, etc. By this fact it is made still more probable that these Guenons from the Uele district constitute a distinct geographic race, which thus may be named ***Cercopithecus brazzæ uelensis***. It is possible that this form approaches the northeastern *C. neglectus*, but I have not had the opportunity of forming myself a direct opinion about this as yet.

***Cercopithecus leucampyx Carruthersi* Pocock.**

Ikanga (PILETTE), n° 1789; Bolovet (PILETTE), n^{os} 1798, 1799; Beni (BONNEVIE), n° 3312; Masisi (BONNEVIE), n° 3314; Rutshuru (PAUWELS), n^{os} 2272-2275; Moero (CHRISTY), n^{os} 2796, 2806; Kilo (THÉLIE), n° 1875; Mawambi (CHRISTY), n° 1842.

Studying this very interesting material I have arrived to the conclusion, that under this name without doubt must be included not only *Schubotzi* MATSCHIE, but also *princeps* ELLIOT. I base this opinion on the fact, that from the same locality have been obtained specimens which display the characteristics of these supposed subspecies. Thus there are specimens in which the area between the shoulders is just as speckled as the rest of the back and not at all darker from Beni (f. i., n° 3313), from Bolovet (f. i., n° 1798) and Rutshuru, and also such in which the interscapular area is darker than the back, almost black, but somewhat speckled to greater or less extent from Moera (n° 593), Bolovet (n° 1799), Rutshuru and so on. But there are also such specimens which are jet black between the shoulders, hardly ticked at all as n° 1875 from Kilo, Beni and finally real « *princeps*-specimens »

with the area between the shoulders continuous with the upper parts of neck and head, shoulders and arms and all these parts absolutely jet black without a trace of a whitish tick as n° 1842 from Mawambi, not far from Beni.

It is, however, not enough with this variation, there are also specimens which show the black crown of the head more or less ticked. Thus a male (n 1798) from Bolovet has a roundish spot on the crown of the head about 2 cm. in diameter, which is provided with pale rings on the hairs. The female n° 3313 from Beni is sprinkled with light rings on the whole black crown and upper neck. Concealed pale rings are also sometimes found on the black hairs of the head. The general grey shade of the colour of the back is also varying, sometimes darker, sometimes paler. The palest is a specimen from Rutshuru. The one which is most extremely shiny jet black on the head and anterior parts and very dark on the back, thus most typically « *princeps* » like, is a male, while those specimens which are most ticked on the head are females. I may thus express the opinion, that specimens which exhibit the most pronounced « *princeps* » characters are those which have reached the highest degree of progressive (masculine and ornamental) development, and the most speckled ones in a certain sense remain on an earlier stage.

This monkey appears to be an inhabitant of the great forest of the Ituri district and adjoining parts, but also extending southwards to the forests at Rutshuru, but further south on the western side of northern Tanganyika another subspecies appears to have its home. There is in the Congo Museum an interesting specimen (n° 873) collected in the year 1910 by PAUWELS at Baraka. The skull proves that it is an adult female. It is black on the interscapular area, although sprinkled with pale rings to the hair there as well as on the crown of the head. The feet are black like the fore legs. The thighs are darker than the back, the hairs of which latter have the rings of the hairs a little yellowish, so that the general tone becomes somewhat olive. In addition to this the hairs on the sides of the anus and on the hind margin of the thighs are tipped, and partly ringed with dark brownish red. These two latter characteristics remind to some degree about *Doggetti*, and even

Kandti. It may also be added that white hair form a comparatively well developed moustache on the upper lip of this monkey, and that the tail is speckled with grey for about two thirds of its length, but the terminal portion is black.

Greatest length of skull.	103	mm
Condylbasal length.	81	»
Basal length	69.5	»
Zygomatic breadth	65.4	»
Breadth of braincase	55	»
Least postorbital width	42.2	»
Interorbital width.	5.5	»
Breadth across middle of orbits	55.5	»
Length of nasals mesially	18	»
» of upper molars series	27.5	»
» of lower molars series.	33.6	»

This specimen probably represents : *Cercopithecus leucampyx sibatoi* LORENZ.

A young specimen (Dr. MAES, n° 2645) of the *leucampyx*-series from Kutu (dist. of lake Leopold II), may also probably represent an aberrant race. It has the upper lip and the nose broadly covered with white hairs, but the space between the eyes is black-haired. The speckled brow-band is narrow and contains many very long, entirely black hairs which are directed forward. The cheeks are speckled grey. Crown of head, nape, interscapular region, arms and hands black. Back and sides speckled grey, rather dark. Region just in front of the tail together with the hind legs and feet black, the legs only sparsely ticked with small pale rings. Root of tail below and the long hairs of the anal region dark reddish brown, resembling, but somewhat darker than OBERTHÜR's « fawn » (308,4). The tail which is short, not quite attaining the length of head and body is speckled by means of the light putty-coloured (OBERTHÜR : 311,1), or partly pale brownish tips of the hair, which dominate on the greater part of the organ except at the base and at the end, where the black dominates. The throat is white, otherwise the lower parts are dark sooty grey.

The last molar of the upper jaw has not appeared yet, but the length of the four first molars is only 17.5 mm., while the same

dimension of the above mentioned specimen from Baraka is 22.2 mm. The diameters of m^2 are in the former 5.5×5.3 and in the latter 7.2×6.4 mm. This proves that the *leucampyx*-monkey from Kutu must be a considerably smaller animal than its relatives in other districts. The above mentioned exterior differences can also hardly all be juvenile, when the animal has been old enough to develop its m^2 . It appears thus to form a separate geographic race, which I take the liberty of naming for the collector **Cercopithecus leucampyx Maesi**.

