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Published on: 24 Jun 2016 - Zoosystema (National Museum of Natural History)

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Non-marine mammals of Togo (West Africa): an annotated checklist

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Published on 24 June 2016

[urn:lsid:zoobank.org:pub:059171D0-809D-47F5-9030-669522C36E69](https://zoobank.org/pub:059171D0-809D-47F5-9030-669522C36E69)

Amori G., Segniagbeto G. H., Decher J., Assou D., Gippoliti S. & Luiselli L. 2016. — Non-marine mammals of Togo (West Africa): an annotated checklist. *Zoosystema* 38 (2): 201-244. <http://dx.doi.org/10.5252/z2016n2a3>

ABSTRACT

Although Togo is a relatively small country in West Africa, it is characterized by a wide variation of vegetation zones ranging from moist forests to arid savannahs, including the “Dahomey Gap”. There has been no comprehensive documentation of the native mammal fauna of Togo since 1893. Our review of the extant and extirpated mammals of Togo includes 178 species, with Chiroptera (52 species) and Rodentia (47 species) being the most speciose groups. This number does not include additional species recorded along the borders of Togo, and whose presence inside the country is not verified. Seven species of mammals are presumably extinct in the country, but we confirmed that two species of large ungulates, reputed to be extinct, survive in remote forest habitats. Ecological Zone IV, sustaining the moist forest areas, and Ecological Zone I, inclusive of all the relatively undisturbed dry savannahs of the extreme North of the country, are the most important regions for mammal diversity and conservation.

KEY WORDS

Mammalia,
Togo,
West Africa,
checklist,
ecology,
conservation,
Dahomey Gap.

RÉSUMÉ

Liste annotée des mammifères non marins du Togo.

Bien que le Togo soit un pays relativement petit, il est caractérisé par une grande variation de zones de végétation allant de la forêt humide aux savanes arides, y compris le «Dahomey Gap». Aucune liste exhaustive sur les mammifères natifs du Togo n'a été réalisée depuis 1893. Notre révision des mammifères existants et disparus du Togo comprend 178 espèces; les groupes les plus riches en espèces sont les Chiroptères (52 espèces) et les rongeurs (47 espèces). Ce nombre n'inclut pas les espèces additionnelles signalées le long des frontières du Togo, et dont la présence à l'intérieur du pays n'a pas été vérifiée. Sept espèces de mammifères ont probablement disparu dans le pays, mais nous confirmons que deux espèces de grands ongulés présumées éteintes ont survécu dans des habitats forestiers isolés. La zone écologique IV, qui abrite la forêt humide, et la zone écologique I qui inclut les savanes sèches relativement intactes de l'extrême Nord du pays, sont les régions les plus importantes pour la diversité et la conservation des mammifères.

MOTS CLÉS
Mammifères,
Togo,
Afrique de l'Ouest,
liste faunistique,
écologie,
conservation,
Dahomey Gap.

INTRODUCTION

Although terrestrial mammals have long been the subject of biogeographical research in West Africa (Booth 1954, 1958; Moreau 1969), the recent description of a new antelope species typical of the so-called Dahomey Gap (Colyn *et al.* 2010) illustrates how much remains to be discovered in the region. There is an urgent need for more in-depth knowledge of the mammal species occurring in the various West African countries, because there is increasing evidence of the local extirpation of large mammals in West Africa (Mallon *et al.* 2015, Petrozzi *et al.* 2015) by adjacent human communities.

There has been a continued shortage of knowledge on vertebrates in the Dahomey Gap countries of West Africa (Benin and Togo) (Amori *et al.* 2011, 2012; Luiselli *et al.* 2012). Togo is an important country for biodiversity studies because, in large parts, it is located inside the Dahomey Gap and because its mammal fauna has been neglected since the late 19th century.

Studies on Togolese mammals were initiated by colonial collectors and German zoologists well before World War I (e.g., Matschie 1893a, b, 1899, 1900a, b). Later studies highlighted the occurrence of several primate species. After World War II important papers were published on bovids (Baudenon 1952, 1958). Chiroptera were the focus of several papers from surveys by Belgian researchers (e.g., De Vree *et al.* 1969, 1970, 1971). A decade later, the US Smithsonian Institution African Mammal Project (1961 to 1972), collected in Togo between 9-31.V.1968 and 27.VI-11.VII.1968 provided important new data on Togolese mammals (Robbins 1980; Robbins & Van der Straeten 1996; Schmidt *et al.* 2008). The 21st Century witnessed a considerable growth of field research, especially by Togolese scientists (Segniagbeto *et al.* 2007, 2014a, b, 2015a, b).

This paper provides an updated list of the mammal species occurring in Togo (excluding cetaceans), based on an extensive literature search and recent unpublished data recorded

between 2012-2015. We also analyze the data from a quantitative perspective in relation to: 1) the vegetation zone; and 2) the conservation status assessments.

STUDY AREA

Togo borders the Gulf of Guinea (Fig. 1), and stretches 660 km from 60 to 110 North (at 0°-2°E longitude). Overall, it has a total surface of 56 785 km². The landscape is mainly of low elevation, apart from the “chaîne de l'Atakora” in the North of the country and the hills bordering Ghana in the South-West of the country. From South to North, there is a succession of various ecosystems ranging from coastal grasslands to equatorial and wet tropical forests and ending in Sudanese savannahs in the North. Ern (1979) classified the vegetation of Togo into five ecological zones (EZ, Fig. 2):

- EZ I consists of Sudanese savannahs with dominant leguminous plants of the family Mimosoideae DC. (1825) (*Acacia* spp.) or Combretaceae R.Br., 1810 (*Terminalia* spp., *Combretum* spp.), dry forests dominated by *Anogeissus* spp., gallery forests, and grasslands;
- EZ II consists of hills covered with dense dry and open forests, bordered by Guinean savannah areas;
- EZ III is represented by Guinean savannah and characterized by a relatively rich flora dominated by Combretaceae and Andropogoneae;
- EZ IV is characterized by a wet tropical climate and originally was largely covered with true tropical wet forests or semi-deciduous forests. Currently, the remaining high tropical forests of Togo are entirely situated inside ecological zone IV and encompass the most important forest sites for taxonomic research in West Africa including the area of Adèle (formerly Bismarckburg, see Krell 1994);
- EZ V is restricted to the littoral area, and is characterized by a highly disturbed landscape of littoral bushes, marshy grasslands and mangroves.

METHODS

Most of the data presented comes from the literature. However, original field data were obtained during surveys on the vertebrate fauna of Togo (Segniagbeto *et al.* 2014, 2015a, b). These opportunistic data were collected during random surveys in appropriate habitats with the help of local guides and hunters. Surveys were carried out during day and night. In addition, skins and skulls found in local villages were analyzed, as were local fetish markets. In particular, the “marché aux fétiches” in Lomé, was carefully surveyed for mammal remains. Museum voucher specimens were also reviewed from the following institutions: BMNH (Natural History Museum, London); IFAN (Institut fondamental de l’Afrique noire, Dakar, Senegal); MRAC (Musée royal de l’Afrique centrale); USNM (NMNH, National Museum of Natural History, Washington D.C.); MNHN (Muséum national d’Histoire naturelle, Paris); ZMB (Zoological Museum Berlin).

Literature data were obtained using Wilson & Reeder (2005), IUCN (2014), *Mammals of Africa* (Kingdon *et al.* 2013), and the relevant specific peer-reviewed papers. Taxonomy follows Wilson & Reeder (2005) and IUCN (2014), with the exception of the *Artiodactyla* Owen, 1841, which follow Groves & Grubb (2011).

For species with unresolved taxonomy, we indicate their current status in the respective species account. For the species without vouchers or other clear evidence of presence in Togo, we considered them as present in the country when at least two out of the three main bibliographic data sources (i.e. Wilson & Reeder 2005, Kingdon *et al.* 2013; IUCN 2014) reported the species as present in Togo. However, these three sources of information might not be totally independent.

In the text, we use the following symbols to distinguish the various taxa: ►, species certainly found and already well known in Togo (historical records, vouchers and recent sightings available); *, newly reported species for Togo; °, species historically present in Togo but now extinct; •, with questionable occurrence in Togo; and °, species needing voucher confirmation but likely present in Togo.

GAZETTEER

We compiled a gazetteer of known collecting localities (Table 1; Fig. 1). For these, we included the literature references for the geographical coordinates.

DATA ANALYSES

In order to define the dissimilarities among species in terms of their EZ preferences (expressed in terms of presence/absence in each EZ), a dendrogram analysis was performed, with the Ward method as algorithm and the Euclidean distance as the similarity measure. In our case, clusters are joined in such a way that the increase in within-group variance is minimized, thus clarifying the observed patterns. Group selection was

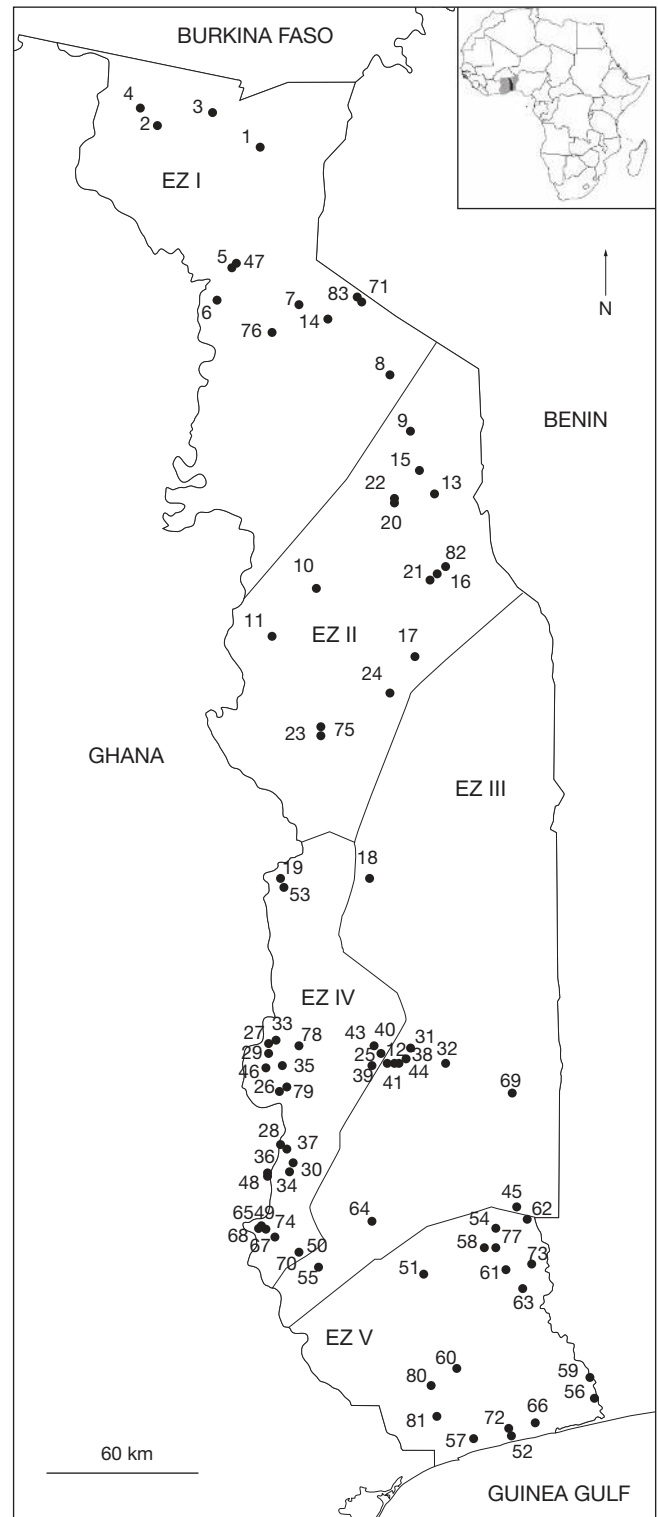


FIG. 1. — Map of Togo, showing the five ecological zones.

based on 40 bootstraps as branching measurements. The percentage of replicates where each node was still supported was given in the dendrogram. Dendrogram analysis was performed with PAST statistical software (Bow 1984, Hammer 2012).

TABLE 1. — Gazetteer of published Togo localities, in alphabetical order. Numbers for each locality presented in this table refer to Fig. 1.

N°	Locality	Coordinates	Coordinate References	N°	Locality	Coordinates	Coordinate References
1	Borgou	10°46'N, 00°35'E	Robbins & Van der Straeten 1996; Van der Straeten & Verheyen 1978	27	Ahoué-Houé	07°33'N, 00°36'E	Robbins & Van der Straeten 1996
2	Dapaong (or Dapango)	10°52'N, 00°13'E & 10°51'N, 00°12'E	Robbins 1980; Robbins & Van der Straeten 1996; Van der Straeten & Verheyen 1978	28	Alhon Bogou	07°14'N, 00°40'E	Campbell <i>et al.</i> 2008
3	Namoundjoga	10°54'N, 00°24'E	De Vree <i>et al.</i> 1970; Robbins & Van der Straeten 1996	29	Anonoe	07°33'N, 00°36'E	Van der Straeten & Verheyen 1978
4	Namergou	10°55'N, 00°09'E	Robbins & Van der Straeten 1996; Van der Straeten & Verheyen 1978	30	Apéyémé	07°12'N, 00°42'E	Robbins & Van der Straeten 1996
5	Mango	10°21'1.48"N, 00°28'21.42"E		31	Atakpamé	07°32'N, 01°08'E	Robbins & Van der Straeten 1996
6	Sadori	10°13'N, 00°25'E	Robbins 1980; Van der Straeten & Verheyen 1978	32	Atchou	07°31'N, 01°15'E	Robbins & Van der Straeten 1996
7	Paio	09°17'N, 01°14'E & 10°14'N, 00°41'E	Robbins 1980; Robbins & Van der Straeten 1996; Van der Straeten & Verheyen 1978	33	Badou	07°34'N, 00°36'E	Campbell <i>et al.</i> 2008
8	Kandé/Kanté	09°58'N, 01°03'E	Van der Straeten & Verheyen 1978	34	Danyi-Atigba (Forest)	07°10'11.77N, 00°41'33.66E	Segniagbeto <i>et al.</i> 2015b
9	Niamtougou	09°46'N, 01°06'E	Robbins & Van der Straeten 1996	35	Dedomé	07°30'N, 00°39'E	Van der Straeten & Verheyen 1978
10	Binaparba	09°14'N, 00°46'E	Robbins & Van der Straeten 1996; Van der Straeten & Verheyen 1978	36	Dzogbégan	07°13'N, 00°40'E & 07°14'N, 00°41'E	Campbell <i>et al.</i> 2008 & Robbins & Van der Straeten 1996
11	Boulohou	00°40'54,2" 08°45'20,4"	Segniagbeto <i>et al.</i> 2015b	37	Ebeva	07°13'N, 00°40'E	Van der Straeten & Verheyen 1978
12	Bounako	09°09'49,8"N, 00°53'37,7"E	Segniagbeto <i>et al.</i> 2015b	38	Evou	07°32'N, 01°05'E	Robbins & Van der Straeten 1996
13	Kara	9°32'56"N, 01°11'26"E	MNHN database (Paris)	39	Ezimé	07°29'N, 00°56'E	MNHN
14	Naboulgou	10°10'52,0"N, 00°48'04,0"E	Segniagbeto <i>et al.</i> 2015b	40	Inhounabe	07°34'N, 00°59'E	Van der Straeten & Verheyen 1978
15	Piya	09°33'N, 01°11'E	Van der Straeten & Verheyen 1978	41	Kodegbe	07°31'N, 01°03'E	Van der Straeten & Verheyen 1978
16	Pewa	09°17'N, 01°14'E	Robbins & Van der Straeten 1996	42	Odjolo (near Adina)	07°32'N, 01°02'E	Robbins & Van der Straeten 1996
17	Sokodé	08°59'N, 01°08'E	Wikipedia Coordinate	43	Ounabé (near Adina)	07°34'N, 00°59'E	Robbins & Van der Straeten 1996
18	Pagala	08°11'N, 00°58'E	Robbins 1980	44	Témedja	07°31'N, 01°03'E	Google Earth Coordinate
19	Adéle	08°10'58.80"N, 00°38'60.00"E	Matschie 1893b	45	Tététo	07°01'N, 01°30'E	Robbins & Van der Straeten 1996; Van der Straeten & Verheyen 1978
20	Djambé Forest Reserve (Kara region)	09°30'53.04N, 01°02'38.95E	Campbell <i>et al.</i> 2008	46	Tomégbé (near Ahoué-Houé)	07°31'N, 00°36'E	Robbins & Van der Straeten 1996
21	Aledjo	09°15'N, 01°12'E	Robbins & Van der Straeten 1996; Van der Straeten & Verheyen 1978	47	Sansanné-Mango	10°22'N, 00°28'E	Robbins & Van der Straeten 1996
22	Kadarra (Alédjo Kadarra)	09°14'55.68"N, 01°12'3.20"E		48	Yikpa-Gigbé	07°07'N, 00°36'E	Campbell <i>et al.</i> 2008
23	Fazao	08°42'N, 00°47'E	Robbins & Van der Straeten 1996	49	Agomé-Tomégbé	06°57'N, 00°35'E	Robbins & Van der Straeten 1996
24	Kalaré	08°52'19,2"N, 00°48'52,2"E	Segniagbeto <i>et al.</i> 2015b	50	Agou	06°51'N, 00°44'E	Robbins 1980
25	Adina	07°31'N, 01°01'E	Robbins & Van der Straeten 1996; Van der Straeten & Verheyen 1978	51	Amakpavé	06°46' N, 01°10' E	Campbell <i>et al.</i> 2008
26	Agbo-kopé	07°25'N, 00°39'E	Campbell <i>et al.</i> 2008	52	Amédéhoévé Forest	06°11'N, 01°23' E	Campbell <i>et al.</i> 2008
				53	Bismarckburg ("sur las colline aride d'Adodo dans l'Akposso-Adéle")	8°11'06"N, 0°39'57"E	Krell 1994
				54	Atchankeli	06°54'45,9"N, 01°27'13,8"E	Segniagbeto <i>et al.</i> 2015a, b
				55	Avétonou	06°48'N, 00°48'E	Robbins & Van der Straeten 1996
				56	Avévé	06°24'N, 01°45'E	Campbell <i>et al.</i> 2008
				57	Dégodji Forest	06°11'N, 01°20'E	Campbell <i>et al.</i> 2008
				58	Deve (Tovegoe)	06°51'35.2"N, 01°25'03.5"E	Segniagbeto <i>et al.</i> 2015a, b
				59	Fontan Forest	06°25'0.12"N, 01°46'5.53"E	Houngbédji <i>et al.</i> 2012
				60	Gbatope	06°26'N, 01°17'E	Robbins 1980
				61	Gboto-Zouvi	06°49'03,7"N, 01°28'08,9"E	Segniagbeto <i>et al.</i> 2015a, b

TABLE 1. — Continuation.

N°	Locality	Coordinates	Coordinate References
62	Gbowle	06°55'14,6"N, 01°33'18,3"E	Segniagbeto <i>et al.</i> 2015a
63	Godjinme	06°43'14,6"N, 01°31'08,8"E	Segniagbeto <i>et al.</i> 2015a, b
64	Haho-Baoué (ZMB: Haho, Baloe)	06°55'58.99"N, 00°58'55.34"	ZMB
65	Klouto	06°57'N, 00°34'E	Robbins & Van der Straeten 1996
66	Kouenou Forest	06°14'N, 01°34'E	Campbell <i>et al.</i> 2008
67	Misahohe (Misahöhe)	06°57'N, 00°35'E	Robbins & Van der Straeten 1996
68	Mont Klouto	06°57'N, 00°34'E	Campbell <i>et al.</i> 2008
69	Nangbéto	07°25'N, 01°26'E	Campbell <i>et al.</i> 2008
70	Palimé, Kpalimé	06°55'N, 00°44'E	Petter 1963
72	Togoville & Togoville Sacred Forest	06°13'N, 01°28'E	Campbell <i>et al.</i> 2008 Houngbédji <i>et al.</i> 2012
73	Tomety-Kondji	06°50'02,3"N, 01°32'41,8"E	Segniagbeto <i>et al.</i> 2015a, b
74	Yoh (Agome Yoh)	06°56'38.00"N, 00°35'50.10"E	MNHN (Paris) database
75	Fazao- Malfakassa NP	08°44'N, 00°48'E	Campbell <i>et al.</i> 2008
76	Oti-Kéran (Forest)	10°07'48"N 0°37'08"E	Wikipedia for Oti-Kéran National Park
77	Togodo Forest	06°51'N, 01°24'E	Campbell <i>et al.</i> 2008
78	Bénali	07°35'37.56"N, 00°41'54.56"E	
79	Kpété Béna	07°26'6.69"N, 00°40' 15.76"E	
80	Davié Forest	06°22'48.77"N, 01°12'3.20"E	
81	Togblé Kopé	06°15'46.96"N, 01°12'41.20"E	
82	Kumonde	09°18'19.05"N, 01°14'16.19"E	

RESULTS

The list of extant mammal species in Togo is given in Appendix 1.

