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A synthesis of African and western Indian Ocean Island mammal taxa (Class: Mammalia) described between 1988 and 2008: an update to Allen (1939) and Ansell (1989)

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Abstract

We provide a synthesis of all mammal taxa described from the African mainland, Madagascar and all surrounding islands in the 20 years since 1988, thereby supplementing the earlier works of G.M. Allen (1939) and W.F.H. Ansell (1989), and bringing the list of African mammals described over the last 250 years current to December 2008. We list 175 new extant taxa, including five new genera, one new subgenus, 138 new species and 31 new subspecies, including remarks, where relevant, on the current systematic position of each taxon. Names of seven species of primates are emended, according to the requirements of the ICZN. The taxonomic group in which the largest number of new taxa has been described is the Primates, with two new genera, 47 new species and 11 new subspecies, while geographically the biggest increase in new species descriptions has been on the island of Madagascar, accounting for roughly half (67) of all new species described in the past 20 years. Nearly half of all new species listed currently are assessed as Data Deficient on the IUCN Red List of Threatened Species (49 of 101 listed species) suggesting further research is urgently needed to help clarify the status of those recently described species.

Key words: African mammals; species description; taxonomy

Introduction

The most recent classification of mammals recognizes 5,416 species in 1,229 genera (Wilson & Reeder 2005). An average of 223 new valid species have been described per decade since the birth of modern taxonomic nomenclature in 1758, and this rate is increasing. Between mid-1992, when the second edition of *Mammal Species of the World* (Wilson & Reeder 1993) was going to press, and mid-2006, 341 new living mammal species were described—a rate of 24+ new descriptions per year (Reeder *et al.* 2007).

Glover M. Allen provided the names of Recent African mammal taxa in his landmark *A Checklist of African Mammals* published in 1939. This work listed all African mammals described from the starting point of zoological nomenclature (Linnaeus in 1758) to July 1938, and has been the foundation for subsequent taxonomic treatises on African mammals (e.g. Ellerman *et al.* 1953; Meester & Setzer 1971–1977; Meester *et al.* 1986). Over the 50 years following the issue of Allen's *Checklist*, substantial advances were made in the study of African mammals and many new taxa were described. A revision of Allen's list became necessary, and Frank Ansell, a veteran authority on African mammals (e.g. Ansell 1960, 1978; Ansell & Dowsett 1988) assumed responsibility for undertaking an update of Allen's list. In 1989, he published an extension to Allen's tome, entitled *African Mammals: 1938–1988* (Ansell 1989), which provided information on mammal taxa described between the completion of Allen's work in July 1938 and 31st December 1988—just over half a century—and included a number of names omitted from Allen's earlier synthesis.

The last two decades have been a very exciting period for Afrotropical mammalogy. The region continues to enjoy the attention of much regional and international research. An increasing number of countries that

previously were excluded from study, or received only minor attention, have begun to benefit from increased interest. Furthermore, the advent of novel molecular techniques has aided in the elucidation of phylogenetic relationships (e.g., Stanhope *et al.* 1998) and the resolution of many cryptic species complexes. As a result many new discoveries have been made, proving that mammalian diversity has been considerably underestimated in some regions, particularly on the island of Madagascar.

The primary purpose of this paper is to present a complete list of the African mammal taxa described and published since the appearance of Ansell's work, bringing the list of African mammals described over the last 250 years fully up to date.

Methods

The format of this work generally is in keeping with the prior publications of both Allen and Ansell. The geographical area covered is the same, namely the African mainland, excluding the Sinai Peninsula, and including Madagascar and all surrounding islands (Canary Islands, Cape Verde Islands, islands in the Gulf of Guinea, Mascarenes, Seychelles, Comoros), as well as the adjacent seas. The time-frame extends from 1 January 1989 (the cut-off point for Ansell 1989) to 31 December 2008—a period of 20 years.

The taxonomic scope of the work is all mammals, including marine taxa. We follow the sequence of orders and families in Wilson & Reeder (2005: xxvi-xxx). Suborders, subfamilies and tribes are not indicated; genera, species and subspecies are arranged alphabetically within families.

Allen (1939) indicated that his list included “all species known to have lived within historic times”. No explicit cut-off date is given, but numerous taxa that are known or suspected to have died out in the Holocene (Turvey 2009) are not listed in either Allen (1939) or Ansell's (1989) work. This work therefore lists extant taxa, including any that survived until after 1500 (per MacPhee & Fleming 1999). Consequently, some forms that lived into the Holocene, such as *Crocidura balsamifera* (Hutterer 1994) described from mummified shrews embalmed 2400 B.P., are not listed.

In the References we list full citations to the papers in which new taxa were described, while in the main text we list only the author, year and the number of the page on which the species is described. In this sense, the current work marks a departure from Allen and Ansell who did not provide the complete references to original sources. Type localities are presented as originally published, with clarifications indicated in square brackets. Where relevant, under a subheading “Remarks”, we indicate the current systematic position of a given taxon, stating where it has been raised or lowered to another rank, or regarded as a synonym. We also discuss nomenclatural problems concerning some of the names cited.

At the end of each species-level entry, within square brackets, we indicate the IUCN Red List Category for those species that have been assessed on the *2008 IUCN Red List of Threatened Species* (see www.iucnredlist.org). The categories are as follows: CR—Critically Endangered; EN—Endangered; VU—Vulnerable; NT—Near Threatened; LC—Least Concern; DD—Data Deficient. No recently described species have been categorized as Extinct.

There are many incorrect subsequent spellings in the literature that have not been recorded in any checklist. Examples are *Aegererus* for *Aegocerus*, a suppressed synonym of *Hippotragus*, *Alcephalus* for *Alcelaphus*, *Equus burschelli* for *E. burchellii*, and *Hippopothamus* for *Hippopotamus*. We do not list such unavailable names, although we do include nomina nuda, another class of unavailable names. We also do not list unjustified emendations, unless in prevailing usage. Several names listed here are known to the authors to represent incorrect original spellings, and we have attempted to emend these accordingly. We follow the fourth edition of the Code (International Commission on Zoological Nomenclature 1999): “The provisions of this Code supersede those of the previous editions with effect from 1 January 2000.”

Appendix I is reproduced from a list compiled by W.F.H. Ansell and issued on February 28th, 1991. These Addenda and Corrigenda are not widely available and, therefore, are included for the sake of completeness. We list additional corrections to Ansell's original text and also to his Addenda and Corrigenda in Appendix II,

and briefly mention some additional names not mentioned by either Allen (1939) or Ansell (1989) in Appendix III.

Results

Afrosoricida

Tenrecidae

Microgale dryas Jenkins, 1992: 53. "Site 1, Ambatovaky Special Reserve, [northeast] Madagascar, 16°51'S, 49°08'E, in primary rainforest, between 600–750 m altitude". [VU]

Microgale fotsifotsy Jenkins, Raxworthy & Nussbaum, 1997: 2. "Camp 2, Antomboka River Fitsahana, Parc National de la Montagne d'Ambre, Antsiranana Fivondronana, Antsiranana Province 12°29'S 49°10'E, altitude 650 m, rain forest" [Madagascar]. [LC]

Microgale gymnorhyncha Jenkins, Goodman & Raxworthy, 1996: 211. "38 km S Ambalavao, RNI d'Andringitra, on ridge E of Volotsangana River, Fianarantsoa Province, 22°11'39"S 46°58'16"E, altitude 1625 m" [Madagascar]. [LC]

Microgale jenkinsae Goodman & Soarimalala, 2004: 253. "Madagascar: Province de Toliara, Forêt des Mikea, 9.5 km west Ankiloaka, 22°46.7'S, 43°31.4'E, elevation about 80 m above sea level". [EN]

Microgale jobihely Goodman, Raxworthy, Maminirina & Olson, 2006: 387. "Madagascar: Province de Mahajanga (Massif de Tsaratanana), forêt du lac Matsaborimena, 4 km N de Bemanevika village, 14°19.859'S, 48°35.240'E, 1600–1680 m". [EN]

Microgale monticola Goodman & Jenkins, 1998: 149. "11 km WSW of Befingitra, Réserve Spéciale d'Anjanaharibe-Sud, 14°44'S, 49°26'E, 1550 m" [Madagascar]. [VU]

Microgale nasoloi Jenkins & Goodman, 1999: 156. "Vohibasia Forest [Forêt de Vohibasia], 59 km northeast of Sakaraha, Province de Toliara, southwestern Madagascar, 22°27.5'S 44°50.5'E, 780 m". [VU]

Microgale soricoides Jenkins, 1993: 2. "Mantady National Park, ca. 15 km north of Perinet, Madagascar, 18°51'S 48°27'E, in primary rainforest, between 1100 and 1150 m elevation". [LC]

Chrysochloridae

Amblysomus hottentotus meesteri Bronner, 2000: 49. "President Street, Graskop (24°56'S, 30°51'E), Mpumalanga, South Africa. Elevation = 1750 m a.s.l."

Amblysomus robustus Bronner, 2000: 42. "Verloren-Vallei Provincial Nature Reserve (25°18'S, 30°08'E), 22 km north-east of Dullstroom, Mpumalanga, South Africa. Elevation 2150 m a.s.l.". [VU]

Macroscelidea

Rhynchocyon udzungwensis Rathbun & Rovero, 2008: 127. “Vikongwa River Valley, Ndundulu Forest, West Kilombero Scarp Forest Reserve, Udzungwa Mountains, Iringa Region, Tanzania [7°48.214'S, 36°30.354'E (Arc 1960 datum)], at 1350 m a.s.l. This location is c. 15 km south-east of Udekwa Village, Iringa Region, Tanzania”. [VU]

Elephantulus pilicaudus Smit, 2008: 1263. “Vondelingsfontein Farm, Calvinia, Northern Cape Province, South Africa (31°48'S, 19°49'E; 1,449 m above sea level)”. [VU]

Primates**Cheirogaleidae**

Cheirogaleus minusculus Groves, 2000: 960. “Ambositra, on the central plateau at about 20°S, 47°E” [Madagascar]. [DD]

Cheirogaleus ravus Groves, 2000: 960. “Tamatave (about 18°S, 14°E)” [Madagascar]. [DD]

Microcebus arnholdi Louis Jr., Engberg, McGuire, McCormick, Randriamampionona, Ranaivoarisoa, Bailey, Mittermeier & Lei, 2008: 31. “Madagascar: Province de Antsiranana [(sic) Province d'Antsiranana], Montagne d'Ambre National Park and Montagne d'Ambre Special Reserve (approximately 12°31'28.1"S; 049°10'22.8"E, 990 m above sea level)”. [DD]

Microcebus berthae Rasoloarison, Goodman & Ganzhorn, 2000: 1001. “Madagascar: Province de Toliara, Forêt de Kirindy/CFPF, 60 km NE de Morondava, 20°04'S, 44°39'E, about 40 m above sea level”. [EN]