Cercopithecus leucampyx elgonis n. subsp.

3 ad. spécimens from Elgon, collected by Dr. BAYER.

These three specimens resemble *C. leucampyx Carruthersi*, but differ from the same at the first look by their very strongly developed woolly underfur, and by being darker. The black from the head extends down on the interscapular area, but is there somewhat ticked with whitish rings to the hairs. Arms and hands are quite black. The back similar to that of *Carruthersi*, but it is in one of the specimens (the type) decidedly more black. The hind legs are (unlike in *Carruthersi*) black, scantily ticked with narrow white rings on the thighs, without markings on the lower parts and feet. The tail, on the other hand, is more speckled than in *Carruthersi* the hairs being banded with white nearly over the whole organ, so that only the extreme tip is pure black. Throat greyish white or light grey. The lower parts of the body are sooty blackish with the rich grey wool shining through. There are no traces of fawn coloured or rufous hairs below the root of the tail, or in the anal region.

The skull of an adult female appears to be similar to that of a corresponding specimen of *Carruthersi* from Rutshuru.

Total length	100	mm
Hensel.	69	»
Zygomatic breadth	67.5	»
Breadth of braincase	58	»
Upper molar series	26.5	»
Lower molar series	30	»

This Elgon Monkey does not resemble its nearest geographical neighbour *C. leucampyx Neumanni* MATSCHIE, which is speckled with buff. From *Carruthersi* to which it bears most resemblance it differs, as already is mentioned, by its extremely rich grey wool, the black hind legs and speckled tail.

The strong development of the wool of this monkey is, of course, an adaptation to the harsh climate on Elgon and has its analogy with regard to other mammals from that mountain.

Dr. BAYER's discovery of this monkey on Elgon is very interesting as it extends towards north east the known area of distribution of still another member of the « Westafrican » forest fauna into East Africa thus giving a further proof that this once occupied a much greater territory than now.

***Cercopithecus opisthostictus* SCLATER.**

1 specimen (n° 1252) from Katanga (SHARPE).

As the type of the species was from the neighbourhood of Lake Mweru, and another specimen was with certainty collected in the Kundelungu mountains in Katanga it appears by this addition to be proved that this province is the home of this hitherto very rare monkey. It is evidently the representative of the *leucampyx*-group in Katanga.

By its white upper lip *C. opisthostictus* to a certain extent may be said to form a connecting link to *C. nictitans* L.

***Cercopithecus nictitans* L.**

There is a skin of *C. nictitans* LIN. (n° 1500) which has come to the Museum from the Zoological Garden of Antwerp. This specimen is only said to be from « Congo ». It is of interest because its tail is very light-coloured, much mixed with white so that the general appearance of this organ is speckled silvery grey. This may be an individual variation, but it may also indicate, that somewhere this species has developed a local race. Perhaps this

specimen has something to do with Pocock's subspecies *Laglai-zei* ⁽¹⁾.

There are also some native skins, 3481-3487, from Sangha.

C. nictitans is to be regarded as the substitute of the *leucampyx*-forms where it lives.

Cercopithecus Kandti MATSCHIE.

Two native skins (n^{os} 795 and 796) are labeled « PAUWELS, Région du lac Kivu »; two other specimens collected by L' MOULRON (n^{os} 1272 and 1273) have the same origin. A fifth skin is labeled « Baraka, PAUWELS » (n^o 872). As this is of native origin it may have been traded before it fell into the hands of the collector, and it does not therefore form any proof that this, as it seems, very local species, extends its distribution beyond the surroundings of Lake Kivu and to the shores of Tanganyika.

The red colour of this beautiful monkey varies a great deal in intensity and shade, but a small young is already very similar to the halfgrown.

Under the name *Cercopithecus insignis*, ELLIOT described ⁽²⁾ in the year 1909 a monkey living in the Zoological Garden of Antwerp. After its death this specimen has been delivered to the Congo Museum, where it has been registered as n^o 3429. This is very fortunate, because thanks to this it is open to any zoologist to verify that *insignis* is nothing, but a specimen of *Kandti*. In the key in his « Review of the Primates » (vol. II, p. 360), ELLIOT states concerning *insignis* : « lower back dark orange unspckled », in contrast to *Kandti* which is said to have « lower back speckled ». The type specimen of « *insignis* » is, however, just as much speckled as adult specimens of *C. Kandti* generally are. As regards the shades of colour exhibited there is no difference between

⁽¹⁾ *Proc. Zool. Soc. London*, p. 698, 1907.

⁽²⁾ *Ann. Mag. N. H.* (8), IV.

« *insignis* » and *Kandti*, nor in pattern, but *Kandti* displays a certain amount of individual variation even at the same locality. Considering all facts it appears to be the best proceeding to put the name « *insignis* » as fully synonymous with *Kandti*, which has about five years priority.