CATALOGUE OF SPECIES

Order ARTIODACTYLA Owen, 1848
Family BOVIDAE Gray, 1821

Alcelaphus major (Blyth, 1869)▶

VOUCHERS. — 15 vouchers are currently stored in the ZMB. These vouchers originated from Bismarckburg, Misahohe, Akrosa, Sansanné-Mango, and Wusuta.

ORIGINAL DATA. — 11 individuals of this species have been recently observed in the National Park of Fazao Malfakassa (Atsri *et al.* 2013).

REMARKS

Elevated to full species rank from *Alcelaphus busephalus* (Pallas, 1766) by Groves & Grubb (2011). The type specimen came from Kpandu, Togo.

Widespread in protected areas, and recorded, for instance, in Fazao and Oti-Kéran (Baudenon 1958, Chardonnet *et al.* 1990). The presence of this species in the Oti-Kéran and Fazao Malfakassa National Parks was also confirmed by the national report on biodiversity monograph (PNAE-Togo 2002).

Apparently, the current conservation status of this species in Togo is very critical, with the National Park of Fazao Malfakassa being considered as the stronghold for this species in Togo.

Cephalophus callipygus Peters, 1876◀

REMARK

A voucher specimen, probably originating from Yendi (Ghana) and collected by Thierry in the early 1900s, is deposited at the ZMB. However, the distribution of this species does not fit with its presence in Togo (Kingdon 1997, Wilson & Reeder 2005, IUCN 2014).

Cephalophus dorsalis Gray, 1846▶

HISTORICAL LITERATURE. — Recorded for Togo by Matschie (1893b) and Baudenon (1958). It occurs in Fazao National Park, where it was reported to be rarer than *Philantomba walteri* Colyn, Hulselmans, Sonet, Oudé, de Winter, Natta, Nagy & Verheyen, 2010 (Chardonnet *et al.* 1990).

VOUCHERS. — A voucher, coming from Misahohe, is currently stored in the ZMB. Other specimens collected by Bauden are at IFAN.

ORIGINAL DATA. — Our investigations in the villages around the National park of Fazao Malfakassa (years 2012-2015) indicated that this species is still present in this park (Segniagbeto *et al.* 2015a).

Cephalophus niger Gray, 1846▶

HISTORICAL LITERATURE. — This species was cited to occur in Togo (Bismarckburg) by Matschie (1893b) and from Tové (Lomé?) (Baudenon, 1952). Found in the hilly forests bordering Ghana, from approximately Kpalimé and Blitta (Chardonnet *et al.* 1990).

Cephalophus rufilatus Gray, 1846▶
(Fig. 3A)

HISTORICAL LITERATURE. — Matschie (1893b) cited this species from Bismarckburg (Adéle). Baudenon (1952) considered this species to be present northerly till Malfakassa-Bafilo. It is also observed in Togodo North and Togodo South, Keran and Fazao National Parks, Oti Valley Reserve, and in the Fosse aux Lions Reserve (Chardonnet *et al.* 1990).

VOUCHERS. — 14 vouchers are currently stored in the ZMB. These vouchers originated from Fala, Katiegali, Sokodé, Brai, Misahohe, and Blita.

ORIGINAL DATA. — Recent survey undertaken in Togodo (North and South) National park indicated that *Cephalophus rufilatus* is very frequent in this protected area (Segniagbeto *et al.* (2015b). Twenty-two observations were recorded in the park during our surveys in 2012-2015. This species was also recorded from several localities around Togodo (i.e. Deve, Atchankeli, Gbowle, Gbotou-Zouvi and Tomety-Kondji). The species is heavily hunted locally for food and is sold as bushmeat item, mostly in Kouve, Asrama and Notse.

Cephalophus silvicultor (Afzelius, 1815)►

HISTORICAL LITERATURE. — Cited by Matschie (1893b) for Togo. It was reported to occur between Malfakassa and Kpalimé, with scattered populations in Fazao and Togo mountains (Baudenon 1952, 1958; Chardonnet *et al.* 1990).

VOUCHERS. — Five vouchers coming from Misahohe, Bismarckburg (Adéle) and Sokodé, are currently stored in the ZMB.

ORIGINAL DATA. — Recent investigations (2012-2015) in the village Deve (Tovegoe) confirmed the presence of this species in the Togodo National Park. One skin of this species was shown to us by a local hunter. The characteristics of the vegetation of Deve (Tovegoe) at Togodo National Park correspond to the habitat of this species according to Lumpkin & Kranz (1984).

Damaliscus korrigum (Ogilby, 1837)◦

HISTORICAL LITERATURE. — Baudenon (1952, 1958) described it as a seasonal (dry-season) immigrant from Burkina Faso, but Chardonnet *et al.* (1990) reported a record from Keran National Park, and argued that it may have become a permanent resident of this area. They estimated a population size of 20-25 individuals in Keran National Park (year 1988). This species is possibly extinct in Togo (IUCN 2014).

Eudorcas rufifrons (Gray, 1846)►

HISTORICAL LITERATURE. — Seasonally migrating from Burkina Faso during the dry season (Chardonnet *et al.* 1990). It occurs regularly in Keran National Park, but was occasionally observed in Oti Valley Reserve and possibly also in the Fosse aux Lions Reserve (Chardonnet *et al.* 1990).

Hippotragus equinus koba (Gray, 1872)►

HISTORICAL LITERATURE. — Matschie (1893b) cited this species for Bismarckburg (Adéle). This species is a widespread species in Oti-Keran, Fazao, and Togodo regions (Chardonnet *et al.* 1990). The presence of the roan antelope in Oti-Keran National park was recorded in the national monograph on biodiversity (PNAE 2002). Two individuals were recorded in Oti-Mandouri reserve by Bouché *et al.* (2004), and 11 individuals were recently recorded in the Fazao Malfakassa National Park (Atsri *et al.* 2013).

VOUCHERS. — Nine vouchers are deposited in the ZMB. These vouchers came from Misahohe, Bismarckburg (Adéle), Sokodé, Kunga, Katindi, and Yendi (Ghana).

ORIGINAL DATA. — Nowadays, the population of this species in the North of the country (in the complex of protected areas Oti-Keran and Oti-Mandouri) appears to be extinct. Since 2004, no further reliable record was obtained from these areas.

Kobus ellipsiprymnus (Ogilby, 1833)►

HISTORICAL LITERATURE. — Recorded, and considered as locally common in Oti-Keran, Fazao, and Togodo regions (Chardonnet *et al.* 1990). It may be present also in the Fosse aux Lions Reserve. This species is reported from Oti-Keran National Park by PNAE (2002) and Segniagbeto *et al.* (2014). Its presence in Fazao Malfakassa National Park is recorded by Atsri *et al.* (2013).

VOUCHERS. — Eight vouchers, coming from Misahohe, Kunga, Bassari, and Akrosa are stored in the ZMB.

ORIGINAL DATA. — Recent observations (year 2015) were made in Fazao Malfakassa National Park (Segniagbeto, unpublished data). In Togodo National Park, this species was also recently observed (Segniagbeto *et al.* 2015b).

Kobus kob (Erxleben, 1777)►
(Fig. 3B)

HISTORICAL LITERATURE. — This is one of the most common antelopes of Togo, first reported in the country from Bismarckburg by Matschie (1893b). This species is common in Oti-Keran, Fazao and Togodo regions (see also Chardonnet *et al.* 1990). Bouché *et al.* (2004) indicated the presence of this species in Oti-Keran and Oti-Mandouri protected areas. It may also be present in the Fosse aux Lions Reserve.

VOUCHERS. — Thirteen vouchers are stored in the ZMB. These vouchers came from Misahohe, Bismarckburg (Adéle), Nano Moba, Njamassiloe and Awate.

ORIGINAL DATA. — This species is very abundant in Togodo and Fazao-Malfakassa National Parks (Segniagbeto *et al.* 2015a, b). Recent observations were also made in Oti-Keran National Park (Segniagbeto *et al.* 2014), Fazao-Malfakassa National Park (Atsri *et al.* 2013), and Alibi I (coordinates 9°02'N, 1°25'E) and Abdoulaye forest reserves (Segniagbeto 2010). It is the most abundant antelope species in Djambé Forest Reserve (Kara region, central Togo; our unpublished observations). In general, the populations of this species in the two important protected areas (Togodo and Fazao Malfakassa) are very stable in terms of their conservation status.

Ourebia quadriscopa (C. H. Smith, 1827)►

HISTORICAL LITERATURE. — This species is among the most common antelopes in the Oti-Keran, Fazao, and Togodo regions (see also Chardonnet *et al.* 1990). It may be present also in the Fosse aux Lions Reserve (Chardonnet *et al.* 1990).

VOUCHERS. — Nine vouchers (classified as *O. ourebi*) are stored in the ZMB. These vouchers came from Sokodé, Agbande, and Bimbila.

REMARK

This taxon, once considered a subspecies of *Ourebia ourebi* (Zimmermann, 1783), was elevated to a full species rank by Groves & Grubb (2011).



FIG. 2. — Ecological zones (EZ) of Togo: **A**, EZ I; **B**, EZ II; **C**, EZ III; **D**, EZ IV; **E**, EZ V. For details of the main vegetation characteristics of each ecological zone, see text. Photograph: Luca Luiselli.

Philantomba maxwelli (C. H. Smith, 1827)•

REMARK

This species may also occur in southern Togo, at the border with Ghana (Colyn *et al.* 2010). Indeed, a voucher coming from Gbatope is deposited in the NMNH, Washington D. C., but was labelled before the formal description of *P. walteri* Colyn, Hulselman, Sonet, Ooudé, De Winter, Natta, Tamas Nagy & Verheyen, 2010. Thus, careful examination of this voucher is needed before drawing firm conclusions.

Philantomba walteri

Colyn, Hulselman, Sonet, Ooudé, De Winter, Natta, Tamas Nagy & Verheyen, 2010►
(Fig. 4A)

HISTORICAL LITERATURE. — Recently described as distinct taxon from *P. maxwellii* for the Dahomey Gap (Colyn *et al.* 2010), this species is widespread from Togo to Nigeria (Petrozzi *et al.* 2015). It was considered to be formerly widespread and abundant, especially South of the latitude of Kara (Chardonnet *et al.* 1990). It occurs in Faza National Park, where it was reported to be common by Chardonnet *et al.* (1990), and in the hilly forests of the EZ IV, for instance in the Togo mountains (Chardonnet *et al.* 1990).

VOUCHERS. — Seven vouchers (six identified as *Cephalophus monticola maxwelli*, and one as *Philantomba monticola* (Thunberg, 1789)) coming from Togo are stored in the ZMB. Five specimens had no precise localities, but one came from Bismarckburg (Adéle) and one from Kpandu, a Ghanaian locality once belonging to Togo during the colonial period.

ORIGINAL DATA. — *Philantomba walteri* was also recently observed (2013–2014) in the Togodo North and Togodo South National Park (Segniagbeto *et al.* original data). Direct observations were also made in the areas of Gboto-Zouvi (01°27'24.1"E, 06°50'10.2"N) and Tomety-Kondji (01°32'45.4"E, 06°50'21.6"N). The populations are more or less stable, and they are commonly traded across villages as bushmeat. This species is also common in Faza Malfakassa National Park, both in Guinea savannahs that in the forest fragments. This species is also heavily exploited and we recorded several individuals being hunted during our surveys in this park (2012–2015).

Redunca redunca (Pallas, 1767)►

HISTORICAL LITERATURE. — Formerly widespread in Togo, it is now confined to the northern savannahs. Recorded in Faza (Chardonnet *et al.* 1990).

VOUCHERS. — Two vouchers, coming from Bismarckburg (Adéle), are deposited in the ZMB.

Sylvicapra grimmia campbelliae (Gray, 1843)►
(Fig. 4B)

HISTORICAL LITERATURE. — Widespread and common in all protected areas of the savannah, including Oti-Keran and Faza (Chardonnet *et al.* 1990).

VOUCHERS. — Thirteen vouchers are stored in the ZMB. These vouchers originated from Misahohe, Agbende, Sokodé, Atakpamé, and Kpandu (now in Ghana). One voucher from Kpessidé is stored at IFAN.

ORIGINAL DATA. — This species is common in Togodo National Park and Faza Malfakassa National Park (Segniagbeto *et al.* 2015a, b). In these two protected areas, the populations of this species are stable in terms of their conservation status. It is often traded as bushmeat.

Syncerus brachyceros (Gray, 1837)►

HISTORICAL LITERATURE. — Matschie (1893b) cited this species to occur in Togo, but with no precise locality given.

VOUCHERS. — Vouchers, identified as *Syncerus caffer* (Sparrman, 1779), coming from Aguberg (Misahohe) and Sokodé are stored in ZMB.

ORIGINAL DATA. — This species was recently observed (years 2012–2015) in Oti-Keran, Togodo and Faza Malfakassa National Parks (Atsri *et al.* 2013; Segniagbeto *et al.* 2014, 2015a, b). In 2013, 30 individuals were observed in Faza Malfakassa protected area (Atsri *et al.* 2013). The populations of this species in Oti-Keran and Togodo National Park are highly threatened because of the lack of any management of these protected areas. This species is occasionally sold as a bushmeat.

REMARK

Groves & Grubb (2011) proposed species status for the African buffalo from West Africa, whereas other sources still used *Syncerus caffer* (e.g., Wilson & Reeder 2005; IUCN 2014).

Taurotragus derbianus (Gray, 1847)◦

HISTORICAL LITERATURE. — It was reported from Faza and Togo mountains (Baudenon 1952). It was considered extinct by Chardonnet *et al.* (1990). Grubb *et al.* (1998) considered the records from Togo and Ghana as incorrect.

Tragelaphus eurycerus (Ogilby, 1837)*
(Fig. 5)

HISTORICAL LITERATURE. — Baudenon (1952) cited it from the forests North of Kpalimé, Bismarckburg (Adéle) (see also Matschie 1893a, b), and South of Sokodé. Chardonnet *et al.* (1990) recorded it for Faza.

VOUCHERS. — There is a voucher specimen at ZMB from Bismarckburg (Adéle).

ORIGINAL DATA. — Although previously considered as extinct, a pair of individuals was observed in Togodo National Park, Deve (Tovegoe) area, in 2015 (Segniagbeto *et al.* 2015a). In addition, five skulls were recorded in Kouve village (southern Togo), and one of them is presented in Fig. 5. Fostin Abbey (a famous hunter operating around Togodo National Park) also reported its current presence in some areas of the park. Therefore, we assume that the Bongo is still extant in Togo, although its conservation status is Critically Endangered at the country scale. Urgent conservation actions (public awareness campaigns, local communities capacity building with promotion of livelihoods activities) are needed in view of the preservation of the individuals of this species in Togo.

REMARK

Togo and Benin represent the easterly limit of the nominal subspecies.



FIG. 3. — **A**, *Cephalophus rufilatus* Gray, 1846; **B**, *Kobus kob* (Erxleben, 1777) from Fazao-Malkafassa National Park. Photograph: Gabriel Hoinsoudé Segniabeto.

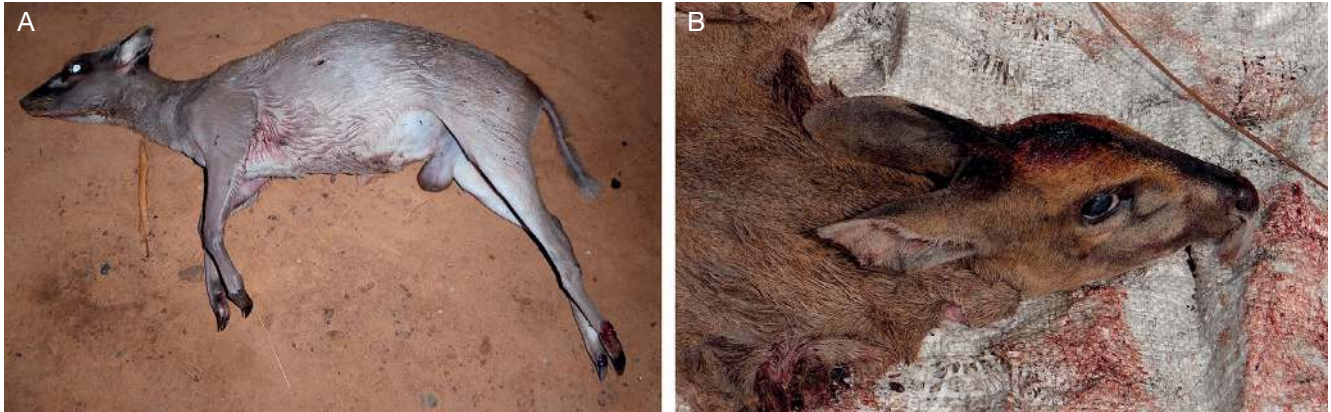


FIG. 4. — **A**, *Philantomba walteri* Colyn, Hulselman, Sonet, Ooudé, De Winter, Natta, Tamas Nagy & Verheyen, 2010 male; **B**, *Sylvicapra grimmia* (Gray, 1843) from Fazao-Malkafassa. Photograph: Gabriel Hoinsoudé Segniagbeto.

Tragelaphus phaleratus (C. H. Smith, 1827)►
(Fig. 6)

HISTORICAL LITERATURE. — This species was mentioned from Togo for the first time by Matschie (1893b), from Bismarckburg (Adéle). Very common in Keran and Fazao, and present also in Oti River valley and Togodo area (Chardonnet *et al.* 1990).

ORIGINAL DATA. — This species is still very common in Togodo and Fazao Malfakassa National Parks. Some individuals were encountered in Oti-Keran National Park, Assoukoko and Missahoe forest reserves (Atsri *et al.* 2013; Segniagbeto *et al.* 2014, 2015a, b). Skins of this species were found also at Kpalimé and Badou in 2012-2014.

REMARK

The “bushbuck” (*Tragelaphus scriptus* Pallas, 1766) includes a number of polyphyletic lineages (Moodley & Bruford 2007) and was divided into several species by Groves & Grubb (2011). *Tragelaphus phaleratus* is one of them.

Tragelaphus gratus P. L. Sclater, 1880*
(Fig. 5)

HISTORICAL LITERATURE. — The presence of “situngas” in Togo has always been a dispute. Baudenon (1952) reported that this species might be present along the Oti River, lower Kara, Mo River, Kaitcha, up to the middle Mono River, and that it was formerly present along the Lake Togo swamps. Chardonnet *et al.* (1990) were uncertain about the continued presence of this species in Togo, as they were not able to confirm any data record available.

ORIGINAL DATA. — During recent original fieldwork (years 2012-2015), the current presence of this species was confirmed from two areas of the country: Fazao Malkafassa and Togodo National Parks. The presence of this species was recently recorded also along the Mono River, nearby Afito ponds (Segniagbeto *et al.* 2015a), and in Kouve village (Togodo National Park). A skull of this species from the latter locality is presented in Fig. 5.

REMARK

The western Sitatunga was raised to species level by Groves & Grubb (2011), who considered this taxon to be distinct from *Tragelaphus spekei* (Speke, 1863). It should be noted that Sitatunga specimens West of Nigeria are practically non-existent in museum collections (Colin P. Groves pers. comm. to SG), a serious problem underpinning our knowledge of bovids taxonomy in many parts of Africa (Cotterill *et al.* 2014), so the present taxonomic arrangement must be considered provisional.

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Family HIPPOPOTAMIDAE Gray, 1821

Hippopotamus amphibius Linnaeus, 1758►

HISTORICAL LITERATURE. — Reported by Roure (1966) to occur in Togo.

VOUCHERS. — Eleven vouchers are deposited in the ZMB. These vouchers originated from Atakpamé, Akposso, Sokodé, and Kete-Kratschi (now in Ghana).

ORIGINAL DATA. — About 300-500 individuals are reported for Togo (Mallon *et al.* 2015), where it is still found only at Kéran NP and Togodo GR (Mallon *et al.* 2015). Three concentration areas of this species are known in Togo: hippopotamus ponds in Sansanné-Mango, Nangbeto dam and Afito ponds.

Family SUIDAE Gray, 1821

Hylochoerus meinertzhageni Thomas, 1904•

HISTORICAL LITERATURE. — This species was first cited to occur in Togo by Baudenon (1958), as found at “sud de Mt Togo”.