Microcebus bongolavensis Olivieri, Zimmermann, Randrianambinina, Rasoloharijaona, Rakotondravony, Guschanski & Radespiel, 2007: 321. “Madagascar, Province of Mahajanga, a forest fragment (S15°29'54”; E47°28'47”) belonging to the village Ambodimahabibo near Port-Bergé”. [DD]

Microcebus danfossi Olivieri, Zimmermann, Randrianambinina, Rasoloharijaona, Rakotondravony, Guschanski & Radespiel, 2007: 322. “Madagascar, Province of Mahajanga, a forest fragment (S 14°56'29”; E 47°42'44”) belonging to the village Ambarijeby (between Analalava and Antsohihy)”. [DD]

Microcebus jollyae Louis Jr., Coles, Andriantompohavana, Sommer, Engberg, Zaonarivelo, Mayor & Brenneman, 2006: 382. “Madagascar: Province de Fianarantsoa, Kianjavato, S21°22'825”, E047°52'050” at 71 m above sea level”. [DD]

Microcebus lehilahytsara Roos & Kappeler, 2005: 20. “Madagascar: Province Toamasina, Andasibe (18°55'S, 48°25'E)”. [DD]

Microcebus lokobensis Olivieri, Zimmermann, Randrianambinina, Rasoloharijaona, Rakotondravony, Guschanski & Radespiel, 2007: 323. “Madagascar, Province of Mahajanga, from the forest fragment near the village of Ampasimphy (S 13°23'24”; E 48°20'31”) which is the border of the Integrated Nature Reserve of Lokobe on the island of Nosy Be”. [DD]

Remarks: Olivieri *et al.* (2007) described the form *M. lokobensis* from Nosy Be. However, the type localities of *M. lokobensis* and *M. mampiratra* are the same, and the descriptions of the two forms are identical. Since *M. mampiratra* has priority, *M. lokobensis* is considered a junior synonym (see Mittermeier *et al.* 2008 for further discussion).

Microcebus macarthurii Radespiel, Olivieri, Rasolofoson, Rakotondratsimba, Rakotonirainy, Rasoloharijoana, Randrianambinina, Ratsimbazafy, Ratelolahay, Randriamboavonjy, Rasolofoharivelo, Craul, Rakotozafy & Randrianarison, 2008: 1044. “Anjiahely (S15°24'22.5", E49°29'54.3"), in a savoka at about 380m a.s.l., close to the village Anjiahely, about 26km west of Maroantsetra, Province of Antsiranana, Madagascar”.

Microcebus mampiratra Andriantompohavana, Zaonarivelo, Engberg, Randriamampionona, McGuire, Shore, Rakotonomenjanahary, Brenneman & Louis Jr., 2006: 14. “MADAGASCAR: Province de Antsiranana [(sic) Province d'Antsiranana], Nosy Be, Lokobe Special Reserve (approximately 13°24'16.9"S, 048°18'11.2"E at 13m.)”. [DD]

Remarks: *M. lokobensis*, also described from Nosy Be, is now considered a synonym of *M. mampiratra*.

Microcebus margotmarshae Louis Jr., Engberg, McGuire, McCormick, Randriamampionona, Ranaivoarisoa, Bailey, Mittermeier & Lei, 2008: 30. “Madagascar: Province de Antsiranana [(sic) Province d'Antsiranana], Antafondro Classified Forest Special Reserve (approximately 14°02'44.5"S, 48°13'23.4"E, 134 m above sea level)”.

Microcebus mittermeieri Louis Jr., Coles, Andriantompohavana, Sommer, Engberg, Zaonarivelo, Mayor & Brenneman, 2006: 381. “Madagascar: Province de Antsiranana, Anjanaharibe-Sud Special Reserve, S14°47'772", E049°28'411" at 1056 m above sea level”. [DD]

Microcebus ravelobensis Zimmermann, Ehresmann, Zietemann, Radespiel, Randrianambinina & Rakotoarison, 1997: 26. “Madagascar: Province de Mahajanga, Réserve Forestière (RF) d'Ankarafantsika, Station Forestière d'Ampijoroa, Jardin Botanique B, 16°35'S, 46°52'E, about 200 m above sea level”. [EN]

Remarks: Although Zimmermann *et al.* (1998) gave a full description of this species, and despite the justification put forth by Rasoloarison *et al.* (2000), Groves (2001) pointed out that “the first introduction of the name in Zimmermann *et al.* (1997) had ‘characters purporting to differentiate the taxon’ and that, therefore, the name is available.” Zimmermann *et al.* (1997, 1998) indicated that the type locality is “Madagascar: 2 km north of Ampijoroa, 16°35'S, 46°82' [sic] E”. However, Rasoloarison *et al.* (2000) indicated that the description was based on two captive animals, which would be preserved as voucher material upon their death. Although the animals have since died, no voucher material exists. Rasoloarison *et al.* (2000) designated a neotype (neotype locality given above). They suggested that the coordinates given in Zimmermann *et al.* (1998) are incorrect, owing to a typographical error (52'E, not 82'E).

Microcebus sambiranensis Rasoloarison, Goodman & Ganzhorn, 2000: 982. “Madagascar: Province de Mahajanga, Réserve Spéciale (RS) de Manongarivo, Forêt de Bekolosy, 2.3 km E de Beraty, 14°02'S, 48°16'E, about 360 m above sea level”. [EN]

Microcebus simmonsii Louis Jr., Coles, Andriantompohavana, Sommer, Engberg, Zaonarivelo, Mayor & Brenneman, 2006: 383. “Madagascar: Province de Tamatave, Betampona Special Reserve, S17°55'871", E049°12'200" at 956 m above sea level”. [DD]

Microcebus tavaratra Rasoloarison, Goodman & Ganzhorn, 2000: 977. “Madagascar: Province d’Antsiranana, Réserve Spéciale (RS) de l’Ankarana, Campement des Anglais, 9 km NO de Mahamasina, 13°05'S, 49°06'E, about 180 m above sea-level”. [EN]

Mirza zaza Kappeler & Roos, 2005: 18. “Madagascar: Province d’Antsiranana, "Baie de Pasandava" [= Ampasindava], Congoni (13°40'S, 48°15'E)”. [DD]

Phaner furcifer electromontis Groves & Tattersall, 1991: 47. “Madagascar: Montagne d’Ambre (Ambohitra), approximately 12°40'S, 49°10'E)”. [EN]

Remarks: Included in *P. furcifer* (Blainville, 1839: *Osteogr. Mamm., Primates*, p. 35) by Groves (1993), who later (2001) treated it as a distinct species under the Phylogenetic Species Concept; see also Mittermeier *et al.* (2008).

Phaner furcifer pallescens Groves & Tattersall, 1991: 47. “Madagascar: Tabiky (22°10'S, 44°15'E), ca. 20 km NW of Ankazoabo”.

Remarks: Included in *P. furcifer* (Blainville, 1839: *Osteogr. Mamm., Primates*, p. 35) by Groves (1993), who later (2001) treated it as a distinct species under the Phylogenetic Species Concept; see also Mittermeier *et al.* (2008).

Phaner furcifer parienti Groves & Tattersall, 1991: 47. “Madagascar: Sjangoi (=Djangoa, 13°50'S, 48°20'E), 20 km SW of Ambanja”.

Remarks: Included in *P. furcifer* (Blainville, 1839: *Osteogr. Mamm., Primates*, p. 35) by Groves (1993), who later (2001) treated it as a distinct species under the Phylogenetic Species Concept; see also Mittermeier *et al.* (2008).

Lemuridae

Hapalemur griseus ranomafanensis Rabarivola, Prosper, Zaramody, Andriaholinirina & Hauwy, 2007: 48. “Reserve of Ranomafana (approx. 21°20'–21°21' S, 47°47'E)” [Madagascar].

Remarks: Although colour details were mentioned in the type description of *H. g. ranomafanensis*, the status of this form is impossible to determine because at the same time no such details were given for *H. g. griseus*; the essence of the new subspecies was, in effect, that it is chromosomally polymorphic at Ranomafana and Ambongo (2n = 54, 55 or 56, whereas in *H. g. griseus* 2n = always 54), while at Ambolomavo, Bemaraha and Vatoalatsaka, also ascribed to this new subspecies, only 2n=56 occurs.

Hapalemur griseus gilberti Rabarivola, Prosper, Zaramody, Andriaholinirina & Hauwy, 2007: 48. “Beanamalao (approx. 47°48'S, 19°50'E), Province Fianarantsoa, Madagascar”.

Remarks: Elevated to species level by Mittermeier *et al.* (2008) under the Phylogenetic Species Concept.

Lepilemuridae

Lepilemur aeeclis Andriaholinirina, Fausser, Roos, Rabarivola, Ravoarimanana, Zinner, Thalmann, Ganzhorn, Meier, Hilgartner, Walter, Zaramody, Langer, Hahn, Zimmermann, Radespiel, Craul, Tomiuk, Tattersall & Rumpler, 2006: 6. “Antafia (approx. 16°03.057'S, 45°54.522'E), north-east side of the Mahavavy du Sud River, Fokotany Ambatomahavavy, Firaisana Antongomena-Bevary, Fivondronona Mitsinjo, Province Mahajanga, Madagascar”. [DD]

Lepilemur ahmansoni Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 19. “MADAGASCAR, Province de Mahajanga, Tsiombikibo Classified Forest, 16°02'24.7”S, 045°48'10.6”E, and northwest of the Mahavavy River”. [DD]

Remarks: Louis *et al.* (2006b) remarked that the species name is “proposed in honor of Robert Ahmanson and the Ahmanson Foundation”. In accordance with article 31.1.2 of the Code, “a species-group name, if a noun in the genitive case (see Article 11.9.1.3) formed directly from a modern personal name, is to be formed by adding to the stem of that name... -orum if of men or of man (men) and woman (women) together...”. *Lepilemur ahmansoni* is therefore an incorrect original spelling and is herein emended to *Lepilemur ahmansonorum*.

Lepilemur betsileo Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 20. “MADAGASCAR, Province de Fianarantsoa, Fandriana Classified Forest, (approximately 20°23'40.5”S, 047°38'06.6”E), and on the Mananjary River”. [DD]

Lepilemur fleuretae Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 21. “MADAGASCAR, Province de Toliary, Manangotry, Andohahela National Park (approximately 24°45'46.0”S, 046°51'47.0”E)”. [DD]

Lepilemur grewcocki Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 21. “MADAGASCAR, Province de Mahajanga, Anjiamangirana Classified Forest (approximately 15°09'14.9”S, 047°43'41.0”E)”. [DD]

Remarks: Louis *et al.* (2006b) remarked that the species name is “proposed in honor of Bill and Berniece Grewcock”. In accordance with article 31.1.2 of the Code, “a species-group name, if a noun in the genitive case (see Article 11.9.1.3) formed directly from a modern personal name, is to be formed by adding to the stem of that name... -orum if of men or of man (men) and woman (women) together...”. *Lepilemur grewcocki* is therefore an incorrect original spelling and is herein emended to *Lepilemur grewcockorum*.