C. Kandti is evidently, as already Pocock ⁽¹⁾ has made it, a member of the *leucampyx*-group ⁽²⁾. The consistency of its long fur with its numerous pale rings as well as the general pattern with the broad brow band in front of the black crown (which ELLIOT appears to believe characteristic to « *insignis* » alone, but which in fact is present in all specimens of *Kandti* even the young ones, although it often is more or less cut away on the native skins, which hitherto most often has been to be seen in the museums of Europe) and several other features recall vividly the *leucampyx*-series, a representative of which it is in the Kivu-district. ELLIOT's attempt to join *Kandti* with his unnatural and peculiar « subgenus *Insignicebus* », which otherwise chiefly includes members of the *albigularis*-group, must thus be regarded as very unfortunate.

Cercopithecus Wolfi MEYER.

Oshwe (MAES), n^{os} 2763, 2764, 2765; Bumbuli (MAES), n^o 2981; Inongo (MAES), 2557, 2558, 2580, 2582, 2584, 2585; Kutu (MAES, n^o 2649; Mpe (MAES), n^o 2657; Bokoro (MAES), n^o 2739; Tolo (MAES), n^{os} 2744, 2745; (MAES), n^{os} 2704, 2706, 2707, 2708; Stanley-Falls, 755.

This fine series proves that the variation of this species is not very great. The yellow, lateral stripe between the white of the belly and the dark upper parts, is, however, developed in a variable degree, and it may even be almost absent, or only indicated by a faint yellow shading. The tan or ochraceous colours of the hind-

⁽¹⁾ *Proc. Zool. Soc. London*, 1907.

⁽²⁾ Not as ELLIOT will have it together with the *albigularis* series.

legs may also be more or less bright and so on, but on the whole the specimens agree very well with each other.

Almost the whole series is from various localities within the district of Lake Leopold II. ELLIOT mentions also specimens from Batempa in the Sankuru district. It will thus appear from our present knowledge that *C. Wolfi* has its habitat on and along the northern side of the Kasai river and its tributary Sankuru river. One specimen in the Congo Museum is also labeled « Stanley Falls ». It may thus perhaps reach across the whole Congo basin.

***Cercopithecus pyrogaster*, n. sp.**

One specimen (n° 1007) collected by CHARLIERS at Atene, Kwango and received in the Congo Museum, Jan. 1912.

Forehead with a comparatively narrow browband which basally is mixed whitish and with some black hairs. Distally the light hairs become light buff (OBERTHÜR : 309.1). Laterally this browband is continued in a broad buff band on the sides of the crown reaching to above the ears. The general colour of this band is buff (309,1) but the hairs have narrow black tips and whitish subapical rings. Below this there is a rather broad, black band (some hairs have pale subapical rings) from the eye to the ear, which latter is tufted with « dull brickred » (OBERTHÜR : 330.4). The nose is sparsely hairy with black and the upper lip with greyish white. The cheeks are ornamented with strongly developed whiskers which are directed backwards and outwards. These are on their upper side basally buff (309,4) distally more speckled by means of the long hairs being ringed with black and pale buffish. On the lower side the whiskers are brighter more inclining to light rust red (318.1). The crown of the head, nape, neck, upper back, outer side of arms including the hands and flanks are speckled with yellowish white rings to the black hairs (the under fur is dark grey). The length of the longest hairs of the back is about 6 cm. or somewhat less. The centre of the back from behind the interscapular and to the sacral region has a strong chestnut shade (reminding about the same in *C. Wolfi*),

because the subapical rings of the hairs of this region are rust red. The chin is light buff (309.1) the throat a shade darker (309.2). The under parts are otherwise beautifully rust red, which also extends all over the inside of the limbs and is deepest and most fiery on the anterior and inner sides of the hind leg. The outer side of the hind limbs is also rust red all along only a little duller on the feet. The long hairs on the outer posterior surface of the thighs are ringed with blackish which, however, does not much alter the rufous colour of the same. The tail is speckled greyish brown on the upper side of the proximal half, much paler brownish grey on the lower side, but it becomes gradually blacker towards the middle, and the distal half may be termed black.

Total length of the tanned skin about 98 cm., 55 of which come on the tail.

The skull of this type is unfortunately incomplete with the greater part of the braincase lacking. To judge from the teeth it has been a fully adult female, but its molars are not much worn. The length of the upper molar series is 21,3 mm. and that of the lower 23,6 mm.

This very beautiful Guenon is undoubtedly related in some degree to *C. Wolfi*, but at once distinguished from the same not only by its rust red under parts, but also by the buff band above the black on the sides of the head, by its buff whiskers and by the arms not being black, but of the same colour as the back. It might also be related to *C. grayi pallidus* ELLIOT, although the latter has quite different colour of body and limbs.

As only one specimen is known, it is as yet not possible to say anything about the distribution of the species, but it is most probably at home in the surroundings of Kwango river.

Cercopithecus Denti THOMAS.

Baraka (PAUWELS), 869; Fundi (CHRISTY), 1564-1565; Mawambi (CHRISTY), 2107.

The specimens from the northern Ituri district (Mawambi,

Fundi) and the most southern locality, Baraka at Tanganyika are similar, but the speckling on the head and anterior parts may at the same locality be a little more yellowish or whitish. A small young is also similar to the adult.

The southward extension of this species to western Tanganyika (Baraka) does not appear to have been known before.