VOUCHERS. — Presence in Togo subsequently was not accepted, as no voucher was available from the country. This is a general problem linked to the poor state of taxonomic research in museums for most of 20th century, in particular regarding large mammals (Ansell 1958; Gippoliti & Groves 2013), so it is our opinion that this species is (or was) part of the Togolese mammal fauna.

REMARK

The Upper Guinean form (*H. m. ivoriensis* Bouet & Neuville, 1930) was raised to species level by Groves & Grubb (2011), and it is possible that Togolese populations belong to this taxon.



FIG. 5. — Two skulls from Fazao Malkafassa: *Tragelaphus eurycerus* (Ogilby, 1837) (below) and *Tragelaphus gratus* P. L. Sclater, 1880 (above). Photograph: Gabriel Hoinsoudé Segniagbeto.

Phacochoerus africanus (Gmelin, 1788)▶

HISTORICAL LITERATURE. — This species is widespread in Togo (IUCN 2014).

VOUCHERS. — Five vouchers, coming from Atakpamé, Kara, Sokodé, and Sansanné-Mango, are currently stored in the ZMB.

ORIGINAL DATA. — This species has been observed during original field surveys carried out between 2012 and 2015. Many groups of this species were encountered during the recent surveys in Oti-Keran, Fazao Malfakassa and Togodo National Parks (Atrsi *et al.* 2013; Segniagbeto *et al.* 2014, 2015a, b). This species is also very common in the two important protected areas in Togo (Fazao-Malfakassa and Togodo National Parks). Indeed, it is frequently encountered in bushmeat markets throughout the different villages and the Togodo National Park).

Potamochoerus porcus (Linnaeus, 1758)▶
(Fig. 7)

HISTORICAL LITERATURE. — First reported from Togo by Matschie (1893b), for the locality of Bismarckburg (Adéle).

VOUCHERS. — Seventeen vouchers are deposited in the ZMB. These vouchers originated from Bismarckburg (Adéle), Rockoenba, Atakpamé, Misahohe, and Sokodé.

ORIGINAL DATA. — This species is frequent in Fazao-Malfakassa and Togodo National Parks (Segniagbeto *et al.* 2015a, b). Many groups and footprints were recorded in these two protected areas during recent surveys.

Family TRAGULIDAE Milne-Edwards, 1864

Hyemoschus aquaticus (Ogilby, 1841)•

REMARK

This species was cited to occur in Togo by Matschie (1893b), but with no locality of capture. In addition, it was never



FIG. 6. — A skin of *Tragelaphus phaleratus* (C. H. Smith, 1827) from Badou. Photograph: Luca Luiselli.

observed in the country after that record. Wilson & Reeder (2005) consider that this species may be present in Togo, but with no firm evidence. We did not observe this species in the wild in the years 2012-2015.

Order CARNIVORA Bowdich, 1821
Family CANIDAE Fisher, 1817

Canis adustus Sundevall, 1847▶

HISTORICAL LITERATURE. — First cited to occur in Togo by Matschie (1893b).

ORIGINAL DATA. — It has been observed during original field surveys carried out between 2012 and 2015.

VOUCHER. — A Togolese voucher, without precise locality, is stored in the ZMB.

REMARK

This species is widespread in Togo (IUCN 2014).



FIG. 7. — Skulls of *Potamochoerus porcus* (Linnaeus, 1758) from Fazaou-Malkafassa. Photograph: Gabriel Hoinsoudé Segniagbeto.



FIG. 8. — A lion (*Panthera leo* (Linnaeus, 1758)) skin at Lomé market (April 2013). These felids are probably extinct in Togo, although vagrant individuals are sometimes observed as they come from Benin. Photograph: Fabio Petrozzi.

Lycaon pictus (Temminck, 1820)^o

HISTORICAL LITERATURE AND VOUCHERS. — This species is possibly extinct in Togo, as it has not been recorded in the country for several decades. Historically it was found at Sokodé, as demonstrated by a voucher deposited at ZMB.

REMARK

Matschie described two distinct subspecies both from Togo in 1915: *L. manguensis* Matschie, 1915 from Tchanaga and *L. mischlichii* Matschie, 1915 from the northern part of the Kete Krachi District (Grubb *et al.* 1998), an indirect evidence of the former abundance of the species in Togo.

Family FELIDAE Fisher de Waldheim, 1817

Acinonyx jubatus (Schreber, 1775)►

ORIGINAL DATA. — Currently present in Oti-Kéran National Park.

Caracal aurata (Temminck, 1827)►

HISTORICAL LITERATURE. — This species was first reported to occur in Togo (at Bismarckburg) by Matschie (1893b).

VOUCHERS. — Three vouchers are deposited at ZMB, and were captured at Bismarckburg (Adéle) and Misahohe.

REMARK

Wozencraft (2005) placed this species in the genus *Profelis* Severtzov, 1858.

Caracal caracal (Schreber, 1776)►

VOUCHERS. — A voucher from Bassari is currently stored in the ZMB.

REMARK

Reported for the country by IUCN (2014), and indirectly by Wozencraft (2005).

Felis silvestris Schreber, 1777►

VOUCHERS. — Five vouchers, coming from Sokodé, are currently stored in the ZMB.

REMARK

The African wild cat has been generally included in *Felis silvestris* by most recent works (Wozencraft 2005). This arrangement is rather unsatisfactory and there is a need of a complete taxonomic revision of the species complex in Africa.

Leptailurus serval (Schreber, 1776)►

HISTORICAL LITERATURE. — Its presence in Togo was firstly reported by Matschie (1893a, b), who collected it from Bismarckburg (Adéle).

VOUCHERS. — Sixteen ZMB vouchers came from Bismarckburg (Adéle), Sokodé, and Aného (Petit Popo).

ORIGINAL DATA. — Skins of this species were observed in several villages of the ecological zone IV (Kpalimé and Badou areas), often at the transition zone between semideciduous forests and forest-derived savannahs (2012-2015).

REMARK. — In Togo, it occurs the subspecies *togoensis* (Matschie, 1893), that is still considered valid.

Panthera leo (Linnaeus, 1758)^o
(Fig. 8)

HISTORICAL LITERATURE. — The lion was recorded by Matschie (1893b) from Naparri, located not far from Bismarckburg (Adéle).

VOUCHERS. — Eight vouchers are deposited in the ZMB. These vouchers originated from Atakpamé, Tschandyo, and Mkalamo.



Fig. 9. — *Crossarchus obscurus* F. G. Cuvier, 1825 from South-western Togo. Photograph: Gabriel Hoinsoudé Segniagbeto.

ORIGINAL DATA. — A full skin was observed at the Lomé fetish market in 2014 (Fig. 8). Interviews conducted in villages around Fazao Malfakassa National Park and with park managers suggest that some lions might be still present in this park (Segniagbeto *et al.* 2015b). Although there is no direct evidence/sign that this information is true, there is urgent need to undertake field surveys to eventually explore whether the presence of this emblematic species may be confirmed in this park.

REMARK

According to Chardonnet (2002), some individuals can be transient in Togo. It certainly occurred in Togo till the 1980s (Chardonnet *et al.* 1990) but Henschel (2014) considered it now extinct.

Panthera pardus (Linnaeus, 1758) ▶

HISTORICAL LITERATURE. — This species was first recorded in Togo by Matschie (1893b) for Bismarckburg (Adéle) and Naparri. It was also recorded in Oti-Keran and Fazao Malfakassa National Parks (Chardonnet *et al.* 1990).

VOUCHERS. — Six vouchers are deposited in the ZMB. These vouchers originated from unprecise localities in southern Togo and at Bowolem.

ORIGINAL DATA. — Leopards were recorded in 2013 in Djambé Faunal Reserve (A. Aidam *et al.* unpublished), and in 2014-2015 in Fazao Malfakassa National Park (Segniagbeto *et al.* 2015b).

Family HERPESTIDAE Bonaparte, 1845

Atilax paludinosus (G. Cuvier, 1829) ▶

HISTORICAL LITERATURE. — Reported for the country by IUCN (2014), and by Kingdon (1997).

VOUCHERS. — Six vouchers are deposited in the ZMB. These vouchers originated from Bismarckburg (Adéle) and Sokodé.

Crossarchus obscurus F. G. Cuvier, 1825 ▶ (Fig. 9)

HISTORICAL RECORDS. — Old records from the border area between Ghana and Togo (Grubb *et al.* 1998). It was also cited from Loecher (Ghana) by Matschie (1893b).

VOUCHERS. — Two vouchers, from Haho-Baoué, are deposited in the ZMB.

ORIGINAL DATA. — Recently observed at Kpalimé (year 2012–2015) (Fig. 9).

Herpestes ichneumon (Linnaeus, 1758)►

HISTORICAL LITERATURE. — Reported for the country by IUCN (2014), and indirectly by Wozencraft (2005).

VOUCHERS. — Sixteen vouchers, deposited in the ZMB, came from Misahohe, Haho-Baoué, Moba, Bismarckburg (Adéle), Sokodé, and Bassau.

Galerella sanguinea (Rüppell, 1835)►

HISTORICAL LITERATURE. — This species was first listed for Togo as *Herpestes melanurus* Martin, 1836 by Matschie (1893b).

VOUCHERS. — A voucher specimen, captured at Dapaong, is currently stored in the NMNH.

Ichneumia albicauda (G. [Baron] Cuvier, 1829)►

HISTORICAL LITERATURE. — First listed from Togo as *Herpestes loempo* Temminck, 1853 by Matschie (1893b). This species was also reported for the country by IUCN (2014), and by Kingdon (1997).

VOUCHERS. — Eleven vouchers are deposited in the ZMB. These vouchers originated from Haho-Baoué, Sokodé, Lomé, and the “Volta hills”.

Mungos gambianus (Ogilby, 1835)►

VOUCHERS. — Four vouchers from Haho-Baloue and Sokodé are deposited in the ZMB.

Mungos mungo (Gmelin, 1788)►

VOUCHERS. — Two vouchers, originating from Sokodé (one specimen) and from another unknown Togo locality, are currently stored in the ZMB.

Family HYAENIDAE Gray, 1821

Crocuta crocuta (Erxleben, 1777)►

HISTORICAL LITERATURE. — This species was first listed to occur in Togo by Matschie (1893b). Recorded in Fazaou in 1986 (Chardonnet *et al.* 1990).

VOUCHERS. — Ten vouchers, originating from Bismarckburg (Adéle), Sansanné-Mango, and Kete Krachi (now in Ghana) are stored in the ZMB.

REMARK

Sansanné-Mango is the type locality of *Hyaena thierry* Matschie, 1900c.

Family MUSTELIDAE Fisher, 1817

Aonyx capensis (Schinz, 1821)►

HISTORICAL LITERATURE. — First cited to occur in the country by Matschie (1893b). Reported for the country by IUCN (2014), and indirectly by Wozencraft (2005) as *Lutra inunguis* (F. G. Cuvier, 1823).

Hydriectis maculicollis (Lichtenstein, 1835)►

HISTORICAL LITERATURE. — First cited to occur in the country by Matschie (1893b). This species is considered to be possibly extinct in Togo by Reed-Smith *et al.* (2015) as *Lutra maculicollis* (Lichtenstein 1835).

Ictonyx striatus (Perry, 1810)°

REMARK

The occurrence of this species in Togo should be confirmed by vouchers. Reported for the country by IUCN (2014), and indirectly by Wozencraft (2005).

Mellivora capensis (Schreber, 1776)►

HISTORICAL LITERATURE AND VOUCHERS. — Reported for the country by IUCN (2014), and indirectly by Wozencraft (2005).

VOUCHERS. — A Togolese voucher, collected in 1899 but without precise locality of capture, is presently stored in the ZMB.

Family NANDINIIDAE Pocock, 1929

Nandinia binotata (Gray, 1830)►

VOUCHERS. — Specimens from Pagala and Ezimé are currently stored at NMNH and from Haho-Baloue at ZMB.

Family VIVERRIDAE Gray, 1821

Civettictis civetta (Schreber, 1776)►
(Fig. 10)

HISTORICAL LITERATURE. — Matschie (1893b) found this species at Bismarckburg (Adéle).

VOUCHERS. — Thirteen vouchers are known from Bismarckburg, Dapaong and Misahohe (ZMB).

ORIGINAL DATA. — Several individuals were observed during recent surveys around Kpalimé (2012–2015) by the authors (Fig. 10).

Genetta genetta (Linnaeus, 1758)°

REMARK

Reported for the country by IUCN (2014), and indirectly by Wozencraft (2005).



FIG. 10. — *Civettictis civetta* (Schreber, 1776) from Kpalimé, South-western Togo. Photograph: Luca Luiselli.



FIG. 11. — Two captive individuals of *Genetta maculata* (Linnaeus, 1758) captured at Badou, in the ecological zone IV. Photograph: Fabio Petrozzi.

Genetta maculata (Gray, 1830)▶
(Fig. 11)

HISTORICAL LITERATURE. — This species was first recorded in Togo by Matschie (1893b)(Bismarckburg).

VOUCHERS. — Eleven vouchers from Misahohe, Bismarckburg (Adéle), Sokodé, and Haho-Baoué are stored in the ZMB. Captive specimens, coming from Badou, were observed in 2014 (Fig. 11).

Genetta thierryi Matschie, 1902▶

HISTORICAL LITERATURE. — The type locality for this species is Borgou, Togo.

VOUCHERS. — Some specimens, captured at Pagala, are currently stored in the NMNH. Nine vouchers are deposited in the ZMB, with one individual coming from Haho-Baoué and the other specimens with no precise locality given.

Order CHIROPTERA Blumenbach, 1779

REMARK

Several species belonging to this order, especially the fruit bats (Pteropodidae Gray, 1821), are often traded for traditional medicine in fetish markets across Togo (Fig. 12) and also as food in bushmeat markets.

Family EMBALLONURIDAE Gervais, 1855

Coleura afra (Peters, 1852)°

REMARK

Although there are apparently no vouchers from Togo, this species is recorded as present in the country according to the *African Chiroptera Report* (ACR 2015).

Saccolaimus peli (Temminck, 1853)°

REMARK

This species is not considered to be present in Togo by IUCN (2014). However, the type locality is Rio Boutry (Simmons 2005), that is currently located in Ghana (River Boutry [Butre] is in South-Western Ghana near Sekondi), this species was included in the list of Togolese species by Matschie (1893b).

Taphozous mauritanus E. Geoffroy, 1818▶

HISTORICAL LITERATURE AND VOUCHERS. — One specimen was collected by the African Mammal Project at Agou (Robbins, 1980; USNM 437599) and several specimens from Pogan (De Vree *et al.* 1970) and Misahohe (De Vree & Van der Straeten 1971). There is also one specimen labelled “Togo” at the ZMB.

Taphozous nudiventris Cretzschmar, 1830▶

HISTORICAL LITERATURE AND VOUCHERS. — Eight specimens (currently stored at NMNH) were collected by the African Mammal Project at Pewa (Robbins 1980).

Taphozous perforatus E. Geoffroy, 1818°

REMARK

No vouchers available but species probably present in Togo (ACR 2015).

Family HIPPOSIDERIDAE Lydekker, 1891

Hipposideros abae J. A. Allen, 1917▶

HISTORICAL LITERATURE. — First reported to occur in the Dahomey Gap (Accra Plains, Ghana) by Decher *et al.* (1997).

VOUCHERS. — There is a Togo specimen from “Amoy, Amoussokopé” listed in the MNHN database.

REMARK

This species is probably found all along the coast into the southernmost part of Togo (Decher *et al.* 1997, Happold 2013a).

Hipposideros beatus K. Andersen, 1906►

HISTORICAL LITERATURE. — Certainly present in Togo as reported by Van Cakenberghe & Seamark (2015).

Hipposideros caffer (Sundevall, 1846)►

HISTORICAL LITERATURE. — Recorded from Fazao, Namoundjoga and Tététo (De Vree *et al.* 1970).

VOUCHERS. — Ten specimens, labeled as *H. caffer* and collected by the African Mammal Project at Agou, are listed in the NMNH database.

REMARK

Based on mitochondrial DNA evidence Vallo *et al.* (2008) suggested restricting the name *H. caffer* to arid East and South African forms with new cryptic species currently included under *H. caffer* or *H. ruber* (Noack, 1893) in West Africa.

Hipposideros cyclops (Temminck, 1853)►

HISTORICAL LITERATURE. — Matschie (1893b) recorded this species as *Phyllorhina cyclops* Temminck, 1853 from Bismarckburg (Adéle). It was also recorded from Odjolo (De Vree *et al.* 1969) and Ezimé (Robbins 1980).

VOUCHERS. — A voucher from Ezimé is available (USNM 437731).

Hipposideros fuliginosus (Temminck, 1853)•

REMARK

This species was recorded from Bismarckburg (Adéle) by Matschie (1893b). More investigations are needed to confirm the presence of this species in the country, as neither Wilson & Reeder (2005) nor IUCN (2014) include it in the native species of Togo. This species is known from the forest zone of West Africa (eastwards to central Ghana) and central Africa (westward to southeastern Nigeria), so it may well occur also in the ecological zone IV of Togo. Interestingly, Bismarckburg is exactly in the above-mentioned zone.

Hipposideros gigas (Wagner, 1845)►

VOUCHERS. — Several specimens, captured at Adjido, Agou and Ezimé, are currently stored at NMNH and MRAC (De Vree *et al.* 1969; Robbins 1980). A specimen from Kpalimé is listed as *H. commersoni* (E. Geoffroy, 1813) in the MNHN database.

REMARK

Formerly a subspecies of *Hipposideros commersoni*, a name which is now restricted to Madagascar (Happold 2013b). It should be mentioned that some West African specimens, previously identified as *gigas*, may represent *Hipposideros vittatus* (Peters, 1852), the latter species perhaps having a much broader distribution than presently known (Fahr & Kalko 2011).

Hipposideros ruber (Noack, 1893)►

HISTORICAL LITERATURE. — Found at Agou (Robbins 1980), and Aledjo, Fazao and Naoundjonga (De Vree *et al.* 1970).

VOUCHERS. — Two specimens from Kpalimé are currently in the MNHN.

REMARK

See note regarding the *caffer-ruber* complex under *H. caffer*.

Family MEGADERMATIDAE H. Allen, 1864

Lavia frons (E. Geoffroy, 1810)►

HISTORICAL LITERATURE AND VOUCHERS. — Robbins *et al.* (1980) collected 75 specimens from Padori. Several localities reported by (De Vree *et al.* 1969, 1970; De Vree & Van der Straeten 1971). There are also four specimens from Anecho and Sansanné-Mango at the ZMB in Berlin.

Family MOLOSSIDAE Gervais, 1856

Chaerephon major (Trouessart, 1897)►

HISTORICAL LITERATURE AND VOUCHERS. — 119 specimens from Atakpamé, and Sansanné-Mango are listed by De Vree *et al.* (1969) under the name *Tadarida (Chaerephon) major*. 52 specimens from Pewa listed in the NMNH database and also mentioned by Robbins (1980).

Chaerephon nigeriae Thomas, 1913°

HISTORICAL LITERATURE, VOUCHERS AND REMARK. — Six specimens were recorded by the African Mammal Project from Ezimé (Robbins 1980), but Togo is not cited in the African Chiroptera Report (ACR 2015). It appears that the six specimens have now been re-identified as *Mops thersites* (Thomas, 1903) in the NMNH database.

Chaerephon pumilus (Cretzschmar, 1826)►

HISTORICAL LITERATURE AND VOUCHERS. — Seventy-four specimens, captured by the African Mammal Project at Ezimé, Gbatope, Pagala, Dapaong and Batope, are listed in the NMNH database and also mentioned by Robbins (1980) as *Tadarida (Chaerephon) pumila*. De Vree *et al.* (1969) mention 72 specimens from Ahoué-houé, Aledjo, Atakpamé and Nanergou.

Mops brachypterus (Peters, 1852)•

REMARK

This species was listed by Matschie (1893b). Although we did not locate any voucher in the available collections, this species was considered to be probably present in the country by Van Cakenberghe & Seamark (2015).

Mops condylurus (A. Smith, 1833)▶

HISTORICAL LITERATURE AND VOUCHERS. — Sixty vouchers of this species from Gbatope, Padori and Pawa collected by the African Mammal Project are listed in the NMNH database and are also mentioned by Robbins (1980). De Vree *et al.* (1969) mention 54 specimens from Adina, Atakpamé, Evou and Ezimé as *Tadarida (Mops) condylura*.

Mops spurrelli (Dollman, 1911)▶

HISTORICAL LITERATURE AND VOUCHERS. — Four specimens were recorded by De Vree *et al.* (1969) from Adina under the name *Xiphonycteris spurrelli* Dollman, 1911.