Lepilemur hubbardi Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 23. “MADAGASCAR, Province de Toliary, Zombitse National Park (approximately 22°53'18.7”S, 044°41'43.3”E)”. [DD]

Remarks: Louis *et al.* (2006b) remarked that the species name is “proposed in honor of Theodore F. and Claire M. Hubbard Family Foundation”. In accordance with article 31.1.2 of the Code, “a species-group name, if a noun in the genitive case (see Article 11.9.1.3) formed directly from a modern personal name, is to

be formed by adding to the stem of that name... -orum if of men or of man (men) and woman (women) together...". *Lepilemur hubbardi* is therefore an incorrect original spelling and is herein emended to *Lepilemur hubbardorum*.

Lepilemur jamesi Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 24. "MADAGASCAR, Province de Fianarantsoa, Manombo Special Reserve (approximately 23°01'69.5"S, 047°43'84.1"E)". [DD]

Remarks: Louis *et al.* (2006b) remarked that the species name is "proposed in honor of the Larry, Jeannette, and Barry James' Family". In accordance with article 31.1.2 of the Code, "a species-group name, if a noun in the genitive case (see Article 11.9.1.3) formed directly from a modern personal name, is to be formed by adding to the stem of that name... -orum if of men or of man (men) and woman (women) together...". *Lepilemur jamesi* is therefore an incorrect original spelling and is herein emended to *Lepilemur jamesorum*.

Lepilemur manasamody Craul, Zimmermann, Rasoloharijaona, Randrianambinina & Radespiel, 2007: 8. "Madagascar: Province de Mahajanga, Ambongabe (15°19'38.3"S, 46°40'44.4"E) and Anjiamangirana I (15°09'24.6"S, 47°44'06.2"E)". [DD]

Remarks: Zinner *et al.* (2007) indicated that *L. manasamody* is probably a junior synonym of *L. grewcocki*, as sampling sites were less than two kilometres apart, with no evident geographic barrier.

Lepilemur milanoii Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 25. "MADAGASCAR, Province de Antsiranana [(sic) Province d'Antsiranana], Daraina, Andranotsimaty (approximately 13°08'52.5"S, 049°41'11"E)". [DD]

Lepilemur mittermeieri Rabarivola, Zaramody, Fausser, Andriaholinirina, Roos, Zinner, Marcel & Rumpler, 2006: 48. "Ampasindava peninsula, Province d' Antsiranana (Diego-Suarez) (approx. 47°54 E; 13°36 S)". [DD]

Lepilemur otto Craul, Zimmermann, Rasoloharijaona, Randrianambinina & Radespiel, 2007: 7. "Madagascar: Province de Mahajanga, Ambodimahabibo (15°29'54,2"S, 47°28'47,2"E)". [DD]

Lepilemur petteri Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 26. "MADAGASCAR, Province de Toliary, Beza-Mahafaly (approximately 23°39' 11.4"S, 044°37'90.6"E)". [DD]

Lepilemur randrianasoli Andriaholinirina, Fausser, Roos, Rabarivola, Ravoarimanana, Zinner, Thalmann, Ganzhorn, Meier, Hilgartner, Walter, Zaramody, Langer, Hahn, Zimmermann, Radespiel, Craul, Tomiuk, Tattersall & Rumpler, 2006: 8. "Andramasay (approx. 44°29'E, 19°28'S), Province Toliary, Madagascar". [DD]

Remarks: Louis *et al.* (2006b) remarked that the species name is "named in honour of our late colleague, Georges Randrianasolo". In accordance with article 31.1.2 of the Code, "a species-group name, if a noun in the genitive case (see Article 11.9.1.3) formed directly from a modern personal name, is to be formed by adding to the stem of that name -i if the personal name is that of a man...". *Lepilemur randrianasoli* is therefore an incorrect original spelling and is herein emended to *Lepilemur randrianasoloi*.

Lepilemur sahamalazensis Andriaholinirina, Fausser, Roos, Rabarivola, Ravoarimanana, Zinner, Thalmann, Ganzhorn, Meier, Hilgartner, Walter, Zaramody, Langer, Hahn, Zimmermann., Radespiel, Craul, Tomiuk, Tattersall & Rumpler, 2006: 9. “Sahamalaza Peninsula (approx. 47°58'E, 14°16'S), Province Mahajanga, Madagascar”. [DD]

Lepilemur scottorum Lei, Engberg, Andriantompohavana, McGuire, Mittermeier, Zaonarivelo, Brenneman & Louis Jr., 2008: 28. “Madagascar: Province de Antsiranana [(sic) Province d'Antsiranana], Masoala National Park (approximately S15°40'246", E049°57'537").”

Lepilemur seali Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 26. “MADAGASCAR, Province de Antsiranana [(sic) Province d'Antsiranana], Anjanaharibe-Sud Special Reserve (approximately 14°47'45.1”S, 049°27'88.5”E)”. [DD]

Lepilemur tymerlachsoni Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 27. “MADAGASCAR, Province de Antsiranana [(sic) Province d'Antsiranana], Nosy Be, Lokobe National Park (approximately 13°23'27.6”S, 048°18'15.2”E)”. [DD]

Remarks: Louis *et al.* (2006b) remarked that the species name is “proposed in honor of the Howard and Rhonda Hawk Family”. In accordance with article 31.1.2 of the Code, “a species-group name, if a noun in the genitive case (see Article 11.9.1.3) formed directly from a modern personal name, is to be formed by adding to the stem of that name... -orum if of men or of man (men) and woman (women) together...”. *Lepilemur tymerlachsoni* is therefore an incorrect original spelling and is herein emended to *Lepilemur tymerlachsonorum*.

Lepilemur wrighti Louis Jr., Engberg, Lei, Geng, Sommer, Randriamampionona, Randriamanana, Zaonarivelo, Andriantompohavana, Randria, Prosper, Ramaromilanto, Rakotoarisoa, Rooney & Brenneman, 2006: 28. “MADAGASCAR, Province de Toliary, Kalambatritra Special Reserve, Befarara (approximately 23°25'05.4”S, 046°26'55.4”E)”. [DD]

Remarks: Louis *et al.* (2006b) remarked that the species name is “proposed in honor of Dr Patricia Wright”. In accordance with article 31.1.2 of the Code, “a species-group name, if a noun in the genitive case (see Article 11.9.1.3) formed directly from a modern personal name, is to be formed by adding to the stem of that name... -ae if of a woman...”. *Lepilemur wrighti* is therefore an incorrect original spelling and is herein emended to *Lepilemur wrightae*.

Indriidae

Avahi betsileo Andriantompohavana, Lei, Zaonarivelo, Engberg, Nalanirina, McGuire, Shore, Andrianasolo, Herrington, Brenneman & Louis Jr., 2007: 44. “Madagascar, Province de Fianarantsoa, Region Amoron'i Mania, District of Fandriana, Bemosary Classified Forest, 20°20'60.1”S, 47°33'36.1”E, and south of Mangoro River”. [DD]

Avahi cleesei Thalmann & Geissmann, 2005: 373. “18°59'S, 44°45'E, approximately 3 km east-northeast of the village of Ambalarano, western Madagascar”. [EN]

Avahi meridionalis Zaramody, Fausser, Roos, Zinner, Andriaholinirina, Rabarivola, Norscia, Tattersall & Rumpler, 2006: 18. “Sainte Luce (approx. 47°11'E, 24°47'S), Province Toliara, Madagascar”. [DD]

Avahi meridionalis ramanantsoavani Zaramody, Fausser, Roos, Zinner, Andriaholinirina, Rabarivola, Norscia, Tattersall & Rumpler, 2006: 19. “Reserve of Manombo (approx. 47°41'E, 23°01'S), Province Finarantsoa, Madagascar”.

Remarks: Originally described by Zaramody *et al.* (2006) as one of two subspecies of *meridionalis*, but Andriantompohavana *et al.* (2007) considered it to be a full species based on the Phylogenetic Species Concept.

Avahi mooreorum Lei, Engberg, Andriantompohavana, McGuire, Mittermeier, Zaonarivelo, Brenneman & Louis Jr., 2008: 26. “Madagascar: Province de Antsiranana, Masoala National Park (approximately S15°40'008", E049°57'476")”.

Avahi peyrierasi Zaramody, Fausser, Roos, Zinner, Andriaholinirina, Rabarivola, Norscia, Tattersall & Rumpler, 2006: 17. “Mahasoarivo (Ranomafana approx. 47°26'E, 21°16'S), Province Fianarantsoa, Madagascar”. [DD]

Avahi unicolor Thalmann & Geissmann, 2000: 934. “Cacamba (=Kakamba), on the peninsula of Ampasindava, northwestern Madagascar, approximately 13°35'S, 47°57'E”. [DD]

Remarks: Not listed in Groves (2001), probably because it was published too late to be included, but recognized as distinct by Groves (2005).

Lorisidae

Pseudopotto Schwartz, 1996: 8. Type species: *Pseudopotto martini* Schwartz, 1996.

Remarks: Recognized by Groves (2001, 2005), although Sarmiento (1998) considered the species to fall within the range of *Perodicticus*. Grubb *et al.* (2003) were of the opinion that there was insufficient evidence that this name refers to a real, distinct population, and recommended that the name not be included in the taxonomy of African primates.

Pseudopotto martini Schwartz, 1996: 8. “Equatorial Africa”.

Remarks: See comments under *Pseudopotto*.

Perodicticus potto stockleyi Butynski & De Jong, 2007: 136. “1830 m asl on Mount Kenya, Kenya”.

Galagidae

Galagoides demidoff rondoensis Rowe, 1996: 22. *Nomen nudum*.

Remarks: Cited as “the subspecies *G. d. rondoensis*”, with a reference to Groves (1989), although this taxon is not mentioned in the work cited. Rowe (1996: 22) also illustrated this galago by a photograph with the caption “The rondo [sic] dwarf bush baby was recently discovered in southeast Tanzania and may be a new

species.” There is no description or definition that states in words characters that are purported to differentiate the taxon, so *G. d. rondoensis* Rowe, 1996, is a *nomen nudum*.

Galagoides rondoensis Honess, 1996: 9. “the tiny Rondo galago ... has a very restricted distribution in a few evergreen and coastal forests in southeast Tanzania”. *Galagoides rondoensis* Honess in Kingdon, 1997: 106. “Currently known from remnant forest patches on the seaward rim of the Rondo plateau [Tanzania]”. “1997 *Galagoides rondoensis* Honess, in Kingdon, *The Kingdon Field Guide to African Mammals*, p. 106” in Honess & Bearder ('1996'. *African Primates* 2:77), with locality of holotype (actually, lectotype) cited (p. 78) as “Rondo Forest Reserve, Lindi District, Lindi Region, Tanzania (10°07'S, 39°23'E)”. [CR]

Remarks: The third citation is dated December 1996 but must have been published after that date, as the part of the volume containing the article quotes several papers published in 1997. The original publication of *Galagoides rondoensis* and *G. udzungwensis* (below) has only been identified recently (P. Grubb, unpubl.). Listed as *Galago rondoensis* by Groves (2001), but as *Galagoides rondoensis* by Grubb *et al.* (2003).