Cercopithecus Denti Liebrechtsi DUBOIS and MATSCHIE has been based on a specimen from Stanleyfalls (n° 24) which has white on the forehead so that it forms a brow-band. Otherwise it does not perceptibly differ from other specimens of *Denti* from other localities. Now the developement of white on the forehead is subjected to individual variation. One specimen in the Congo Museum (n° 2107) from Mawambi (which is the type locality for the species!) has quite as much white on the forehead as the type of *Liebrechtsi*. One specimen from Fundi has also nearly as much, while another has no white at all. One of the specimens from Baraka has more white on the forehead than the other. Under such circumstances I must regard *C. D. Liebrechtsi* only as an individual aberration of *C. Denti*.

Cercopithecus elegans DUBOIS and MATSCHIE.

Types : Aruwimi (WEYNS), n°s 308, 346.

This Guenon is nearly related to *C. Denti*, but easy to recognize on the white cheeks, and on the black dominating more completely in the temporal region, but especially on its grey hind legs. As it has been found in Aruwimi, it is evident that it substitutes *C. Denti* on the western side of the great Lualaba river.

Cercopithecus petronellae BÜTTIKOFER.

A cotype of this interesting Guenon is now in the possession of the Congo Museum (n° 3428) where it has been received from the Zoological Garden of Antwerp the 15th July 1914. To the

careful original description of its exterior nothing needs to be added. The following measurements of its skull may, however, be recorded for future comparison.

Greatest length of skull	92.5 mm.
Condylobasal length	65 »
Basal length	59 »
Zygomatic breadth	62.5 »
Breadth of braincase	55 »
Least interorbital width	5 »
Breadth across outside of <i>m'</i>	26.6 »
Length of upper molar series	21.2 »
» of lower molar series	23.8 »

About the geographical distribution of this species nothing is known with certainty. It is only labeled « Haut Congo ».

***Cercopithecus pygerythrus centralis* (NEUMANN, POCOCK).**

Beni (BORGERHOFF), n° 1026; Makala (CHRISTY), n° 1569; Molekera (PILETTE), n° 1792; Kaniki (PILETTE), n°s 1796, 1797; Beni (PILETTE), n° 1809; Kasindi (PILETTE), n° 1810^b; Beni (BONNEVIE), n°s 3308, 3309, 3310; Ponhierville (PILETTE), n° 2338.

There prevails a considerable confusion considering this group, which has not been lessened by the fact that immature specimens and even unclean specimens have been named as new species. It appears, however probable, that the « Tumbili » monkeys of the open country in eastern Congo are identical with those of Ankole which latter according to POCOCK (1) have been stated by NEUMANN himself to be his *centralis*. Specimens from f. i. Beni, Makala and Ponhierville are alike. They have all plenty of more or less fawn coloured hairs below the tail and at the callosities. The white frontal band is always present, although there is a fringe of black

(1) *Proc. Zool. Soc. London*, 1907, p. 739.

hairs in front. The whiskers are, in adult males at least, well developed, and the long hairs are banded. The head and back has the hairs ringed with a colour which perhaps comes nearest to light « chamois » (OBERTHÜR, 325.1). Thus a rather dull, almost brownish general colour is produced, not yellowish (or greenish) as in the East African *Johnstoni* (which is also represented in the Tervueren collection) and allies, not even on the flanks is this the case. The limbs are grey speckled with whitish, hands and feet are, at least in the adult, black. The tail is also speckled above, almost whitish grey beneath. The chin is, of course, black; all other under parts and inside of limbs white. The differences from this in Pocock's description (l. c.) may depend upon that he had young specimens before him.

In other parts of Congo other forms of this group are to be found. MATSCHIE has f. i. described not less than four kinds in the year 1912 (¹).

There are still a few more specimens of this group in the Congo Museum, which are too young to be described. It is, however, of interest to note, that there is a very yellow-looking skin from Inongo and another very dark brown from Kutu, thus from places which otherwise use to have a similar fauna. Both these have rufous hairs at the anal region as well as also below the callosities.

***Cercopithecus pygerythrus katangensis* n. subsp.**

One specimen from Kinda, 21-VI-1914; 1 ♂ (old) from Funda Biabo, 14-II-1914 (type), n^{os} 3493, 3494.

This Tumbili monkey differs very plainly from the northern *centralis* in the following points. It has no definite white brow-band, only some greyish whitish hairs mixed with black which form a faint substitute for such one. The black hairs form especially a dense group above the interorbital region. The chin is not

(¹) *Rev. Zool. Afric.*, pp. 437-440, Bruxelles, 1912.

black as in *centralis*, but only the lower lip is a little dusky. The face is beset with black or greyish hairs. On the sides behind the eyes there is a comparatively broad area (¹) grizzled with black and whitish hairs. Then follows the regular whiskers which are rather short even in an old male (shorter than in *centralis*). They are very markedly directed upwards, white and soft below, grizzled with blackish tips and stiffer in their upper parts, which also assume a yellowish tint so that the whiskers by this better blend with the colour of the upper parts of the head which are grizzled with rather pale straw yellow subapical rings to the blackish hairs. Towards the back the *yellow tint becomes a little richer*, similar to a light shade of yellow ochre, and decidedly more conspicuous. The back of this race appears therefore much more yellow than that of *centralis*. On the flanks the yellow ochre dominates (but it is a little paler and duller than OBERTHÜR's, 326.1). The yellow sprinkling continues on the upper arms and thighs, but the lower portions of the limbs are grey, grizzled with whitish rings to the hairs. The hands are much speckled with black, the feet only little. The tail is on its upper side proximally like the back, but the yellowish disappears soon, the end is black; the lower side of the tail is greyish white. All under parts of the body from the chin, and the inner side of the limbs are dull white. Below the root of the tail, between the same and the callosities there is a patch of cinnamon coloured hairs, but not strongly developed and not below the callosities. The underfur on the back is smoky grey, somewhat paler than in *centralis*.