Mops thersites (Thomas, 1903)▶

HISTORICAL LITERATURE AND VOUCHERS. — Six specimens, captured by the African Mammal Project at Ezimé, are currently listed in the NMNH database, apparently re-identified from *Tadarida (Chaerephon) nigeriae* Thomas, 1913 (Robbins 1980).

Family NYCTERIDAE Van Der Hoeven, 1855

Nycteris arge Thomas, 1903°

REMARK

Incorrectly reported from Akeniem, Togo, by Van Cakenberghe & De Vree (1985: 67). This locality is now found in Ghana (Grubb *et al.* 1998). The nearest most recent extralimital capture was from Apesokubi in the Volta Region of Ghana (Decher & Abedi-Lartey 2002). The occurrence of this species in Togo needs to be confirmed by vouchers. Recorded for the country by IUCN (2014), and indirectly by Simmons (2005).

Nycteris gambiensis (K. Andersen, 1912)▶

HISTORICAL LITERATURE AND VOUCHERS. — Six records collected by the African Mammal Project are listed in the NMNH database, five of those specimens were also mentioned by Robbins (1980). Van Cakenberghe & De Vree (1998) also list one specimen from Baoule and four specimens from Namoundjoga.

Nycteris grandis Peters, 1865▶

HISTORICAL LITERATURE AND VOUCHERS. — Six voucher specimens were collected by the African Mammal Project from Agou, Pawa and



FIG. 12. — Fruit bats are often traded for traditional medicine in fetish markets across Togo. Photograph: Luca Luiselli.

Ezimé (Robbins 1980; NMNH database). Van Cakenberghe & De Vree (1993) also listed a specimen from Aledjo at KMMA.

Nycteris hispida (Schreber, 1775)▶

HISTORICAL LITERATURE AND VOUCHERS. — Voucher specimens were collected from Bismarckburg (Adéle) (ZMB) (where it was recorded also by Matschie 1893b), Aného (Petit Popo) (ZMB), Agou, Dapaong (Robbins, 1980) and several other localities (De Vree *et al.* 1969). Three voucher specimens were collected by the African Mammal Project at Agou and Dapaong (Robbins 1980; NMNH database). Van Cakenberghe & De Vree (1993) also listed specimens from Anonoe, Atakpamé, Borgou, Namoundjoga, Nanergou, Paio and Togoville in the KMMA.

Nycteris macrotis Dobson, 1876▶

HISTORICAL LITERATURE AND VOUCHERS. — Twelve voucher specimens were collected by the African Mammal Project at Padori and Pawa (Robbins 1980; NMNH database) and sixteen specimens from Dapaong, Namoundjouga, Niamtougou, Paio, Pawa (De Vree *et al.* 1969, 1970; Van Cakenberghe & De Vree 1985), and Sansanné-Mango.

Nycteris nana (K. Andersen, 1912)•

REMARK

Recorded from several localities in Ghana including the Volta Region along the border with Togo (Grubb *et al.* 1998, Van Cakenberghe & De Vree 1985) but apparently not yet from the Dahomey Gap.

Nycteris parisii de Beaux, 1924°

VOUCHERS. — A voucher of this species originating from Bismarckburg (Adéle) is presently stored in the ZMB.

REMARK

IUCN (2014) does not consider it, and Simmons (2005) does not account Togo as a presence country. Indeed, this species is recorded from Cameroon, Ethiopia and Somalia (Simmons 2005). Therefore, the correct identification of the ZMB voucher should be carefully investigated.

Nycteris thebaica E. Geoffroy, 1818►

HISTORICAL LITERATURE. — The species was recorded in Togo by Van Cakenberghe & Seamark (2015). This species is also known from northern Ghana (Damongo), from several localities in Burkina Faso and in northern Benin (Guéné) (ACR 2015; Van Cakenberghe & De Vree 1998).

VOUCHERS. — Two vouchers originated from Sansanné-Mango (ZMB).

Family PTEROPODIDAE Gray, 1821

Eidolon helvum (Kerr, 1792)►
(Fig. 13)

HISTORICAL LITERATURE AND VOUCHERS. — Large roosts occur in the middle of Lomé (Mallon *et al.* 2015). Other records include Diapango and Ezimé (Robbins 1980), Kadjamba (ZMB) and several other localities (De Vree *et al.* 1969, 1970; De Vree & Van der Straeten 1971; Bergmans 1990).

ORIGINAL DATA. — Currently, a monitoring program is being conducted on two big colonies of this species in Togo (Lomé and Kpalimé). Original data showed that the population size of these colonies can vary between 500 to 2 000 000 individuals during the different periods of the year (Segniagbeto, unpublished data) (Fig. 13).

Epomophorus gambianus (Ogilby, 1835)►
(Fig. 14)

VOUCHERS. — Records for vouchers include Gbatope and Pagala (Robbins 1980), Oti, Kadjamba (Sansanné-Mango), Kunjuruma, Lomé (ZMB).

REMARK

This species is common in southern Togo, and about 38 additional localities in Togo are cited by De Vree *et al.* (1969, 1970), De Vree & Van der Straeten (1971) and Bergmans (1988).

Epomops franqueti (Tomes, 1860)►

VOUCHERS. — Three voucher specimens were captured by the African Mammal Project from Ezimé (Robbins, 1980). Other vouchers are from Kadjamba (Sansanné-Mango), Aného (Petit Popo) (NMNH) and Misahohe (ZMB).

REMARK

At least 21 other localities are known from Togo (Bergmans 1989; De Vree *et al.* 1969, 1970; De Vree & Van der

Straeten 1971). Several localities were also recorded by De Vree *et al.* (1969, 1970) and De Vree & Van der Straeten (1971).

Hypsignathus monstrosus H. Allen, 1861►

HISTORICAL LITERATURE AND VOUCHERS. — This species was first recorded for Togo by Matschie (1893a, b), and later recorded by the African Mammal Project from Ezimé (Robbins, 1980; NMNH). Historical records are from Kpalimé and Misahohe (Bergmans 1989, ZMB).

Lissonycteris angolensis (Bocage, 1898)►

VOUCHERS. — Vouchers collected at Adjido, Ahoué-houé, Akenim, Aledjo, Atakpamé, Bismarckburg, Odjolo, Papase, Pewa (De Vree *et al.* 1969, 1970; Robbins 1980; Bergmans 1997).

REMARK

Based on recent molecular evidence Nesi *et al.* (2013) provided evidence that *Lissonycteris* K. Andersen, 1912 should be synonymized with *Myonycteris* Matschie, 1899.

Megaloglossus azagnyi Nesi, Kadjo & Hassanin, 2013►

VOUCHERS. — Vouchers are available from Edifou, Fazao, Misahohe, and Odjolo (De Vree & Van der Straeten 1971; Bergmans 1997).

REMARK

In a recent paper, Nesi *et al.* (2013) found a high genetic divergence between the West and Central African clades of *Megaloglossus woermanni* Pagenstecher, 1885, and therefore proposed a distinct name for the Western species.

Micropteropus pusillus (Peters, 1868)►

HISTORICAL LITERATURE. — Matschie (1893b) cited it from Bismarckburg (now Adéle). It was subsequently recorded from at least 36 additional localities (De Vree & Van der Straeten 1971; Robbins 1980; Bergmans 1989).

VOUCHERS. — Vouchers of this species came from Aného (Petit Popo), Bismarckburg and Misahohe at ZMB.

Myonycteris leptodon Andersen, 1908►

HISTORICAL LITERATURE. — This species was cited, as *Cynonycteris torquata* Dobson, 1878, for Bismarckburg (Adéle) by Matschie (1893b).

VOUCHERS. — Vouchers from Bismarckburg (Adéle) (ZMB), Ahoué-houé, Ebeva, Edifou, Ezimé, Kotoukpa, and Odjolo (De Vree *et al.* 1969; De Vree & Van der Straeten 1971).

REMARK

Nesi *et al.* (2013) elevated *leptodon* to species status after a genetic study found a deep differentiation between *Myonycteris torquata* (Dobson, 1878) from Central and West Africa.



FIG. 13. — A colony of *Eidolon helvum* (Kerr, 1792) from southern Togo. Photograph: Gabriel Hoinsoudé Segniagbeto.



FIG. 14. — *Epomophorus gambianus* (Ogilby, 1835) from southern Togo. Photograph: Gabriel Hoinsoudé Segniagbeto.

Nanonycteris veldkampii (Jentink, 1888) ▶

HISTORICAL LITERATURE. — This species was recorded from Adina, Agadji, Adjido, Aledjo, Atakpamé, Dedomé, Ebeva, Edifou, Evou, Ezimé, Fazao Malkafassa, Kamina, Koutoukpa, Lomnava, Odjolo, Paio, Plateau Okposso, Tchonou, Témédja, Tététou, and Togoville (De Vree *et al.* 1969, 1970; Bergmans 1989; De Vree & Van der Straeten 1971).

VOUCHERS. — Historical Vouchers from Bismarckburg (Adéle) and Misahohe (ZMB).

Rousettus aegyptiacus unicolor (Gray, 1870) ▶

VOUCHERS. — Vouchers from Aledjo, Fazao and Misahohe (De Vree *et al.* 1969, 1970; Bergmans 1994).

REMARK

The West African taxon is relatively distinct from the conspecifics from the rest of the range.

Family RHINOLOPHIDAE Gray, 1825

Rhinolophus alcyone Temminck, 1853°

REMARK

This species was recorded from Rio Boutry (located now in Ghana nearby the political border with Togo) by Matschie (1893b). There are several records from the Volta Region of Ghana (Grubb 1971; Decher & Abedi-Lartey 2002) Its presence in Togo is also listed in the African Chiroptera Report (ACR 2015).

Rhinolophus eloquensis K. Andersen, 1905•

REMARK

A voucher of this species originating from Bismarckburg (Adéle) is presently stored in the ZMB. Both IUCN (2014) and Simmons (2005) do not account Togo as a presence country. Indeed, this species is recorded in East Africa (Simmons 2005). Therefore, the correct identification of the ZMB voucher should be carefully investigated.

Rhinolophus fumigatus Rüppell, 1842▶

VOUCHERS. — Sixty-eight specimens were collected by the African Mammal Project from Dapaong and Pawa (Robbins 1980; NMNH), four voucher specimens were collected at Aledjo (De Vree *et al.* 1969, 1970, 1996).

REMARK

The West African taxon, inhabiting Senegal and Sierra Leone, is *R. diversus* Sanborn, 1939 (Grubb *et al.* 1998), whereas in Togo the present taxon should be *R. foxi* Thomas, 1913.

Rhinolophus landeri Martin, 1838▶

HISTORICAL LITERATURE. — Recorded from Atakpamé and Namoundjoga (De Vree *et al.* 1969, 1970).

Family VESPERTILIONIDAE Gray, 1821

Glauconycteris poensis (Gray, 1842)▶

HISTORICAL LITERATURE. — Two specimens were collected at Gbatope by the African Mammal Project and listed as belonging to

the genus *Chalinolobus* Peters, 1877 in Robbins (1980). Also known from Adjido and Misahohe (De Vree *et al.* 1969, 1970; De Vree & Van der Straeten 1971).

Glauconycteris variegata (Tomes, 1861)►

HISTORICAL LITERATURE. — Recorded from Borgou (De Vree & Van der Straeten 1971).

Mimetillus moloneyi (Thomas, 1891)►

HISTORICAL LITERATURE. — This species was recorded from Bismarckburg (Adéle) (Matschie 1893b). More recently, it was also collected in Ghana close to the border to Togo near Kyabobo National Park (Grubb *et al.* 1998).

Myotis bocagii (Peters, 1970)►

HISTORICAL LITERATURE AND VOUCHERS. — Recorded from Borgou (De Vree & Van Straeten 1971). The West African taxon is *cupreolus* Thomas, 1904. Two specimens were collected in 2001 just across the border in the Volta Region of Ghana at Agumatsa Wildlife Sanctuary below Wli Waterfall (Decher & Abedi-Lartey 2002).

Neoromicia capensis (A. Smith, 1829)►

HISTORICAL LITERATURE AND VOUCHERS. — Reported from Atakpamé (ZMB), Aledjo and Niamtougou (De Vree *et al.* 1970).

Neoromicia guineensis (Bocage, 1889)°

REMARK

No voucher available, but likely present in Togo as it is known from Ghana and Benin (ACR 2015; Capo-Chichi *et al.* 2004).

Neoromicia nanus (Peters, 1852)►

HISTORICAL LITERATURE AND VOUCHERS. — Fifteen Vouchers were collected by the African Mammal Project from Ezimé and Pewa (Robbins 1980; NMNH). Other records are from Bismarckburg, Misahohe (ZMB), Borgou and Niamtougou (De Vree *et al.* 1970).

Neoromicia rendalli (Thomas, 1889)►

VOUCHERS. — Three specimens labeled *N. rendalli* at ZMB.

REMARK

This species is supposedly widespread in Togo, from extreme North to the coastal southern regions (IUCN 2014).

Neoromicia somalicus (Thomas, 1901)►

HISTORICAL LITERATURE. — Reported from Atakpamé, Namoundjoga and Témédja (De Vree *et al.* 1969, 1970).

VOUCHERS. — One specimen from an unknown locality in Togo is stored at ZMB.

Neoromicia tenuipinnis (Peters, 1872)►

HISTORICAL LITERATURE AND VOUCHERS. — Voucher from Bismarckburg (Adéle) at ZMB. Recorded from the same locality by Matschie (1893b).

Nycticeinops schlieffeni (Peters, 1859)►

HISTORICAL LITERATURE AND VOUCHERS. — There are two specimens from Pewa in the NMNH database. First recorded at Fazao and Paio (De Vree *et al.* 1969, 1970). Another voucher, coming from an unknown Togo locality, is stored in the ZMB.

Pipistrellus nanulus Thomas, 1904°

REMARK

Present in central Togo by IUCN (2014), but no by other sources. Twelve Togolese vouchers, identified as *Pipistrellus* sp., are actually stored in the ZMB. These vouchers originated from Bismarckburg, Sansanné-Mango, and Atakpamé. These vouchers should be properly classified in order to confirm the occurrence of *Pipistrellus nanulus* in Togo.

Scotophilus dinganii (A. Smith, 1833)►

HISTORICAL LITERATURE AND VOUCHERS. — One specimen was collected by the African Mammal Project from Ezimé (Robbins 1980; Robbins *et al.* 1985; NMNH) and Atakpamé (De Vree *et al.* 1969).

REMARK

Just across the border, this species was found in Ghana at Agumatsa Wildlife Sanctuary below Wli Waterfall (Decher & Abedi-Lartey 2002).

Scotophilus leucogaster (Cretzschmar, 1830)►

VOUCHERS. — Vouchers from Borgou, Namoudjoga, Namergou, Niamtougou (MRAC) (Robbins *et al.* 1985).

REMARK

The systematics of the *Scotophilus* Leach, 1821 group is not yet fully resolved, and it is possible that in Togo also the sister species *Scotophilus nigritellus* De Winton, 1899 may occur. *Scotophilus nigritellus* is genetically very close to *leucogaster* and is known to occur in eastern Ghana (Vallo *et al.* 2013).

Scotophilus nigrita (Schreber, 1774)►

HISTORICAL LITERATURE AND VOUCHERS. — Recorded from Borgou (De Vree & Van der Straeten 1971) and “Togo” (ZMB).



FIG. 15. — Some specimens of *Atelerix albiventris* (Wagner, 1841) from the Maritime Region, Western Togo. Photograph: Aurelie Aidam.



FIG. 16. — *Procavia capensis kerstingi* (Matschie, 1899) from Togodo National Park. Photograph: Gabriel Hoinsoudé Segniagbeto.

Scotophilus viridis (Peters, 1852)▶

VOUCHERS. — Nine specimens from “Togo” are stored at ZMB.

REMARK

Widespread in Togo according to IUCN (2014) and indirectly cited for the country by Simmons (2005).

Order ERINACEOMORPHA Gregory, 1910
Family ERINACEIDAE G. Fischer, 1814

Atelerix albiventris (Wagner, 1841)▶
(Fig. 15)

HISTORICAL LITERATURE AND VOUCHERS. — Matschie (1893b, 1899) reported this species as *Erinaceus albiventris* Wagner, 1841 from Aného, Klein Popo and Port Seguro and writes “The same hedgehog species also observed near Lomé on the Coast” (Matschie 1899: 7). Thirty-nine specimens, captured by the African Mammal Project at Dapaong, Padori and Pewa, are currently listed in the NMNH database.

REMARK

This species is traded for the traditional medicine across Togo.

Order HYRACOIDEA Huxley, 1869
Family PROCAVIIDAE Thomas, 1892

Dendrohyrax dorsalis (Fraser, 1854)▶

HISTORICAL LITERATURE. — It is the only member of the genus known from West Africa (Nowak, 1999). The first record of this genus in Togo were given by Dowsett-Lamaire & Dowsett (2011). They listed it from Bénali, Kpété Béna and Klouto.

Procavia capensis kerstingi (Matschie, 1899)▶
(Fig. 16)

HISTORICAL LITERATURE. — The species was first cited for Togo by Matschie (1899).

VOUCHERS. — Twenty-one vouchers, originating from Aledgo Kadarra, Kumonde, Sokodé, Tschyati, and Kantinde are currently stored in the ZMB. Two additional vouchers, captured at Pewa, are currently stored in the NMNH.

ORIGINAL DATA. — A recent photo was obtained in the Togodo National Park (Fig. 16).

Order LAGOMORPHA Brandt, 1855
Family LEPORIDAE Fischer, 1817

Lepus microtis Heuglin, 1865▶•
(Fig. 17)

HISTORICAL LITERATURE, VOUCHERS AND REMARKS. — The taxonomy of the genus *Lepus* Linnaeus, 1758 is still disputed, being probably one of the cases of most extreme over-lumping by the 20th century taxonomists. So, the current nomenclature (Hoffmann & Smith 2005) should be considered highly provisional. Elsewhere West African hares are referred to *Lepus victoriae* Thomas, 1893 (Happold 2013c) or *Lepus saxatilis* F. Cuvier, 1823 (Grubb *et al.* 1998). In Togo the taxon *L. zechi* Matschie, 1899 occurs. Several specimens, labelled as *Lepus capensis* Linnaeus, 1758 and captured at Pagala, Padori and Ezimé, are currently stored in the NMNH (Fig. 17).

Order PHOLIDOTA Webber, 1904
Family MANIDAE Gray, 1821

Manis gigantea Illiger, 1815°

HISTORICAL LITERATURE. — Recorded from Asante by Matschie (1893b).



FIG. 17. — *Lepus microtis* Heuglin, 1865. Photograph: Fabio Petrozzi.



FIG. 18. — *Cercopithecus erythrogaster* Gray, 1866 one of the rare primate species of Togo. Photograph: Gabriel Hoinsoudé Segniagbeto.

REMARKS

A voucher from Togo but without precise locality of capture, is stored in the ZMB. This species is not present in the country according to Wilson & Reeder (2005) and IUCN (2014). Apparently, the only indication that the Giant pangolin might occur in Togo are older records mapped by Grubb *et al.* (1998) in the Volta Region of Ghana, near Fazao-Malfakassa National Park in Togo. There are also records from Batia near Pendjari National Park in Benin (Sayer & Green 1984) so it might also still occur in northern Togo. The species belong to the subgenus *Smutsia* (Illiger, 1815).

Phataginus tricuspis Rafinesque, 1821►

HISTORICAL LITERATURE. — Cited by Matschie (1893b) for Togo.

VOUCHERS. — Four vouchers were collected at Misahohe and in unprecised localities in southern Togo (ZMB).

REMARK

Included in the genus *Phataginus* Rafinesque, 1821 following Wilson & Reeder (2005), and Gaudin *et al.* (2009).

Order PRIMATES Linnaeus, 1758
Family CERCOPITHECIDAE Gray, 1821

Cercopithecus erythrogaster erythrogaster Gray, 1866►
(Fig. 18)

HISTORICAL LITERATURE. — In Togo the nominal subspecies is only found in Réserve National de Togodo (310 km²) (Oates 1996; Houngbédji *et al.* 2012; Mallon *et al.* 2015).

ORIGINAL DATA. — This species was directly sighted by the authors in Togodo during 2013-2014 (Fig. 18).

Cercopithecus mona (Schreber, 1774)►
(Fig. 19)

HISTORICAL LITERATURE. — This species was first recorded in Togo by Matschie (1893b). Directly observed at Lagbé by Campbell *et al.* (2008), but the same authors also report several sites with interview data of presence.

VOUCHERS. — Two vouchers from Pagala and Agou are currently at NMNH, and from Bismarckburg, Anyanga, Misahohe, Dapaong, Agaonde, Kago (along Mono River) at ZMB.