Galagoides udzungwensis Honess, 1996: 9. “first found in the lowland evergreen forests of the Udzungwa Mountains [Tanzania]”. *Galagoides udzungwensis* Honess in Kingdon, 1997: 106. “known from low-lying secondary rainforest growing below the Uzungwa ... mountain chain [Tanzania]”. “1997 *Galagoides udzungwensis* Honess, in Kingdon *The Kingdon Field Guide to African Mammals*, pp. 106–107” in Honess & Bearder ('1996'. *African Primates* 2:76), with locality of holotype (actually, lectotype) cited (p. 76) as “Ichima, Kilombero District, Morogoro Region, Tanzania (8°01'S 36°31'E)”.

Remarks: A parallel case to the previous one. Listed as *Galago udzungwensis* by Groves (2001), but as a synonym of *Galagoides zanzibaricus* by Grubb *et al.* (2003).

Cercopithecidae

Cercopithecus cephus ngottoensis Colyn, 1999: 143. “Sangara, près de Boyali (18°13'E, 04°04'N), à 66 km de Bangui sur l'axe routier Bangui-Mbaiki” [Central African Republic].

Cercopithecus erythrogaster pococki Grubb, Lernould & Oates, 1999: 391. ““Lagos” [= inland from Lagos, Nigeria]”.

Colobus badius semlikiensis Colyn, 1991: 71. “Tungala (= Kilia) dans le secteur Nord du Parc National des Virunga” [Democratic Republic of Congo].

Remarks: Listed as *Piliocolobus foai semlikiensis* by Groves (2001, 2005) but as a synonym of the subspecies *elliotti* (species allocation uncertain) by Grubb *et al.* (2003).

Colobus rufomitratu parmentierorum Colyn, 1993: 319, footnote. Unjustified emendation of *C. r. parmentieri* Colyn & W. Verheyen, 1987: 126.

Remarks: The authors of this subspecies wrote “Nous dédions cette nouvelle sous-espèce de colobe rouge à Monsieur et Madame F. Parmentier qui résidaient à l'époque de nos recherches près de Ubundu” (Colyn & W. Verheyen 1987). The name could be taken to be an incorrect original spelling under the rules then applying (Article 32 C, ICZN 1985b) on the grounds that the monkey is named after M. and Mme. Parmentier, and therefore the name should take the plural genitive form “*parmentierorum*” (in Colyn, 1993). However, the Code does not state that a species-group name formed from a personal name shared by two or more persons

relevant to the naming of the organism in question must be used in a plural form. This monkey is “dedié à” not “nommé d'après” M. and Mme. Parmentier. The authors have commemorated the family name rather than specifically naming the monkey after the two persons. The distinction may seem pedantic but it could save us from changing the spelling to *parmentierorum*. Listed as *Piliocolobus foai parmentierorum* Colyn & W. Verheyen, 1987 by Groves (2001) on the assumption that *parmentieri* is an Incorrect Original Spelling, and as subspecies *parmentieri* (species allocation uncertain) by Grubb *et al.* (2003).

Miopithecus ogouensis Kingdon, 1997: 55. “Endemic to the equatorial coastal watersheds between Cabinda and the River Nyong” (Kingdon, 1997: 55). [LC]

Remarks: Groves (2001) stated that “Kingdon (1997) noted that a description of this species had been awaited since 1969 and ... that he was using the name as a ‘*nomen nudum* ... in anticipation of a formal description”. But an excellent description is given by him, and the name is certainly no *nomen nudum*, but is available from Kingdon’s work.” *Miopithecus ogoouensis* Gautier-Hion, Colyn & Gautier, 1999: 57 is an unjustified emendation of *ogouensis*. There is nothing in Kingdon's (1997) account to suggest in any way that he did not intend to use the spelling *ogouensis*. Regardless of the usual spelling of the Ogôoué River, Kingdon's name is available and has its own author and date and is a junior objective synonym of the name in its original spelling (see Article 33.2.3 of the Code).

Procolobus badius epieni Grubb & Powell, 1999: 68. “Sampou village (Apoi Clan), 4°55'N, 6°00'E, 12 km SW of the junction of Sagbama and Egbedi Creeks, and 13 km WSW of Amassoma. The locality is in the Delta of the Niger in the Southern Ijaw Local Government Area of Bayelsa State (previously part of Rivers State). Elevation is just above sea level, no more than 10 m” [Nigeria].

Remarks: Listed as *Piliocolobus pennantii epieni* by Groves (2001), and as *Procolobus pennantii epieni* by Grubb *et al.* (2003).

Lophocebus kipunji Ehardt, Butynski, Jones & Davenport, 2005: 1162. “Rungwe-Livingstone (09°07'S to 09°11'S and 33°40'E to 33°55'E), Southern Highlands, Tanzania”. [CR]

Remarks: Originally described in genus *Lophocebus*, but later given its own genus *Rungwecebus*.

Rungwecebus Davenport, Stanley, Sargis, De Luca, Mpunga, Machaga & Olson, 2006: 1379. Type species: *Lophocebus kipunji* Ehardt, Butynski, Jones & Davenport, 2005

Remarks: Additional molecular evidence supports the distinction between *Rungwecebus* and *Lophocebus* (Olson *et al.* 2008).

Hominidae

Gorilla beringei bwindi Wolfe, 2001: legends to photographs on pp. 133, 151. *Nomen nudum*.

Remarks: The gorillas in Bwindi are not regarded as a separate subspecies at present (Grubb *et al.* 2003), though there are indications that they might be distinguishable from *G. b. beringei*. There is no description or bibliographic reference to one of these gorillas in Wolfe's text so the name is unavailable, hence a *nomen nudum*.

Rodentia**Nesomyidae**

Eliurus antsingy Carleton, Goodman & Rakotondravony, 2001: 974. “Madagascar, Toliara Province, Antsingy Forest, near Bekopaka, about 19°07.5'S, 44°49.0'E”. [DD]

Eliurus danieli Carleton & Goodman, 2007: 3. “Madagascar, Fianarantsoa Province, Parc National de l'Isalo, 28 km SE Berenty-Betsileo, along Sahanafa River near foot of Bevato Mountain, 650 m; geographic coordinates: 22°19.09S, 45°17.69E”. [DD]

Eliurus ellermani Carleton, 1994: 39. “Madagascar, Toamasina Province, near Hiaraka, about 18km ESE of Maroantsetra, 850 m, ca. 15°30'S; 49°56'E”. [DD]

Remarks: Carleton (1994) originally gave the type locality as: “Hiaraka, near Maroantsetra, 850 m altitude. MacPhee (1987) located Hiaraka as 40 km NW Maroantsetra (Toamasina Province, about 15°10'S/49°30'E)”. The type locality was amended by Carleton & Goodman (1998:181).

Eliurus grandidieri Carleton & Goodman, 1998: 165. “Madagascar, Province d'Antsiranana, Réserve Spéciale d'Anjanaharibe-Sud, 11 km WSW of Befingitra, 1550 m, 14°44.5'S, 49°27.5'E”. [LC]

Eliurus petteri Carleton, 1994: 37. “8 km from Fanovana” [Madagascar; 18°55'S; 48°34'E]. [VU]

Macrotarsomys petteri Goodman & Soarimalala, 2005: 453. “Madagascar: Province de Toliara, Forêt des Mikea, 16 km west Vorehy, Forêt d'Andaladomo, 22°16.0'S, 43°28.7'E, elevation about 80 m above sea level”. [DD]

Monticolomys Carleton & Goodman, 1996: 233. Type species: *Monticolomys koopmani* Carleton & Goodman, 1996.

Monticolomys koopmani Carleton & Goodman, 1996: 235. “Madagascar, Antananarivo Province, Manjakatombo, ca. 19°20'S, 47°26'E”. [LC]

Voalavo Carleton & Goodman, 1998: 182. Type species: *Voalavo gymnocaudus* Carleton & Goodman, 1998

Voalavo antsahabensis Goodman, Rakotondravony, Randriamanantsoa & Rakotomalala-Razanahoera, 2005: 866. “Madagascar: Province d'Antananarivo, Fivondronana d'Anjozorobe, Commune Rurale d'Anjozorobe, Fokontany d'Antsahabe, Forêt d'Analamahavery, 6.3 km E Antsahabe (village), 18°24.60'S, 47°56.32'E, elevation 1425 m above sea level”.

Voalavo gymnocaudus Carleton & Goodman, 1998: 182. “Madagascar, Province d'Antsiranana, Réserve Spéciale d'Anjanaharibe-Sud, 12.2 km WSW of Befingitra, 1950 m, 14°44.8'S, 49°26'E”. [LC]

Muridae

Dasymys cabrali W. Verheyen, Hulselmans, Dierckx, Colyn, Leirs & E. Verheyen, 2003: 39. “near the Okavango river (Omatoka Junction) - Groot Fontein District, S. W. Africa [Namibia] (17.56S–20.25E; alt.± 1080 m)”.

Dasymys robertsii Mullin, Taylor & Pillay, 2004: 219. “Klipfontein, 30 km NE Vaalwater, Waterberg, 1091 m, South Africa”.

Dasymys rwandae W. Verheyen, Hulselmans, Dierckx, Colyn, Leirs & E. Verheyen, 2003: 45. “Kinigi, Rwanda (01.26S–29.36E; alt. 2250 m)”.

Dasymys shortridgei Mullin, Taylor & Pillay, 2004: 219. “Okavango-Omatako, Grootfontein, 1080 m, Namibia”.

Remarks: Apparently a renaming and synonym of the earlier *Dasymys cabrali* W. Verheyen, Hulselmans, Dierckx, Colyn, Leirs & E. Verheyen, 2003.

Dasymys sua W. Verheyen, Hulselmans, Dierckx, Colyn, Leirs & E. Verheyen, 2003: 41. “Mbeta (06.52S–37.41E) near Morogoro (Tanzania) on the flanks of the Uluguru-range at ±1540 m altitude (Kitundu forest)”.

Desmomys yaldeni Lavrenchenko, 2003: 320. “Sheko Forest, south-western Ethiopia, 07°04'N, 35°30'E, 1930 m”. [EN]

Gerbillus rupicola Granjon, Aniskin, Volobouev & Sicard, 2002: 183. “Emnal'here, right bank of the main course of the Niger River, 12 km east [of] Mopti, Mali (14° 28' 26" N; 4° 05' 16" W)”. [LC]

Remarks: Now included in the genus *Dipodillus*, following the classification of Pavlinov *et al.* (1990) and Musser & Carleton (2005).

Grammomys brevirostris Kryštufek, 2008: 222. “Kenya, Lemesikio, Loliondo, Loita Plains (S 01°30', E 35°09'”)”.

Hylomyscus arcimontensis Carleton & Stanley, 2005: 629. “Tanzania, Tanga Region, Muheza District, East Usambara Mountains, 4.5 km WNW Amani, Monga Tea Estate, control site; elevation 900 m; geographic coordinates, as recorded by the collector, 05°06'S–38°36'E”.