Greatest length of skull	103.5 mm.
Length of upper molar series	27.6 »

The following subspecies established by MATSCHIE are present in their type specimens, which are mounted :

***Cercopithecus cynosurus Weynsi* (126) from Banana;**

(¹) In *C. p. centralis* the white whiskers extend forwards as to almost immediately border the black face. The same is also the case with MATSCHIE's subspecies *lukonzotwae*, which also has a well developed brow-band.

Cercopithecus cynosurus itimbiriensis (306) from Itimbiri;

Cercopithecus æthiops lukonzolwae (516) from Lukonzolwa at Lake Mweru.

Cercocebus sp. [*agilis* group].

Three native skins in a bad state and received from unknown locality in French Congo (région de la Sangha), may belong to this species.

It is more difficult to decide anything about a young specimen which is mounted (n° 305) and reported to be from Nyangwe as its immature state makes a determination uncertain. MATSCHIE has described ⁽¹⁾ a species of this group, *C. fumosus*, from Beni. That one appears, however, to be different in several respects. It is said to have « putty-coloured » (311.1) rings to the hairs and these rings distributed from the head to the shoulders, whereas the pale rings of the Nyangwe specimen rather may be called a dull shade of « maize yellow » (36), and the sprinkling is continued over the greater part of the back and on the fore legs down to just above the blackish hands. The general colour of the Nyangwe specimen is plainly more brownish than that of *fumosus* which is said to be dark « smoke grey » (363.4). The tail is basally on the upper parts dark brown, for the rest of the body colour. *C. fumosus* is said to possess a « Büschel weisser Haaren » behind the ears, but nothing like that is to be seen in the Nyangwe specimen. More material of adult animals must be acquired before any further decision about the identity is made.

Cercocebus aterrimus OUDEMANS ⁽²⁾.

Oshwe (MAES), n° 2766; Bumbuli (MAES), n° 2973; Inongo

⁽¹⁾ Sitzber. Ges. Naturf. Freunde Berlin, 1914, p. 341.

⁽²⁾ MATSCHIE has (Sitzber. Ges. Naturf. Freunde, Berlin, 1914) made this species the type of a new genus : *Cercolophocebus*, and also described a new member of this from « Kindu am Lualaba ». This species is characterised as having « sehr hellen Backenbart und die auf den Wangen scharf hell geringelten Haare ». It is named *C. coelognathus*.

(MAES), n^{os} 2563, 2565, 2578; Kala (MAES), n^o 2571; Kutu (MAES), n^o 2651; Mpe (MAES), n^{os} 2655, 2656; Lekana (MAES), 2237; Aruwimi (WEYNS), n^o 304.

Several specimens chiefly from the district of Lake Leopold II in the Congo Museum indicate that this region is the chief habitat of the species.

In addition to these normally coloured specimens there is also kept in the same museum the type of SCLATER's « *C. congicus* », a partly albinistic specimen (n^o 754), and another still more albinistic specimen (n^o 2289) received from the Zoological Garden of Antwerp.

***Cercocebus albigena ituricus* MATSCHIE.**

E. of Go (HUTEREAU), n^{os} 785, 979^{a-b-c}; Makojoba (PILETTE), n^o 1782; Semliki à St. Gustave (PILETTE), n^o 71801; Ponhierville (PILETTE), n^o 2337; Lesse-Gamalendu (BONNEVIE), n^{os} 3316, 3317, 3318; Moera-Beni (CHRISTY), n^o 2795; (CHRISTY), n^o 1570; Moera, n^o 2802; Pilipili (CHRISTY), n^o 1568; Malierobi (CHRISTY), n^o 2799; Alimasi (CHRISTY), 2885; Bafuka (HUTEREAU), n^o 1282.

Specimens from Go in Bas-Uele are hardly different from those from different places in the Ituri forest. A young specimen which PILETTE has brought from Ponhierville is perhaps a little more greyish on the sides of the neck, but hardly so much that any difference can be based on this. It will thus appear, as if the distribution of this monkey extends to the places mentioned in a western direction.

***Cercocebus albigena Weynsi* MATSCHIE (Type).**

Sanga (WEYNS), n^o 108.

This name is based on a quite young specimen and thus imperfectly known, although it certainly much differs from the foregoing by the grey colour of the long hairs on the sides of the neck and the yellowish brown shade on the outer side of the hind legs.

Papio tessellatus ELLIOT and **P. tessellatus silvestris** LORENZ.

- a) 1 specimen from Rutshuru and some skulls;
- b) 4 specimens from Masisi, 1 from Mawambi;
2 from Makala and 1 from Avakubi.

To ELLIOT's species *P. tessellatus* I count the dark Baboons from the plains of eastern Congo. A skull of an adult male, collected north east of Kivu has practically quite the same dimensions as those I have published from a Rutshuru specimen. On the other hand a male skull from Mawambi has a little larger braincase, a little shorter palate and nasals, etc. The differences are rather small and might be understood as purely individual, if they were not connected with other characteristics.