ORIGINAL DATA. — Currently, this species is widespread in the forested natural reserves of Togo: in 2012-2015 it has been observed in Fazao-Malkafassa and Togodo National Parks, and also in Asseve and Fontan forests and the Togoville Sacred Forest (Fig. 19; Houngbédji *et al.* 2012).

Cercopithecus nictitans (Linnaeus, 1766)•

REMARK

Two vouchers are stored in the ZMB; one from a undefined Togo locality, and another from the Volta Region of Ghana across the border with Togo (Kratshi). However, this species should not be present in Togo according to Groves (2005), Oates (2011) and IUCN (2014).

Cercopithecus petaurista (Schreber, 1774)►

HISTORICAL LITERATURE. — Reported for Nangbéto Yikpa-Gigbé and Mont Klouto from interviews with hunters (Campbell *et al.* 2008).

VOUCHERS. — There are vouchers from Ezimé, Agou (NMNH), Klouto (IFAN), Misahohe, and Kuma Alala (ZMB).

REMARK

This species is mostly restricted to forests at the border with Ghana (Campbell *et al.* 2008).



FIG. 19. — *Cercopithecus mona* (Schreber, 1774) from Fazao-Malkafassa. Photograph: Gabriel Hoin-soudé Segniagbeto.



FIG. 20. — *Chlorocebus tantalus* (Ogilby, 1841). Photograph: Gabriel Hoin-soudé Segniagbeto.

Chlorocebus [*Cercopithecus*] *tantalus* (Ogilby, 1841) ▶
(Fig. 20)

HISTORICAL LITERATURE. — Campbell *et al.* (2008) reported several sites with interview data of presence. Houngbédji *et al.* (2012) reported the species (as *C. aethiops tantalus* [Ogilby, 1841]) from Asseve Forest, Fontan Forest, National Park of Togodo and Togoville sacred forest.

VOUCHERS. — Twenty-two ZMB vouchers originated from Basari, Kirikeri, Pasua, Bismarckburg (Adéle) and Kete Kratchi (Ghana).

ORIGINAL DATA. — This species was observed at Djambé Forest Reserve, in the Kara region, central Togo. Their habitat was thick bush in the savannah region. Captive individuals of this species were also seen in the villages surrounding Kara (Fig. 20).

Colobus vellerosus (I. Geoffroy, 1834) ▶

HISTORICAL LITERATURE. — Ranges from central Ivory Coast to the western edge of Nigeria, extending North in gallery forests into the savannah zone. This species was recorded from Ndebele-oli near Ketchenki, Dipongo (Dapaong) area by Matschie (1893b). Very rare in Togo (Campbell *et al.* 2008), where it has been observed in just two sites: Fazao-Malkafassa National Park (08°44'N, 00°48'E) and Yikpa-Gigbé (07°07'N, 00°36'E).

VOUCHERS. — A voucher from Ezimé is currently stored in the NMNH. Nineteen vouchers, labeled as *Colobus polykomos* (Zimmermann, 1780), are actually stored in the ZMB. These vouchers originated from Bismarckburg (Adéle), Misahohe, Bassari, Hwinba, and Kete Kratchi (Ghana).

ORIGINAL DATA. — Repeatedly observed by the authors at Fazao-Malkafassa National Park in 2013-2014.

Erythrocebus patas (Schreber, 1775) ▶
(Fig. 21)

HISTORICAL LITERATURE. — A pelt of this species was seen by Campbell *et al.* (2008) at Banon. The same authors also report several sites data of presence from interview.

VOUCHERS. — Vouchers originated from Sokodé (type locality of *kerstingi* (Matschie 1906), Bassari, Misahohe, Sokodé (ZMB), and Lomé (BMNH).

ORIGINAL DATA. — Widespread in the system of protected areas of Togo: in 2012-2015, it has been observed at Oti-Keran National Park, Fazao-Malkafassa National Park, Togodo, and at Assoukoko Akloa, Danyi-Atigba and Misahohe forests (Fig. 21).

Papio anubis (Lesson, 1827) ▶
(Fig. 22)

HISTORICAL LITERATURE. — First recorded from Togo (Bismarckburg, now Adéle) by Matschie (1893a, b), and named in the original sources as *Papio olivaceus* I. Geoffroy, 1851. Observed at Tiélé (Pendjari National Park in Benin Republic) and at Tchatéhoué by Campbell *et al.* (2008). Campbell *et al.* (2008) also report several sites with interview data of presence.

VOUCHERS. — Twenty-three vouchers, originating from Bismarckburg (Adéle), Misahohe, Odomi, Bassari, Jendi, and Kete Kratchi (Ghana), are stored in the ZMB.

ORIGINAL DATA. — The species is common in Fazao-Malkafassa and Oti-Keran National Parks (Fig. 22), and at Lama-Kara surroundings (unpublished data 2013). This is one of the most frequently traded primates in the fetish market business.

Procolobus verus (Van Beneden, 1838) ▶

HISTORICAL LITERATURE. — Matschie (1893b) reported it to be found in the coastal mangrove areas. Reported for Nangbéto (07°25'N; 01°26'E) from interviews with hunters (Campbell *et al.* 2008).

VOUCHERS. — Three ZMB vouchers originated from Misahohe.



FIG. 21. — *Erythrocebus patas* (Schreber, 1775) from Fazaou-Malkafassa. Photograph: Gabriel Hoinsoudé Segniagbeto.



FIG. 22. — *Papio anubis* (Lesson, 1827), from Fakao Malkafassa National Park. Photograph: Gabriel Hoinsoudé Segniagbeto.

Family GALAGIDAE Gray, 1825

Galago senegalensis E. Geoffroy, 1796►

VOUCHERS. — Two specimens, captured at Pagala, are currently stored in the NMNH.

Galagoides demidoffi (G. Fischer, 1806)►

VOUCHERS. — One voucher from Bismarckburg (Adéle), is stored at ZMB (Matschie 1893b), one from Kluto at IFAN and some specimens, captured at Ezimé and Agou, are at NMNH.

REMARK

All the above-mentioned specimens were identified as *Galagoides demidoffi*. In addition, this species was the only *Galagoides* species identified in Togo by Masters & Couette (2015) on the basis of morphometric analysis of craniodental characters. Nonetheless, *G. demidoffi* would not occur in Togo and in the Dahomey Gap according to Oates (2011), where it should be present instead of *Galagoides thomasi* (Elliot, 1907) (see below). In Togo, *G. demidoffi* occurs both in the moist forests of EZ IV and in the dry forests of the southern and central part of the country.

Galagoides thomasi (Elliot, 1907)•

REMARK

This species occurs in the country according to Oates (2011), Ambrose & Butynski (2013) and IUCN (2014), in sympatry with *G. demidoffi*.

Family HOMINIDAE Gray, 1825

Pan troglodytes (Blumenbach, 1775)◦

HISTORICAL LITERATURE. — *Pan troglodytes verus* Schwarz, 1934 was the subspecies found in Togo. This IUCN EN subspecies is extinct in Togo (Mallon *et al.* 2015), probably since about 1978 (Lee *et al.* 1988; Brownell 2003), but knowledge on the species was so scarce in West Africa that its occurrence was probably overlooked in several countries (Gippoliti, pers. obs.). For instance, in 1893, well before its actual date of extinction in Togo, Matschie (1893b) considered this species to be extinct in Togo (but it was at that time still found in Ashanti, Ghana). This fact clearly shows that the chimpanzee was already exceedingly rare in Togo for several decades before its extinction.

VOUCHERS. — A voucher skull originating from Atakpamé collected on 22.XII.1911, is deposited in the ZMB (ZMB_Mam_83682).

Family LORISIDAE Gray, 1821

Perodicticus potto juju (Thomas, 1910)►

HISTORICAL LITERATURE. — This species was reported to occur in the Asante area (South-central Ghana) by Matschie (1893b), and in southern Togo (Togblé Kopé and Forêt de Davié; unknown current toponyms for these two localities) by Baudenon (1949). The taxon *juju* Thomas, 1910 occurs East of the Volta River (Oates 2011).

VOUCHERS. — Two vouchers from Togo, but with no precise locality, are stored in the ZMB.

Order PROBOSCIDEA Illiger, 1811

Family ELEPHANTIDAE Gray, 1821

Loxodonta africana (Blumenbach, 1797)►

(Figs 23; 24)

HISTORICAL LITERATURE. — This species was first documented in Togo by Matschie (1893a, b).



FIG. 23. — Elephants from the borders between Burkina Faso and Togo. Photograph: Emmanuel Hema.



FIG. 24. — A forest elephant from Togo, exhibited at a Tunisian zoo. Photograph: Spartaco Gippoliti.



FIG. 25. — *Anomalurus beecrofti* Fraser, 1853 from southern Togo. Photograph: Gabriel Hoinsoudé Segniagbeto.

VOUCHERS. — Five ZMB vouchers originated from Taberna, Sokodé and Misahohe.

ORIGINAL DATA. — Four populations occur in Togo. The species occurs in Togo in 5.032 km², that is 3% of the West African range (Mallon *et al.* 2015). Elephant populations are certainly present in Fazao Malkafassa and Oti-Keran forests (Atsri *et al.* 2013, Segniagbeto *et al.* 2014b, 2015b). The annual migration of a group of elephants is usually observed between the West African complex of protected areas (W, Arly and Pendjari Park: WAP) and the complex of protected areas in Togo (Oti-Mandouri and Oti-Keran).

REMARKS

Although two species are in some instances accepted; *Loxodonta africana* and *Loxodonta cyclotis* (Matschie, 1900) (Grubb *et al.* 2000; Rocha *et al.* 2001), taxonomy of West African elephants is currently not yet resolved. Most Togolese elephants show intermediate morphological characteristics between savannah and forest elephants (Fig. 23), but true forest elephants are also said to occur in the country and some have been exported to zoos abroad (i.e. three elephants to a Tunisian zoo; Fig. 24).

A taxonomic reassessment of African elephants is urgently needed in West Africa, even for a sound conservation strategy.

Order RODENTIA Bowdich, 1821
Family ANOMALURIDAE Gervais, 1849

Anomalurus beecrofti Fraser, 1853▶
(Fig. 25)

HISTORICAL LITERATURE. — This species was first cited from Togo by Matschie (1893b).

VOUCHERS. — Nine records, collected by the African Mammal Project at Ezimé, are currently stored at NMNH; and other vouchers are from Apéyémé, Edifou, Misahohe, and Gugu (Robbins & Van der Straeten 1996; ZMB database). In November 1999 a specimen was collected at Agumatsa Wildlife Sanctuary (Wli Waterfall), Ghana, just across the border from Togo (Decher & Abedi-Larteh 2002).

REMARK

This species is known from forest and forest-mosaic habitats in southern Togo (Fig. 25).

Anomalurus derbianus (Gray, 1842)►

HISTORICAL LITERATURE. — This species was recorded in Togodo National Park and in Godjinme forest in southern Togo (Segniagbeto *et al.* 2015a). Although no museum voucher seems available from Togo, there is a single voucher from eastern Ghana (Schunke & Hutterer 2005). This species was first cited for Togo by Matschie (1893b).

Anomalurus pelii Schlegel & Müller, 1845•

REMARK

This species was cited from Asante (Ghana) by Matschie (1893b), but would be absent from Togo according to IUCN (2014).

Family BATHYERGIDAE Waterhouse, 1841

Fukomys [*Cryptomys*] *zechi* (Matschie, 1900)°

HISTORICAL LITERATURE. — Type locality was reported as “Kete Kratchi” in “Togo” (Matschie 1900b), but this is now in modern day Ghana. All currently known localities and natural history information are from Ghana between the Oti and the Middle Volta Rivers area, especially around Atebubu, Ghana (Rosevear 1969; Grubb *et al.* 1998; Yeboah & Akyeampong 2001; Yeboah & Dakwa 2002).

REMARK

The new name *Fukomys* is based on the work of Kock *et al.* (2006).

Family GLIRIDAE Muirhead, 1819

Graphiurus crassicaudatus (Jentink, 1888)►

VOUCHERS. — A single voucher specimen from Atakpamé at NMNH was mentioned by Grubb *et al.* (1998), however the NMNH online database mentioned only a single specimen from Ezimé.

Graphiurus kelleni (Reuvens, 1890)►

HISTORICAL LITERATURE AND VOUCHERS. — Eight specimens were captured by the African Mammal Project at Pawa, Pagala and Ezimé (NMNH). These were previously published by Robbins & Van der Straeten (1996) under the name *G. lorraineus* Dollman, 1910.

Graphiurus nagtglasii Jentink, 1888►

VOUCHERS. — Four specimens, captured at Agou, Ezimé, Pagala, and, are currently displayed by the NMNH, Robbins & Van der Straeten (1996) listed 13 specimens from Ahoué-Houé, Klouto and Misahohe under the old name *G. bueti* De Rochebrune, 1883. There are also five specimens from Kpalimé at the MNHN (Roche 1971; MNHN database).

Family HYSTRICIDAE G. Fischer, 1817

Atherurus africanus Gray, 1842►

ORIGINAL DATA. — Recorded from the ecological zone IV (Kpalimé, Badou, and the Adélé region). Frequently found in local bushmeat markets and in fetish markets of the southern portion of the country (original observations, years 2012–2015).

Hystrix cristata Linnaeus, 1758►
(Fig. 26)

HISTORICAL LITERATURE. — First reported to occur in Togo by Matschie (1893b). The same author also reported it from Basari (Matschie 1899).

VOUCHERS. — Six vouchers (five of them classified as *Hystrix africaeaustralis* (Peters, 1852) coming from Sansanné-Mango, Bismarckburg, Sokodé, and Aného (Petit Popo), are stored at ZMB.

ORIGINAL DATA. — Several specimens, as well as their spines (Fig. 26), are found in the Maritime region, into suburban Lomé.

Family MURIDAE Illiger, 1811

Acomys johannis Thomas, 1912►

VOUCHERS AND REMARK. — Formerly considered a subspecies of *Acomys cineraceus* Heuglin, 1877. Thirty-nine specimens from Dapaong are currently stored in the NMNH and there are six specimens from Namoundjoga at MRAC, all previously published by Robbins & Van der Straeten (1996) under the name *A. cabirinus johannis* Thomas, 1912. This is a species complex with at least two distinct karyotypes (Barome *et al.* 2000, Monadjem *et al.* 2015 for a review)

Arvicanthis niloticus (E. Geoffroy, 1803)►

HISTORICAL LITERATURE AND VOUCHERS. — Ninety-one specimens collected by the African Mammal Project at Dapaong, Ezimé, Padori, Pagala, and Pawa, are currently listed under *A. niloticus* in the NMNH database. Another voucher coming from Namoundjoga, is stored in the MRAC. Robbins & Van der Straeten (1996) listed 173 specimens from Togo, some of which probably included the following species, *A. rufinus* (Temminck, 1853).

Arvicanthis rufinus (Temminck, 1853)►*

VOUCHERS. — Vouchers of this species, collected from Agou, Aledjo, Togoville, and Apeyeme, are stored at MRAC.

Dasymys rufulus Miller, 1900►*

VOUCHERS. — Several specimens, captured at Dapaong, Ezimé, Padori, and Pawa are currently stored in the NMNH. Another voucher from Apéyémé is stored in the MRAC and two specimens from Kpalimé are stored under the old name *D. incomtus* (Sundevall, 1847) at MNHN.

Gerbilliscus guineae (Thomas, 1910)▶

HISTORICAL LITERATURE AND VOUCHERS. — Three vouchers from Namoundjoga are stored in the MRAC and were previously published as (Robbins & Van der Straeten 1996).

Gerbilliscus kempfi (Wroughton, 1906)▶

VOUCHERS. — Several vouchers from Atchou, Aledjo, Binaparpa, Fazao, Namoundjoga, Tetetou, Kolokpé, Padori, and Pagala and Togoville are stored in the MRAC, under the old name *Tatera kempfi* Wroughton, 1906. However, all Togo specimens in the NMNH database are currently just listed as *Gerbilliscus* sp.

Grammomys kuru (Thomas & Wroughton, 1907)▶

HISTORICAL LITERATURE AND VOUCHERS. — A voucher, originally identified as *Grammomys rutilans* (Peters, 1876) [synonym of *G. poensis* (Eisentraut, 1965), synonym of *G. kuru*], was collected at Agou, and is presently stored at NMNH. Several specimens, identified as *G. poensis* and also captured at Agou, are also currently stored in the NMNH. Musser & Carleton (2005) and Monadjem *et al.* (2015) limited *G. kuru* to Central Africa and instead resurrected *G. poensis* (including unspecified localities in central Togo) for West Africa, whereas Happold (2013b) used *G. kuru* for specimens from both sides of the Dahomey Gap. The MNHN listed one *G. buntingi* (Thomas, 1911) from Kpalimé, but *G. buntingi* is actually limited to the Upper Guinea Region West of the Dahomey Gap (Musser & Carleton 2005, Monadjem *et al.* 2015). Only a re-examination of the museum specimens can resolve this issue.

Hylomyscus alleni (Waterhouse, 1838)▶

VOUCHERS. — 65 specimens, captured at Agou are currently listed under this name in the NMNH collection and additional ones from Misahohé at MRAC. Seven specimens are listed in the MNHN database from Kpalimé, as well as Atigbe Yoh and Agomé Yoh, both near Kpalimé.

REMARKS

According to Monadjem *et al.* (2015) all West African *Hylomyscus* Thomas, 1926, West of the Niger river should be assigned either to *Hylomyscus simus* G. M. Allen & Coolidge, 1930 (Upper Guinea) or *H. pamfi* (Nicolas, Olayemi, Wendelen & Colyn, 2010) (Dahomey Gap); *H. alleni* should be limited to Central Africa.

The taxonomy of this species group has been neatly worked out by Nicolas *et al.* (2010b) and it appears clear that *H. alleni* is not present in West Africa. Furthermore, *H. simus* occurs West of the Dahomey Gap and based on molecular work has not been recorded from Togo. Therefore this species should probably be deleted from the list of confirmed Togolese species and presented under *H. pamfi*, which is currently the only known *Hylomyscus* from Togo (see below).

Hylomyscus pamfi

(Nicolas, Olayemi, Wendelen & Colyn, 2010)▶

HISTORICAL LITERATURE. — This is a new species described for the Dahomey Gap by Nicolas *et al.* (2010b), with several localities in Togo.



FIG. 26. — *Hystrix cristata* Linnaeus, 1758 spines at the Marchés aux Fétiches, Lomé. Photograph: Luca Luiselli.

VOUCHERS. — There are 21 specimens from Kpalimé listed in the MNHN database. This species was not yet included in MOA (Happold 2013a) but was included *in* Monadjem *et al.* 2015.

Leimacomys büttneri Matschie, 1893*
(Fig. 27)

HISTORICAL LITERATURE AND VOUCHERS. — Recorded from only two specimens, captured at Bismarckburg (“sur la colline aride d’Adodo dans l’Akposso-Adéle”, Krell 1994) in 1890 (Matschie 1893a) East of Yegué at about 710 m elevation (Dieterlen 1976, Denys 1993) and stored at ZMB (ZMB_Mam_6855 and 6856). This endemic species is possibly extinct, although conspicuous forest patches are still available as potential habitat remnants at the locality of capture (Fig. 27). However, several previous expeditions by Belgian, American, English, French, and German scientists, as well as by the authors of the present article (1999 to 2001 on the Ghanaian side of the border; 2012-2014 in Togo), did not yet find any additional specimens of this species. Rosevear (1969) believed the macrohabitat to be high-forest belt.

Lemniscomys striatus (Linnaeus, 1758)▶

HISTORICAL LITERATURE AND VOUCHERS. — Several specimens, captured at Agou, Pawa, Pagala and Ezimé, are currently stored in the NMNH. In addition, also RMCA houses many vouchers from Ahoué-Houé, Atakpamé, Badou, Dzogbégan, Kamina, Kotoukpa, Misahohé, and Tetetou (Robbins & Van der Straeten 1996).

Lemniscomys zebra (Heuglin, 1864)▶

HISTORICAL LITERATURE. — First reported from Togo (Bismarckburg) by Matschie (1893b).

VOUCHERS. — Specimens from Dapaong, Paio and Pawa (Robbins & Van der Straeten 1996; NMNH) and from Bismarckburg (Adéle) (ZMB).

Lophuromys sikapusi (Temminck, 1853)▶

HISTORICAL LITERATURE AND VOUCHERS. — Several vouchers from Agou, Ahoué-Houé, Dzogbégan, Ezimé, Misahohé, Apéyémé,

N'digbe, and Anonoe are currently stored at NMNH and MRAC (Robbins & Van der Straeten 1996).