Hylomyscus walterverheyeni Nicolas, Wendelen, Barriere, Dudu & Colyn, 2008: 225. “Doudou Mounts, southwestern Gabon, Ogooue-Maritime Province (GPS 02°09'S, 10°30'E), 110 m”.

Lemniscomys hoogstraali Dieterlen, 1991: 11. “Paloich, Niayok, 12 miles N. (approx. 10°26'N, 32°33'E), Upper Nile Prov., Sudan”. [DD]

Lophuromys angolensis W. Verheyen, Dierckx & Hulselmans, 2000: 255. “Mbwambala (05°03'S, 18°55'E) at an altitude of 500 m” [Angola].

Lophuromys chercherensis Lavrenchenko, W. Verheyen, E. Verheyen, Hulselmans & Leirs, 2007: 102. “22 km northeast Hirna (near road Hirna – Deder), Chercher Mountains, Eastern Ethiopia (09°19'43”N 41°15'53”E, 2700 m ASL)”.

Lophuromys dieterleni W. Verheyen, Hulselmans, Colyn & Hutterer, 1997: 173. “Border of the crater lake of Mt Oku (Lager IV, 06°12'N, 10°32'E, 2100 m), Bamenda-Banso highlands, southwest Cameroon”. [EN]

Lophuromys dudu W. Verheyen, Hulselmans, Dierckx & E. Verheyen, 2002: 147. “Masako (00.36'N -

25.13'E; alt. 440m) in the rainforest of the Tshoporiver" [Democratic Republic of Congo].

Lophuromys huttereri W. Verheyen, Colyn & Hulselmans, 1996: 255. "equatorial forest, alt. 450m, near the village Yaenero in Zaire" [Democratic Republic of Congo]. [LC]

Lophuromys kilonzoii W. Verheyen, Hulselmans, Dierckx, Mulungu, Leirs, Corti & Verheyen, 2007: 33. "Magamba (04. 45°S - 38. 17° E; altitude 1550 m)" [Tanzania].

Lophuromys machangui W. Verheyen, Hulselmans, Dierckx, Mulungu, Leirs, Corti & E. Verheyen, 2007: 34. "Mount Rungwe (09. 10°S - 33. 39°E; altitude 2300 m; forest)" [Tanzania].

Lophuromys makundii W. Verheyen, Hulselmans, Dierckx, Mulungu, Leirs, Corti & E. Verheyen, 2007: 38. "Gerodom (foot of Mount Hanang along a brook) (04. 28°S - 35. 23°E; at approximately 2000 meter above sea level)" [Tanzania].

Lophuromys menageshae Lavrenchenko, W. Verheyen, E. Verheyen, Hulselmans & Leirs, 2007: 99. "Suba Forest Station, Menagesha Forest, Central Ethiopia (08°57'N 38°33'E, 2600 m ASL)".

Lophuromys pseudosikapusi Lavrenchenko, W. Verheyen, E. Verheyen, Hulselmans & Leirs, 2007: 106. "Sheko Forest, South-West Ethiopia (07°04'N 35°30'E, 1930 m ASL). The exact place of capture was in disturbed humid afro-montane forest situated *ca.* 800 m northwards from the local agricultural office of the Sheko settlement".

Lophuromys roseveari W. Verheyen, Hulselmans, Colyn & Hutterer, 1997: 167. "Musake (04.08N, 09.12E) on the slope of Mount Cameroun at an altitude of 1850–2200 m" [Cameroon]. [LC]

Lophuromys sabunii W. Verheyen, Hulselmans, Dierckx, Mulungu, Leirs, Corti & E. Verheyen, 2007: 36. "Mbizi on the Ufipa Plateau (07. 42°S - 31. 40°E; altitude ±1750 m; forest rim)" [Tanzania].

Lophuromys stanleyi W. Verheyen, Hulselmans, Dierckx, Mulungu, Leirs, Corti & E. Verheyen, 2007: 31. "Mount Ruwenzori-Bujuku (00. 22°N - 29. 58° E; altitude 3700 m)" [Uganda].

Lophuromys verhageni W. Verheyen, Hulselmans, Dierckx & E. Verheyen, 2002: 153. "Mount Meru (03.13'47"S-36°41'34" E – alt. 2600 m)" [Tanzania].

Mastomys awashensis Lavrenchenko, Likhnova & Baskevich, 1998: 44. "bank of the Awash River near Koka Lake, Ethiopia (08°23'N 39°09'E)". [VU]

Mastomys verheyeni Robbins & Van der Straeten, 1989: 4. "Mudu, 12°03'N-14°15'E, Bornu Region, Nigeria".

Remarks: Treated as a junior synonym of *Mastomys kollmannspergeri* by Musser & Carleton (2005), a classification confirmed by recent molecular and cytogenetic analyses (Dobigny *et al.* 2008).

Otomys occidentalis Dieterlen & Van der Straeten, 1992: 386. "Chappal Waddi, Gotel Mts, southeast Nigeria" [07°01'N 11°41'E, 1900 m]. [VU]

Praomys angolae Crawford-Cabral, 1989: 7. "Mount Moco [Huambo Distrito], Angola, c. 12° 25' S 15° 11 E".

Remarks: Crawford-Cabral (1989) believed that there were two species of mouse in Angola confused under one name. He used the generic name *Praomys* in a broad sense to include *Myomyscus* and *Mastomys* as subgenera. What he informally called the "Capangombe mouse" is *Praomys angolensis* (Bocage, 1890), known from syntypes (adult female and three juveniles) from Capangombe, which have since been destroyed. A second species has mistakenly been identified as *P. angolensis* and for this "Angola mouse" he provided the new name *P. angolae*. *Praomys angolensis* is said to be more like *Praomys sensu stricto* or *Myomyscus*. The type locality is at 527 m above sea level at the foot of a high scarp, the divide between Moçamedes and Huíla Distritos, in dry savanna just beyond the southernmost locality for *P. angolae*. *Praomys angolae* is more like *Mastomys*. It occurs widely on the Angolan plateau and at least in the southern part of its range most collecting localities are at about 1000 m or more, in different life zones from the one occupied by *P. angolensis*. Musser & Carleton (2005) did not agree with Crawford-Cabral's conclusions. They regarded *angolae* as a renaming of *angolensis*, which they assigned to the genus *Myomyscus*. Crawford-Cabral (1998) divided *Praomys sensu lato* into several genera and allocated *angolae* to the paucimammate species-group of *Mastomys*, but placed *angolensis* in *Myomyscus*. Once topotypes of *P. angolensis* are obtained and studied, the status of the names *angolensis* and *angolae* can be finally resolved.

Praomys coetzeei Van der Straeten, 2008: 124. "Angola, Duque de Bragança (25 km N – 15 km E)".

Praomys degraaffi Van der Straeten & Kerbis Peterhans, 1999: 81. "Nyamugari (abris) (Burundi), 2200 m." [03°12'S 29°33'E]. [VU]

Praomys hartwigi obscurus Hutterer & Dieterlen, 1992: 402. "at 2300 m at Gangirwal, Gotel Mts, south-eastern Nigeria" [07°01'N 11°42'E, 1950–2419 m].

Remarks: Elevated to species rank by Musser & Carleton (2005).

Praomys mutoni Van der Straeten & Dudu, 1990: 75. "N Zaire (Haut-Zaire) [Democratic Republic of Congo], Batiabongena (Masako Forest Reserve), 00°36'N, 25°13'E". [DD]

Praomys petteri Van der Straeten, Lecompte & Denys, 2003: 333. "Boukoko (La Maboké), République Centrafricaine, 03°54'N, 17°56'E". [LC]

Taterillus tranieri Dobigny, Granjon, Aniskin, Bâ & Volobouev, 2003: 301. "Dilly, Mali (15°01'N, 07°40'W)". [LC].

Anomaluridae

Anomalurus pelii peralbus Schunke & Hutterer, 2005: 327. "Gueboua, Côte d'Ivoire" [05°59'N, 05°41'W].

Bathyergidae

Cryptomys anelli Burda, Zima, Scharff, Macholan & Kawalika, 1999: 37. "Court of the Chainama Hills Golf Club in the north-eastern part of Lusaka, Zambia". [NT]

Cryptomys kafuensis Burda, Zima, Scharff, Macholan & Kawalika, 1999: 39. "'Hot Springs" in Itzhi-Tezhi, Kafue National Park, Southern Province, Zambia, within the degree square 1526 C1 (following the mapping of Ansell, 1978)". [VU]

Fukomys Kock, Ingram, Frabotta, Honeycutt & Burda, 2006: 52. Type species: *Bathyergus damarensis* Ogilby, 1838.

Soricomorpha

Soricidae

Congosorex phillipsorum Stanley, Rogers & Hutterer, 2005: 271. “9 km E Udekwa, Ndundulu Forest, West Kilombero Scarp Forest Reserve, Udzungwa Mountains, Iringa District, Iringa Region, Tanzania; 7°45.117'S, 36°27.803'E, 1900 m”. [CR]

Congosorex verheyeni Hutterer, Barriere & Colyn, 2002: 10. “Mbomo, 00.24N, 14.44E, Parc National d'Odzala, RC” [Republic of Congo]. [LC]

Crocidura bottegoides Hutterer & Yalden, 1990: 67. “grassy clearing in *Schefflera* / *Hagenia* forest near Katcha Camp (06° 42' N 39° 44' E), 2400 m, Harenna Forest, Bale Province, Ethiopia”. [EN]

Crocidura desperata Hutterer, Jenkins & W. Verheyen, 1991: 165. “the mountain bamboo zone of the Rungwa Mountains (09°08'S, 33°40'E; above 2000 m), southern Tanzania”. [EN]

Crocidura goliath nimbasylvanus Hutterer, 2003: 370. New name for *Crocidura odorata guineensis* Heim de Balsac, 1968: 348, Ziela, Mt Nimba, Guinea, not *Crocidura occidentalis guineensis* Cabrera, 1903: 22, Cape San Juan, Rio Muni (Equatorial Guinea).

Crocidura harenna Hutterer & Yalden, 1990: 64. “in *Schefflera* / *Hagenia* forest at Katcha Camp (06° 42' N 39° 44' E), 2400 m, Harenna Forest, Bale Province, Ethiopia”. [CR]

Crocidura osorio Molina & Hutterer, 1989: 86. “Monte Osorio, north-eastern Gran Canaria, Canary Islands” [Spain].

Remarks: New morphological and genetic data show that *osorio* should be included in *C. russula* (Vogel *et al.* 2003; Hutterer 2005).

Myosorex gnoskei Kerbis Peterhans, Hutterer, Kaliba & Mzaibuko, 2008: 23. “The trapping station was 200 m north of the Chilinda Guest House within Nyika National Park, Malawi (10°34'37”S, 33°48'30”E, 2285 m)”.