With regard to the exterior there is namely some differences between those Baboons, which can be assumed to have come from the open country and those from the big forest. The former, which represent the true *tessellatus*, have the light bands of the hairs « of a darkish cream color », as ELLIOT says, whereas the same of the Forest Baboon are more distinctly yellow. Especially this is the case in a conspicuous way on the lower back and on the hind legs. The hands and the feet are also more intensely pure black in adult specimens of the Forest Baboon. The true *tessellatus*, on the other hand, has a longer fur. All taken together, skull characters, different colour and a different biology, it appears quite possible that the Baboons of the big forest may be considered as racially different from those on the plains. I am thus inclined to agree with LORENZ when he separates the Forest Baboon under the name *Papio silvestris*, but I cannot accept the difference to be of more than subspecific value.

The same author has also separated the Baboon of the Rutshuru plains from *P. tessellatus* ELLIOT and called it *P. Graueri*. This proceeding depends most probably upon the fact that LORENZ only has had two female specimens, on which he has based his descrip-

(¹) *K. Vet. Akad. Handl.*, Bd. 52, n° 2, Stockholm, 1917, p. 41.

tion. It is, however, very difficult to distinguish related forms of Baboons by means of females or immature specimens only. In this case I must regard the result as less happy. It must also be born in mind that the type locality for *P. tessellatus* is the neighbouring province Ankole of Uganda, the fauna of which also in other respects is similar to that of Rutshuru.

Papio nigeriæ ELLIOT.

One ♂ ad., n° 1285, Bafuka, Uele; and a young specimen, n° 1286, from the same locality.

This Baboon is paler than the former, the mottled appearance is produced by the black tips and the broad subapical bands which have a dull yellowish tint, something between a pale shade of chamois and cream. Below the subapical ring the hairs are dark brown, but the long hairs have also a second pale ring. The arms are like the back, but the legs are more uniformly yellowish brown. On hands and feet black is predominating.

Total length of skull	225 mm.
Condylobasal length of skull	171.5 »
Hensel	158.5 »
Zygomatic width	131 »
Palate length	104.5 »
Smallest postorbital width	61 »
Least interorbital width	15.7 »
Breadth of braincase	86.5 »
Length of nasal mesially	86.5 »
Width of snout across first premolar	57 »
Distance between orbit and gnathion	127.3 »
Length of upper molar series	56.2 »

From the skull of *P. tessellatus* this one differs by its much longer snout and the much more evenly sloping facial line from the superciliary ridge. The lateral pits on the sides are also much shallower in this one, the lateral walls of the maxillary being almost straight vertical. The *ramus adscendens* of the lower jaw is more sloping

than in *tessellatus*, and *planum nuchale* appears to be more horizontal.

The above recorded measurements agree on the whole nearly with those which ELLIOT has recorded for *C. nigeriæ*, only the palate is somewhat longer in this specimen. If this is more than an individual difference cannot be decided without more material. In addition to the specimens mentioned the Museum possesses also some skulls from the Uele district displaying similar characteristics; the longest has a total length of 232.5 mm.

Papio kindæ n. sp.

Three adult females and several halfgrown and young specimens from Kinda, district de la Lulua, n^{os} 3495 to 3502.

Native name : « Puja ».

A yellow Baboon with comparatively soft fur consisting of two different kinds of hairs, viz. very long, and comparatively short ones. The long hairs measure on the head of some adult females from 7 to 10 cm. On the back the length of the longest hairs varies between approximately the same limits. The short hairs, which form the main fur, are on the head about 2 and on the back about 4 cm. long. Basally the fur is pale smoky brown, somewhat more brownish than OBERTHÜR's « smoke grey » 367.4, perhaps with a shade of « chocolate » 343.1 in some cases. Then follows a broad portion of a buff colour, about 309.1, but perhaps a little duller, and finally black tips of various length. The long hairs have a long black tip, below this a broad, buffish band, then a brownish band and again buffish. Sometimes there may be more than one brownish band on the hairs. The result is a pale buff animal, thinly overlaid with blackish. The arms are on the whole similar to the back. The thighs are a little more richly coloured, somewhat more yellowish buff with less black mixing. The lower legs are paler and duller in colour, and the feet similar with or without some blackish tips to the hairs. The tail is pale buffish grey mixed with black especially towards the tip. The cheeks and the whole lower side is isabelline white.

Only females are available, but to judge from their skins, they have had approximately a length of head and body amounting to about 60 cm., and their tails about 35 cm. This indicates a small Baboon and the same is also proved by the skulls, the total length of which in three specimens (all adult females) varies between 128.5 and 132.5 mm. This species is thus much smaller than f. i. *P. tessellatus* in eastern Congo. If the relation between the sexes regarding the size of the skulls should be the same in this Baboon as in *P. tessellatus*, a male Baboon from Kinda would have a skull with a total length of about 165 mm. (or about the same as an average female skull of *P. tessellatus*). Accordingly its skull would be much smaller than that of *Papio strepitus* ELLIOT from Nyassaland, which according to its author measures 195 mm.