Malacomys edwardsi Rochebrune, 1885[•]

REMARK

Recorded from the border between Ghana and Togo (Grubb *et al.* 1998). Specimens collected by one of us (JD) near Ape-sokubi in the Volta Region of Ghana were recently shown to be a separate lineage (F2) from southwestern Ghanaian *M. edwardsi* (Bohoussu *et al.* 2015). There is no reason to doubt that this lineage occurs also into the Togolese Ecological Zone IV.

Mastomys erythroleucus (Temminck, 1853)►

HISTORICAL LITERATURE. — First reported from Togo by Matschie (1893b) in Bismarckburg (East of Yégué). This species was also reported for the country by IUCN (2014), and indirectly by Wilson & Reeder (2005).

Mastomys natalensis (Smith, 1834)►

HISTORICAL LITERATURE AND VOUCHERS. — Many vouchers from Agou, Sansanné-Mango, Apéyéme, Dzogbegan, Misahohé, Badou, Aledjo, Nanergou, Namaoundjoga, Fazao, Kolokope, Teteou, and Togoville, are stored in the RMCA. There are two specimens from Kara in the MNHN database. Monadjem *et al.* (2015) also listed numerous localities in Togo.

Mus baoulei (Vermeiren & Verheyen, 1980)►

HISTORICAL LITERATURE. — This species was recorded from Ounabé (near Adina) in the savannah region by Robbins & Van der Straeten (1996).

VOUCHERS. — One voucher from Akposso is stored in the MRAC.

Mus haussa (Thomas & Hinton, 1920)►

HISTORICAL LITERATURE AND VOUCHERS. — A voucher from Namoundjoga in Northern Togo is deposited in the MRAC and also mentioned by Robbins & Van der Straeten (1996), Monadjem *et al.* (2015) likewise only show a single locality in northern Togo.

Mus minutoides Smith, 1834[•]

VOUCHERS. — Vouchers from Pewa, Pagala, Ezimé and Agou are deposited in the MRAC.

REMARK

Although the species is considered by Musser & Carleton (2005) and IUCN (2014) absent from West Africa, more

recent authors consider it widespread in the region, including Togo (Kouassi *et al.* 2008; Monadjem 2013; Monadjem *et al.* 2015). This species is sympatric with and morphologically indistinguishable from *M. musculoides* Temminck, 1853 but chromosomally and molecularly unambiguously defined (Bryja *et al.* 2014).

Mus musculoides Temminck, 1853►

HISTORICAL LITERATURE. — First reported to occur in Togo (Bismarckburg) by Matschie (1893b).

VOUCHERS. — Forty-four specimens from Agou, Ezimé, Dapaong, Pagala and Pewa, are listed in the NMNH database, from Bismarckburg at ZMB, and from Kara in the MNHN database. Several vouchers from Aledjo, Misahohe, Lama Kara, Pajo, and Nanergou are stored in the MRAC.

REMARK

This species cannot always be distinguished from similar-sized *Mus* Linnaeus, 1758 (*Nannomys*) such as *M. minutoides* with which it is sympatric but genetically distinct (Peters, 1876; Kouassi *et al.* 2008; Monadjem *et al.* 2015).

Mus setulosus Peters, 1876[•]

VOUCHERS. — There are Vouchers from Agou and Ezimé at the NMNH and from Kara in the MNHN database.

Praomys daltoni (Thomas, 1892)►

VOUCHERS AND REMARKS. — Six voucher specimens from Aledjo are deposited in the MRAC.

Recent maps in Bryja *et al.* (2010) and Monadjem *et al.* (2015) clearly show that this species occurs in Togo, although no specific localities are listed. Grubb *et al.* (1998) also present at least one locality in Togo and refer to this species as *Myomyscus daltoni*. It is noteworthy that *Praomys derooi* Van der Straeten & Verheyen, 1978 is a commensal form of *P. daltoni* (Bryja *et al.* 2010). This latter form was recorded from Borgou, Adina, Aledjo, Anonoe, Baoulé, Binarra, Dapaong (Dapaong), Dedome, Ebeva, Edifou, Euou, Ezimé, Fazao, Inhounabe, Kandé, Kodegebe, Namoundjoga, Nanergou, Padori, Paio, Piya and Tetetou (Van der Straeten & Verheyen 1978, NMNH & MRAC databases). ZMB vouchers, identified as *Myomys derooi* (misspelled for *M. derooi* Van der Straeten & Verheyen, 1978), originated from Misahöhe. Grubb *et al.* (1998) also show several localities in Togo and refer to this species as *Myomyscus derooi* Van der Straeten & Verheyen, 1978.

Praomys misonnei
(Van Der Straeten & Dieterlen, 1987)[°]

REMARK

Nicolas *et al.* (2010a) showed that based on cytochrome b and 16S rRNA data specimens initially identified as *Praomys tullbergi* (Thomas, 1894) from East of the Volta Lake all belonged to *Praomys misonnei* ("Clade II") and only *Praomys* Thomas, 1915



FIG. 27. — The apparently extinct *Leimacomys büttneri* Matschie, 1893: mature forest habitat in the Adéle area (from where the species was collected), and type specimens (body and skull) currently stored at the ZMB. Photograph: Luca Luiselli (A); Jan Decher (B, C, D).

West of the Volta Lake belonged to *Praomys tullbergi*. Although the authors analyzed no specimens from Togo, their specimens from Agumatsa Wildlife Sactuary (Wli Waterfall) and Shiare, Ghana, very close to the border of Togo, and from various localities in Benin indicate that this species occurs throughout central and southern Togo and that many, if not all *Praomys* previously identified as *P. tullbergi* should belong here.

Praomys tullbergi (Thomas, 1894)▶

VOUCHERS. — Specimens from Ezimé and Agou are deposited at NMNH. Vouchers from Dzogbegan, Aventionou, Akposso, Misahohe, and Badou are stored at MRAC. But see text under *P. misonnei* above.

Stochomys longicaudatus (Tullberg, 1893)▶

VOUCHERS AND REMARK. — Specimens of this taxon were studied by Van der Straeten (1984). A specimen from Agou, is currently

stored in the NMNH. Vouchers from Misahohe and Dzogbegan are stored in the MRAC. It is worth mentioning that the Volta river represents the western most limit of the distribution of this species (see map in Monadjem *et al.* 2015).

Taterillus gracilis (Thomas, 1892)▶

VOUCHERS. — Several specimens, coming from Dapaong and Pagala, are currently stored in the NMNH, and others, coming from Kamina, Aevio, Borgou, and Namoundjoga, are stored in the RMCA.

Uranomys ruddi Dollman, 1909▶

VOUCHERS. — Several specimens, captured at Ezimé, Pagala and Pawa (NMNH), Kpalimé (Petter, 1963). Some vouchers are available from Tetetou, Badou, Apeyeme (RMCA), and Bismarckburg (Adéle) (ZMB).

Family NESOMYIDAE Major, 1897

Cricetomys sp.►

REMARK

Olayemi *et al.* (2012) raise the West African “*emini*” to species status. Several records at NMNH under *Cricetomys* sp. certainly pertain to this species.

Cricetomys gambianus Waterhouse, 1840►

VOUCHERS. — Vouchers of this species are available from Haho-Baoué (NMNH), Sokodé, and Sansanné-Mango (ZMB).

Dendromus messorius (Thomas, 1903)°

REMARK

The occurrence of this species in Togo should be confirmed by vouchers. Reported for the country by IUCN (2014), and indirectly by Musser & Carleton (2005).

Steatomys caurinus Thomas, 1912►

VOUCHERS. — Vouchers specimens from Dapaong, Padori and Ezimé, are currently stored in the NMNH.

Family SCIURIDAE Fischer de Waldheim, 1817

REMARK

Squirrels are regularly traded as traditional medicine items throughout the country (Fig. 28).

Epixerus ebii (Temminck, 1853)•

REMARK

This species, cited as *Sciurus ebii* Temminck, 1853, was recorded from Asante by Matschie (1893b). More investigations are needed to show whether the species is present in the country, as neither Thorington & Hoffmann (2005) nor IUCN (2014) include it in the native species of Togo.

Funisciurus anerythrus (Thomas, 1890)•

REMARK

A voucher of this species, captured at Dapaong (northern savannah habitat), is currently stored in the NMNH. However, this species is considered to be found in lowland moist forests (IUCN 2014) and has not been recorded from Togo (Thorington & Hoffmann 2005). Thus, its eventual presence should be confirmed by 1) re-examination of the available voucher; and 2) further new records.

Funisciurus leucogenys (Waterhouse, 1842)►

HISTORICAL LITERATURE. — Matschie (1893b) recorded this species at Bismarckburg (Adéle), indicating it as *Sciurus auriculatus* Matschie, 1891. The species is also present in Togo according to both Thorington & Hoffmann (2005) and IUCN (2014).

VOUCHERS. — Six ZMB vouchers originated from Bismarckburg and Misahohe.

Funisciurus pyrropus (F. Cuvier, 1833)►

HISTORICAL LITERATURE AND VOUCHERS. — Recorded from Bismarckburg (Matschie 1893b), with a voucher currently stored at ZMB (Grubb *et al.* 1998).

Funisciurus substriatus De Winton, 1899►

HISTORICAL LITERATURE AND VOUCHERS. — Vouchers of this species are available from Ezimé (NMNH) and Sokodé (ZMB). The species is also present in Togo according to both Thorington & Hoffmann (2005), Thorington & Schennum (2013) and IUCN (2014).

Heliosciurus gambianus (Ogilby, 1835)►

HISTORICAL LITERATURE. — First recorded in Togo by Matschie (1893b).

VOUCHERS. — Vouchers from Bismarckburg, Misahohe and Sokodé (ZMB) and Peura (NMNH). Matschie (1893b) cited *Sciurus punctatus* Temminck, 1853 from Bismarckburg, but the latter specific identification was dismissed by Grubb (Grubb *et al.* 1998: 178).

Heliosciurus rufobrachium (Waterhouse, 1842)►

VOUCHERS. — Subspecies *isabellinus* (Gray, 1867) occurs East of the Volta River (Grubb *et al.* 1998). Several specimens, captured at Pagala, Agou and Ezimé, are currently stored at NMNH.

Paraxerus poensis (A. Smith, 1830)►

HISTORICAL LITERATURE. — Matschie (1893b) reported it to be present in Togo as *Sciurus poensis*. In addition, a ZMB voucher, identified as *Paraxerus cepapi* (A. Smith, 1836) and likely attributable to this species, originated from Bismarckburg (Adéle). The distribution of this forest species matches more or less exactly that of several West-central African rainforest taxa (e.g., the reptiles *Kinixys homeana* Bell, 1827, *Kinixys erosa* (Schweigger, 1812), *Bitis nasicornis* (Shaw, 1792), etc.) (e.g., Chippaux 1999), and therefore may well be present in the forested ecological zone IV, where the above-mentioned forest reptiles are indeed occurring (Segniagbeto *et al.* 2015b). Nonetheless, this squirrel does not occur in Togo according to both Thorington & Hoffmann (2005) and IUCN (2014).

Protoxerus stangeri (Waterhouse, 1842)►

VOUCHERS. — Three specimens, captured at Pagala, are currently stored in the NMNH, and three other vouchers from Haho-Baoué, Sokodé and Apaso-Acrossa, are deposited in ZMB.



FIG. 28. — Squirrels are regularly traded as traditional medicine items throughout the country. In this case, *Xerus erythropus* (E. Geoffroy, 1803) traded in the Maritime Region, southern Togo. Photograph: Fabio Petrozzi.

REMARK

Subspecies *nigeriae* (Thomas, 1906) occurs East of Volta River (Grubb *et al.* 1998).

Xerus erythropus (E. Geoffroy, 1803)▶
(Fig. 28)

HISTORICAL LITERATURE. — First cited to occur in Togo by Matschie (1893b), with specimens recorded from Bismarckburg (Adèle).

VOUCHERS. — Several specimens, captured at Dapaong, Padori and Ezimé, are currently stored in the NMNH, and 20 additional ZMB vouchers originated from Bismarckburg, Misa Höhe, Aného (Petit Popo) and Sansanné-Mango.

REMARK

This species is regularly traded for traditional medicine all throughout Togo (Fig. 28).

Family THRYONOMYIDAE Pocock, 1922

Thryonomys swinderianus (Temminck, 1827)▶

HISTORICAL LITERATURE. — This species was firstly recorded in Togo from Haho-Baloue (Schwarz 1920).

VOUCHERS. — Twelve vouchers originated from Sansanné-Mango, Oti and Haho-Baloue (ZMB). Seven specimens from Agou, Aldejo, Avétonou, and Borgou were reported by Robbins & Van der Straeten (1996).

ORIGINAL DATA. — It is the most frequently traded species in local bush-meat markets.

Order SIRENIA Illiger, 1811
Family TRICHECHIDAE Gill, 1872

Trichechus senegalensis Link, 1795▶
(Fig. 29)

HISTORICAL LITERATURE. — The African manatee was first listed for Togo by Matschie (1893a, b).

ORIGINAL DATA. — The manatee is currently known from Lake Togo and Mono River (Fig. 29), along the last 100 km of Mono River course which constitute the border between Togo and Benin. In Lake Togo, there are two strongholds: the first at the junction between the lake and the Zio River (Amedehoeve area) and the second at the junction between the lake and the River Haho (Segniagbeto *et al.* 2007; Mallon *et al.* 2015).

Order SORICOMORPHA Gregory, 1910

Family SORICIDAE G. Fischer, 1814

REMARK

Species belonging to this family are often traded for traditional medicine in fetish markets across Togo (Fig. 30).

Crocidura crossei Thomas, 1895▶

VOUCHERS. — Three specimens, captured at Ezimé and Agou are currently stored in the NMNH.

Crocidura foxi Dollman, 1915▶

HISTORICAL LITERATURE. — Present in northern Togo (Duplantier & Granjon 2013a; IUCN; 2014). Recorded also from Benin, at the border with Togo (Nicolas *et al.* 2010) and from Apesokubi just across the border in the Volta Region of Ghana (Decher & Abedi-Lartey 2002).



FIG. 29. — Manatee (*Trichechus senegalensis* Link, 1795) from Mono River, Togo. Photograph: Gabriel Hoinsoudé Segniagbeto.



FIG. 30. — Soricidae species are often traded for traditional medicine. In this case, some *Crocidura* sp. Individuals at the Marché aux Fétiches, Lomé (August 2013). Photograph: Luca Luiselli.

Crocidura fuscomurina (Heuglin, 1865)►

HISTORICAL LITERATURE. — Matschie (1893b) recorded this species (as *Crocidura bovei* Dobson, 1887) at Bismarckburg (Adèle), in the ecological zone IV. Heim de Balsac (1958) also mentions the Bismarckburg specimen as *Crocidura bicolor* Bocage, 1889 with a lateral view of the skull. This species was also reported for the country by IUCN (2014) and Dippenaar & Basker (2013), and indirectly by Hutterer (2005). It was found also in West Benin at Gotcha and Laugba (Nicolas *et al.* 2010). Hurst *et al.* (1995) reported a specimen as *C. foxi* Dollman, 1915 from Kyabobo National Park on the Ghana side, a park that is continuous with Fazao Malfakassa National Park, but it was later re-identified by R. Hutterer (ZFMK) as *C. fuscomurina* (Grubb *et al.* 1998).

Crocidura grandiceps Hutterer, 1983►

VOUCHERS. — Two specimens, collected in 1968 by the African Mammal Project at Agou, are presently stored at the NMNH.

Crocidura lamottei Heim de Balsac, 1968►

HISTORICAL LITERATURE. — Reported for the whole of the country by IUCN (2014), Jenkins & Churchfield (2013), and indirectly by Hutterer (2005). An individual record was reported by Hutterer (1986) from Sokodé.

Crocidura olivieri (Lesson, 1827)►

HISTORICAL LITERATURE. — This species was recorded from Apesokubi and Liati Wote (Decher & Abedi-Lartey 2002) and from Kyabobo National Park (Hurst *et al.* 1995) all in the Volta Region of Ghana.

VOUCHERS. — Six specimens, captured in 1968 by the African Mammal Project at Dapaong and Pagala, are listed in the NMNH database. Six specimens from the “Campus Universitaire” and from a locality called “Forever” are listed in the MNHN database.

REMARK

The subspecies *giffardi* de Winton, 1898 occurs in Togo. This species is now recognized as a species complex (see Jacquet *et al.* 2013; Jacquet 2015).

Crocidura poensis (Fraser, 1843)►

VOUCHERS AND REMARK. — Ten specimens, captured in 1968 by the African Mammal Project at Pawa, Padori, Pagala, and Ezime are listed in the NMNH database. However, Churchfield & Hutterer (2013) still show it as missing from the Dahomey Gap.

Crocidura theresae Heim de Balsac, 1968►

VOUCHERS AND REMARK. — A specimen from Kandé (Kanté) is listed in the MNHN database. However, Duplantier & Granjon (2013b) only show this species reaching into southwestern Ghana from the Upper Guinea Region.

Crocidura viaria (I. Geoffroy, 1834)°

REMARK

This species should be present in northern and central Togo (Hutterer 2013; IUCN 2014).

Suncus megalura (Jentink, 1888)°

REMARK

Reported for the country by Baxter & Dippenaar (2013), IUCN (2014), and indirectly by Hutterer (2005).

Order TUBULIDENTATA Huxley, 1872
Family ORYCTEROPODIDAE Gray, 1821

Orycteropus afer (Pallas, 1766)▶

HISTORICAL LITERATURE. — This species is widespread in Togo according to IUCN (2014).

VOUCHERS. — Three vouchers, originating from Sansanné-Mango, Oti-Keran, and Sokodé are stored at ZMB.

COMMENSAL SPECIES

Three species of commensal rodents are reported from Togo. *Rattus rattus* (Linnaeus, 1758) was firstly cited to occur in Togo by Matschie (1893b). It is common in Lomé, Togoville, Kara and likely many other urban and suburban areas, where it was repeatedly observed in 2012-2015. *Rattus norvegicus* (Berkenout, 1769) was also frequently observed near waste waters of Lomé (years 2012-2015). This latter species was first mentioned for Togo by Matschie (1893b). In addition, there is a ZMB voucher, classified as *Rattus exulans* (Peale, 1848), that originated from Sansanné-Mango. This specimen needs careful inspection, as it may be wrongly classified.

DISCUSSION

Overall, the extant mammal list of Togo includes at least 178 species including both ▶ and • species, with Chiroptera (52 species) and Rodentia (47 species) being the most speciose groups. This number does not include species which were recorded at the borders of Togo or that appear to be extinct by now. This overall count of species also does not include those taxa whose presence inside the country is still uncertain (e.g., *Arvicanthis ansorgei* Thomas, 1910), as well as the commensal species of the genus *Rattus* Fischer de Waldheim, 1803 and *Mus musculus*.

Despite the small size of Togo (representing, with 57 000 km², just the 0.18% of the whole continental surface), the diversity of species is remarkable if we consider the whole mammalian fauna of the continent (Table 2). Indeed, 66.7% of the total number of mammal families are found in Togo, as well as 36.7% of genera and 16% of species (Table 2). These noteworthy richness patterns are probably due to the fact that Togo is mostly inside the Dahomey Gap, but with some regions belonging to the Upper Guinean forest region (i.e. hilly areas in the South-western part of the country).

The Togolese mammal fauna includes seven species which are certainly or likely extinct. These species are: *Damaliscus korrigum*, *Hylochoerus ivoriensis*, *Tragelaphus derbianus*, *Lycaon pictus*, *Panthera leo*, *Pan troglodytes*, and *Leimacomys büttneri*. Some of these species have not been recorded in Togo for over 100 years but might still be found in the Togo hills at the border with Ghana, where extended rainforests are still available (EZ IV), or in case of the lion in northern tree savannahs. We confirmed with the present survey that two other species (*Tragelaphus eurycerus* and *Tragelaphus gratus*) suspected to be extinct still occur in Togo.

The number of species occurring in each ecological zone is given in Table 3. The distribution of species was uneven across vegetation zones, with most species being in EZ III and IV (Fig. 31). In particular, 85.1% of Togolese Rodentia and 80.4% of Togolese Chiroptera do occur in EZ IV, while 75% of Togolese Primates occur in EZ III and IV. It should be noted, however, that trapping and field effort was uneven across vegetation zones.

About 45% of Togolese mammals have a wide distribution across four vegetation zones (Table 3) whereas 20.6% of the species appear to be ecologically specialized in just one or two EZs.

Among these specialized species, the majority (n = 25) were linked to forest biotopes (EZ IV), and 19 were linked to arid savannahs in the extreme North of the country (EZ I). Guinea savannah regions (EZ II, III and V) apparently did not house any habitat-specialist. A similar pattern was also observed when we re-analyzed data for Togolese lizards (Segniagbeto *et al.* 2015c), with 15 habitat-specialist species being typical of EZ IV, five of which whether the same patterns occurring in mammals and lizards, may also be uncovered in other animal groups. Mammals and lizards were also similar in terms of their relative species richness across ecological zones ($\chi^2 = 6.594$, $df = 4$, $P = 0.159$).