Myosorex kahaulei Stanley & Hutterer, 2000: 20. “Udzungwa Scarp Forest Reserve in central Tanzania, 19.5 km N, 0.5 km W Chita, 8°20'50”S, 35°56'20”E, 2000”. [EN]

Remarks: This species was announced in Hutterer *et al.* (1991) but left undescribed due to imperfectly preserved specimens.

Myosorex longicaudatus boosmani Dippenaar, 1995: 1085. “Boosmansbos Wilderness Area, ca. 6 km S Lemoenshoek, Langeberge” [South Africa].

Sylvisorex konganensis Ray & Hutterer, 1996: 93. “unlogged mixed species forest near Kongana camp (02°47'N, 16°25'E), Dzanga-Sangha Forest Reserve, SW Central African Republic”. [DD]

Remarks: The second issue of *Ecotropica* appeared in print in 1996, not 1995, as given on the cover.

Sylvisorex pluvialis Hutterer & Schlitter, 1996: 61. “Ikenge Research Station, Korup National Park, 160 m (05° 16' N, 09° 08' E), South West Province, Cameroon”. [DD]

Chiroptera

Pteropodidae

Eidolon helvum annobonensis Juste, Ibáñez & Machordom, 2000: 373. “San Antonio de Palé (1°24'S, 5°38'E), Annobón island”.

Epomophorus anelli Bergmans & van Strien, 2004: 258. “Lisanthu (13°00'S, 33°10'E), 1,000 m a.s.l., Kasungu N.P, Malawi”. [DD]

Epomophorus minimus Claessen & De Vree, 1991: 216. “Bahadu, 10°05'–40°37'E, 600 m, Shewa Prov., Ethiopia”. [LC]

Lissonycteris angolensis goliath Bergmans, 1997: 46. “Gleneagles, Inyanga, Zimbabwe” [18°13'S 32°46'E].

Remarks: Raised to specific rank by Cotterill (2001), under the Evolutionary Species Concept, which was followed by Van Cakenberghe & Seamark (2008), but not by Simmons (2005).

Lissonycteris angolensis petraea Bergmans, 1997: 44. “10 km from Agaro, at the road to Jimma” [Ethiopia; at about 07° 50' N 36° 40' E].

Remarks: Raised to specific rank by Cotterill (2001), under the Evolutionary Species Concept, which was followed by Van Cakenberghe & Seamark (2008), but not by Simmons (2005).

Rousettus aegyptiacus princeps Juste & Ibáñez, 1993: 123. “Roça Bela Vista 2 km S from the city of Santo Antonio de Principe (1°37'N, 7°24'E), Principe Island, over the Papagaio River” [Republic of São Tomé and Príncipe].

Rousettus aegyptiacus tomensis Juste & Ibáñez, 1993: 124. “Bindá (Santa Catarina) 0°16'N, 6°29'E, São Tomé island” [Republic of São Tomé and Príncipe].

Rhinolophidae

Rhinolophus clivus hillorum Koopman, 1989: 4. “John Hegbe Farm near Zozoma, ca. 2 mi SW Voinjama in Lofa County, extreme northwestern Liberia at ca. 500 m elevation. This would place it at ca. 8° 25'N, 9° 35'W”.

Remarks: Regarded as a full species by Cotterill (2002), under the Evolutionary Species Concept, and Simmons (2005).

Rhinolophus maendeleo Kock, Csorba & Howell, 2000: 234. “Amboni Cave Forest, 05° 05' S–39° 02' E, 0–80 m, Mkulumuzi River Gorge, 2.5 km W of Tanga, Tanga Distr., NE-Tanzania”. [DD]

Rhinolophus sakejiensis Cotterill, 2002: 166. "Kavunda (11° 17' S, 24° 21' E) between the Sakeji and Zambezi rivers: c. 11 km north-north-east of the source of the Zambezi River in the Ikelenge Pedicle, Mwinilunga District of north-west Zambia". [DD]

Remarks: According to Cotterill (2002), the type locality is located on the watershed of the Zambezi and Congo river systems at 1388 m elevation. This watershed is demarcated in part by the international boundary between Zambia and Democratic Republic of Congo.

Rhinolophus ziama Fahr, Vierhaus, Hutterer & Kock, 2002: 109. "western edge of Sérédou near park station, border of 'Réserve de la Biosphère du Massif du Ziama', Guinée Forestière, Guinea". [EN]

Hipposideridae

Triaenops pauliani Goodman & Ranivo, 2008: 685. "Aldabra Atoll, Picard Island, c. 09°24'S, 46°12'E" [Seychelles].

Emballonuridae

Emballonura tiavato Goodman, Cardiff, Ranivo, Russell & Yoder, 2006: 6. "Madagascar: Province d'Antsiranana, Réserve Spéciale d'Ankarana, 2.6 km E of Andrafiabe, in forest near Andrafiabe Cave, 12°55.9'S, 49°03.4'E, ± 50 m". [LC]

Myzopodidae

Myzopoda schliemanni Goodman, Rakotondraparany & Kofoky, 2007: 68. "Province de Mahajanga [Parc National d'Ankarafantsika], SF [Station Forestière] d'Ampijoroa, Jardin Botanique A, 16°19.40S, 46°48.40E, 160m" [Madagascar]. [LC]

Molossidae

Chaerephon jobimena Goodman & Cardiff, 2004: 230. "Madagascar: Province d'Antsiranana, Réserve Spéciale d'Ankarana, 2.6 km E Andrafiabe, in forest near Andrafiabe Cave, 12°55.9'S, 49°03.4'E, about 50 m a.s.l.". [LC]

Chaerephon tomensis Juste & Ibáñez, 1993: 901. "Praia das Conchas, 3 km NW Guadalupe, São Tomé Island, Republic of São Tomé and Príncipe (0°24'N, 6°37'E)". [EN]

Mops bakarii Stanley, 2008: 184. "Tanzania, Pemba Island, Kaskazini Region, Ngezi Forest, Kipangani village, 4.96487°S, 39.71456°E, 12 m a.s.l., in attic of hospital".

Mormopterus francoismoutoui Goodman, Jansen van Vuuren, Ratrimomanarivo, Probst & Bowie 2008: 1318. "La Réunion, Commune de La Possession, Pont de Balthazar, 2.2 km SSW La Possession, 20°56.732'S, 55°19.848'E, 40 m".

Vespertilionidae

Afropipistrellus Thorn, Kock & Cuisin, 2007: 75. Subgenus of *Pipistrellus*. Type species: *Vesperugo grandidieri* Dobson, 1876.

Barbastella barbastellus guanchae Trujillo, Ibáñez & Juste, 2002: 544. “Spain, Canary Islands, Tenerife, La Guancha, Barranco de La Cantera, 300 m a.s.l.”.

Glauconycteris curryae Eger & Schlitter, 2001: 2. “Cameroon: 10 km W Bipindi (03° 05' N, 10° 25' E), approximately 300 m above sea level”. Justified emendation of *Glauconycteris curryi* Eger & Schlitter 2001, by Eger (2001). [DD]

Remarks: The authors did not explain how the specific name was formed but as there is no 'y' in Latin, the original name “*curryi*” must have been formed directly from the modern personal name and as it is the name of a woman (Noreen Curry), should be corrected to “*curryae*” (see Article 31.1.2; ICZN 1999).

Miniopterus gleni Peterson, Eger, & Mitchell, 1995: 128. “dans une grotte marine entre Sadrano et Saint-Augustin, à 20 k au Sud de Tuléar” [Madagascar]. [LC]

Miniopterus minor occidentalis Juste & Ibáñez, 1992: 362. “Meya-Nzouari Cave, Koilou (3°53'S, 14°31'E), Republic of Congo”.

Miniopterus petersoni Goodman, Bradman, Maminirina, Ryan, Christidis & Appleton, 2008: 201. “Madagascar: Province de Toliara, Cascade de Manantantely, 5.2 km NW of Tolagnaro, 24°59.343'S, 46°55.370'E, 65m”. [DD]

Miniopterus sororculus Goodman, Ryan, Maminirina, Fahr, Christidis & Appleton, 2007: 1219. “Madagascar: Province de Fianarantsoa, 3 km south of Ambatofinandrahana, in unnamed cave, 20°34.321'S, 46°48.530'E, 1,450 m”. [LC]

Myotis dieteri Happold, 2005: 11. “Grotte du Viaduc à Loudima, Republic of Congo (04°15'S, 13°00'E)”. [DD]

Pipistrellus africanus meesteri Kock, 2001: 129. New name for *Pipistrellus nanus australis* Roberts, 1913: 67, Port St. Johns, South Africa (preoccupied by *Pipistrellus hesperus australis* Miller, 1897, a North American bat).

Remarks: As a result of taxonomic confusion at the generic and specific levels, this subspecies has been variously known as *Pipistrellus africanus meesteri*, *Pipistrellus nanus meesteri*, and *Neoromicia nanus meesteri* (see Bronner *et al.* 2003). The epithet *africanus* predates *nanus*, but Opinion 2120 of the International Commission on Zoological Nomenclature (ICZN) (Anonymous 2005) argued to retain *nanus* on the grounds of nomenclatural stability (based on Happold's (2003) original application, Case 3240). *Neoromicia nanus* is retained by Simmons (2005), but see Lausen & Barclay (2005).

Pipistrellus hanaki Hulva & Benda, 2004: 207. “Libya, Cyrenaica, upper part of the Wadi Al Kuf (the Jabal Akhdar Mts.), ca. 5 km southwest of Al Bayda, Al Jabal Al Akhdar Dist., 32°44'N, 21°41'E; ca. 495 m a.s.l.”. [DD]

Pipistrellus raceyi Bates, Ratrimomanarivo, Harrison & Goodman, 2006: 301. “Kianjavato, Province de Fianarantsoa, Madagascar, 21°22.84'S, 47°51.96'E, 75 m a.s.l.”. [DD]

Plecotus balensis Kruskop & Lavrenchenko, 2000: 6. "Haremma Forest, Bale Mountains National Park, southern Ethiopia, 06°45'N, 39°44'E, 2760 m". [DD]

Plecotus teneriffae gaisleri Benda, Kiefer, Hanák & Veith, 2004: 28. "Wadi al Kuf, SW Massah, Cyrenaica, Libya".

Scotophilus marovaza Goodman, Ratrimomanarivo & Randrianandrianina, 2006: 23. "Madagascar, Province de Mahajanga, Marovaza, 14°56'S, 47°16'E, 5 m above sea level". [LC]

Scotophilus tandrefana Goodman, Jenkins & Ratrimomanarivo, 2005: 875. "Madagascar, Province de Mahajanga, just outside the limit of the Parc National de Bemaraha, 1.8 km SE from Bekopaka and 0.6 km NE from Andadoany, 19°08.454'S, 44°48.732'E, about 50 m above sea-level". [DD]

Carnivora

Herpestidae

Crossarchus ansorgei nigricolor Colyn & Van Rompaey, 1990: 95. "Amadjabe (00°04'S, 25°17'E), between the Lusa and Kitcho-ya-tembo Rivers, Zaire" [Democratic Republic of Congo]"

Viverridae

Civettictis civetta pauli Kock, Künzel & Rayaleh, 2000: 244. "Douda Wadi, 11°32'N, 43°10'E, ca. 5 km SSE of Djibouti-Ville, ca. 2km from the coast, Rep. of Djibouti".