The following are the skull measurements of two female Baboons from Kinda, western Katanga, or district de la Lulua :

	♀ (with worn teeth).	♀ ad.
Total length of skull	132.5 mm.	131 mm.
Condylolncisive length	103 »	99.5 »
Hensel	86 »	84.3 »
Zygomatic width	81.2 »	82.5 »
Breadth of braincase	69 »	71 »
Least postorbital width	51.2 »	53.2 »
Least interorbital width	6.2 »	6.8 »
Length of palate inside incisors	50.2 »	50 »
Length of nasals mesially	34 »	27.7 »
Width of snout across first premolar	33.4 »	33 »
Length of upper molar series	35.5 »	36.3 »
» » molars only	26.1 »	25.4 »
» of lower molar series	39.3 »	40 »
Distance from orbit to gnathion	54.5 »	53 »

The last of the cranial measurements above proves that the female of this Baboon has a rather short snout, so that the distance between orbit and gnathion is only about 41 % of the total length of the skull, while in a female *P. tessellatus* the former measurement is about 50 % of the latter.

The young specimens of this Baboon are more uniformly coloured, dull dirty buffish with only sparsely scattered black-tipped hairs.

The Kinda Baboon appears to differ very much from other yellow Baboons in proportions and colour. *P. pruinus* has according to ELLIOT's description a similar fur with long and short hairs, but it is totally different in colour.

From the communications which have been given above concerning the occurrence of the different species and subspecies it may clearly be seen, that they are not generally and uniformly distributed in Belgian Congo. This country is thus not a zoogeographical unit. On the contrary it is composed of several smaller faunistic districts, which are characterised by the occurrence of different species, or at least subspecies, which substitute each other. These zoogeographical subdivisions, or minor faunistic areas may not be the same for all groups of animals. They are, of course, partly constituted by the different natural conditions, and partly caused by geographical barriers, which could not be superseded by the animals. In consequence of this different groups of animals are more or less restricted with regard to their distribution. Some have a greater faculty to adapt themselves to more or less various conditions of life and different natural surroundings. And geographical barriers, which cannot be surmounted by certain animals, but constitute an absolute obstacle for their distribution, do not hinder others to find their way from one place to another. The monkeys are on the whole very susceptible, and as a rule specially adapted to certain natural surroundings and a certain mode of life. The genuine inhabitants of the thick forest, like some *Colobus* and certain species of *Cercopithecus*, will not travel far over, or not at all pass a treeless country. On the other hand the Baboons, or the *Cercopithecus* forms of the *pygerythrus* series, which like a more open country, will not traverse the dark and dense forest. For all of them broad rivers are a great and often absolute hindrance. It is therefore only natural that the Belgian Congo with its different

types of landscape and numerous big rivers proves to be subdivided in several zoogeographical provinces just with regard to this group. During the preliminary and hurried examination of the facts, which I have been able to undertake now, these provinces appear to be the following. I will, however, remark, that I am not able to give any absolute boundary lines except in some cases, and it is needless to add that our knowledge about the fauna especially of certain districts as yet is very insufficient, so that many additions and corrections must be expected. As a first attempt to bring some knowledge about the general distribution of the Monkeys in Congo the following sketch may nevertheless not be uncalled for, but it is natural, that in such a preliminary review as this several, on single specimens based forms could not be considered, because too little is known about them.

THE EASTERN PLAINS.

If we begin in the east, we find there stretches of open country which extend to Beni and occupy parts of the country as well north of Lake Albert Edward as south of the same around Rutshuru. The southern limit of this open land is probably the Virunga mountains and on the western side the big forest forms the boundaryline. These tracts of land are to some extent a continuation of a similar landscape in Uganda. The Monkeys which live there are also at home in Uganda viz. *Papio tessellatus* and *Cercopithecus pygerythrus centralis*.

THE ÆQUATORIAL FOREST.

To the west of these plains we find quite a different type of landscape, viz the big *æquatorial forest* which extends over vast tracts of land. Towards the north its limits from a faunistic point of view appear to be less well known. A fact is, however, that in many respects different fauna meets in the Uele region. — To the *æquatorial forest* belong also, with regard to the fauna, more or less from the same in the present time detached forests near Rutshuru. — It

reaches in the west to the Congo river, but where the Monkeys are concerned, this big river appears to be a definite boundary line. The southern limit is not quite sharp, as certain representatives of the fauna of the big forest also extend into other zoogeographical units.

The big forest is, of course, rich in monkeys. We find there the extremely variable red *Colobus Elliotti*, a Guereza : *Colobus occidentalis*, and the short-maned, black *Colobus palliatus mawambicus*. Of Guenons with nasal spots at least two kinds inhabit the great forest, viz. *Cercopithecus Schmidtii enkamer* and *C. ascanius cirrhorrhinus*. It is possible that the former at least chiefly belongs to the eastern and the latter to the western parts. The widely distributed *leucampyx*-group is represented in the big forest by *C. l. Carruthersi*. Another monkey which also belongs to this region is *Cercocebus albigena ituricus*. In addition to this lives in the æquatorial forest a member of the *Cercocebus agilis* group : *C. fumosus*, and at the southern end of the forest perhaps another race. The small *Miopithecus talapoin Pilettei* has not yet been found in the æquatorial forest proper, but only on Ruwenzori, which, however, may be regarded as its eastern corner stone. The rare *Cercopithecus L'hoesti* is in its typical form as yet only found in this district, but its race (or aberration) *C. L'h. Thomasi* has also been discovered in the Kivu region, and the pretty *C. Denti* as well in the big forest as on the western shore of Tanganyika, thus very far south.

It may finally be mentioned that the dark Baboon which inhabits the forest possibly is subspecifically distinct from *Papio tessellatus* and to be termed *P. silvestris*.

THE KIVU REGION.