An Unweighted pair group method with arithmetic mean (UPGMA) of the dissimilarities among mammalian orders in terms of species richness by vegetation zone (Fig. 32) revealed that two large, quite heterogeneous, groups of clusters were formed: one group included mostly speciose taxa with generalist distribution across ecological zones, and one with few species, also with generalist habits.

Our checklist considerably increased the number of native species of Togo compared to the first comprehensive list available from historical materials collected by Kling and Büttner (see Matschie 1893b) (Appendix 2). Indeed, Matschie (1893b) reported 103 taxa for Togo, 70 fewer taxa than in our checklist. In addition, his list also reported some ambiguities that should be considered (see Appendix 2). Further field researches, and inspection of additional museum collections, would probably increase the number of Togolese taxa, in the EZ I (dry savannah regions bordering Burkina Faso) and especially in EZ IV (hilly areas bordering Ghana).

Conservation remarks

As mentioned above, several species are currently extinct in Togo. The extinct species are heterogeneous in terms of habitat preferences and ecological requirements, and it is therefore impossible to find a common trait that may have exposed these species to extinction. However, these extinctions were presumably due to habitat loss and overhunting. In particular, the habitat loss is still rampant in the EZ IV (where *Pan troglodytes* and *Leimacomys büttneri* were found), even inside protected forests (Segniagbeto *et al.* 2015b), and may still compromise the country status of several species.

At the global level (using the IUCN Red List, 2014), the mammal fauna of Togo included two endangered (EN) species one of which being extinct in Togo (*Panthera leo*). The great

TABLE 2. — Quantitative comparisons of mammalian fauna of Togo in comparison with the total mammalian diversity of the African continent. Data for Africa are taken from Kingdon *et al.* (2013). Symbols: *, excluding invasive species; **, Two species according to Kingdon *et al.* (2013).

Order	Nb. families in Africa	Nb. families in Togo	Nb. genera in Africa	Nb. Genera in Togo	Nb. species in Africa	Nb. Species in Togo
Afrosoricidae	2	0	11	0	24	0
Artiodactyla	6	4	41	16	93	23
Carnivora	9	7	38	21	83	26
Chiroptera	9	8	49	24	224	52
Erinaceomorpha	1	1	3	1	6	1
Hyracoidea	1	1	3	2	5	2
Lagomorpha	1	1	5	1	13	1
Macroscelidae	1	0	4	0	15	0
Perissodactyla	2	0	3	0	6	0
Pholidota	1	1	3	1	4	1
Primates	4	4	24	9	93	12
Proboscidea	1	1	1	1	1**	1
Rodentia	15	7	98	28	390*	47*
Sirenia	2	1	2	1	2	1
Soricomorpha	1	1	9	2	150	10
Tubulidentata	1	1	1	1	1	1
Total	57	38	294	108	1110	178

TABLE 3. Number of mammal species occurring in each ecological zone, by taxonomical order. Symbols for ecological zones are as in Figure 1.

Order	Nb. species	Ecological zone				
		I	II	III	IV	V
Tubulidentata	1	1	1	1	1	1
Hyracoidea	2	1	1	1	2	1
Proboscidea	1	1	1	0	0	0
Sirenia	1	0	0	0	1	1
Primates	12	4	6	9	9	8
Lagomorpha	1	1	1	1	1	1
Erinaceomorpha	1	1	1	1	1	1
Soricomorpha	10	8	7	6	5	4
Chiroptera	52	28	32	35	42	36
Pholidota	1	0	1	1	1	1
Carnivora	26	20	16	17	16	13
Artiodactyla	23	12	13	16	15	9
Rodentia	47	27	26	35	40	30

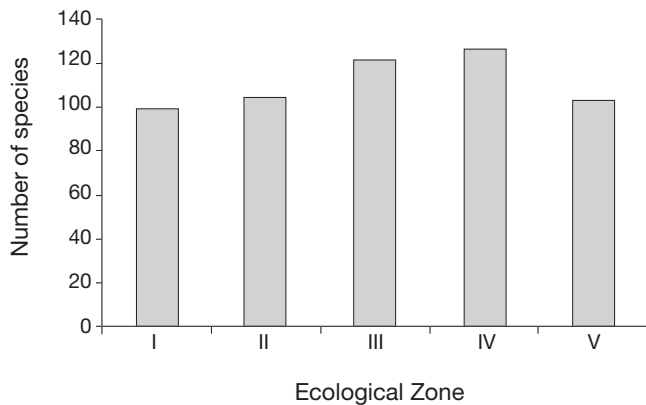


FIG. 31. — Distribution of the number of Togolese mammal species by ecological zone.

Few sp., generalist highly speciose/generalist

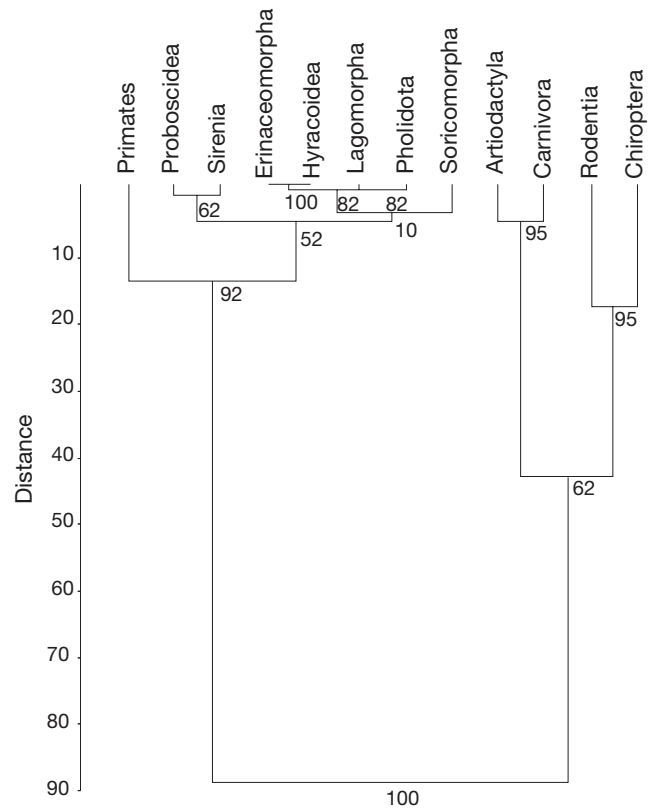


FIG. 32. — UPGMA of the dissimilarities among mammalian orders in terms of species richness by vegetation zone.

majority of Togolese mammals are not of international conservation concern. However, Togo is an extremely important region for species transitions given its zoogeographic location in the Dahomey Gap with its savannahs and forest islands separating the central African and West African (or Upper and Lower Guinean) forest blocks. Among the threatened taxa, three of them were linked to arid savannahs (EZ I and II), and just one of the southernmost forested region. Conservation activities in Togo have a prominent role for scientific research aimed at understanding the evolutionary history of West Africa. Furthermore, the conservation status of several West African large mammals is so desperate that even small countries such as Togo need to take some responsibility for their survival, possibly with greater collaboration from international organizations.

Concerning the Togolese extinct species, it should be remarked that some also went extinct, or are on the brink of extinction, in the rest of West Africa (e.g., *Damaliscus korrigum*, see Sayer 1982; *Panthera leo*, see Haenschel 2014a), due to: i) extensive habitat degradation/land reclamation; and ii) poaching and overhunting (Mallon *et al.* 2015).

Concerning the IUCN redlist, it is noteworthy that the total number of species recorded for Togo in the present study (n = 178) is much higher than that reported by IUCN (n = 164). In addition, several of the species listed by IUCN appears doubtfully occurring in the country, given that no vouchers or confirmed records have been ever collected (e.g., *Manis tetradactyla* Linnaeus, 1766). These discrepancies may be seriously affecting the conservation strategies and policies at both regional and global scale, and therefore it is advised that IUCN authorities will take more stringent criteria to assess the distribution range of all species. In particular, it would be important, for many African countries, to review and reanalyze the distribution data for mammal species using primary data from original literature and museum vouchers.

At the global level (using the IUCN Red List 2014), the mammal fauna of Togo included two EN species one of which being extinct in Togo (*Panthera leo*).

Acknowledgements

In this paper, we used results of many reports funded by many partners: Conservation International (CI), Mohamed Bin Zayed Species Conservation Fund, German Cooperation in Togo (GIZ-Togo) through the transboundary biosphere reserve of Mono Delta funded by the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and the Regional office of IUCN (IUCN-PACO). We are sincerely grateful to these partners for their financial contribution which allowed the staff of the Togolese Society for Nature Conservation (AGBO-ZEGUE NGO) to realize the field surveys in the different protected areas in the country. We are also grateful to Franz Weber Foundation for having provided us the logistical support in Fazaou Malfakassa National Park. We sincerely thank all of the park managers in the four protected areas or sites where this study was conducted, Dr Colin Groves for confirming identification of some

ungulate species, Dr Emmanuel Hema for providing photos used for the Fig. 22, and Dr Giuliano Milana for drafting some of the figures. We are also grateful to many local hunters in particular Fostin Abbey in Togodo National Park who helps in the investigation in different villages as field guide. We are indebted to Dr Julian Kerbis and two anonymous referees for comments.

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*Submitted on 16 October 2015;
accepted on 17 March 2016;
published on 24 June 2016.*

APPENDIX 1. — List of the mammals species of Togo, including their IUCN redlist status (2014) and their ecological distribution by ecological zone (EZ). Symbols: 0, absence; 1, presence; Abbreviations: **LC**: Least Concern; **VU**: Vulnerable; **EN**: Endangered; **CR**: Critically Endangered.

Order	Family	Genus	species	IUCN status	EZ 1	EZ 2	EZ 3	EZ 4	EZ 5
Artiodactyla	Bovidae	<i>Alcelaphus</i>	<i>major</i>	LC	1	1	1	0	0
		<i>Cephalophus</i>	<i>dorsalis</i>	LC	0	0	1	1	0
		<i>Cephalophus</i>	<i>niger</i>	LC	0	0	1	1	1
		<i>Cephalophus</i>	<i>rufilatus</i>	LC	1	1	1	1	1
		<i>Cephalophus</i>	<i>silvicultor</i>	LC	0	0	1	1	1
		<i>Damaliscus</i>	<i>korrigum</i>	LC	1	0	0	0	0
		<i>Eudorcas</i>	<i>rufifrons</i>	LC	0	0	0	0	0
		<i>Hippotragus</i>	<i>equinus</i>	LC	1	1	1	0	0
		<i>Kobus</i>	<i>ellipsiprymnus</i>	LC	1	1	1	1	0
		<i>Kobus</i>	<i>kob</i>	LC	1	1	1	0	0
		<i>Ourebia</i>	<i>quadriscopa</i>	LC	1	1	1	1	1
		<i>Philantomba</i>	<i>walteri</i>	LC	0	1	1	1	1
		<i>Redunca</i>	<i>redunca</i>	LC	1	1	1	0	0
		<i>Sylvicapra</i>	<i>grimmia</i>	LC	1	1	1	1	1
		<i>Syncerus</i>	<i>brachyceros</i>	LC	1	1	0	0	0
		<i>Taurotragus</i>	<i>derbianus</i>	LC	0	0	0	0	0
		<i>Tragelaphus</i>	<i>eurycerus</i>	LC	0	0	0	1	0
	<i>Tragelaphus</i>	<i>phaleratus</i>	LC	1	1	1	1	1	
	<i>Tragelaphus</i>	<i>gratus</i>	LC	0	0	0	1	0	
	Hippopotamidae	<i>Hippopotamus</i>	<i>amphibius</i>	VU	0	1	1	1	0
Suidae	<i>Hylochoerus</i>	<i>meinertzhageni</i>	LC	0	0	0	1	0	
	<i>Phacochoerus</i>	<i>africanus</i>	LC	1	1	1	1	1	
	<i>Potamochoerus</i>	<i>porcus</i>	LC	0	0	1	1	1	
Carnivora	Canidae	<i>Canis</i>	<i>adustus</i>	LC	1	1	1	0	0
		<i>Lycaon</i>	<i>pictus</i>	EN	1	0	0	0	0
	Felidae	<i>Acinonyx</i>	<i>jubatus</i>	VU	1	0	0	0	0
		<i>Caracal</i>	<i>aurata</i>	LC	0	0	0	1	0
		<i>Caracal</i>	<i>caracal</i>	LC	1	1	1	0	0
		<i>Felis</i>	<i>silvestris</i>	LC	1	1	1	1	1
		<i>Leptailurus</i>	<i>serval</i>	LC	1	1	1	1	1
		<i>Panthera</i>	<i>leo</i>	VU	0	0	0	0	0
		<i>Panthera</i>	<i>pardus</i>	LC	1	1	1	1	0
	Herpestidae	<i>Atilax</i>	<i>paludinosus</i>	LC	1	1	1	1	1
		<i>Crossarchus</i>	<i>obscurus</i>	LC	0	0	0	1	0
		<i>Galerella</i>	<i>sanguinea</i>	LC	1	1	1	1	1
		<i>Herpestes</i>	<i>ichneumon</i>	LC	1	1	1	1	1
		<i>Ichneumia</i>	<i>albicauda</i>	LC	1	1	1	1	1
		<i>Mungos</i>	<i>gambianus</i>	LC	1	1	1	1	1
		<i>Mungos</i>	<i>mungo</i>	LC	1	0	0	0	0
		<i>Crocuta</i>	<i>crocuta</i>	LC	1	1	1	1	1
	Mustelidae	<i>Aonyx</i>	<i>capensis</i>	LC	1	1	1	1	1
		<i>Hydrictis</i>	<i>maculicollis</i>	LC	1	1	1	1	1
		<i>Ictonyx</i>	<i>striatus</i>	LC	1	1	1	0	0
<i>Mellivora</i>		<i>capensis</i>	LC	1	1	1	1	1	
Nandiniidae	<i>Nandinia</i>	<i>binotata</i>	LC	0	0	1	1	1	
Viverridae	<i>Civettictis</i>	<i>civetta</i>	LC	1	1	1	1	1	
	<i>Genetta</i>	<i>genetta</i>	LC	1	0	0	0	0	
	<i>Genetta</i>	<i>maculata</i>	LC	1	1	1	1	1	
	<i>Genetta</i>	<i>thierryi</i>	LC	1	1	1	1	1	
Chiroptera	Emballonuridae	<i>Coleura</i>	<i>afra</i>	LC	0	0	1	1	0
		<i>Taphozous</i>	<i>mauritanus</i>	LC	0	0	1	1	1
		<i>Taphozous</i>	<i>nudiventris</i>	LC	1	1	0	0	0
		<i>Taphozous</i>	<i>perforatus</i>	LC	0	0	0	0	1
	Hipposideridae	<i>Hipposideros</i>	<i>abae</i>	LC	0	0	0	0	1
		<i>Hipposideros</i>	<i>beatus</i>	LC	0	0	1	1	1
		<i>Hipposideros</i>	<i>caffer</i>	LC	1	1	1	1	1
		<i>Hipposideros</i>	<i>cyclops</i>	LC	0	0	1	1	1
		<i>Hipposideros</i>	<i>gigas</i>	LC	0	1	1	1	1
	<i>Hipposideros</i>	<i>ruber</i>	LC	1	1	1	1	1	
Megadermatidae	<i>Lavia</i>	<i>frons</i>	LC	1	1	1	1	1	
Molossidae	<i>Chaerephon</i>	<i>major</i>	LC	1	1	1	1	1	
	<i>Chaerephon</i>	<i>nigeriae</i>	LC	0	0	0	1	0	
	<i>Chaerephon</i>	<i>pumilus</i>	LC	1	1	1	1	1	
	<i>Mops</i>	<i>condylurus</i>	LC	1	1	1	1	1	
	<i>Mops</i>	<i>spurrelli</i>	LC	0	0	0	1	0	

APPENDIX 1. — Continuation.

Order	Family	Genus	species	IUCN status	EZ 1	EZ 2	EZ 3	EZ 4	EZ 5
Chiroptera (cont.)	Nycteridae	<i>Mops</i>	<i>thersites</i>	LC	0	0	0	1	0
		<i>Nycteris</i>	<i>arge</i>	LC	0	0	0	1	0
		<i>Nycteris</i>	<i>gambiensis</i>	LC	1	1	1	1	1
		<i>Nycteris</i>	<i>grandis</i>	LC	0	1	1	1	1
		<i>Nycteris</i>	<i>hispidia</i>	LC	1	1	1	1	1
		<i>Nycteris</i>	<i>macrootis</i>	LC	1	1	1	1	1
		<i>Nycteris</i>	<i>nana</i>	LC	0	0	0	1	0
		<i>Nycteris</i>	<i>thebaica</i>	LC	1	1	1	1	1
	Pteropodidae	<i>Eidolon</i>	<i>helvum</i>	LC	1	1	1	1	1
		<i>Epomophorus</i>	<i>gambianus</i>	LC	1	1	1	1	1
		<i>Epomops</i>	<i>franqueti</i>	LC	0	0	1	1	1
		<i>Hypsignathus</i>	<i>monstrosus</i>	LC	0	0	1	1	1
		<i>Lissonycteris</i>	<i>angolensis</i>	LC	0	1	1	1	1
		<i>Megaloglossus</i>	<i>azagnyi</i>	LC	0	0	0	1	0
		<i>Micropteropus</i>	<i>pusillus</i>	LC	1	1	1	1	1
		<i>Myonycteris</i>	<i>leptodon</i>	LC	0	0	1	1	1
		<i>Nanonycteris</i>	<i>veldkampii</i>	LC	1	1	1	1	1
		<i>Rousettus</i>	<i>aegyptiacus</i>	LC	0	1	1	1	1
	Rhinolophidae	<i>Rhinolophus</i>	<i>alcyone</i>	LC	0	1	0	1	1
		<i>Rhinolophus</i>	<i>fumigatus</i>	LC	1	1	0	0	0
		<i>Rhinolophus</i>	<i>landeri</i>	LC	1	1	1	1	1
	Vespertilionidae	<i>Glauconycteris</i>	<i>poensis</i>	LC	0	0	0	0	1
		<i>Glauconycteris</i>	<i>variegata</i>	LC	1	1	0	0	0
		<i>Mimetillus</i>	<i>moloneyi</i>	LC	0	0	1	1	1
		<i>Myotis</i>	<i>bocagii</i>	LC	1	0	0	0	0
		<i>Neoromicia</i>	<i>capensis</i>	LC	1	1	1	1	1
		<i>Neoromicia</i>	<i>guineensis</i>	LC	1	1	0	0	0
		<i>Neoromicia</i>	<i>nanus</i>	LC	1	1	1	1	1
		<i>Neoromicia</i>	<i>rendalli</i>	LC	1	1	1	1	1
		<i>Neoromicia</i>	<i>somalicus</i>	LC	1	1	1	0	0
		<i>Neoromicia</i>	<i>tenuipinnis</i>	LC	0	0	0	1	0
		<i>Nycticeinops</i>	<i>schlieffeni</i>	LC	1	1	1	1	1
		<i>Scotophilus</i>	<i>dinganii</i>	LC	1	1	1	1	1
		<i>Scotophilus</i>	<i>leucogaster</i>	LC	1	0	0	0	0
		<i>Scotophilus</i>	<i>nigrita</i>	LC	0	0	1	1	1
<i>Scotophilus</i>	<i>viridis</i>	LC	1	1	1	0	0		
Erinaceomorpha	Erinaceidae	<i>Atelerix</i>	<i>albiventris</i>	LC	1	1	1	1	1
Hyracoidea	Procaviidae	<i>Dendrohyrax</i>	<i>dorsalis</i>	LC	0	0	0	1	0
	Procaviidae	<i>Procavia</i>	<i>capensis</i>	LC	1	1	1	1	1
Lagomorpha	Leporidae	<i>Lepus</i>	<i>microtis</i>	LC	1	1	1	1	1
Pholidota	Manidae	<i>Manis</i>	<i>tricuspis</i>	VU	0	1	1	1	1
Primates	Cercopithecidae	<i>Cercopithecus</i>	<i>erythrogaster</i>	VU	0	0	0	0	1
		<i>Cercopithecus</i>	<i>mona</i>	LC	0	1	1	1	1
		<i>Cercopithecus</i>	<i>petaurista</i>	LC	0	0	0	1	0
		<i>Chlorocebus</i>	<i>tantalus</i>	LC	1	1	1	1	1
		<i>Colobus</i>	<i>vellerosus</i>	VU	0	1	1	1	1
		<i>Erythrocebus</i>	<i>patas</i>	LC	1	1	1	1	1
		<i>Papio</i>	<i>anubis</i>	LC	1	1	1	1	1
		<i>Procolobus</i>	<i>verus</i>	LC	0	0	1	0	0
	Galagidae	<i>Galago</i>	<i>senegalensis</i>	LC	1	1	1	1	0
		<i>Galagoides</i>	<i>demidoff</i>	LC	0	0	1	1	1
	Hominidae	<i>Pan</i>	<i>trogodytes</i>	EN	0	0	0	0	0
	Lorisidae	<i>Perodicticus</i>	<i>potto</i>	LC	0	0	1	1	1
	Proboscidea	Elephantidae	<i>Loxodonta</i>	<i>africana</i>	VU	1	1	0	0
Rodentia	Anomaluridae	<i>Anomalurus</i>	<i>derbianus</i>	LC	0	0	1	1	1
	Bathergidae	<i>Cryptomys</i>	<i>zechi</i>	LC	1	0	0	0	0
	Gliridae	<i>Graphiurus</i>	<i>crassicaudatus</i>	LC	0	0	1	1	1
		<i>Graphiurus</i>	<i>kelleni</i>	LC	1	1	1	1	0
		<i>Graphiurus</i>	<i>nagtaglasii</i>	LC	0	0	1	1	1
	Hystricidae	<i>Atherurus</i>	<i>africanus</i>	LC	0	0	1	1	1
		<i>Hystrix</i>	<i>cristata</i>	LC	1	1	1	0	0
	Muridae	<i>Acomys</i>	<i>johannis</i>	LC	1	0	0	0	0
<i>Arvicanthis</i>		<i>niloticus</i>	LC	1	1	0	0	0	

APPENDIX 1. — Continuation.