Genetta servalina archeri Van Rompaey & Colyn, 1998: 43. "Near Kitogani (06°17'S, 39°26'E), S.E. of Jozani Forest, Island of Zanzibar, Tanzania".

Genetta bourloni Gaubert, 2003: 95. "Guinea, Sérédou, Cercle de Macenta". [NT]

Artiodactyla

Bovidae

Cephalophus silvicultor curticeps Grubb & Groves, 2002: 719. "Mt. Sabinio, Uganda".

Cephalophus nigrifrons hypoxanthus Grubb & Groves, 2002: 726. "Mianga, 3.48.S, 28 52 E" [Democratic Republic of Congo].

Damaliscus superstes Cotterill, 2003: 20. "Muke Muke flats, Luapula Province, northeast Zambia, 12°21'S; 30°00'E" (as restricted herein). [LC; as *D. lunatus superstes*]

Remarks: The "Type locality" cited by Cotterill (2003: 20) is the known distribution of the taxon. The locality of the holotype, and therefore the type locality is "Muke Muke flats, Luapula Province, northeast Zambia, 12°21'S; 30°00'E".

Kobus anselli Cotterill, 2005: 119. “Katobwe, Lualaba River, Upemba Swamps 8°51 S; 26°05 E”. [CR; as *K. leche anselli*]

Discussion

We list 175 new extant taxa, including five new genera, one new subgenus, 138 new species and 31 new subspecies, described since the publication of Ansell’s (1989) revision. Two additional names are *nomina nuda*.

The taxonomic group in which the largest number of new taxa has been described is the Primates, with two new genera, 47 new species and 11 new subspecies (Table 1). This taxonomic explosion has been most remarkable among the lemurs, with an effective doubling of known lemur diversity in the last 10 years (Mittermeier *et al.* 2008); one paper alone described no fewer than 11 new species in the genus *Lepilemur* (Louis *et al.* 2006b) and is largely responsible for the spike in species descriptions seen during 2006 (Figures 1 and 2). Some have questioned whether this phenomenon represents a case of cryptic diversity or taxonomic inflation (Tattersall 2007). New primate taxa also have been discovered on the African mainland, including *Rungwecebus kipunji* from Tanzania (Jones *et al.* 2005), subsequently recognized to represent a new genus (Davenport *et al.* 2006).

The Orders Rodentia and Chiroptera account for 48 and 32 new taxa that have been described, respectively, although the rodents have also seen the description of three new genera. Interestingly, only two new rodent subspecies were described in the last 20 years compared with 10 bat subspecies. Of the 43 new species of rodents described in the last 20 years, 14 are in the genus *Lophuromys*. The year 2008 also saw the description of two new species of sengis or elephant-shrews (Order Macroscelidea); prior to these descriptions, the last sengi taxon described was *Rhynchocyon shirensis* by Corbet & Hanks (1968).

There have been very few descriptions of new large African mammal taxa, among them four carnivoran taxa (one viverrid species, and two viverrid and one herpestid subspecies) and four bovids. The most recent description of a new artiodactyl taxon is the Upemba Lechwe *Kobus anselli*, a new species of antelope described by Cotterill (2005) from south-central Africa under the Evolutionary Species Concept.

TABLE 1. African mammal taxa described between January 1 1989 and December 31 2008 (excluding the two *nomina nuda*).

| | Genera | Subgenera | Species | Subspecies |
|---------------|--------|-----------|---------|------------|
| Afrosoricida | 0 | 0 | 9 | 1 |
| Macroscelidea | 0 | 0 | 2 | 0 |
| Primates | 2 | 0 | 47 | 11 |
| Rodentia | 3 | 0 | 45 | 2 |
| Soricomorpha | 0 | 0 | 10 | 2 |
| Chiroptera | 0 | 1 | 22 | 10 |
| Carnivora | 0 | 0 | 1 | 3 |
| Artiodactyla | 0 | 0 | 2 | 2 |
| Total | 5 | 0 | 138 | 31 |

Geographically, the biggest increase in new species descriptions has been on the island of Madagascar, accounting for roughly half (67) of the 138 species described in the past 20 years. Again, this explosion is largely due to the number of recently described lemurs, but also due to nine new species of tenrecs and several bats.

Sadly, rates of species descriptions may be matched by current extinction rates. The recent possible extinction of at least one previously described subspecies has been posited: Miss Waldron's Red Colobus, *Procolobus badius waldroni* (Oates *et al.* 2000), endemic to the forests of West Africa, which likely represents the first case of the extinction of a widely recognized primate in the 20th century. Of the 17 or so forms of red colobus, two other taxa are Critically Endangered: Bouvier's Red Colobus, *Procolobus pennanti bouvieri*, from Republic of Congo, has not been recorded for several decades, while the Tana River Red Colobus, *Procolobus rufomitratu*s, occurs in a few isolated patches of forest along Kenya's Tana River, and numbers less than 1,500 animals (Struhsaker 2005).

The conservation status of many recently described species remains poorly known, either because a degree of taxonomic uncertainty remains or because there is genuinely a lack of information available to reliably assess the species in question (Schipper *et al.* 2008). Indeed, a large proportion of the new species listed in the current paper are assessed as Data Deficient on the IUCN Red List of Threatened Species (49 of 101 listed species). Nonetheless, a number are evidently threatened with extinction under the IUCN system. For example, *Rungwecebus kipunji* is known only from two populations separated by ca. 350 km of non-forested land in Tanzania and has a total population size of ca. 1,000 animals (Davenport *et al.* 2008). On the other hand, at least 21 species here listed are categorized as Least Concern because there is no reason to believe they are currently at risk of extinction in the wild. Clearly, further research is urgently needed to help clarify the status of those recently described species currently assessed as Data Deficient under IUCN criteria (in particular, many of the recently described lemurs in Madagascar).

Systematists continue to refine the techniques used to distinguish between taxa that are morphologically very similar and closely related. Considering that 74 new mammalian species have been described from the region in the last five years alone, it is likely that coming decades will see the description of many more taxa new to science with the deployment of sophisticated morphological and molecular methods. Indeed, many of the newly described taxa listed in this paper, such as the 11 new species of *Lepilemur* described by Louis *et al.* (2006b), have been diagnosed solely on the basis of molecular characters (specifically, on the basis of mtDNA distances from their geographical neighbors or their apparent closest relatives), an indication of the very different arena in which species are now being named. Certainly, none of the species listed by Allen or Ansell were diagnosed in such a fashion.

Furthermore, some systematists are calling into question the continued use of a biological species concept, and instead adopt an evolutionary or phylogenetic species concept. Their "diagnosability" criterion for deciding whether a nominal taxon is a species or a synonym could, if widely applied, result in species status being assigned to many subspecies (for example, see Cotterill 2002).

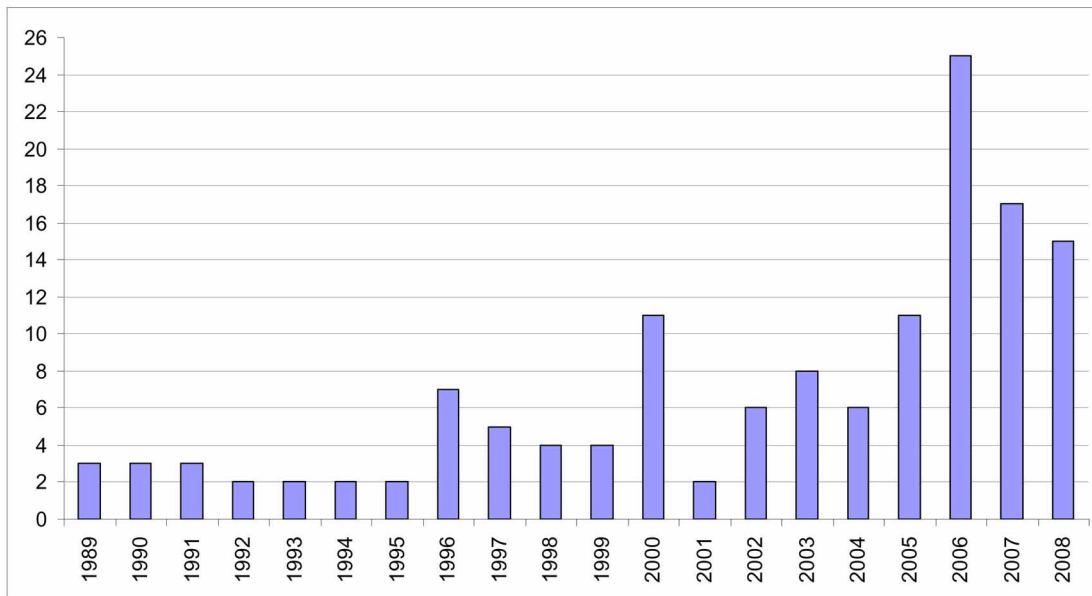


FIGURE 1. African mammal species described between January 1 1989 and December 31 2008, per year. The spike in 2006 is due largely to Louis *et al.* (2006b).

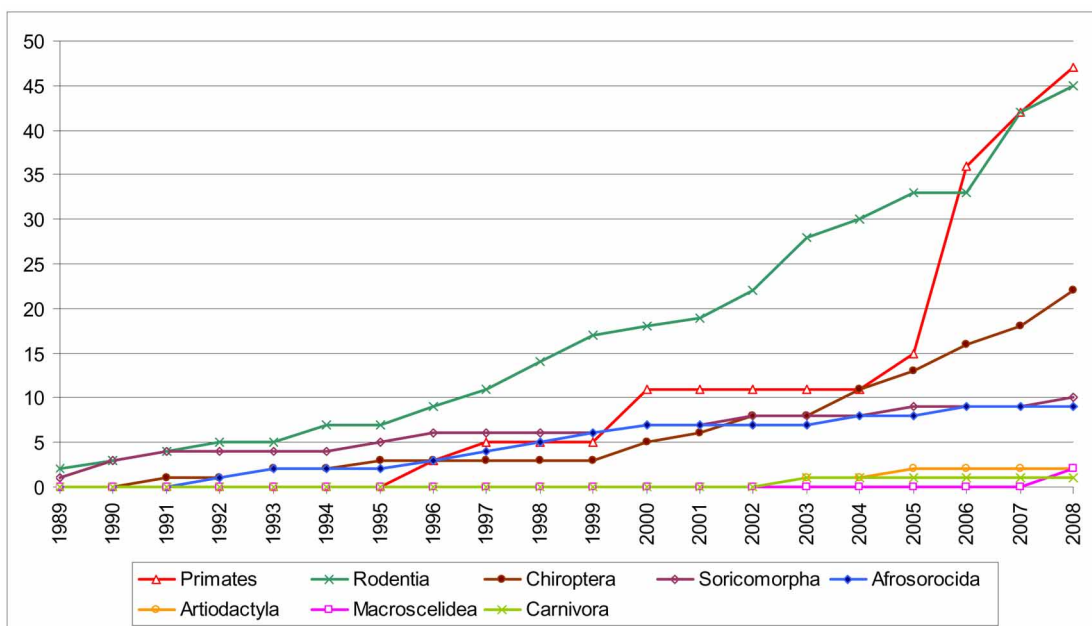


FIGURE 2. Accrual of newly described species per year, by Order, between January 1 1989 and December 31 2008.