The surroundings of Lake Kivu are little known. Typical for the same appears to be the beautiful *Cercopithecus Kandti*, and a specimen of *C. L'hoesti Thomasi* is reported to have similar origin. It appears also probable that this district is inhabited by a separate race of *Colobus palliatus* viz. *Adolfi-friderici* MATSCHIE and in the open country lives *Papio tessellatus*.

THE WESTERN TANGANYIKA REGION.

The red *Colobus Graueri* is typical for this region, where it substitutes *C. Elliotti* of the big forest. With the latter it has in common *Cercopithecus Denti*, but *C. leucampyx* has there developed a somewhat aberrant form *sibatoi*.

The question about the black *Colobus* of this and the foregoing region is not quite clear yet. Probably there is some race of the *palliatus* group in both.

THE KATANGA REGION.

From this southernmost part of Belgian Congo two forest-monkeys are known viz. one of the nose-spotted group : *Cercopithecus ascanius katangæ*, and one of the *leucampyx*-group : *C. opisthostictus*. There is also found a short-maned black *Colobus* showing resemblance to *C. palliatus Sandbergi* of northeastern Angola. As there are much open country in this province we also meet there a member of the *Cercopithecus pygerythrus* series, viz. the subspecies *katangensis* and also a yellow Baboon, *Papio kindæ*.

THE UELE REGION.

North of the big forest where the same dissolves into less extensive and less thick forests with intervening steppe country we meet with regard to the monkeys a different fauna. There is a *Colobus* of the red group, *C. brunneus*, substituting *Elliotti*, not red however, but brown. The nose-spotted Guenons are represented by *Cercopithecus Schmidtii Schmidtii*, very similar to *C. Schmidtii enkamer* of the big forest. Finally there is also a possibly somewhat different race of the widely distributed *C. Brazzæ*. In the open country lives the great Baboon, *Papio nigeriæ*, and two races of *Erythrocebus patas* described by MATSCHIE.

THE LAKE LEOPOLD II REGION.

This district may probably comprise the whole Congo basin included within the big curvature of the mighty Congo river and with Kasai river as its southern boundary-line. As its fauna, at least as far as the monkeys are concerned, hitherto chiefly is known from the most western parts. I have preferred to call it as above, especially because the fauna towards Aruwimi might be somewhat different. This zoogeographical district is rich in monkeys and appears in this respect to come next to the great aquatorial forest. It has also species and subspecies of monkeys which correspond to those of the last mentioned district. The red *Colobus Lovizetti* substitutes *C. Elliotti*, and the black, short-maned *C. palliatus Weynsi* plays the same parts as *C. palliatus mawambicus* in the great forest. It is however uncertain whether any Guereza has crossed the Congo river. The tufted *Cercocebus aterrimus* replaces *C. albigena ituricus*. *Cercopithecus elegans* is in Aruwimi the substitute of *C. Denti* on the other side of the river. The fine *C. Wolfi* of the same group appears to be found through the whole region. Of the *Cercopithecus leucampyx* group also a local form, *C. l. Maesi* can be discerned here. Of the nose-spotted Monkeys *Cercopithecus ascanius kassaicus* appears to be the for this district typical form, but *C. ascanius ascanius* has also been collected at some places, as it seems, at least chiefly in the western parts. Finally the widely distributed *C. Brazzæ* is at home in this district as well.

THE KWANGO REGION.

With this name may be designed the country to the south of Kasai river. The beautiful *Cercopithecus pyrogaster* has been found there and also *C. ascanius ascanius* and *C. Brazzæ*. Otherwise this country is not much known as yet with regard to its fauna.

THE COAST REGION.

Around the Lower Congo river *Cercopithecus ascanius ascanius* and *C. cephus* live in the forests, and there is also the home for MATSCHIE'S *Cercopithecus cynosurus Weynsi*, which probably like its congeners prefers more open country with scattered trees and smaller groves.

Colobus palliatus angolensis has also been quoted for the Lower Congo region below Leopoldville.

Also with regard to the distribution of other animals the coast region round Lower Congo shows affinity with Angola.

- faustus
Perodicticus Arrhenii LÖNNBERG.

♀ Masisi (BONNEVIE), n° 3187.

With the exception of its slightly larger molars the specimen from Masisi very nearly agrees with the type.

To the same species are also to be referred two mounted specimens, one which is said to be from « Haut-Congo » and another from Panga, Stanleyville district. This indicates that this Potto is distributed fairly widely in the great Congo forest.

There are also three flat, partly incomplete skins which are from Baraka. These resemble essentially in colour those mentioned above, and one of them, which still is provided with a tail proves that they have belonged to a relatively long-tailed animal, with the organ mentioned of approximately the same length as in *P. Arrhenii*, viz. about $6\frac{1}{2}$ cm. It appears thus probable that this Potto is identical with, or perhaps represents a local race of this one, although the available material does not allow a definite opinion. By this the probable distribution of the species extends even so far south as to the western shores of Tanganyika.

1919. "Contributions to the knowledge about the monkeys of Belgian Congo." *Revue zoologique africaine* 7, 107–154. <https://doi.org/10.5962/bhl.part.15112>.

View This Item Online: <https://www.biodiversitylibrary.org/item/42145>

DOI: <https://doi.org/10.5962/bhl.part.15112>

Permalink: <https://www.biodiversitylibrary.org/partpdf/15112>

Holding Institution

American Museum of Natural History Library

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: NOT_IN_COPYRIGHT

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.