Order	Family	Genus	species	IUCN status	EZ 1	EZ 2	EZ 3	EZ 4	EZ 5		
Rodentia (cont.)	Muridae	<i>Arvicanthis</i>	<i>rufinus</i>	LC	1	1	1	1	1		
		<i>Dasymys</i>	<i>rufulus</i>	LC	1	1	1	1	1		
		<i>Gerbilliscus</i>	<i>guineae</i>	LC	1	0	0	0	0		
		<i>Gerbilliscus</i>	<i>kempi</i>	LC	1	1	1	1	1		
		<i>Grammomys</i>	<i>kuru</i>	LC	0	0	0	1	0		
		<i>Hylomiscus</i>	<i>alleni</i>	LC	0	0	1	1	1		
		<i>Leimacomys</i>	<i>büttneri</i>	LC	0	0	0	1	0		
		<i>Lemniscomys</i>	<i>striatus</i>	LC	1	1	1	1	1		
		<i>Lemniscomys</i>	<i>zebra</i>	LC	1	1	1	0	0		
		<i>Lophuromys</i>	<i>sikapusi</i>	LC	0	0	0	1	1		
		<i>Mastomys</i>	<i>erythroleucus</i>	LC	1	1	1	1	1		
		<i>Mastomys</i>	<i>natalensis</i>	LC	1	1	1	1	1		
		<i>Mus</i>	<i>baoulei</i>	LC	0	1	0	0	0		
		<i>Mus</i>	<i>haussa</i>	LC	1	0	0	0	0		
		<i>Mus</i>	<i>minutoides</i>	LC	1	1	1	1	1		
		<i>Mus</i>	<i>muscoloides</i>	LC	1	1	1	1	1		
		<i>Mus</i>	<i>setulosus</i>	LC	0	0	1	1	1		
		<i>Praomys</i>	<i>daltoni</i>	LC	1	1	1	1	1		
		<i>Praomys</i>	<i>derooi</i>	LC	1	1	1	1	1		
		<i>Praomys</i>	<i>misonnei</i>	LC	0	0	1	1	1		
		<i>Praomys</i>	<i>tullbergi</i>	LC	0	0	1	1	1		
		<i>Stochomys</i>	<i>longicaudatus</i>	LC	0	0	1	0	1		
		<i>Taterillus</i>	<i>gracilis</i>	LC	1	1	1	1	1		
		<i>Uranomys</i>	<i>ruddi</i>	LC	1	1	1	1	1		
		Nesomyidae	<i>Cricetomys</i>	sp.	LC	0	0	0	1	1	
			<i>Cricetomys</i>	<i>gambianus</i>	LC	1	1	1	1	1	
			<i>Dendromus</i>	<i>messorius</i>	LC	0	1	1	1	0	
			<i>Steatomys</i>	<i>caurinus</i>	LC	1	1	1	0	0	
		Sciuridae	<i>Funisciurus</i>	<i>leucogenys</i>	LC	0	0	1	1	1	
			<i>Funisciurus</i>	<i>pyrropus</i>	LC	0	0	0	1	0	
			<i>Funisciurus</i>	<i>substriatus</i>	LC	1	1	1	1	0	
			<i>Heliosciurus</i>	<i>gambianus</i>	LC	1	1	1	1	0	
			<i>Heliosciurus</i>	<i>rufobrachium</i>	LC	1	1	1	1	1	
			<i>Protoxerus</i>	<i>stangeri</i>	LC	0	0	1	1	1	
		Thryonomyidae	<i>Thryonomys</i>	<i>swinderianus</i>	LC	1	1	1	1	1	
		Sirenia	Trichechidae	<i>Trichechus</i>	<i>senegalensis</i>	VU	0	0	0	1	1
		Soricomorpha	Soricidae	<i>Crocidura</i>	<i>crossei</i>	LC	0	0	1	1	1
<i>Crocidura</i>	<i>foxi</i>			LC	1	1	0	0	0		
<i>Crocidura</i>	<i>fuscumurina</i>			LC	1	1	0	0	0		
<i>Crocidura</i>	<i>grandiceps</i>			LC	0	0	0	1	0		
<i>Crocidura</i>	<i>lamottei</i>			LC	1	1	1	1	1		
<i>Crocidura</i>	<i>olivieri</i>			LC	1	1	1	1	1		
<i>Crocidura</i>	<i>poensis</i>			LC	1	1	0	0	0		
<i>Crocidura</i>	<i>theresae</i>			LC	1	0	0	0	0		
<i>Crocidura</i>	<i>viaria</i>			LC	1	1	1	0	0		
<i>Suncus</i>	<i>megalura</i>	LC	0	0	1	1	1				
Tubulidentata	Orycteropidae	<i>Orycteropus</i>	<i>afer</i>	LC	1	1	1	1	1		

APPENDIX 2.— Synopsis of the species list of Togo mammals provided by Matschie (1893b), with eventual recorded localities. Notes: **1**, wrongly identified; this is an endemic Tanzanian species (Wilson and Reeder, 2005); **2**, now considered a subspecies of *Miniopterus schreibersii* (Kuhl, 1817). Not found in Togo by IUCN (2014); **3**, not present in Togo by Wilson and Reeder (2005) and IUCN (2014); however, a voucher from Misahohe is stored in the ZMB. Another ZMB voucher came from Kete Kratschi, that is in Ghana but nearby the border of Togo; this voucher was examined by J. F. Oates (personal communication to LL), who found that it has the coloration of the inner thighs on the skin that is similar to *C. diana diana* from western Ivory Coast, Liberia and Sierra Leone; **4**, this species probably refers to *Cercocebus torquatus* (Kerr, 1792) or to another related species. Nonetheless, no members of the genus *Cercocebus* are known to occur in Togo in the present days; **5**, currently *Protoxerus aubinni*, found from Liberia to Ghana, apparently does not occur in Togo (Wilson and Reeder, 2005); **6**, possibly refers to *Graphiurus kelleni* (Reuvens, 1890) or *Graphiurus crassicaudatus* (Jentink, 1888) (Wilson and Reeder, 2005); **7**, wrongly identified; this is a native South-West Africa species (IUCN, 2014).

Cited by Matschie (1893b)	Nomenclature in the present checklist	Localities given by Matschie (1893b)
Soricomorpha		
<i>Crocidura bovei</i> Dobson, 1887	<i>Crocidura fuscomurina</i>	Bismarckburg (Adéle)
<i>Crocidura manni</i> Peters, 1878	<i>Crocidura olivieri</i>	no locality reported for Togo
Erinaceomorpha		
<i>Erinaceus albiventris</i> Wagner, 1841	<i>Atelerix albiventris</i>	Porto Seguro (Aného)
Chiroptera		
<i>Epomophorus pusillus</i> Peters, 1868	<i>Micropteropus pusillus</i>	Bismarckburg (Adéle)
<i>Epomophorus monstrosus</i> H. Allen, 1861	<i>Hypsignathus monstrosus</i>	no locality reported for Togo
<i>Epomophorus macrocephalus</i> Heuglin, 1877	<i>Rhinolophus fumigatus</i>	no locality reported for Togo
<i>Epomophorus franqueti</i> Tomes, 1860	<i>Epomops franqueti</i>	no locality reported for Togo
<i>Cynonycteris torquata</i> Dobson, 1878	<i>Myonycteris leptodon</i>	Bismarckburg (Adéle)
<i>Cynonycteris straminea</i> Geoffroy, 1810	<i>Eidolon helvum</i>	no locality reported for Togo
<i>Megaloglossus woermanni</i> Pagenstecher, 1885	<i>Megaloglossus azagnyi</i>	no locality reported for Togo
<i>Phyllorhina fuliginosa</i> Temminck, 1853	<i>Hipposideros fuliginosus</i>	Bismarckburg (Adéle)
<i>Phyllorhina cyclops</i> Temminck, 1853	<i>Hipposideros cyclops</i>	Bismarckburg (Adéle)
<i>Phyllorhina gigas</i> Wagner, 1845	<i>Hipposideros gigas</i>	no locality reported for Togo
<i>Phyllorhina caffra</i> Sundevall, 1846	<i>Hipposideros caffer</i>	no locality reported for Togo
<i>Rhinolophus alcyone</i> Temminck, 1853	<i>Rhinolophus alcyone</i>	Rio Boutry
<i>Nycteris hispida</i> (Schreber, 1775)	<i>Nycteris hispida</i>	Bismarckburg (Adéle)
<i>Nycteris grandis</i> Peters, 1865	<i>Nycteris grandis</i>	no locality reported for Togo
<i>Megaderma frons</i> E. Geoffroy, 1810	<i>Lavia frons</i>	no locality reported for Togo
<i>Thaphozous mauritanicus</i> E. Geoffroy, 1818	<i>Taphozous mauritanicus</i>	no locality reported for Togo
<i>Thaphozous peli</i> Temminck, 1853	<i>Saccolaimus peli</i>	no locality reported for Togo
<i>Nyctinomus brachypterus</i> Peters, 1852	<i>Mops brachypterus</i>	no locality reported for Togo
<i>Scotophilus gigas</i> Dobson, 1875	<i>Scotophilus nigrita</i>	no locality reported for Togo
<i>Kerivoula africana</i> Dobson, 1878	1	no locality reported for Togo
<i>Miniopterus dasythrix</i> Temminck, 1840	2	no locality reported for Togo
<i>Vesperus tenuipinnis</i> Peters, 1872	<i>Neoromicia tenuipinnis</i>	Bismarckburg (Adéle)
<i>Vesperus minutus</i> Temminck, 1840	<i>Mimetillus moloneyi</i>	Bismarckburg (Adéle)
<i>Vesperugo pusillulus</i> Peters, 1865	<i>Micropteropus pusillus</i>	Bismarckburg (Adéle)
Primates		
<i>Anthropopithecus troglodytes</i> (Sutton, 1883)	<i>Pan troglodytes</i>	reported to be extinct Ndebele, Oli by Ketchenki, Dipongo (Adéle)
<i>Colobus vellerosus</i> (L. Geoffroy, 1834)	<i>Colobus vellerosus</i>	(Adéle)
<i>Colobus ferrugineus</i> (Shaw, 1800)	<i>Procolobus badius badius</i>	no locality reported for Togo
<i>Colobus verus</i> (Van Beneden, 1838)	<i>Procolobus verus</i>	in mangroves
<i>Cercopithecus mona</i> (Schreber, 1774)	<i>Cercopithecus mona</i>	Bismarckburg (Adéle)
<i>Cercopithecus fantiensis</i> (Matschie 1893)	<i>Cercopithecus petaurista</i>	no locality reported for Togo
<i>Cercopithecus diana</i> (Linnaeus, 1758)	3	no locality reported for Togo
<i>Cercocebus aethiops</i> (Linnaeus, 1758)	4	no locality reported for Togo
<i>Papio olivaceus</i> De Winton, 1902	<i>Papio anubis</i>	Bismarckburg (Adéle)
<i>Papio rubescens</i> Temminck, 1853	<i>Papio anubis</i>	widespread along the coast
<i>Nycticebus potto</i> (Gmelin, 1788)	<i>Perodicticus potto</i>	Asante
<i>Galago demidoffi</i> G. Fischer, 1806	<i>Galagoides demidoffi</i> / <i>Galagoides thomasi</i>	Bismarckburg (Adéle)
Rodentia		
<i>Anomalurus fraseri</i> (Waterhouse, 1843)	<i>Anomalurus derbianus</i>	Asante
<i>Anomalurus peli</i> Schlegel & Müller, 1845	<i>Anomalurus peli</i>	Asante
<i>Anomalurus beecrofti</i> Fraser, 1853	<i>Anomalurus beecrofti</i>	Asante
<i>Sciurus stangeri</i>	<i>Protoxerus stangeri</i> Waterhouse, 1842	no locality reported for Togo
<i>Sciurus ebii</i> Temminck, 1853	<i>Epixerus ebii</i>	Asante
<i>Sciurus aubinni</i> (Gray, 1873)	5	no locality reported for Togo
<i>Sciurus rufobrachiatus</i> Waterhouse, 1842	<i>Heliosciurus rufobrachiatus</i>	no locality reported for Togo
<i>Sciurus punctatus</i> Temminck, 1853	<i>Heliosciurus gambianus</i>	Bismarckburg (Adéle)
<i>Sciurus poensis</i> A. Smith, 1830	<i>Paraxerus poensis</i>	no locality reported for Togo
<i>Sciurus auriculatus</i> Matschie, 1891	<i>Funisciurus leucogenys</i>	Bismarckburg (Adéle)
<i>Sciurus pyrrhopus</i> F. Cuvier, 1833	<i>Funisciurus pyrrhopus</i>	Bismarckburg (Adéle)
<i>Sciurus erythropus</i> E. Geoffroy, 1803	<i>Xerus erythropus</i>	Bismarckburg (Adéle)
<i>Graphiurus coupei</i> Cuvier, 1822	6	Bismarckburg (Adéle)
<i>Lophuromys sikapusi</i> Temminck, 1853	<i>Lophuromys sikapusi</i>	no locality reported for Togo
<i>Leimacomys büttneri</i> Matschie, 1892	<i>Leimacomys büttneri</i>	Bismarckburg (Adéle)
<i>Cricetomys gambianus</i> Waterhouse, 1842	<i>Cricetomys gambianus</i>	no locality reported for Togo

APPENDIX 2. — Continuation.

Cited by Matschie (1893b)	Nomenclature in the present checklist	Localities given by Matschie (1893b)
<i>Mus erythroleucus</i> Temminck, 1853	<i>Mastomys erythroleucus</i>	Bismarckburg (Adéle)
<i>Mus rufinus</i> Temminck, 1853	<i>Arvicanthis rufinus</i>	no locality reported for Togo
<i>Mus nigricauda</i> Thomas, 1882	7	no locality reported for Togo
<i>Mus barbarus</i> Linnaeus, 1766	<i>Lemniscomys zebra</i>	Bismarckburg (Adéle)
<i>Mus trivirgatus</i> Temminck, 1853	<i>Hybomys trivirgatus</i>	no locality reported for Togo
<i>Mus vittatus</i> Wagner	<i>Lemniscomys</i> sp.?	no locality reported for Togo
<i>Mus musculooides</i> Temminck, 1853	<i>Mus musculooides</i>	Bismarckburg (Adéle)
<i>Aulacodus swinderianus</i> Temminck, 1853	<i>Thryonomys swinderianus</i>	no locality reported for Togo
<i>Atherura africana</i> Gray, 1842	<i>Atherurus africanus</i>	no locality reported for Togo
<i>Hystrix africae-australis</i> Peters, 1852	<i>Hystrix cristata</i>	Aposso, Adeli
Lagomorpha		
<i>Lepus</i> sp.	<i>Lepus microtis</i>	Naparri
Pholidota		
<i>Manis guineensis</i> Fitzinger, 1872	<i>Manis tetradactyla</i>	no locality reported for Togo
<i>Manis tricuspis</i> Rafinesque, 1821	<i>Manis tricuspis</i>	no locality reported for Togo
<i>Manis gigantea</i> Illiger, 1815	<i>Manis gigantea</i>	Asante
Carnivora		
<i>Felis leo</i> Linnaeus, 1758	<i>Panthera leo</i>	Ketshenki, Naparri
<i>Felis leopardus</i> Schreber, 1774	<i>Panthera pardus</i>	Bismarckburg (Adéle), Naparri
<i>Felis togoensis</i> Matschie, 1893	<i>Leptailurus serval</i>	Bismarckburg (Adéle)
<i>Felis celidogaster</i> Temminck, 1853	<i>Caracal aurata</i>	no locality reported for Togo
<i>Felis chrysothrix</i> Temminck, 1853	<i>Caracal aurata</i>	Bismarckburg (Adéle)
<i>Viverra orientalis</i> Matschie, 1893	<i>Civettictis civetta</i>	Bismarckburg (Adéle)
<i>Viverra genettoides</i> Temminck, 1853	<i>Genetta maculata</i>	Bismarckburg (Adéle)
<i>Nandinia binotata</i> (Gray, 1830)	<i>Nandinia binotata</i>	no locality reported for Togo
<i>Herpestes galera</i> Erxleben, 1777	<i>Galerella sanguinea</i>	no locality reported for Togo
<i>Herpestes loempo</i> Temminck 1853	<i>Ichneumia albicauda</i>	no locality reported for Togo
<i>Herpestes melanurus</i> (Martin, 1836)	<i>Galerella sanguinea</i>	no locality reported for Togo
<i>Crossarchus obscurus</i> F. G. Cuvier, 1825	<i>Crossarchus obscurus</i>	Loecher
<i>Lutra inunguis</i> (F. G. Cuvier, 1823)	<i>Aonyx capensis</i>	no locality reported for Togo
<i>Lutra maculicollis</i> Lichtenstein, 1835	<i>Hydrictis maculicollis</i>	no locality reported for Togo
<i>Hyaena crocuta</i> Erxleben, 1777	<i>Crocuta crocuta</i>	no locality reported for Togo
<i>Canis anthus</i> F. Cuvier, 1820	<i>Canis adustus</i>	no locality reported for Togo
Artiodactyla		
<i>Hippopotamus</i> sp.	<i>Hippopotamus amphibius</i>	no locality reported for Togo
<i>Potamochoerus penicillatus</i> Schinz, 1848	<i>Potamochoerus porcus</i>	Bismarckburg (Adéle)
<i>Hyemoschus aquaticus</i> Ogilby, 1841	<i>Hyemoschus aquaticus</i>	no locality reported for Togo
<i>Tragelaphus scriptus</i> (Pallas, 1766)	<i>Tragelaphus phaleratus</i>	Bismarckburg (Adéle)
<i>Tragelaphus eurycerus</i> Ogilby, 1837	<i>Tragelaphus eurycerus</i>	Bismarckburg (Adéle)
<i>Hippotragus koba</i> Gray, 1872	<i>Hippotragus equinus</i>	Bismarckburg (Adéle)
<i>Bubalis major</i> Blyth, 1869	<i>Alcelaphus major</i>	no locality reported for Togo
<i>Adenota kob</i> Gray, 1847	<i>Kobus kob</i>	Bismarckburg (Adéle)
<i>Cephalophus sylvicultrix</i> Afzelius, 1815	<i>Cephalophus silvicultor</i>	no locality reported for Togo
<i>Cephalophus dorsalis</i> Gray, 1846	<i>Cephalophus dorsalis</i>	no locality reported for Togo
<i>Cephalophus rufilatus</i> Gray, 1846	<i>Cephalophus rufilatus</i>	Bismarckburg (Adéle)
<i>Cephalophus niger</i> Gray, 1846	<i>Cephalophus niger</i>	Bismarckburg (Adéle)
<i>Cephalophus maxwelli</i> C. H. Smith, 1827	<i>Philantomba walteri</i>	no locality reported for Togo
<i>Babalus brachyceros</i> Gray, 1837	<i>Syncerus brachyceros</i>	no locality reported for Togo
<i>Babalus centralis</i> Gray, 1872	<i>Syncerus brachyceros</i>	no locality reported for Togo