Our intent with this paper is to provide a clear synopsis of recently described mammal taxa from the African mainland, Madagascar and other offshore islands that can be used to develop future taxonomic treatises. The paper highlights some taxa described in difficult to access journals or books. It also emphasizes the vital role that systematists play in elucidating relationships among closely related taxa, and the relevance of these findings to conservation practice, such as the compilation of IUCN Red Lists and threat assessment. There is clearly much more to discover about the diversity of mammals in Africa and its neighbouring islands, and considerable work remains to be done in order to clarify the systematics of complex and poorly studied taxa.

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Appendix 1 (cited references not included in Reference list)

Addenda and Corrigenda (as compiled by W.F.H. Ansell, and issued February 28th, 1991)

Page 12. *Amblysomus juliani* is a lapsus for *Amblysomus juliana*e Meester, 1972

Page 17 and Appendix B. *Hipposideros curtus* G.M. Allen, 1921, *Rev. Zool. Afr.*, 9(2): 194. Sakbayeme, Cameroons (Cameroun, 04°06'N, 10°30'E). Listed as a species of the *bicolor* group, *galeritus* subgroup, by Hill (1963, *Bull. Br. Mus. nat. Hist. Zool.* 11:12, 60–61). Not in Allen (1939). It is surprising that Allen should have omitted a species that he had himself described.

Page 17 and Appendix B. *Vespertilio hottentota* A. Smith, 1833, *S. Afr. Quart. J.* 2:59. Uitenhage and Albany. Restricted by Ellerman *et al.* (1953: 76) to Uitenhage, which is at 33°46'S, 25°24'E, Cape Province, South Africa. This is the nominate form of *Eptesicus hottentotus* and was retained in the *serotinus* group of the restricted genus *Eptesicus* by Hill and Harrison (1987, *Bul. Br. Mus. nat. Hist. Zool.* 52:253). Not in Allen (1939).

Pages 21 and 22. *Eulemur* v. *Petterus*. Accepting 9th September 1988 as the publication date of the relevant issue of *J. Hum. Evol.* in accordance with the advice of the publisher (Harcourt Brace Jovanovich, *in litt.*), *Petterus* Groves and Eaglen was regarded as having six days priority over *Eulemur* Simons and Rumpler, published on 15th September 1988. But, from information since obtained, it seems that 9th September was probably the date of printing rather than the date it became obtainable as required by Article 8(a)(2) of the ICZN to constitute publication. Taking this in conjunction with ICZN Article 21 (c)(i) *Eulemur* Simons and Rumpler, 1988 should be regarded as having priority over *Petterus* Groves and Eaglen, 1988

Page 27. Under *Genetta servalina cristata* Hayman [in Sanderson], 1940 [Nigeria, 05°45'N, 08°25'E] should be corrected to [Cameroun, 05°45'N, 09°25'E].

Page 35. *Cephalophia* Ellerman *et al.* (1953: 178) is a lapsus for *Cephalophia* Knottnerus-Meyer, 1907, *Arch. f. Naturgesch.* 73A (I): 44

- Page 42 and Appendix B. *Eliurus penicillatus* Thomas 1908, *Ann. Mag. nat. Hist.* (8)11: 454. Ampitambe, N.E. Betsileo, Madagascar [16°15'S, 48°50'E]. Conspecific with *E. myoxinus* Milne-Edwards (Petter, 1972: 664, in Battistini and Richard-Vindard, *Biogeography and Ecology in Madagascar*, Junk, The Hague). Not in Allen (1939).
- Page 46. *Gerbillus syrticus* Misonne, 1974, *Bull. Inst. r. Sci. nat. Belg.* 50(6): 1. 12 km au nord de Nofilia, côte de Libye [Libya, about 30°53'N, 17°48'E]. Lay (1983, *Z. Saugetierk.* 48: 347) stated: "Relationships of this form should be evaluated in a revision."
- Page 50. *Petromyscus shortridgei kaokoensis* was a *lapsus* for *Petromyscus shortridgei kaokensis* Roberts, 1938 originating from Ellerman *et al.* (1953: 298), rather than from Meester *et al.* (1986: 263)
- Page 55 and Appendix B. *Mus neumanni* Matschie, 1894, *Sber. Ges. naturf. Freunde, Berlin.*: 204. Massai Nyika inter Mgera et Irangi [Irangi is 04°12' to 05°06'S, and 35°40' to 36°55'E.; Mgera is 05°26'S, 37°32'E]. This is currently regarded as *Arvicanthis abyssinicus neumanni*, but the genus is in need of revision. Not in Allen (1939).
- Page 55 and Appendix B. *Mus rufinus* TEMM. var. *marungensis* Noack, 1887, *Zool. Jahrb.*: 231. Qua Mpala (Marungu) [Mpala, Zaire, 06°43'S, 29°31'E]. This is *Oenomys hypoxanthus marungensis*. Not in Allen (1939).
- Page 62. *Pronolagus kobosensis kaokoensis* Roberts (1951: 530) was a *lapsus* by the author himself for *Pronolagus kobosensis kaokensis* Roberts, 1946. Therefore delete the reference to *Pronolagus randensis kaokensis* Meester *et al.* (1986: 307).
- Page 66. *Platymops (Sauromys) haagneri umbratus* Shortridge and Carter 1938, listed on page 20, should be added to Appendix B.

Appendix II. Additional comments on Ansell (1989) and the Addenda and Corrigenda (1991)

- Ansell (1989) listed two additional species not formally named at the time: the Northern Talapoin (now formally named as *Miopithecus ogouensis* Kingdon, 1997) and *Cercocebus sanjei*. Homewood & Rodgers (1981) discovered mangabeys in the Mwanihana Forest Reserve, and observed a troop closely at Sanje Falls. They also examined and photographed a captive juvenile at an animal orphanage in Arusha, Tanzania. They called it the Sanje Mangabey. Wasser (1985) mentioned it, calling it (inadvertently?) *Cercocebus galeritus sanjei*, but without description or bibliographic reference to a description (a *nomen nudum*). Mittermeier (1986: 338) listed *Cercocebus galeritus sanjei* with a reference to Homewood & Rodgers' (1981) paper. Groves (1996: 3) argued that Mittermeier's (1986) reference is the prior available usage and (p.4) designated the captive male as lectotype. Mittermeier mentioned "Uzungwa Mts., Tanzania", which is a bit broad but nonetheless rates as a type locality designation.
- Under Addenda and corrigenda of "African mammals 1938-1988" (see Appendix 1), Ansell listed "*Mus neumanni* Matschie, 1894." This name was listed as a synonym of *Arvicanthis somalicus* Thomas, 1903 by Musser & Carleton (1993), but clearly has priority and in the third printing (1995) of their contribution to "Mammal Species of the World" they listed *somalicus* as a synonym of *Arvicanthis neumanni* (and see Musser & Carleton 2005).
- Ansell's comment in his Addenda and corrigenda that *Eliurus penicillatus* Thomas, 1908 is conspecific with *E. myoxinus* Milne-Edwards (1886) is not correct. See Carleton (1994) and Carleton & Goodman (1998).
- Ansell (1989) listed "*Giraffa camelopardalis renatae* Krumbiegel, 1939, *Die Giraffe*, Monographien der Wildsäugetiere, 8, Leipzig: 93". Two publications with the same title have been confused here (Krumbiegel 1939, 1971). The correct citation is "*Giraffa camelopardalis renatae* Krumbiegel, 1971, *Die Giraffe*, Die Neue Brehm-Bucherei 428, Wittenberg, p. 93." In the 1939 publication, the animal that was to become the type of *renatae* is illustrated in Fig. 30 (page 46) and listed on page 59, under "*Giraffa camelopardalis* subsp. *camelopardalis peralta* [sic] Thomas 1898". Not until 1971 was it treated as a different subspecies.

Appendix III

The following names were omitted by both Allen (1939) and Ansell (1989):

Antilope anderessoni Leyland, 1866. Thamalakane River, near Maun, Botswana.

Remarks: A senior synonym of *Tragelaphus spekii selousi* Rothschild, 1898 that was overlooked until noticed by Spinage (1994) and, therefore, a *nomen oblitum* (Article 23.9.2; ICZN 1999) no longer having priority over *selousi* (see Grubb 2005). We have not seen the original publication and Spinage (1994) did not cite the page number.

"*Antilope (Cephalophus) orbicularis* Peters, S.B. Ges. Naturf. Fr. Berlin [Sitzungsberichte der Gesellschaft naturforschender Freunde zu Berlin], for 17 February, 1852 (published in the Spenersche Z[eitung]. of 22 February, 1852). Plains at Sena, Tete, Macanga and Boror (16°-18° S). Sena here selected."

Remarks: Now *Sylvicapra grimmia orbicularis* (Grubb 2005). The original publication was of proceedings of a society published in a local newspaper. The preceding quotation is from Ellerman *et al.* (1953:182).

Vespertilio megalotis Bechstein, 1800, p. 622. Great Namaqualand, 50 miles north of the Orange River. *Nomen oblitum*.

Remarks: This name is a senior synonym of *Lavia frons* (É. Geoffroy Saint-Hilaire, 1810) according to Handley (1959) and Meester (1973), but has not been cited by compilers, including Roberts (1951), Ellerman *et al.* (1953), or Meester *et al.* (1986). The history of *Vespertilio megalotis* is given in Rookmaaker (1989) and Grubb (2004). It must now be regarded as a *nomen oblitum* (Article 23.9.2; ICZN 1999).

Eliomys murinus subrufus Neumann, 1900: 547. North-east coast of Tanzania at "Tanga".

Remarks: *Eliomys* is a Palearctic genus of dormice and this taxon would now be named *Graphiurus murinus subrufus*. Presumably on geographic grounds alone, Swynnerton and Hayman (1950) regarded *subrufus* as a synonym of *G. smithii* (Thomas, 1893), whose type locality is Tanzania, Lake Victoria, south shore of Speke Gulf, Nasa. *Graphiurus murinus subrufus* is not mentioned by Allen (1939), Ansell (1989) or Holden (1993), and *G. smithii*, though cited by Allen, is not mentioned by Holden either. Neumann's description of his new subspecies is quite sufficient to make the name valid, but he provided no measurements, so it is not possible to determine whether *subrufus* belongs to one of the larger or smaller species of African dormice. The holotype in the Berlin museum has been traced. Probably both *subrufus* and *smithii* should provisionally be assigned to *G. murinus* sensu lato, a concept adopted by Holden (1993) to include nominal taxa of African dormice whose affinities have not been determined.